Leadership Styles, Organizational Culture and Organizational Effectiveness: A Study of Multilatinas

By

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A Dissertation Presented in Partial Fulfillment of the Requirements for the Degree of Doctor of Business Administration

CENTRUM CATÓLICA GRADUATE BUSINESS SCHOOL
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Bogotá, Colombia, July, 2018
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Dedication

This is dedicated to my beloved father, Ernesto Alvarez, who taught me since I was born that I could achieve whatever my mind could dream. And here I am, becoming a doctor and achieving an incredible world of knowledge that I would not imagine. I also dedicate this to my husband Nestor and my little daughter Daniela, who have been so patient and supportive during my DBA studies, always encouraging me to give the extra mile, while I left them few hours on their own.
Acknowledgements

This achievement could not be possible without my tutor Fernando D’Alessio. Thank you for your prompt response, your guidance and inspiration. His relentless and encouraging support throughout my doctoral studies motivated me to dive deep into the wonderful world of knowledge. You are a symbol of true leadership worth following.
Abstract

The relationship of leadership and organizational culture on performance has been empirically proven (Eppard, 2004), determining that the combination of transformational leadership and constructive culture yields in positive job performance, while on the contrary, transactional leadership and defensive culture has negative outcome. Given that both leadership and culture are constructs with differentiated variables (Bass & Avolio, 1993; Cooke & Szumal, 2000), different combinations of leadership style and organizational culture, could result in various outcome scenarios. Previous scholar findings about leadership and culture frameworks are abundant in developed economies, not so much in emerging regions such as Latin America, the latter with increasing importance in the worldwide economy. Particularly multilatinas, face the challenge of short term economic hurdles, outstanding therefore the importance of improving knowledge of leadership and organizational culture as key drivers for sustained growth and evolution. The objective for the proposed research was to identify the relationship between leadership style, organizational culture, and organizational effectiveness, in Latin American transnational corporations, or as so called, multilatinas. Surveys were implemented in three large multilatinas located in Central America and Andean region, in the retail, construction and food industries. Findings of the research pointed that the constructive culture was the most relevant variable in the development of higher attainment of organizational effectiveness, even beyond the transformational leadership. The Latin American multilatina leader was valued due to the heroic-ethic transformational profile in conjunction with the contingent reward transactional one. The ambiguity from followers appreciating a heroic leader, but at the same time demanding detailed direction from leaders, thus avoiding own responsibility, posed the need for future research for collective-empowering leadership rather than an individual one.
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Chapter 1: Introduction

Leadership and culture researchers have grown their interest in the past 30 years, in the context of management, after empirical findings have shown the impact of human involvement in either a positive, or negative outcome of a firm (Bass, 1999; Howell, & Avolio, 1993; Schein, 2010; Walumbwa, Peterson, Avolio, & Hartnell, 2010). With the understanding that there could only be a leader if there are followers (Burns, 1978), the transformational leader has emerged as the ideal individual who exhibits charisma, individualized consideration, and intellectual stimulation (Bass & Avolio, 1993), who throughout the constant work with his or her followers, is able to provide superior results. The research about transformational leaders is paramount and of particular interest to scholars, with the joint influence of organizational culture, “the organization’s culture develops in large part from its leadership while this culture can also affect the development of its leadership” (Bass & Avolio, 1993, p. 1).

Results of leadership and organizational culture on performance has been empirically proven (Eppard, 2004), determining that the combination of transformational leadership and constructive culture yielded in positive job performance, while on the contrary, transactional leadership and defensive culture has negative outcome. Given that both leadership and culture are constructs with differentiated variables, as presented in the transformational and transactional framework from Bass and Avolio (1993), and the Organizational Culture Inventory (OCI©) from Cooke and Szumal (2000), different combinations of leadership style and organizational culture, could result in various outcome scenarios. Scholars still have not answered which are the most desired combinations of leadership and culture that would better predict performance.

Regarding the measurement of performance, researchers have not agreed on a single framework, but rather, a myriad of methodologies, from financial, to strategy,
marketing, customer satisfaction, operations and human related behaviors indicators (Krishnakumar & Sethi, 2012). Together with the rise of leadership and culture interest, job performance has also become of increased interest, as a proxy to measure business performance. Therefore, measurements such as organizational effectiveness, may be approached to set a rating of a firm performance (Cooke & Szumal, 2000; Avolio, Bass, & Jung, 1999).

There are few scholars that have attempted to deploy research on leadership and organizational culture in emerging countries, because these had been done mainly in developed economies. Considering that emerging economies are diverse, Latin America in particular presents an array of different cultures worth understanding. With countries exhibiting, for example, large power distance such as Mexico and low power distance such as Costa Rica (Hofstede, Hofstede, & Minkov, 2010) there is not necessarily a unique Latin America leadership style or culture profile that may predict performance. Latin America in the XXI century has become a target region for international foreign investment, where transnational firms had been taking advantage of improved GDP per capita (Economic Commission for Latin America and the Caribbean [ECLAC], 2015c, p. 81) increasing their presence in the region, both in the case of Latin America based transnationals as well as for international transnationals operating in this region (ECLAC, 2015b). The Latin America transnational phenomenon has been well documented, describing the expansion of these firms in the 1980’s and 1990’s as the result of the economic liberalization of Latin America economies (Cuervo-Cazurra, 2010; Castro, Castro & Jaller, 2012). However, recent economic global turbulence, with commodities price drop, currency devaluation and economic deceleration, the GDP per capita trend and the outwards FDI by trans-Latin firms was negatively impacted (ECLAC, 2016b, p. 31).
Higher qualities in leadership and management of organizational culture could assess transnational companies to cope with the environment while at the same time attaining their business goals. The knowledge gap of leadership and organizational culture in Latin America firms, could be addressed with further research of both constructs. Therefore, the objective of this research was to identify the extent of the relationship between leadership styles, organizational culture styles into the organizational effectiveness in Latin America transnational firms.

**Background of the problem**

Leadership and culture in the ambitus of management had gained relevance since the 1980s, after empirical studies supported that with better exhibition of transformational leadership and constructive cultures, a firm could be able to achieve better performance (Bass & Avolio, 1993; Howell & Avolio, 1993; Cooke & Szumal, 2000; Fey & Denison, 2003). Businesses nowadays demand increased competencies to manage firms with global operations and in the middle of diverse cultures. A complex environment of intense competition, internationalization, and strive to obtain results faster, has fostered the need for top talented leaders responsible of challenging businesses and expected to have consistent results. Leaders with the ability to motivate employees, think differently and create a new set of paradigms, at the end should result in having a new behavior among their followers and thus, improved performance (Babić, Savović, & Domanović, 2014).

The human factor impacting business performance has a large body of research support, because on one hand, employees lead by committed leaders who are able to share a vision, understand particular needs of followers, encouraging them to innovate and learn, may have a larger probability to have higher job satisfaction, and thus, higher performance (Braun, Peus, Weisweiler, & Frey, 2013). On the contrary, when a business is facing a
large organizational change, employees may experience uncertainty and stress leading to lower levels of job satisfaction, commitment to change, management turnover and acceptance of change. Poor leadership and neglecting new culture approach may have an ultimate negative impact on the financial, operational, and strategic outcomes (Babić et al., 2014; Covin, Kolenko, Sightler, & Tudor, 1997; Nemanich & Keller, 2007; Vasilaki & O'Reagan, 2008).

Reviewed literature presented multiple models of leadership and culture, with important emphasis on theoretical frameworks with quantitative approach, suggesting that there is empirical evidence of the relationship among these two variables. In terms of leadership one of the most used frameworks is the transformational and transactional leadership (Bass, 1985, 1999; Bass & Avolio, 1993). Transformational leaders exhibit openness, charisma, interest for others, and sharing of vision as their dominant pattern to attain goals. Various moderating variables intervened transformational leadership style such as improved job performance and job engagement (Breevaart, Bakker, Demerouti, Sleebos, & Maduro, 2014), personality traits extraversion, agreeableness and openness to experience (Bono & Judge, 2004), and business unit performance (Howell & Avolio, 1993). Regarding culture, as well, empirically proved frameworks described traits to gauge organizations, with independent layers, namely, adaptability, mission, consistency, and involvement (Fey & Denison, 2003), and with the differentiation between constructive and defensive cultures (Cooke & Szumal, 2000). Empirical research has proved the relationship between culture and leadership, however, defining the ideal dose of leadership and culture management has not been solved yet in a single theory, and thus further analysis is necessary to determine the extent to which leadership, culture, or a combination of these yields better results in terms of performance.
Achieving a positive business performance would be the result of an ideal combination of leadership and culture, however, the three variables connected was not found as a consolidated theory in the revised literature. The definition of performance is abundant and differentiated according to businesses and research settings, and as summarized in the meta-analytical framework proposed by Krishnakumar and Sethi (2012). With more indications of the importance of human intervention in the success of an organization, measurements such as organizational effectiveness were proved to be satisfactory to measure business performance (Cooke & Szumal, 2000). Researchers recommend exploring even further the relationship between leadership, organizational culture, and performance (Eppard, 2004).

In terms of the geographical approach, previous research related to the impact of leadership and culture, most scholars have focused on developed economies, while scarce research on culture and leadership in emerging and transitional economies Serbia (Babić et al., 2014), Mexico, and Chile (Littrel & Cruz, 2013), Colombia, Venezuela, and Ecuador (Varela, Salgado, & Lasio, 2010), just to mention a few of them. Latin America is facing important economic challenges, and firms operating in this region need to deal with environmental uncertainties, that at the end, require better leadership and management of organizational culture to cope with difficulties and reach performance goals.

ECLAC (2016) informed that the Latin America region faced in 2015 economic decrease in GDP of −0.5%, derived from China’s economy slowdown and commodities price decrease. With Latin America economies having large dependence on oil and gas, with lower prices, currencies devaluated particularly in Brazil, Colombia and Mexico. However, the situation is not homogeneous in all countries in the region, few small countries as Panama and Dominican Republic grew their GDP in 2015 compared to previous year, 5.8% and 7% respectively.
Problem Statement

ECLAC (2014) reported that in the early 2000s most of the transnational corporations had their headquarters in the USA, Europe, or other developed countries. In recent years, the share of emerging markets in the global economy has gained preponderance, evidenced by the increase in foreign direct investment outflows from home town to abroad. While in 1999 developed economies had more than 90 per cent share of global foreign direct investment outflows, and developing and transition economies less than 10 per cent, in 2013 the first had 60 per cent and the latter 40 per cent. When referring to developing and transitional economies, ECLAC (2014) stated that,

Many of them have large domestic markets, which are posting growth rates in excess of 6% amid sustained growth in consumers’ disposable incomes. These economies have aroused the interest of corporations across the globe, not only on account of their GDP growth and economic stability, but also as sources of talent, capital, and business development.

This situation was the result of the evolution of the economy in Latin America. In 2010 the GDP growth of Latin America and Caribbean was 6.2 per cent, outperforming developed economies’ growth. While slightly lower, 2011 GDP growth was 4.7 per cent still showing positive trend. GDP growth in 2012 and 2013 was 2.9 per cent (ECLAC, 2014). The period between 2007 and 2012 with economic growth, gave Trans-Latin firms the opportunity to expand, especially because most of their target markets remained in Latin America.

The positive GDP growth, however, reverted into slower evolution of 1.2 per cent in 2014 and −0.5% in 2015, due to the price drop of oil and minerals, hurting commodity dependent economies such as Mexico, Brazil, Colombia, Venezuela, and Ecuador. Currencies in Mexico, Brazil, and Colombia dropped dramatically, impacting not only total
revenue of transnational operations in terms of dollars, but also in terms of local revenue due to inflation and consumption’s decrease. The problem with this sudden change, is that in 2015, FDI outflows had a downturn of −15%, impacted mainly by foreign operations of trans-Latin firms in Brazil (ECLAC, 2016).

Reviewing the multilatinas or trans-Latin firms’ phenomenon, Cuervo-Cazurra in 2010 mentioned that it blossomed after the 1980’s with the Washington Consensus or neo-liberalization, where economic policies allowed openness for Latin America countries after the debt crisis. When countries needed to leave the import substitution model with less regulations, entrance of firms to local markets and privatization of government firms, companies were prompted to increase their competitiveness, improving efficiencies which at the end made enabled them to compete internationally. In the 1980-2010 period, Latin America multinationals found a fertile soil in the neighbor market, taking advantage of vicinity, language and cultural similarity, expanding their frontiers and moving to previous exports efforts to sustainable foreign operations. Large Latin American transnationals have been able to expand and become leaders, such as cement firm Cemex from Mexico or airplane manufacturer Embraer from Brazil (Cuervo-Cazurra, 2010).

The downturn in outward and inward FDI shed a signal about the need of transnational firms operating in Latin America, to reinforce their abilities to manage changing and challenging environments, and being prepared to embrace the organizations through turbulent times. Latin America multinationals have larger challenges in terms of creation of value compared to multinationals based and operating in developed economies (Losada-Otálora & Casanova, 2014). Leadership and culture played a central role in management positions in transnationals, in order to ensure that performance is achieved, although there is scarce academic research on that regard.
Leadership and culture studies in Latin America are scarce and disperse, because most of the research has been conducted in USA, Europe, and other developed regions. Large scale multinational studies about culture, as Hofstede et al. (2010) reported national culture indicating patterns for Latin American countries. For example, power distance and masculinity in most countries in the region is high, indicating tendency to accept and need of authority and the understanding that power is right. Also to value opportunity for higher earnings and having a challenging job. This pattern could be opposite to the transformational leader who could tend to have a more democratic style involving others and in underpinning personal needs into the development of the mission. This contradiction might be the reflection that there has not been enough research about Latin America ideal leadership, and that probably the leadership style and organizational culture could have own patterns for the region. Therefore, there is a need to provide more empirical evidence, to provide better frameworks attainable to Latin American transnational corporations in terms of combined effects of leadership, culture, and effectiveness, which might enlighten these corporations to obtain the best of their investment in the Latin America region.

The objective for the proposed research was to identify the relationship between leadership style, organizational culture, and organizational effectiveness, in Latin American transnational corporations.

**Purpose Statement**

The purpose of this quantitative descriptive study was to determine whether organizational effectiveness was associated with leadership style and organizational culture. Literature review showed that the investment of transnationals in Latin America might be hindered due to short-term economic slowdown. If a combination of leadership
style and organizational culture profile could be adequately used in Latin American transnationals, there might be a possibility to increase the success rate, having employees with a higher commitment to the business, and thus, achieve a higher organizational efficiency.

The second purpose of the study was to provide a better insight into the Latin American market, where studies related to leadership, culture, and effectiveness have not been deeply analyzed, and so the novelty of this type of research could be a basis for immediate application in the business world to foster better business success rates. Also, to be the ground for future research in terms of the human factor of Latin American leadership and culture.

The last purpose of this research was to have a better understanding of the transformational and transactional leadership styles and its relationship to organizational culture styles, and if the combination of the above-mentioned variables provided better results in terms of organizational effectiveness. To note, in the context of performance and efficiency, most of the research on this topic has pointed out that the best leadership profile is the transformational, however, the transactional may be important in specific cases of Latin America transnationals, given the high indices of power distance and uncertainty avoidance (Hofstede et al., 2010).

The research was intended to be developed in Latin American countries, using reliable instruments to measure leadership, organizational culture, and organizational effectiveness. The surveys were administered via internet and those were answered by employees in a sample of three Latin American transnationals each one in a different industry.
Significance of the Study

The role of a leader needs to be adaptive to different types of change and business moments. Although the transformational leadership style has received most of the attention regarding business outcomes, little has been said about the leadership profile more suitable to different kinds of changes, in this case of transnational Latin American firms. This study filled a gap in research and also provided better direction for both academia and businesses to set insights on the type of leadership and organizational culture that should be encouraged for a process as complex as growth and expansion of Latin American transnational firms.

As pointed by ECLAC (2014) the increased interest in doing business in America, both by regional multinationals going abroad as well as the persistent interest of developed economy industries to have business in Latin America, demands more understanding of the level of leadership and management of organizational culture in order to succeed. This is because although culture in Latin America could be perceived as one, in reality there is an amalgamation of sub-cultures worth understanding (Hofstede et al., 2010) and acting accordingly.

Nature of the Study

The nature of this study was quantitative, because it pretended to find the correlation between the independent variables leadership style and organizational culture, and organizational effectiveness as dependent variable. Previous studies that analyzed these variables have used quantitative methods by using surveys with Likert scale. In terms of leadership, these surveys were answered by employees in Latina America transnationals. Avolio and Bass (2004) presented the Multifactor Leadership Questionnaire (MLQ 5X short) to measure leadership styles. To measure organizational culture, the
survey that was applied was the Organizational Culture Inventory (OCI©) from Cooke and Lafferty (1994) from Human Synergistics.

Dependent variables were the ones pointed in the literature as human related factors to business performance, in terms of organizational effectiveness as the outcome of organizational culture and leadership. This outcome was measured also with the Organizational Culture Inventory (OCI©) from Cooke & Lafferty (1994), defined by role clarity, employee satisfaction and service quality.

Research Questions

The following were the study research questions:

RQ 1. Is there a relationship between transformational leadership style and organizational effectiveness?

RQ 2. Is there a relationship between transactional leadership style and organizational effectiveness?

RQ 3. Is there a relationship between organizational culture and organizational effectiveness?

RQ 4. Is there a relationship between transformational leadership style, organizational culture and organizational effectiveness?

RQ 5. Is there a relationship between transactional leadership style, organizational culture and organizational effectiveness?

Hypotheses

Hypotheses respond to the research questions and were described in terms of the relationship among variables per the findings on the literature review.
The definition of leadership in the proposed study belonged to the management and relationship theories, with the transactional and transformational leadership profiles in Bass’s (1985) theoretical modeling. Walumbwa et al. (2010) stated, “A rise in interest in this positive form of leadership is due in part to mounting evidence supporting the role of positivity in enhancing human well-being and performance” (p. 3). A transformational leader builds rather than exchanges relationships with followers and can spark the emotional involvement of followers to higher levels of identification, commitment, and trust in the leader and the organizational mission (Jung & Avolio, 2000). In a research conducted by Eppard (2004), empirical evidence showed that transformational leadership was positively and significantly correlated with constructive culture, and that transactional leadership was positively and significantly correlated with defensive culture, thus the first two hypotheses proposed are based on previous findings.

H1. The transformational leadership style will have a positive effect on organizational effectiveness.

H2. The transactional leadership style will have a negative effect on organizational effectiveness.

Culture from a broad perspective could be defined as something largely shared by members (Murphy, Cooke, & Lopez, 2013) and specifically regarding organizational culture are the set of beliefs maintained not only in the mind of members but also in the minds of other stakeholders who interact with the organization (e.g., customers, suppliers, labor organizations, neighbors, authorities, the press) (Hofstede et al., 2010).

H3. Constructive organizational culture will have a positive effect on organizational effectiveness.
Leadership and culture work close together and it is almost impossible to think of one without the other (Nguyen & Mohamed, 2011). If culture is the set of spoken and unspoken rules within an organization and leadership is related to the aim of fostering change and ensure things are well implemented (Moore, 2003), then its relationship is evident, however, different leadership styles are not the same for different cultures. It would be expected that one style could be suited to a particular type of organizational culture.

Business changes and demanding environments requires from leaders a significant impact on employee attitudes and in this sense, transformational leadership has been pointed as the style that yields in better response to manage stress, anxiety and worry in employees about new structures and job continuity (Babić et al., 2014).

**H4.** The transformational leadership style and the constructive organizational culture will have a positive impact in the organizational effectiveness.

**H5.** The transactional leadership style and the defensive organizational culture will have a negative impact in the organizational effectiveness.

**Theoretical Framework**

Leadership and organizational culture are related but they are different constructs. The researched presented by Eppard (2004) provided insights in the conceptual framework where transactional and transformational leadership styles were correlated with constructive and defensive organizational culture styles. The research intended to define a predictive model where leadership style was considered as the independent variables, while organizational culture the dependent variable. In the case of this research on Latin American transnational firms, leadership and culture were considered as independent variables and organizational outcome as dependent variable, as a proxy to measure
business outcome. With the previous findings about the significant correlation between transformational style and constructive organizational culture, and transactional style and defensive culture, the model assumed there is an impact of the overall leadership style on organizational culture style. Bass and Avolio (1993) stated that the organizational culture is a result of the leadership and vice versa. With empirical findings from Eppard (2014), the theoretical model assumed only one-way effect leadership to culture. Figure 1 presents the theoretical framework that will guide the connections between variables in this research.

*Figure 1. Theoretical framework on leadership styles and organizational culture as they predict organizational effectiveness*
Definition of Terms

Although leadership and culture are common concepts in scholar and business environments it is necessary to address the specific definition intended for this research.

Leadership styles. Burns (1978) highlighted the difference between “transformational leadership” and “transactional leadership”. Bass (1985) defined the transformational leader as that who motivates the followers to accomplish their goals even further from what was originally expected. This is done through a transformational process of thought (i.e. beliefs and values) and behavior (i.e. attitudes and attributes), all considered higher order. The factors that were implied in the transformational leader are charisma/inspiration, intellect stimulation, and individualized consideration. The Transactional leader in contrast, was defined by Bass (1985) as contingent performer. The leader agrees with its followers on what they need to do to get rewards or avoid punishment. There is no concerted effort to change followers’ personal values, nor necessarily a need to develop a deep sense of trust and commitment to the leader. Instead, the transactional leader works with followers’ current needs and tries to satisfy those needs with desired outcomes once agreed upon performance levels are achieved. Two factors are proposed for the transactional leadership style, which are contingent reward and management by exception. The profile that along the research was found more powerful in deriving high performance results is the transformational leadership, although extraordinary leaders, according to the situation can manage also the transactional style (Bass, 1999). From these findings, it is more likely that a business wants to find and keep a transformational leader than a transactional one, however multiple behaviors mirroring the situational leader from Blanchard could also be well valued for their ability to adapt to the environment (Hersey, Blanchard, & Natemeyer, 1979). The tool used to rate leadership
skills was the Multifactor Leadership Questionnaire (MLQ) 5x short with 45 items on a Likert scale (Avolio & Bass, 2004).

**Transactional leadership.** Avolio, Waldman, and Einstein (1988) described the transactional leader as the one who operates in a passive or an active phase and does so in two ways. Passive avoidant in this passive role, the leader allows the existence of status quo as long as no problem arise, or management by exception, where the leader reacts negatively to confront a person or a situation when a problem arises. Transactional leaders do not involve followers in their own needs or expectations, or in the business shared vision.

**Transformational leadership.** The most important characteristic of the transformational profile is that the attempt to increase the need of followers through a consistent process of sharing a common vision, understanding the follower’s needs, and ensuring followers have more responsibility and autonomy over time. Transformational leadership in turn is explained in four distinctive profiles.

Charismatic or inspirational profile: Bass (1985) described the transformational profile in terms of the way followers perceive and act according to the leader’s expectations. This kind of leader is prone to exert large levels of emotion in people, resulting in support of the leader’s values and mission.

Individualized consideration: When a leader exhibits individualized consideration, the relationship with followers is one-on-one and includes mentoring as a process to incentivize development of personal needs.

Intellectual stimulation: Where followers are encouraged to change, the past and find new ways of doing things. This process occurs not only through rational assessment but through inspiration on values, beliefs, and expectations.
Idealized behaviors: Inspire trust among followers through power and pride. Act with integrity, have self-confidence, moral rationale and optimism.

Organizational culture. From anthropological roots organizations are conformed by human beings, denoting a symbiosis and community creation, which fosters culture development. Hofstede et al. (2010) indicated that organizational culture is a topic that has been reviewed since the early 1980s where authors pointed that the excellence of a firm is related with culture angles such as the way people think and feel.

Researchers Cooke & Lafferty (1994) proposed a comprehensive framework to explain the traits of the organization culture.

Constructive culture. Constructive culture: represented by four patterns: (a) achievement, expectation on setting challenging but attainable goals and pursue them with enthusiasm; (b) self-actualizing, enjoy their work and develop themselves; (c) humanistic-encouraging, being supportive, constructive and open to influence when dealing with one another; (d) affiliative reflects the fact that members care for the others, are friendly, open and respond the thoughts of other members of the group.

Passive/defensive culture. Explained by other four patterns: (a) approval, members expected to agree with, gain the approval of and be liked by others; (b) conventional norms, conform, follow rules and make good impression; (c) dependent, expectation to do what is told and clear all decisions with superiors; (d) avoidance, shift responsibilities to others and avoid possibility of being blamed.

Aggressive/defensive culture. finally defined also by four norms: (a) oppositional, expectation to be critical and oppose others’ ideas making safe decisions; (b) power, expectation to take charge and control of subordinates and do as superiors determine; (c) competitive, operate within a win-lose framework and outperform others, working against peers, and (d) perfectionist, expectation to appear competent and keep track of everything.
The previous mentioned 12 behaviors set what the author calls the operating culture. This framework provides two other interesting pillars for the theoretical model worth considering for a holistic view of a culture model within an organization, the antecedents of culture and outcomes, although the latter were not considered in the research proposal.

**Organizational effectiveness.** This is a label applied to the result reached by an organization as perceived by individuals “the construct of effectiveness is not a real property of any organization, but rather a label, which people use with varying degrees of agreement” (Taylor, Cornelius, & Colvin, 2013). An important factor when describing organizational effectiveness is the capacity to describe individual variables that are discernible and significant (Cooke & Szumal, 2000) and that are taken from the point of view of the employee.

Business disruptions, sudden changes in business orientation, macroeconomic environment challenges, or a process of acquisition, represent a major focus of confusion, anxiety, and trauma. The way employees perceive change will have an impact in their behavior and thus managers seek to take the best out of employees to ensure business continuity, good performance, and perhaps to manage one of the most fearful situations during this process that is retention. Organizational effectiveness appears to have an important role in terms of the measurement of the behavior of an employee and should be measured separately from other hard variables such as strategic fit, financial performance and soft variables such as leadership and culture (Raukko, 2009). There is not a unique consensus on the way to measure effectiveness however the approach proposed by the authors Allen and Meyer (1990) provided three main independent constructs, which could be portrayed as the reason for an employee to stay in a firm. The first is because they want to or the affective component, the second is they need to or the continuance component and
the third because they ought to or the normative component. This approach allowed to set
the theoretical model as organizational effectiveness, measured in terms of their
perceptions about their satisfaction, their view of the quality of the organization and their
understanding of their role.

**Transnationals.** A transnational is a corporation with operations and investments
in many countries around the world. It has its headquarters in one country and operates
wholly or partially owned subsidiaries in one or more other countries. The subsidiaries
report to the central headquarters. Some of the objectives of a transnational are increasing
market share, diversify products and services, achieve operational flexibility, share risk and
reach financial efficiencies. The latter, either through the dilution of costs, taking
advantage of foreign direct investment in cross-border acquisitions to acquire a variety of
capital or to get tax efficiencies.

**Multilatinas.** Trans-Latinas or multilatinas are companies whose origin are in Latin
American markets with this region economic resources, and particularly originated in
countries with former colonies of Spain, Portugal or France, and which have value added
operations outside their headquarters (Cuervo-Cazurra, 2010). These companies may
operate too in Latin America, in Brazil, in North America and in other continents.

**Assumptions**

With previous research related to leadership styles, organizational culture and
organizational effectiveness, the research assumed that this relationship exists and still it is
important to state whether the impact is positive or negative within the transformational-
transactional styles and with constructive – defensive styles. It was also assumed that
participants that filled in the survey experienced the variables in research, such as being
either follower or leaders for the leadership rating and that they work in a Latin American
transnational firm, thus lived and understood the regional culture and the organizational culture in a multi-country set. Although there is always the risk of bias, the research assumed that respondents provided clear and truthful information and that the requested experience would be recent. The research considered transnational firms originated in Spanish speaking Latin America, or “multilatinas” and operating in Spanish speaking Latin America.

Limitations

Given the fact that the measurement of leadership and employee performance is subjective, there might be a bias in the true intention in the rating of the leadership style, in the perception of the organizational culture and the organizational effectiveness. Due to the length of the questionnaire, it was not possible to separate two different versions, one for leader and one for followers. The survey rated the leadership style as an overall construct, and thus, there was not an identification of the style of the leader, but an overall assessment of the firm leadership style.

Delimitations

The quantitative study was cross-sectional since the responses were given in a moment of time, and did not compare performance in two or more periods of time. The research was conducted in Latin American transnationals, with headquarters in Latin America, and operating in this region in at least one more country besides headquarters. The sample was multi-industry, due to the recommendations of previous researchers who conducted Transformational Leadership only in one organization (Nemanich & Keller, 2007; Nemanich & Vera, 2009). The surveys included employee perceptions of organization leadership style, organizational culture and input about organizational effectiveness. The geography was delimitated by the researcher convenience and ease of
approach, so the target firms were based in Colombia and Costa Rica. The research was composed of three multilatinas. Pozuelo, Sodimac and HL Ingenieros.

Pozuelo, is a subsidiary of Nutresa, leading processed food multilatina from Colombia (formerly known as Compañía Nacional de Chocolates). Pozuelo operates the Central American market, with headquarter in Costa Rica. It is the market leader of the biscuits category in the isthmus. The survey was implemented in Costa Rica, Panama, Guatemala, El Salvador and Nicaragua. The second firm was Sodimac, which is an affiliate of SACI Fallabella holding, and is a large specialized retailer in household hardware and home improvements. It has the headquarters in Chile and has stores in Chile, Peru, Argentina, Colombia and Brazil. The third firm HL Ingenieros is a Colombian construction firm which enables civil work projects for various industries such as infrastructure, oil & gas, cement, mining and iron & steel. Operates in Colombia, Dominican Republic, Panama, Ecuador and Bolivia.

Another aspect important to remark, is that there were no companies from Brazil or Mexico, the two largest markets. The reason was merely for the convenience of the researcher that took advantage of geographical closeness to Colombia and Costa Rica. This however supports the fact that there is less research in the latter countries than in Brazil or Mexico thus providing inedited findings related to multilatinas behavior, leadership and organizational culture.

Other delimitation of the research was the language, only Spanish, which is aligned with culture closeness, meaning that countries close to headquarters, might share similar culture, language and economy making it easier to compete. One language was also easier in terms of the survey implementation. This delimitation set the research in Spanish speaking countries, excluding for the population framework Brazil and the Caribbean English & French speaking islands.
Summary

Leadership and organizational culture are key drivers for organizations, where scholars have demonstrated empirically that these constructs can be measured quantitatively and that the combination of levers could turn into various outcomes. Organizations strive to attain goals and maneuver their ability to cope with the global and changing word, and are aware that human behavior are key drivers of organizational performance, therefore considering that people ratings are valuable indicators of organizational effectiveness. Important though that these findings about leadership and culture frameworks are abundant in developed economies, not so much in emerging regions such as Latin America, the latter with increasing importance in the worldwide economy. Particularly multilatinas, face the challenge of short term economic hurdles, outstanding therefore the importance of improving knowledge of leadership and organizational culture as key drivers for sustained growth and evolution.
Chapter 2: Literature Review

The objective of the literature review is to inquire the most current research in the target topics of leadership, organizational culture, and organizational effectiveness, to understand the state of the knowledge in each one of the key variables, the relationship amongst them and the outstanding questions. A focus will be granted to the situation of the above-mentioned variables in Latin America, in the ambitus of multilatinas, because as stated by Cuervo-Cazurra (2010) the phenomenon is rising in importance in the global arena yet with important challenges to expand and become larger. For this matter, the research was done mainly in the on-line library resources of the CENTRUM Graduate Business School where amongst others, the, Emerald, J Stor, APA, PsycNet, and Proquest databases were consulted.

Business failure because of leadership and culture clash

In the revision of the literature, leadership appeared to be a crucial factor to determine success or failure in an organization (Bass & Avolio, 1993; Howell & Avolio, 1993) and was also a key factor influencing organizational culture (Schein, 2010). Abundant research was reviewed on the combined effect of leadership and culture, which provided insights into the role of both concepts into business performance, because at the end, organizations aim to deliver their goals and to be able to cope with both external factors related to the environment, and the internal factors which are based in organizational processes, productivity and job satisfaction (Rodсутti & Swierczek, 2002). With the genesis of the transformational leadership framework presented by Burns in 1978, there is more empirical evidence of effects of this type of leadership in improved results or contrary, issues in performance due to transactional leadership. Howell and Avolio (1993) explained that in a study performed in 78 managers during one year, the transformational
leadership style yielded better business results than the transactional one. In a study conducted by Avolio, Zhu, Koh, and Bathia (2004), 520 nurses surveyed reported that there was a connection between transformational leadership style and organizational commitment, mediated by the psychological empowerment and structural distance. These and other examples found in the literature about leadership insisted in providing the transformational leadership style a special importance as a mean to reach positive business objectives, namely follower job satisfaction, organizational commitment, business unit perceived performance and in other cases positive financial indicators.

Regarding organizational culture, there was also paramount empirical evidence on business performance, related to the way leaders approached and managed the culture inside an organization, either using it as a lever to share a vision and motivate followers or neglecting the observed culture and behaving with own preconceived rules. Balthazard, Cooke and Potter (2006) developed a large scale study with 60,900 respondents of the organizational culture inventory, and proved empirically that organizational cultures exhibiting constructive style performed better than organizational cultures with dysfunctional defensive profiles.

There are also researchers that studied both variables, leadership and culture jointly, as the case of Nguyen and Mohamed (2011), who presented conclusions about organizational culture and knowledge management, where they proved that two aspects of the transformational leadership, the charismatic and contingent reward, proved having greater influence in all dimensions of knowledge management practices. These authors also concluded that transformational leadership greatly influenced innovation as antecedent to supportive organizational culture.

Lauser (2010) posited that change was a major challenge for organizations, becoming a focus topic for managers, however change does not always convey positive
results. In this research the author states that one of the largest change process a firm can face is the post-merger phase after a merger or an acquisition. Research on this matter explained that leadership and culture clash was more evident in an M&A due to the unavoidable combination of two different organizations, making worthwhile reviewing existing literature on this phenomenon. Despite the positive intention of M&A, research cannot conclude about its certain success, indeed many papers pinpoint the fact that a large portion of M&A transactions fail. Reasons related to issues in planning, not realistic expectations, talent loss, and cultural clash impacted M&A failure in a rate between 50% and 75%, according to Papadakis (2005). In an analysis performed by the Hay Group in Europe in more than 200 transactions in 2007, only 9% of surveyed leaders reported complete success (Weber & Tarba, 2012). In 2009, another study conducted in 58 multinational in emerging economies that boarded 433 mergers, approximately half of the cross-border expansions did not create value in acquired firms (Aybar & Ficici, 2009). A KPMG study involving executives of companies with deals similar to mergers or acquisitions, reported in 83% of the cases that the outcome failed, not producing wealth for the buyer (Gill, 2012). Examples of M&A failure abound in the literature and are present either as case studies or described in the news, and it is worthwhile mentioning few of them to highlight the findings in M&A research regarding the high incidence of failure in these transactions.

**Evolution of the leadership concept**

Analyzing the evolution of leadership theories makes sense in order to set the current panorama of the onboarding of this concept, opening the appropriate setting of the theoretical framework. This is because there is abundant research on leadership, and the scope was set to the firm environment, so it was necessary to limit the findings to
leadership in organizations and management in the realm of psychology, which necessarily surrounds leadership. The way leadership exercise and leadership research, evolved in the past century, with particular profusion of studies and publications in the past 30 years (Howell & Avolio, 1993).

Which were the origins of leadership as known now in management? A short review of the paradigms around leadership in the 19th and mid-20th century will be briefly described to place context of the understanding of this broad term. During this period, the dominating theory about leadership was called the “great man”. This could hardly be called theory because it does not have scientific ground, however is worth explaining as the genesis of the current research on leadership. As stated by Allio (2013), this theory intended to explain leadership at the beginning of the industrial revolution by the 19th century and inspired by Thomas Carlyle who wrote about heroic leadership. The characteristic of heroic leaders as Napoleon or Dante, just to mention a few, were the appraisal as leaders due to their personality and resemblance of power and authority (Van Seters & Field, 1990). There are two main issues around this supposed theory, the first is that heroism is also connected to the historic situation, such as Napoleon and the French revolution, and second that personality is very difficult to imitate and thus difficult to apply in management.

After Great Man theory, the traits theory was presented by researchers in the first half of the 20th century, intending to go beyond personality and define traits that define a good leader (Van Seters & Field, 1990). This however again proved of low applicability because traits and personality vary so much according to the individual that it was of no value to set a manual to improve leadership. Since the 1970s more formal scientific ground has evolved in the analysis of leadership, which will be the focus in the following part of the review of literature on leadership.
Power and behavior in leadership. Theories about power and influence emerged in the 1980s and as stated by Yukl in 2013, explained that leadership effectiveness comes from “the amount of power possessed by a leader, the types of power and how power is exercised”, as a learning that leadership goes beyond performance and has a relationship with individuals who are led. In the power approach the leadership pretends to rule with high levels of power which are sourced not only from personality but also from the situation and from relationship (Van Seters & Field, 1990). The importance of power in organizations is ambiguous because political and certain level of authority could be expected of leaders while at the same time, too much politics and excess power are criticized by followers and go in detriment of the capacity to influence (Pfeffer, 1992). This theory remains as an interesting indicator of how to exercise leadership however puts a lot of emphasis on the leader and less in the followers. That is why in the 1970s the new leadership theories were developed in terms of the contingency of the situation pretending still to define “leadership models” applicable to management exercise. It is not coincidence that the conglomerate period in M&A happened during this time, the 1980s where exhibitions of corporate power were present in major transactions.

Capitalizing on the power and influence theories, Blanchard developed a new approach towards leadership called the situational leadership (Hersey et al., 1979). This contingency model drew the attention to the six different sources of power of the leader: (a) coercive power, based on fear; (b) connection power, based on influence over people; (c) expert power, which is created by the possession of expertise, skill, and knowledge; (d) information power, which is granted to the one who owns or has access to information; (e) legitimate power, based on the position held; (f) referent power according to personal traits, and (g) reward power, which is the belief of followers that the leader will compensate with salary raise or similar.
With this background in context, the situational leadership presented a model in which the maturity of the follower dictates the style of leadership that should be exerted and the power of use needed to have results. There are four different styles of leadership: (a) “directing”, is for low maturity, in which the leader needs to be very explicit in terms of the directions and specific ways to perform a task. It emphasizes directive behavior (b) “coaching”, is for low to moderate maturity where people want to take the responsibility but does not know how to do it, here again it is important to devote direct leadership style. The third refers to (c) “supporting”, is for moderate to high maturity, where the follower has the ability but lacks self-confidence, in this case there is a two-way communication and the leader is a facilitator, and finally (d) “delegating”, for mature followers with both high ability and motivation, who can decide how to perform on their own with low supervision.

Additional to the situational leadership model from Blanchard, other researchers have presented models based on contingency, such as the Vroom & Yetton (1973) decision making model, which pretended to present a normative behavior pattern for a manager to make decisions according selecting a range from autocratic to advisory decision-making style. Despite the purpose of providing behavioral frameworks for leaders, the contingency models proved their limited applicability because leaders in their day to day performance have very little time to analyze which style should be used according to the situation (Van Seters & Field, 1990).

**Burns (1978) and Bass (1985) transformational and transactional theory.**

When heroic and contingent leadership theories proved their scarce applicability and due to the evolution of leadership research devoting more importance to the relationship between leader and follower, a shift in leadership theory started in the 1980s, which is relevant until today, namely the transformation era of leadership research (Van Seters & Field, 1990). In 1978, Burns introduced the transactional and transformational leadership styles in his
seminal book *Leadership*, where he firstly claimed that if there is leadership there is also followership. The impact of a leader in a follower could be a key determinant in the success or failure of a particular aim, either political or entrepreneurial. Following this theory, Bass (1985) defined the transformational leader as one who motivates followers to accomplish their goals even further than was originally expected through a transformational process of inspiration of higher order thoughts (i.e. beliefs and values) and higher order behaviors (i.e. attitudes and attributes). Important characteristics of the transformational leader are charisma, inspiration, intellect stimulation, and individualized consideration.

In contrast, the transactional leader was described by Bass (1985), as a contingent performer. The leader agrees with the followers on what they need to do to get rewards or avoid punishment. There is no concerted effort to change followers’ personal values or develop a deep sense of trust and commitment to the leader. The transactional leader works with followers’ current needs and tries to satisfy those needs with desired outcomes once agreed upon performance levels are achieved (Bass, 1985). Two characteristics of the transactional leadership style are contingent reward and management by exception. The literature showed the transformational leadership style as more powerful in obtaining high performance results, yet in some situations, extraordinary leaders are successful with the transactional style.

To note, transactional and transformational leadership are bonded together in the leadership theories exposed by Bass (1985) and further by prominent leadership authors such as Avolio et al. (1988), Avolio, Bass & Jung (1999), and Avolio et al. (2004). Since 1985 this is the most cited theory in leadership and different types of research have been trying to prove empirical application, concluding correlation, among others, between transformational leadership and organizational change (Eisenbach, Watson, & Pillai,
organizational commitment (Dunn, Dastoor, & Sims, 2012; Avolio et al. (2004), job satisfaction (Shurbagi, 2014). Researchers expert in leadership have demonstrated that transformational leadership style conveys better and more sustainable business results, while at the same time providing nurturing environments for people development for long term stability (Jung & Avolio, 2000).

**Evolution of the organizational culture concept**

Initial insights about organizational culture were originated in studies about organizational development in the 1950s which then turned into a topic of interest both for researchers and practitioners in the 1970s due to the interest of the culture as a variable that could bring success for a firm (Smircich, 1983). Organizational culture cannot be defined outside the anthropology context, because a firm is a living community which in order to attain results need to preserve order, have foundation, shared beliefs, symbols, and patterns. Despite the social origin of the concept of an organization as a community, further implications of the organizational culture are worth reviewing to provide a comprehensive understanding of the different schools of thought around this concept. The aforementioned author Smircich in 1983 provided a framework for organizational culture including three main perspectives useful to conceptualize culture.

The first one is the cognitive perspective, which is the related to the full set of symbols, beliefs, like a set of system of knowledge shared within the members of an organization providing a sense of how to behave, to expect response from other members and the way to make decisions. In terms of business, organizational culture was defined by Weber and Tarba (2012) as a “developing system of beliefs, values, and assumptions shared by the managers about the desired way of managing the organization so that it can adjust to its environment”. By having differences in the way people approach these
assumptions, research points that cultural differences could be a source of risk and a clog to achieve the objectives of a firm (Stahl & Voigt, 2008). This perspective provided importance to rules and the way things are perceived by individuals in such a way that collectively there is a behavior and system of business appraisal.

The second perspective in terms of organizational culture is the symbolic one which gives less importance to the rules but to the implicit understandings about symbols and rituals. Within this territory, Schein (2010) stated “the culture of a group can now be defined as a pattern of shared basic assumptions learned by a group as it solved its problems of external adaptation and internal integration, which has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems”. The origin of shared values and symbols are in the first perspective, the cognitive, where some artifacts are granted with symbols that will only become shared and acknowledged by the organization once it passes social validation. The importance of the symbolic nature of culture is that it defines non-written understanding of the corporate culture. It will affect how to evaluate the behavior of an individual. If for instance the culture of a firm outstands customer orientation, the fact that a manager provides a discount that could hurt short term profits could be well evaluated. On the other hand, the same behavior in a firm that is prone to defend financial ratios, the same behavior could be understood as mismanagement with bad consequences. Which is good or bad? It all depends on the unspoken set of patterns, symbols, and behaviors shared by the organization that at the end define its own organizational culture. It is important to note the evolutionary nature of the adoption and understanding of symbols and rituals, because they change according to events along time.

The third tier, unconscious level, is more complex and is where true leadership acts in order to provide better direction to use organizational culture in favor of business goals.
It is a projection of the collective mind meaning, in terms of the firm, where practices are done under collective unconscious processes (Smircich, 1983). Hofstede is one of the top researchers on culture and in his seminal book *Cultures and Organizations* (Hofstede et al., 2010) refers to culture in this sense as

the collective programming of the mind which distinguishes the members of one group or category of people from those of another and consequently, organizational culture can be defined as the collective programming of the mind that distinguishes the members of one organization from others. (ch. 10, n.p.)

Each one of the tiers mentioned conforms an evolutionary vision of organizational culture, from the simplest way of just connecting and surviving to a more complex and abstract concept, embedded into universal conscientiousness. These previous concepts about culture, provided ground to the feasibility of transmission of culture from one generation to another which in terms of the organization denotes the heritage from one department to another or in the case of a merger or acquisition the acculturation process of two or more firms. In this sense the value created in the process of sharing all the array of values, symbols, and behaviors turns to be a powerful asset for an organization in order to reach common goals both in terms of team building but also in terms of business achievement.

**Unconscious level of organizational culture.** Schein (2010) identified three different tiers in the approach to organizational culture. The first tier is related to the artifacts which are the things that could be seen, heard, or felt, including physical things such as the building, language, clothing, myths and stories, rituals and ceremonies. This author explains that although the artifacts look simple in essence in reality these need to be fully understood in terms of the meaning in order to have a true understanding of the nature of the culture. Trying to describe a culture only by observing an artifact in isolation could
result in a wrong judgment of the real culture. That is why it is important to go deeper and inquire into espoused beliefs and values, which is the second tier of the Schein organizational culture model. This one relates to the system of decision making process an organization defines tacitly about the ways to resolve a problem, communicate, or execute to perform. If a previous mode of leadership or decision-making process provided positive results, then it is possible that the beliefs of such conduct would be evaluated as the modus operandi for future endeavors. The last tier relates to shared assumptions or what Smircich described as unconscious level, which is the relatively stable set of agreements, understandings, and ways of behavior that provide the group stability, sense of belonging, and reinforce self-esteem. It is in this realm that organizations set a more controlled management system allowing less disruptive executions. Schein debates whether this approach in reality provides performance or is a paradox because change is each time more relevant in current organizations and stability could hinder possibility to learn and evolve.

Although there is extensive research on organizational culture with abundant frameworks and quantitative models to measure it, there are three researchers that have provided complementary angles to approach organizational culture, all of them within the symbolism and unconsciousness platforms previously described. Hofstede developed a comprehensive cultural model borne out of the country of origin explaining different traits according to the nationality. Denison on the other hand provide a pragmatic approach to measure organizational culture in terms of the traits with a framework used to measure culture in organizations. Finally, Cooke relates organizational culture in terms of the behaviors and decision-making processes of individuals.

**National culture and the impact in organizational performance.** Hofstede national culture framework was firstly presented in 1980 and further exposed in several research studies. This framework defined how cultural norms in one country differ from
another and are measured according to four main variables (Hofstede et al., 2010). The GLOBE survey is a widely used report where Hofstede reports the levels found for each nationality. The first variable is power distance and refers to the degree of inequality among people and that is referred as normal in the context of the culture of the nationality. Many nations in Latin America, France, and Hong Kong are high in power distance, while Germany and UK are low in this score. Higher power distance means that authority is not questioned and that the fact that there is inequality is a reality accepted. Cultures with high power distance have a high appreciation for authoritarian leaders that command what needs to be done and do not see with good eyes if a subordinate is in opposition. In fact, an authority that accepts this type of trait is seen as weak and losing respect. The second variable is uncertainty and means the degree of preference of structured versus unstructured situations. Nations such as Switzerland are low in uncertainty meaning that individuals are able to cope with situations with low structure and ambiguous while Guatemalans prefer to have all structures set and not questioned. Unstructured situations provoke high anxiety and are not seen as normal episodes. The third variable is individualism, and is described as preference to act as individuals versus being part of a collective the need of belonging to a group or society. The combination of high power distance and low individualism portrait societies that prefer to behave according to mass rules and will change if authority is decisive to turn around previously established status. In terms of the fourth variable, masculinity and femininity is not related directly to gender but to the supposed interpretation of gender behavior. Masculinity conveys assertiveness, performance and competitiveness while femininity is more skewed towards quality of life, relationship protection and solidarity. One of the countries with largest masculinity index is Japan, while one of the lowest in this factor is Netherlands (Hofstede, 1994). Later studies by Hofstede et al. (2010) posited other two variables, long term orientation and
indulgence. No needless to mention that although this framework is applicable to nations, indeed organizations could use this type of variables for individual and corporate analysis. In research however, this framework has been used mostly to compare national cultures in terms of the performance of mergers and acquisitions (Morosini, Shane, & Singh, 1998; Gill, 2012).

Cooke’s organizational culture inventory. Finally, a comprehensive theoretical model of organizational culture was presented by Robert Cooke with the Organizational Culture Inventory (OCI©) (Cooke & Lafferty, 1994) which is based on the behaviors that members of an organization are expected to deploy. It is conceptualized in two main dimensions; the first dimension differentiates between concern for people and concern for task while the second dimension is based on either satisfaction needs or security needs. Distributed along these two dimensions, there are 12 sets of behavioral norms which in turn are clustered in three different prototypes of organizational culture, as described in the OCI© guide “Using the organizational culture inventory” (Cooke & Szumal, 2000): the constructive, passive/defensive and aggressive/defensive.

Some researchers have clustered into only two types of organizational cultures, the constructive and the defensive, the latter grouping both the passive and the aggressive. Cooke and Szumal (2000) reported that countries in the Latin America, Latin Europe, and Far East, may expect constructive behaviors, while Anglo cluster would expect defensive organizational culture. Related to national culture profile, Cooke and Szumal (2000) also reported that countries like United States which are individualistic, have weak uncertainty avoidance and moderate power distance, and would prefer constructive norms rather than defensive ones. There could be differences regarding the ideal or expected role model of organizational culture and this could also depend on other variables.
Antecedents of culture mean the ways an organization is structured with will in turn derive a perception and a way of deploying activities and are seen as levers for change. Cooke and Szumal (2000) defined them as structures, systems, technology, and skills/qualities.

Structures means way components of an organization are ordered and are identified in terms of roles, influence, and decision making. Systems refer to interrelated sets of procedures such as human resources, accounting, and quality control systems all used to support activities and solve problems. Systems are conceptualized in terms of training, appraisal, reinforcement, and goal setting. Technology in the context of Cooke framework is referred as the methods that an organization uses to turn input into output. Perhaps at the beginning of the 20th century this meant the accessibility to technological means to make a task easier and faster but with technological advances nowadays it means the characteristics of a job in terms of skill variety and support tools to make it easier. Technology in Cooke’s framework is structured as job design, complexity, and interdependence. Finally, skills/qualities are pertinent to organization members and directed to leadership roles. Three characteristics are evaluated here, leadership, communication, and bases of power.

Lastly, Cooke’s model provides a model to measure outcomes which is the Organizational Effectiveness Inventory, OEI (Cooke & Szumal, 2000). This model has been quantitatively tested and reliability has been confirmed in various research studies in complement with the OCI©. Outcomes are defined in terms of three units of analysis: individual, group, and organizational.

Individual outcomes are explained in terms of the motivation, performance, satisfaction, and stress. Group outcomes are measured regarding teamwork, inter-unit
coordination, and unit level quality. Organizational outcomes are measured according to organizational level quality, quality of customer service and external adaptability.

All previous authors and frameworks analyzed in the literature review reflect the fact that culture facilitates capabilities for adapting (Murphy et al., 2013) conveying a sense of “what should be done” versus “what is done” and that an organization makes choices to define its culture.

**Organizational effectiveness as a proxy to measure performance**

Predicting performance is not an easy matter firstly because there are innumerable variables affecting business outcome and second because performance may have different meanings, as was shown in the literature review (Bass, Avolio, Jung, & Berson, 2003; Howell & Avolio, 1993; King, Dalton, Daily, & Covin, 2004). A revision of the performance management systems was presented by Franco-Santos et al. (2007) where they pointed that the massive body of research about Business performance measurement Systems (BPM) did not yield into a comprehensive and shared framework, moving from operations management, to human resources, organizational behavior, information systems, accounting, and marketing. In their literature review they explained the role of the BPM and said that “53 per cent consider ‘strategy implementation/execution’, 41 per cent ‘focus attention/provide alignment’, ‘internal communication’ and ‘measure performance/evaluation’” (Franco-Santos et al., 2007, p. 795). Their approach covered ample specter variables, and proposed that there is not a unique way to measure performance, but that the effectiveness and efficiency measures, as well as the organizational behavior matters are in the vision of the evaluation of the performance of a firm.
Following a similar perspective, Riratanaphong and van der Voordt (2015) presented a review on performance measurement systems on regard to workplace change – referring to architectural change –, and presented a revision of some of the performance measurement frameworks. They posited that the objective of having performance measurement systems were related to planning, resource allocation, assessing improvement plans, measuring customer satisfaction, employee motivation to achieve targets, understanding bottlenecks, amongst others. Their findings pointed that there is not a unique way to measure performance and that companies seldom use them consistently. In the researched, two case studies in Thailand, and one in the Netherlands used the work environment diagnostics instrument (WODI) which had employee satisfactions questions.

Another context is the M&A performance, which as pointed out by Lauser (2010), is a major change and disruption in a business, where the need to measure performance becomes relevant after large economic and organizational efforts are made. King et al. (2004) presented a meta-analysis of post-acquisition performance moderators. Their analysis was based in 93 studies and used as independent variable the financial result of a change initiative in terms of the abnormal return, return on assets, ROA, return on equity, ROE, and return on stock, ROS, with moderating variables conglomerate or related acquisition, method of payment (cash or equity), and prior acquisition experience. The most relevant results of the study showed that “the true population relationship between the presence of M&A activity and the performance of acquiring firms is very near zero or negative beyond the day a merger or acquisition is announced” (King et al., 2004, p. 195). This means that the initial abnormal returns of the acquired firm may not be sustainable beyond day one for the acquiring firm. Their most important contribution is related to the various uses of measurement of the M&A outcome, the findings about no evidence of superior financial performance in the post-acquisition phase and the advice for future
research to include measurements beyond the financial ones in order to determine significant moderators to explain M&A performance. Similar proposals were made by Krishnakumar and Sethi (2012), who pointed that in M&A performance studies between 2010 and 2012, the use of balance score card was very popular and involved other factors beyond the financial ones, such productivity increase, overhead reduction, turnover variation, organizational climate, and top management turnover. This provided insights about the importance of human factors to measure the success or the failure of an M&A, and likewise, the importance of such factors in the performance of businesses in different situations.

Human factor is then, pinpointed as critical factor to determine business performance, and particularly leadership and culture factors appear to have important relevance, because leaders are pivotal in planning, implementing and following up organizational change and should demonstrate the ability to understand the complexities of conducting business in varied environments and cultures (Bauer & Matzler, 2013). Now, connecting leadership and culture to business performance, could be tied to measuring also human related factors, therefore, the perceptions about performance can be measured in terms of effectiveness.

Understanding the importance of culture and leadership in business performance, and particularly related to human rating effectiveness researchers have developed frameworks to measure effectiveness as a result of a combination of leadership and culture. Denison, Haaland, and Goelzer (2004) commented that there is lack of agreement on the appropriate way to measure effectiveness, and that empirical evidence showed that mission and consistency may predict profitability, that involvement and adaptability could predict innovation, and that adaptability and mission could predict sales growth. As a mirror of the Denison culture model (Fey & Denison, 2003), effectiveness can be explained through the
four main traits explained in the model: (a) involvement, effective firms are able to foster team work, empower their employees, where their input will be valuable to reach the goals of the company; (b) consistency, this is related to the strength the culture is communicated and lived by members of the organization, coordination the power of stability to provide a framework of security where members can exchange diverse points of view still ensuring sharing same set of values; (c) adaptability, this is the ability to change according to the needs of the customers and the environment, still with consistency; (d) mission, effective businesses have a clear sense of purpose and the vision is clear and shared by all members.

In a research performed in various countries to measure culture and effectiveness of retail stores, the measurement tool used was the Denison Organizational Culture Survey (Fey & Denison, 2003), where also measures of employee perceptions of performance were used such as sales growth, profitability, quality of products and services, employee satisfaction, and overall organizational performance (Denison et al., 2004). In this study empirical results showed that, in contrast, United States had significant correlations between empowerment, goals and objectives, organizational learning and team orientation, and performance, while in Japan the only two significant correlations with performance were strategic direction and core values. The study showed that given the fact that cultures changes from one country/region to another, such will be the traits that should be levered for effectiveness.

Cooke and Szumal (2000) showed empirical relationship between culture and effectiveness, in the research using the OEI survey, where constructive norms –related to culture– are positively related to employees rating of teamwork, contrasting with defensive culture where employees regarded as difficult to promote team work and quality of relations. With a constructive culture, individual, group, and organizational effectiveness proved significantly positive whilst defensive cultures yielded negative perceptions of
individual motivation, job satisfaction, teamwork, quality of work, and quality of customer service.

Empirical evidence showed that business performance did not have a specific measurement system, involving different potential factors, from financial, marketing, customer, and employee perspective. The latter had gained importance since the 1990s with important contributions on researches related to leadership and culture, outstanding the importance of the human factor in the evolution and results of a business. Therefore, ratings of performance according to employee perception are acceptable measures of achievement, amongst which organizational effectiveness had proved empirical frameworks with quantitative measure approach (Howell & Avolio, 1993; Denison et al., 2004; Cooke & Szumal, 2000).

Summary

Leadership and organizational culture are topics that on their own have been extensively researched in the past 40 years, given the evidence that the appropriate deployment of an organizational culture by transformational leadership provided better results in various outcomes in the exercise of an organization.

When reviewing the state of the literature in terms of leadership an important shift on the conception of the leader is revealed in the research on this topic, where the genesis of leadership studies in the early 20th century stated that good leadership depended on certain personality characteristics, confining heroic profile to good leaders such as the case of male politicians in world war I and world war II. Later research posited that it was not necessarily a messianic profile the one that determined good leadership but the response to particular situations, presenting the situational leadership as the formula to develop leaders. The latter also proved to fail due to the difficulty of a leader to decide which position to
take according to the situation. Nowadays leadership is presented as an array of styles, influenced by emotions and critical thinking. The most prominent school that defined a theoretical framework for leadership is the transformational leadership, originated by Burns in 1978 and then amplified by Bass in the 1980s, and while there are still various ways to measure leadership this transformational – transactional framework seems to be the most acknowledged theory to review leadership. It makes sense because a more humanistic role has been placed onto leadership, after understanding in this century that if there is leadership it is because there are followers and that the role of the leaders is to transform followers so that their inner believes and behaviors work towards the achievement of organizational goals.

In terms of organizational culture, review identified the necessary anthropological origin of culture due to the influence of abstract ideations of perceived norms, conduct, values that at the end deploy in behaviors well shared by a community. It was in the 1950s that researchers acknowledged the impact of organizational culture in the achievement of more sustainable and effective business results. Later in the 20th century sophisticated tools to measure organizational culture became popular not only in academia but in research, providing quantitative vision for empirical findings on culture impact. Two streams of organizational culture are present in the literature, the first regarding nations culture by Hofstede and the measurement of perceptions in terms of power distance, uncertainty avoidance, masculinity-femininity and individualism, each defining behaviors and expectations, and as pointed in various papers, if not well managed, having the capacity to result in mismanagement. The other stream is related to organizations regardless of the country of origin, acknowledging the fact that if there are smaller groups inside an organization, there are also subcultures. Some of the most reviewed researchers
in this sense are Schein, Denison, and Cooke, who provided frameworks to measure and review impact of organizational culture.

**Conclusion**

In terms of the appraisal of leadership, since there are multiple schools of thought to define it, this research will base its definition in the management and relationship theories, following the transactional and transformational leadership profiles as per Bass (1985) theoretical modeling. “A rise in interest in this positive form of leadership is due in part to mounting evidence supporting the role of positivity in enhancing human well-being and performance” as stated by Avolio (2010). A transformational leader then can be described as the one who build more than exchange relationship with their followers, they are able to engage the emotional involvement of their followers to build higher levels of identification, commitment, and trust in the leader and his or her mission (Bass et al., 2003). Both layers of the leadership style are robust and proven empirically to be differentiated and complementary.

The basis of transformational and transactional leadership theories is Bass’ (1985, 1988) research in which Bass described the transformational leaders as individuals who not only engaged in relationships with followers but also transform them. As stated by Jung and Avolio (2000), such leaders spark the emotional involvement of their followers to build higher levels of identification, commitment, and trust in the leader and the organizational mission. Transformational leaders have the extraordinary capacity of sharing a vision and prompting followers to align their personal values and interests with this vision. This type of leader probably is better equipped to cope with continuous business challenges and environments and thus, have better abilities to perform.
The transactional leader is more passive, getting involved only when a problem develops and focusing on the mistakes of their followers. Jung and Avolio (2000) defined the latter style as a contractual or exchange process between leaders and followers, in which this leader identifies specific followers’ expectations and provides rewards in exchange for performance. Although scholars suggest that transformational leaders have higher records of positive job performance, followers’ identification with the business unit, and business indicators such as sales or profit, the transactional profile perhaps has been diminished and confining to not positive behaviors. A combination of both profiles could propose an attempt to explain a more comprehensive leader that is able to inspire a vision while at the same time being able to manage tasks and short-term interventions with followers.

“For an organizational culture to become more transformational, top management must articulate the changes that are required” (Bass, 1999). “The most central issue for leaders is to understand the deeper levels of a culture, to assess the functionality of the assumptions made at that level, and to deal with the anxiety that is unleashed when those assumptions are challenged” (Schein, 2010, p. 34).

Finally, of utmost interest is to go deeper into the understanding of the Latin American leader and the different executions of organizational cultures, which is interesting to research amidst the richness of cultures and intensified economic development of the region. Of particular interest is the understanding of these leaders behaving in transnational firms, which have presence in multiple countries, coping with diversity in various fronts, countries, its sub-cultures, languages, evolving middle class and improvements in overall education.
Chapter 3: Method

This chapter described the methodology of the research method, the design, the proposal for the population and the sample. The purpose of this quantitative research was to identify the potential relationship among human perceived organizational effectiveness, with leadership style and organizational culture. The research design explained the research questions, sampling and validation of the measurement instrument.

Research Design

The knowledge platform used in this quantitative research was the post positivist paradigm. The dimensions of the study were confirmatory, basic research, design was cross-sectional because it measured one point in time, due to time and economic concerns from the researcher. The objective of this research was to define if there is a relationship between leadership styles and organizational culture, with organizational effectiveness. It was significant, because it provided empirical evidence about the best arrangement of leadership styles and organizational cultures that conveyed higher organizational effectiveness in Latin America transnationals.

It is important to explain the election of the quantitative approach for this research. Perhaps a key difference between culture concepts in general, with its anthropology background and organizational culture, was the foundation in terms of research methods. Studies around cultures were largely based on observation and qualitative methods which had enable the understanding of the evolution of different cultures around the world as a key driver for the development of the society and human kind preservation (Smircich, 1983). This trend, however turned towards empirical methods with quantitative data (Cooke & Szumal, 2000; Fey & Denison, 2003), to measure the relationship of different culture factors in business efficiency. Likewise, leadership moved from a merely
qualitative approach during the great man theory to quantitative embracement with the current frameworks of transformational and transactional leadership. Subject matter expert scholars have used this type of quantitative approach to measure leadership (Bass & Avolio, 1993; Howell & Avolio, 1993; Eppard, 2004).

There is a specific interest to conduct the research in Latin American transnational firms. According to Losada-Otálora and Casanova (2014), it is a key success factor for Latin America multinationals, to understand their ability to have competitive strategy as they expand internationally, by identifying natural markets advantage. The latter meaning that countries close to headquarters, might share similar culture, language and economy making it easier to compete. This would demand leaders capable of managing the culture variable to maximize success. This finding, placed a delimitation of the research in Spanish speaking countries, excluding for the population framework Brazil and the Caribbean English-French speaking islands. The research used Spanish-based surveys to collect information on the three variables of the theoretical framework, namely leadership styles and organizational culture as independent variables and organizational effectiveness as dependent variable.

**Appropriateness for Design**

The research was descriptive with quantitative paradigm and used two sets or questionnaires. To measure the independent variable leadership style, the research applied the MLQ (5x short) or Multi Leadership Questionnaire from Mind Garden©, based on the theoretical framework built by Avolio and Bass (2004). This framework is widely used both in academia and in business, and the authors are considered as subject matter experts in leadership. The MLQ (5x short) had been extensively used in a variety of regions, such as United States, Europe, Oceania, Singapore and South Africa, with reliabilities ranging
from .74 to .94. To measure the second independent variable, organizational culture, the research used the Organizational Culture Inventory (OCI©) from Human Synergistics, based on the research from Cooke and Lafferty (1994). The dependent variable organizational effectiveness was measured through questions from the OCI©, which resembled the employee perceptions of their satisfaction, role clarity and organization quality. Human Synergistics is a well reputed institute in the United States, who have hosted for more than 15 years organizational culture assessments for business and for academia. Szumal (2001) reported the reliability and validity of this survey after implementing a sample of 6,444 members and 1,080 organizational units.

Research Questions

RQ 1. Is there a relationship between transformational leadership style and organizational effectiveness?

RQ 2. Is there a relationship between transactional leadership style and organizational effectiveness?

RQ 3. Is there a relationship between organizational culture and organizational effectiveness?

RQ 4. Is there a relationship between transformational leadership style, organizational culture and organizational effectiveness?

RQ 5. Is there a relationship between transactional leadership style, organizational culture and organizational effectiveness?

These research questions will be validated through the following hypothesis:
H1. The transformational leadership style will have a positive effect on organizational effectiveness.

H2. The transactional leadership style will have a negative effect on organizational effectiveness.

H3. Constructive organizational culture will have a positive effect on organizational effectiveness.

H4. The transformational leadership style and the constructive organizational culture will have a positive impact in the organizational effectiveness.

H5. The transactional leadership style and the defensive organizational culture will have a negative impact in the organizational effectiveness.

Population

The target firms of the research were the Latin American Transnationals and the unit of analysis was the employee working at those firms. Target firms were expected to have headquarters in Latin American Spanish speaking countries and must operate in at least than two countries besides their home town, in order to research culture diversity in terms of nationality (Hofstede et al., 2010). With the objective of defining the sampling framework, two streams were conducted, one to determine the target firms and second the employees working there.

As far as Latin American Transnationals are concerned, in this region, there is not a unified entity that consolidates the information of the target population Latin America transnationals or multilatinas. Each country, according to the regulations, have different ways to identify and classify companies. Colombia, for instance, has official databases but having full access to these databases is costly and difficult, not affordable for by the
researcher. Colombia has a popular secondary source of information for company ranking, Publicaciones Semana (2015a, 2015b, 2016), *Ranking de Empresas*. In smaller countries, Costa Rica has the Cámara de Industrias de Costa Rica, CICR (2015), but there is not an obligation for the firms operating in this country to register, and thus, it is not exhaustive. The Panamá, Ministerio de Comercio e Industrias, Sedes de Empresas Multinacionales (2015) convey a detailed list of multinationals operating in the country, but similar to the Costa Rican case, it is not necessarily exhaustive. These three databases were condensed in an ad hoc database for the researcher, but was not useful to determine the multilatinas target, their size and the ranking. In conclusion, there is not a formal repository of multilatinas neither in individual countries nor regionally in Latin America.

A source with good reputation among businessmen is the America Economía multilatina ranking, which in the 2016 edition presented that the top 100 multilatinas. In fact, the top five multilatinas Mexichem, Cemex, Latam, Grupo JBS and Gruma, employ altogether 358,618 people and have sales for US$77.5 bn in 2015. The top three Colombian multilatinas Avianca-Taca, ISA and Grupo Sura hire 55,142 employees and reported sales of US$10.4 bn. The most important countries in this ranking are Brazil 30%, Mexico 26%, Chile 19%, Colombia 10%, Argentina 7% and Peru 5%.

The sample of the research was set in two parts. First the selection of the target firms and second the definition of number of employees in the sample. The target firms were selected by convenience of the researcher, due to geographical proximity in Colombia and Costa Rica and due to having key contacts in selected participants. To note, these companies, in time, had operations in other countries, not included in the two mentioned before, therefore providing more countries in the overall responses. The objective was to reach at least three different companies operating in different industries,
thus providing a more comprehensive framework of results in terms of industries and countries, for a more representative description of the Latin American transnational firm.

The second target population, the employees working in multilatinas, considered the fact that it is infinite above 10,000 sampling units. Participating employees were assigned by the Human Resources departments in each one of the three firms, defining their ability to understand the survey and the tools to fill it in, either a laptop, iPad or access to a computer terminal. These set the target to top manager down to analysts. Blue collar workers were not considered in the sample.

When the firms confirmed their participation and the respondents identified, employees received an email from Human Synergistics containing the two surveys, plus the control and demographic information. An informed consent was also sent and signed before starting the survey, ensuring confidentiality and anonymity. The data was collected by Human Synergistics and placed together in a database that was shared with the researcher. Human Synergistics placed a condition that the information should be shared with them for research purposes. Given that all the measurement instruments have proven reliability, a pilot test was not considered.

**Informed Consent**

All participants of the study, employees working in Latin American transnational corporations, received an informed consent, describing the purpose of the study, guaranteeing confidentiality and anonymity with the information they respond in the survey. The informed consent was placed at the beginning of the survey in web format, and the signature mode was a check into the space “accept terms and conditions”. In Appendix E is the template that was issued to the participants before answering the survey.
Sampling Frame

The unit of sampling was the employee working at a Latin American transnational. Given the fact that the employee needed to rate leadership, organizational culture and organizational effectiveness, the sampling was directed to administrative personnel, thus excluding plant or field operation workers.

The employees sampling analysis considered that the universe of employees in Latin America transnational firms which is >10,000, that with a confidence level of 95% and error of 5%, the sample resulted in 384 target surveys. Previous research on leadership and culture showed response rate of 90% (D’Alessio, 2008), 80% (Avolio et al., 2004) and 62% Walumbwa et al. (2010). The latter had multi-industry sampling and since this research considered three different companies in multiple countries, the researcher considered a lower response rate to estimate the total number of surveys. Estimating a response rate of 60%, then the research aimed for a total of 616 leads to reach at least the 384 surveys. The researcher asked the firms selected in the survey to include between 200-300 employees from top management to coordinator level. This target was carefully reviewed because over sampling carried additional costs for the researcher and thus the surveys released were controlled by the researcher and the HR department.

Confidentiality

Participants were informed through the informed consent template that the research preserved confidentiality, both in terms of the name and personal data of the participant. Individual results by participant or by company were not disclosed in the findings, nor was an assessment presented in the research for isolated performance. Confidentiality was also proposed to participating firms, in case they did not want to disclose their results with academia community, in which case, the name of the company would be omitted for the
final and public version. Please review in Appendix C the invitation letter for firms, in Appendix D the invitation letter for employees and in Appendix E the informed consent form.

**Geographic location**

The scope of the research included Latin America transnationals, with headquarters in Latin America Spanish Speaking countries and operating in the region. The researcher was a resident of Costa Rica, with Colombian nationality, and thus, due to researcher’s convenience, the target firms were contacted mainly in Costa Rica and Colombia. The researched companies Nutresa-Pozuelo, Sodimac and HL Ingenieros, reported results from Costa Rica, Panama, Guatemala, Nicaragua, El Salvador, Ecuador, Bolivia, Dominican Republic and Colombia.

**Instrumentation**

Given the geographic dispersion of the sample, the survey was administered on web platform and as presented in Appendix D, Human Synergistics hosted in their web based, both surveys the OCI© and the MLQ.

**Multifactor Leadership Questionnaire (MLQ) rater form 5x-short.** The following is the recommendation of the MLQ Manual from Avolio and Bass (2004). It is an individual 45 items appropriate for leader report. Each one describes a full range of leadership summarized in 12 factors, out of which nine describe the leader style and three the outcome. In terms of the style, there are five transformational factors, namely (1) attributed charisma, (2) idealized influence, (3) inspirational motivation, (4) intellectual stimulation and (5) individualized consideration. The three transactional leadership factors measured are (1) contingent reward, (2) management-by-exception active and (3) management-by-exception passive. The extra outcome factors are (1) extra effort, (2)
effectiveness and (3) satisfaction. The latter outcome factors were not considered in the theoretical framework because the organizational outcome was measured using the OCI©. Appendix A provides permission to use the MLQ by Mind Garden.

**Organizational Culture Inventory (OCI©).** This survey from Cooke and Lafferty (1994) and copyrighted by Human Synergistics was designed to measure the operational culture inside an organization, and consisted of 12 factors. The first four factors describe a constructive culture, and are identified as (1) achievement, (2) self-actualizing; (3) human encouraging and (4) affiliative. The next four factors describe a passive/defensive culture which are (1) approval, (2) conventional (3) dependent and (4) avoidance. The last four set of factors describe the aggressive/defensive style and are posited as (1) perfectionists, (2) competitive, (3) power, (4) oppositional.

To measure dependent variable organizational effectiveness, the OCI© measured four factors: (1) role clarity, (2) role conflict, (3) quality of service and, (4) employee satisfaction.

Appendix B indicates permission to use OCI©, with further confirmation of charges per the sampling model definition.

**Control and demographic variables.** Previous leadership and organizational culture quantitative research, have stated the use of control variables and demographic information (Avolio et al., 1999; Eppard, 2004), to measure dependent and independent variables differences. For demographic information, the survey included: (a) age, (b) gender, (c) education level, (d) tenure in the organization, (e) country of location, (f) hierarchical level, (g) work area.
Data Collection

At least 20 leads were sent to potential multilatinas, many of them did not answer and others replied that they already have measurements of the leadership and organizational behavior. The most efficient way to close the deal, was through personal contact of the researcher with upper management of the firms, to explain the survey, the intention of the research and to support the initiative as part of their social corporate vision. Appendix C shows a sample of this invitation.

When the firms accepted to participate, in exchange the researcher offered to share the database, the analytics of the results and an assessment upon the findings. The firm shared with the researcher a database with the employees chosen for the research. The sample was defined by the participating firm per the employee level, excluding blue collar workers. Once the database was defined by the firm, it was sent to Human Synergistics who sent altogether with the OCI© and MLQ to each participant. Human Synergistics have strong copyright policies and would not allow others to administer their surveys. They offered to host the MLQ, and Mind Garden accepted the proposal. The researcher confirmed Human Synergistics with the number of surveys to be issued, and they sent the invitation. As an example, please review Appendix D. An informed consent was sent prior to the survey to guarantee anonymity and confidentiality. The survey, altogether with the OCI© and MLQ© took about 40 minutes to fill in. Surveys were administered in Spanish, all had been tested in this language.

Data Analysis

When Human Synergistics returned the databases with the surveys filled, statistical analysis was performed using the SPSS specialized statistical software. The data was tested for normality, linearity and homoscedasticity, and review if transformations were needed.
Next, correlations were reviewed for the primary factors, leadership style, organizational culture and organizational effectiveness. The initial analysis was done with linear regression analysis which was used previously by D’Alessio (2004), and Avolio, Waldman, and Einstein (1988) in leadership quantitative research. Due to noncompliance with logistic regression conditions such as normality, the analysis was then turned to logistic regression, to test each one of the hypotheses.

**Summary**

With the objective of answering the research questions related to the relationship between leadership, organizational culture and organizational effectiveness in Latin American transnationals, this chapter described the used methodology, following a quantitative paradigm, deductive logic and cross-sectional design. The research took place in Latin American transnational firms and the sampling unit were the employee working in these firms.

The used instruments were the MLQ (Multi Leadership Questionnaire) from Avolio and Bass (2004) to measure the independent variable leadership, and the OCI© (Organizational Culture Inventory) from Cooke and Lafferty (1994) to measure the second independent variables organizational culture. To measure the dependent variable, organizational effectiveness, the survey that was implemented was also the OCI© measuring employee satisfaction, role clarity and service quality.

Following the information collection through the surveys, statistical software SPSS was used to analyze the information and its correlations per the hypotheses presented at the beginning of this chapter. Results of the analysis are described in chapter 4 and the conclusions and recommendations in chapter 5.
Chapter 4: Results

The purpose of this research was to find the relationship between leadership styles, organizational culture and organizational effectiveness, the latter as a proxy to organizational performance. The scope of the research was Latin America Multinationals or “multilatinas” as these types of firms emerged since the 1990’s after the Washington Consensus in response to market liberalization in Latin America prompting firms to increase competitiveness. Leadership embarks challenging characteristics among managers of these companies who need to cope with culture diversity, internationalization and most important of all, development of competitiveness in order to participate in similar terms with developed countries’ multinationals.

The research employed quantitative methods with proofed surveys from Human Synergistics and Mind Garden to measure organizational culture and organizational effectiveness with the instrument OCI© (organizational culture inventory) and leadership with the MLQ © (Multifactor leadership questionnaire).

The purpose of this chapter is to report the findings of the research, after the surveys were administered in three multilatinas, one in the food business, the second in the retail and the third in construction. The findings aimed to test a model to predict the organizational effectiveness due to leadership and culture.

The data collection process followed five main steps. First the election of the participating firms, second the assignment of the employees to be surveyed, third the survey implementation, fourth the issue of the survey result from Human Synergistics and last, the presentation of results to each one of the participant firms.

The election of the participating firms was done via direct contacts in multilatinas. About 20 companies were approached to invite them to participate in the survey. The
initial contact was either the CEO or the HR lead. These contacts were previously known by the researcher or referred by colleagues and Centrum Graduate Business Schools classmates. Massive invitations were not considered due to confidentiality concerns from the companies. About 20 leads where issued during the March 2016 and March 2017 period, resulting in three companies providing positive response.

The first company to accept participation was Pozuelo, a firm belonging to Nutresa, Colombian multilatina leader in the food industry. Nutresa is positioned in the America Economia multilatina ranking 2016 in the 45th place with sales of US$2,897 bn in 2015. Pozuelo is a subsidiary of Nutresa in Costa Rica and is leader of the cookie and crackers manufacturing industry. Pozuelo has a dominant market share in Central American countries, Costa Rica, Guatemala, Panama and Nicaragua. The first contact point to Pozuelo was the Managing Director who endorsed the initiative and delegated authority to the HR Manager. All the planning meetings were held with human resources in the March – June 2016 period, with schedules that included communication processes, list of participants and planned use of the results of the survey. The researcher offered to deploy the survey for free and in exchange offered a complete diagnostic of the leadership style and organizational culture of the firm.

Once the agreement was set with Pozuelo, the firm assigned a list of 300 employees to receive the survey in Costa Rica, Panama, Guatemala, Nicaragua and El Salvador. These employees were assigned in various departments and from the top management level down to analyst. The researcher and the firm agreed not to include blue collar workers nor in store demo staff due to probable low education level that may hinder their ability to understand the survey questions.

Before issuing the surveys to employees, the HR analyst, the IT analyst and the researcher received a pilot test that fulfilled two objectives, first to make sure the IT
department could ensure the survey did not fall into spam messages and second to review the appropriate translation of the questionnaire to Spanish. The pilot test confirmed both aspects and the survey was issued to employees in August 17, 2016 and was closed on October 7, 2016 to 301 employees.

After the surveys were closed, Human Synergistics sent the final report which consisted of a document with main results and an excel database with the answers of the 254 respondents of the OCI©/MLQ. Taking as base the MLQ and the OCI©, the response rate was 84.4%. With the results, the researcher presented the diagnostic of their organizational culture and their leadership style. A complete report was presented to the management team of Pozuelo in December 2016. The report included an explanation of the survey process, the demographics, the result of the findings and an assessment on how to address the gaps between the ideal culture and the found culture, and the leadership styles.

After the experience gained with the first firm, a similar path was followed in terms of logistics, HR arrangements and questionnaire issuing with the remainder two companies. As mentioned, the last two only implemented the OCI© and the MLQ.

The second company was HL Ingenieros. This is a construction firm with headquarters in Bogota - Colombia, who started operations 45 years ago, as a family owned company. Their main business scope are electromechanical large-scale projects for the cement, oil and gas and mining industries. Their main projects are related to civil engineering for oil and gas firms, operating internationally since the 90’s, besides Colombia, in Panama, Guatemala, Dominican Republic, Ecuador and Bolivia. As reported by Ediciones Semana – 1000 largest companies in Colombia 2016, HL Ingenieros reported operating income of US$65 million increasing 20.3% versus previous year. HR department appointed 154 employees to answer the survey across their different subsidiaries in Latin America, from their different work areas, administrative and engineering operations,
excluding blue collar workers. The survey was issued from May 29, 2017 to June 11, 2017. From 154 employees that received the survey, 122 answered it, which is a 79.2% response rate.

The third company researched was Sodimac Colombia. This is a leading retailer in the construction and home improvement sector in Latin America, with headquarters in Chile. International operations include Chile, Colombia, Peru, Argentina, Uruguay, Brazil, and Mexico. As per their financial reports, have sales of US$5.600 million and more than 1,700,000 of point of sale square meters. The multinational is an affiliate of the SACI Falabella group. Sodimac Colombia accepted the invitation to participate in the survey where 328 employees received the survey in the June 5, 2017 to July 7, 2017 period. Sodimac Colombia decided to launch the survey to the whole organization, including administrative and store employees, however stores sales staff were excluded, for a total of 328 employees. Finally, 226 employees responded the survey meaning a response rate of 68.9%. Adding up the three firms, the overall rate response of the 602 surveys was 76% which was above the target of 60% response rate and above the initial target of 384 effective responses.

Demographics

The final results of the surveyed employees from the three participating multilatinas, was 602 respondents, 254 from Pozuelo, 122 from HL Ingenieros and 226 from Sodimac. In terms of location countries, two of them lead the survey, Colombia with 318 and Costa Rica with 175. The total demographic structure can be detailed in
Table 1.
Table 1

*Demographics from respondents of the combined OCI© and MLQ surveys*

<table>
<thead>
<tr>
<th>Age</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-29 years old</td>
<td>89</td>
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<tr>
<td>30-39 years old</td>
<td>192</td>
<td>31.9</td>
</tr>
<tr>
<td>40-49 years old</td>
<td>257</td>
<td>42.7</td>
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<td>50-59 years old</td>
<td>49</td>
<td>8.1</td>
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<tr>
<td>60 years old or more</td>
<td>10</td>
<td>1.7</td>
</tr>
<tr>
<td>Prefers not to respond</td>
<td>5</td>
<td>0.8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Masculine</td>
<td>366</td>
<td>60.8</td>
</tr>
<tr>
<td>Feminine</td>
<td>213</td>
<td>35.4</td>
</tr>
<tr>
<td>Prefers not to respond – Missing</td>
<td>21</td>
<td>3.8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Education</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>High School</td>
<td>32</td>
<td>5.3</td>
</tr>
<tr>
<td>Some bachelor education</td>
<td>38</td>
<td>6.3</td>
</tr>
<tr>
<td>Technical</td>
<td>32</td>
<td>5.3</td>
</tr>
<tr>
<td>Bachelor degree</td>
<td>198</td>
<td>32.9</td>
</tr>
<tr>
<td>Graduate Degree</td>
<td>149</td>
<td>24.8</td>
</tr>
<tr>
<td>Master’s Degree</td>
<td>128</td>
<td>21.3</td>
</tr>
<tr>
<td>Doctorate</td>
<td>1</td>
<td>0.2</td>
</tr>
<tr>
<td>Other</td>
<td>7</td>
<td>1.2</td>
</tr>
<tr>
<td>Prefers not to respond – Missing</td>
<td>17</td>
<td>2.8</td>
</tr>
</tbody>
</table>

Continued →
### Years in the organization

<table>
<thead>
<tr>
<th>Duration</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 6 months</td>
<td>18</td>
<td>3.0</td>
</tr>
<tr>
<td>6 months to 1 year</td>
<td>34</td>
<td>5.6</td>
</tr>
<tr>
<td>1-2 years</td>
<td>49</td>
<td>8.1</td>
</tr>
<tr>
<td>2-4 years</td>
<td>94</td>
<td>15.6</td>
</tr>
<tr>
<td>4-6 years</td>
<td>88</td>
<td>14.6</td>
</tr>
<tr>
<td>6-10 years</td>
<td>103</td>
<td>17.1</td>
</tr>
<tr>
<td>10-15 years</td>
<td>114</td>
<td>18.9</td>
</tr>
<tr>
<td>More than 15 years</td>
<td>81</td>
<td>13.5</td>
</tr>
<tr>
<td>Prefers not to respond – Missing</td>
<td>21</td>
<td>3.5</td>
</tr>
</tbody>
</table>

### Location – Country

<table>
<thead>
<tr>
<th>Country</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Costa Rica</td>
<td>175</td>
<td>29.1</td>
</tr>
<tr>
<td>Guatemala</td>
<td>31</td>
<td>5.1</td>
</tr>
<tr>
<td>El Salvador</td>
<td>20</td>
<td>3.3</td>
</tr>
<tr>
<td>Panama</td>
<td>15</td>
<td>2.5</td>
</tr>
<tr>
<td>Nicaragua</td>
<td>14</td>
<td>2.3</td>
</tr>
<tr>
<td>Colombia</td>
<td>318</td>
<td>52.8</td>
</tr>
<tr>
<td>Bolivia</td>
<td>3</td>
<td>0.5</td>
</tr>
<tr>
<td>Ecuador</td>
<td>3</td>
<td>0.5</td>
</tr>
<tr>
<td>Dominican Republic</td>
<td>8</td>
<td>1.3</td>
</tr>
<tr>
<td>Prefers not to respond – Missing</td>
<td>15</td>
<td>2.5</td>
</tr>
</tbody>
</table>

Continued →
Continued →

<table>
<thead>
<tr>
<th>Business Area</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CEO – President</td>
<td>7</td>
<td>1.2</td>
</tr>
<tr>
<td>Operations – Logistics</td>
<td>259</td>
<td>43.0</td>
</tr>
<tr>
<td>Commercial</td>
<td>103</td>
<td>17.1</td>
</tr>
<tr>
<td>Human Resources</td>
<td>72</td>
<td>12.0</td>
</tr>
<tr>
<td>Finance</td>
<td>28</td>
<td>4.7</td>
</tr>
<tr>
<td>IT</td>
<td>10</td>
<td>1.7</td>
</tr>
<tr>
<td>Business Development</td>
<td>26</td>
<td>4.3</td>
</tr>
<tr>
<td>Administrative</td>
<td>16</td>
<td>2.7</td>
</tr>
<tr>
<td>Prefers not to respond –</td>
<td>81</td>
<td>13.5</td>
</tr>
<tr>
<td>Missing</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hierarchical level</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CEO - President</td>
<td>4</td>
<td>0.7</td>
</tr>
<tr>
<td>Director - Vicepresident</td>
<td>54</td>
<td>9.0</td>
</tr>
<tr>
<td>Area Manager</td>
<td>111</td>
<td>18.4</td>
</tr>
<tr>
<td>Coordinators – Specialists</td>
<td>316</td>
<td>52.5</td>
</tr>
<tr>
<td>Analyst – not managerial</td>
<td>71</td>
<td>11.8</td>
</tr>
<tr>
<td>Prefers not to respond –</td>
<td>46</td>
<td>7.6</td>
</tr>
<tr>
<td>Missing</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Data Descriptive Analysis**

Before implementing linear regression, variables were revised for normality, random, homoscedasticity collinearity and correlation. For normality, two instances were reviewed. First the normality of the dependent variable organizational effectiveness and second, the error distribution of the linear regression of the five hypotheses.
The initial revision, as presented in Table 2, showed that the dependent variable organizational effectiveness presented non-continual distribution, suggesting the need to implement transformation of this variable to be able to fulfill the assumptions of the regression models (Hair, Black, Babin, & Anderson, 2010).

Table 2

*Organizational effectiveness frequency table*

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Valid</th>
<th>Frequency</th>
<th>Valid</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.0</td>
<td>2.0</td>
<td>2.5</td>
<td>2.5</td>
</tr>
<tr>
<td>3.0</td>
<td>3.0</td>
<td>3.5</td>
<td>3.5</td>
</tr>
<tr>
<td>4.0</td>
<td>4.0</td>
<td>4.5</td>
<td>4.5</td>
</tr>
<tr>
<td>5.0</td>
<td>5.0</td>
<td>Total</td>
<td>602</td>
</tr>
</tbody>
</table>

As expected given the distribution of the target variable as non-continual, one of the main assumptions of the linear regression models, which is the normality in the residues, was not met. As can be seen in the
Table 3, the one sample Kolmogorov-Smirnov test for the errors of the distribution normality for the hypotheses, had in all instances a p-value <.05 indicating that the null hypotheses, residuals have normal distribution were all rejected.
Table 3

*Kolmogorov-Smirnov test for the errors distribution normality of the five hypotheses with linear regression*

<table>
<thead>
<tr>
<th>Null Hypothesis</th>
<th>Test</th>
<th>Sig.</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>The distribution of the standardized residual is normal with mean 0.0000 and a standard deviation 0.9999</td>
<td>One-sample Kolmogorov Smirnov Test</td>
<td>0.001 (^1)</td>
<td>Reject null hypothesis</td>
</tr>
<tr>
<td>The distribution of the standardized residual is normal with mean 0.0000 and a standard deviation 0.9999</td>
<td>One-sample Kolmogorov Smirnov Test</td>
<td>0.001 (^1)</td>
<td>Reject null hypothesis</td>
</tr>
<tr>
<td>The distribution of the standardized residual is normal with mean 0.0000 and a standard deviation 0.9999</td>
<td>One-sample Kolmogorov Smirnov Test</td>
<td>0.001 (^1)</td>
<td>Reject null hypothesis</td>
</tr>
<tr>
<td>The distribution of the standardized residual is normal with mean 0.0000 and a standard deviation 0.998</td>
<td>One-sample Kolmogorov Smirnov Test</td>
<td>0.001 (^1)</td>
<td>Reject null hypothesis</td>
</tr>
<tr>
<td>The distribution of the standardized residual is normal with mean 0.0000 and a standard deviation 0.998</td>
<td>One-sample Kolmogorov Smirnov Test</td>
<td>0.001 (^1)</td>
<td>Reject null hypothesis</td>
</tr>
</tbody>
</table>

\(^1\) Liliefors Corrected

Note. Asymptotic significances are displayed. The significance level is .05.

Per the above, it was determined that it was better to use a statistical model that considered the behavior of the distribution of the variable organizational effectiveness as non-normal. Poisson regression model was considered, approaching the integer values of the target variable where unlike the linear regression model, the normality assumption was fulfilled for all models. However, in the tested models an over dispersion in the residues was evidenced, as shown in Figure 2, with deviance residues and the predicted value for the Hypothesis 1. Considering these facts about the residues of both the linear and Poisson models, the researcher opted to reorient the analysis using the logistic regression model.
Logistic Regression

As recommended by Hair et al. (2010), logistic regression is recommended in the cases that normality of the dependent variable is not met and results can be measured as binary results. For the use of logistic regression then it was decided to group the target variable organizational effectiveness into 3 categories. The logic of the grouping considered three criteria regarding organizational effectiveness: 5- (equivalent to totally satisfied), 4- (equivalent to satisfied) and 3- (equivalent to just satisfied or less). Binary analysis considered score 3 as the base and scores 4 and 5 as the binary measures compared to the probability of attaining 3. In Table 4 is shown the distribution of the new target variable called Organizational Effectiveness.
Table 4

*Organizational effectiveness categories frequency table*

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>3</td>
<td>61</td>
<td>10.1</td>
<td>10.1</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>259</td>
<td>43.0</td>
<td>53.2</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>282</td>
<td>46.8</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>602</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

With this new transformed variable, the hypothesis testing was performed with logistic regression. To note, before running the logistic regression model, all hypotheses were tested for key assumptions required, randomness, correlation and multicollinearity. All the statistical analysis reported accomplishment of these criteria and with assumptions reviewed the following step of the statistical analysis was to check the five hypotheses.

**Hypothesis 1**

The first hypothesis stated that “the transformational leadership style will have a positive effect on organizational effectiveness”. Firstly, the dependent variable organizational effectiveness was analyzed in terms of the three categories. In Table 5 are shown the results of the case processing. To generate a model with greater predictive capacity in relation to the three categories of the model, random samples were worked for categories 4 and 5 corresponding to the approximate size of category 3, which is the smallest. Additionally, category 3 was chosen as the reference category for interpretations.
Table 5

Case processing summary for organizational effectiveness Hypothesis 1

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Marginal Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational Effectiveness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>61</td>
<td>36.3%</td>
</tr>
<tr>
<td>4</td>
<td>55</td>
<td>32.7%</td>
</tr>
<tr>
<td>5</td>
<td>52</td>
<td>31.0%</td>
</tr>
<tr>
<td>Valid</td>
<td>168</td>
<td>100.0%</td>
</tr>
<tr>
<td>Missing</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>168</td>
<td></td>
</tr>
<tr>
<td>Subpopulation</td>
<td>11</td>
<td></td>
</tr>
</tbody>
</table>

However, it should be clarified that the greatest use that was be made of the results of logistic regression models was to verify the research hypotheses by means of the significance and sign of the estimated coefficients. Therefore, the predictive use of the model was reviewed but at a second level of importance.

The model fitting information for Hypothesis 1, in Table 6 validates the overall fit of the model with p-value <.05, showing that there was statistical evidence of the overall model where transformational leadership was a factor that influenced organizational effectiveness at a significant level of 5%.

Table 6

Model fitting for logistic regression Hypothesis 1 – Likelihood ratio test

<table>
<thead>
<tr>
<th>Chi-Square</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>16.805</td>
<td>2</td>
<td>0.00</td>
</tr>
</tbody>
</table>
In terms of the goodness of fit results evidenced in the Person and Deviance statistics in Table 7, there is evidence of an acceptable logistic regression at a significant level above 5%.

Table 7

<table>
<thead>
<tr>
<th>Goodness of fit for logistic regression Hypothesis 1</th>
<th>Chi-Square</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson</td>
<td>20.167</td>
<td>18</td>
<td>0.324</td>
</tr>
<tr>
<td>Deviance</td>
<td>23.021</td>
<td>18</td>
<td>0.190</td>
</tr>
</tbody>
</table>

The former statistics of model adjustment were complemented with the Pseudo R square where the statistics Cox and Snell, Nagelkerke and McFadden presented acceptable values, as shown in Table 8. Also, when reviewing the Pseudo R-square the model provided evidence of low but acceptable level of adjustment.

Table 8

<table>
<thead>
<tr>
<th>Pseudo R-square for logistic regression Hypothesis 1</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cox and Snell</td>
<td>0.095</td>
</tr>
<tr>
<td>Nagelkerke</td>
<td>0.107</td>
</tr>
<tr>
<td>McFadden</td>
<td>0.046</td>
</tr>
</tbody>
</table>

After defining there was a statistical model and that there was acceptable adjustment, the likelihood ratio test analyzed the relationship of the specific variable transformational leadership at a level of 5%. Table 9 described that there is sufficient statistical evidence to verify that the independent variable transformational leadership explained the dependent variable organizational effectiveness.
Now that there was a statistical prove of the relationship of both variables the parameter estimates provide both the factors for the model and the direction of the influence. Table 10 indicated that transformational leadership provided a positive influence in organizational effectiveness, in both instances category 4 with B factor 0.266 and category 5 with B factor 0.824. The Exp(B) statistic indicated that for each point of incremental transformational leadership it had 2.27 more probability to attain category 5 of organizational effectiveness compared to category 3.

Table 10

<table>
<thead>
<tr>
<th>Organizational Effectiveness</th>
<th>B</th>
<th>Std. Error</th>
<th>Exp(B)</th>
<th>95% Confidence Interval for Exp(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>-0.791</td>
<td>0.616</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transformational leadership</td>
<td>0.266</td>
<td>0.223</td>
<td>1.304</td>
<td>0.843</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>-2.500</td>
<td>0.741</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transformational leadership</td>
<td>0.824</td>
<td>0.245</td>
<td>2.279</td>
<td>1.409</td>
</tr>
</tbody>
</table>

The logistic regression formula was as follows. For the probability to have a score of 5 in organizational effectiveness, \( \text{Log}_\text{nat} (-2.5 +0.824 \times \text{transformational leadership}) \).

For the probability to have a score of 4 in organizational effectiveness \( \text{Log}_\text{nat} (-0.791 +0.266 \times \text{transformational leadership}) \).
The prediction of the overall model as shown in Table 11 was an adjustment of 45.8% which had low predictability, indicating that there are other factors besides transformational leadership that explained organizational effectiveness. As per categories, the model had higher predictability for category 3 and 5.

Table 11

<table>
<thead>
<tr>
<th>Observed</th>
<th>Predicted</th>
<th>Percent Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>33</td>
<td>20</td>
</tr>
<tr>
<td>4</td>
<td>24</td>
<td>19</td>
</tr>
<tr>
<td>5</td>
<td>17</td>
<td>10</td>
</tr>
<tr>
<td>Overall</td>
<td>44.0%</td>
<td>29.2%</td>
</tr>
</tbody>
</table>

A final test was deployed to open the sub components of the transformational leadership array. The step model analysis showed that the characteristics that produce more variance on organizational effectiveness were inspirational motivation and idealized behaviors.

In conclusion, Hypothesis 1 “the transformational leadership style will have a positive effect on organizational effectiveness” was confirmed at a significant level of 5% however it was presumed that transformational leadership was not the unique explanatory factor for organizational effectiveness.

Hypothesis 2

In contrast to the first hypothesis, the second pretended to find the relationship with transactional leadership. “The transactional leadership style will have a negative effect on organizational effectiveness”. With similar approach to the data treatment of Hypothesis 1, the dependent variable organizational efficiency was measured in 3 categories, 3 for just
satisfied, 4 satisfied and 5 very satisfied. Random sampling was used to determine a smaller selection of category 4 and 5 answers.

Table 12

*Case processing summary for organizational effectiveness Hypothesis 2*

<table>
<thead>
<tr>
<th>Category</th>
<th>N</th>
<th>Marginal Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational Effectiveness 3</td>
<td>61</td>
<td>31.1%</td>
</tr>
<tr>
<td>Organizational Effectiveness 4</td>
<td>65</td>
<td>33.2%</td>
</tr>
<tr>
<td>Organizational Effectiveness 5</td>
<td>70</td>
<td>35.7%</td>
</tr>
<tr>
<td>Valid</td>
<td>196</td>
<td>100.0%</td>
</tr>
<tr>
<td>Missing</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>196</td>
<td></td>
</tr>
<tr>
<td>Subpopulation</td>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>

The model fitting criteria as presented in Table 13 proved the overall significance of the model at p-value <.05.

Table 13

*Model fitting for logistic regression Hypothesis 2 – likelihood ratio test*

<table>
<thead>
<tr>
<th>Model</th>
<th>Chi-Square</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final</td>
<td>25.497</td>
<td>2</td>
<td>0.000</td>
</tr>
</tbody>
</table>

The adjustment of the logistic regression model was acceptable as shown in Table 14 with goodness of fit statistics Pearson and Deviance both above 5% significance level.

Table 14

*Goodness of fit for logistic regression Hypothesis 2*

<table>
<thead>
<tr>
<th></th>
<th>Chi-Square</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson</td>
<td>17.406</td>
<td>16</td>
<td>0.360</td>
</tr>
<tr>
<td>Deviance</td>
<td>19.714</td>
<td>16</td>
<td>0.233</td>
</tr>
</tbody>
</table>
The goodness of fit model adjustment also confirmed with the Pseudo R-square in Table 15 with acceptable statistics.

Table 15

| Pseudo R-square for logistic regression Hypothesis 2 |
|-----------------------------|--------|
| Cox and Snell               | 0.122  |
| Nagelkerke                  | 0.137  |
| McFadden                    | 0.059  |

The influence of transactional leadership on organizational effectiveness was proved to be significant as is shown in Table 16 however the model still needed to determine if the influence was positive or negative.

Table 16

<table>
<thead>
<tr>
<th>Likelihood ratio test for logistic regression Hypothesis 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational Effectiveness</td>
</tr>
<tr>
<td>-----------------------------</td>
</tr>
<tr>
<td>Intercept</td>
</tr>
<tr>
<td>Transactional leadership</td>
</tr>
</tbody>
</table>

Transactional leadership styles had a positive effect on organizational effectiveness as is shown in Table 17, where B parameter both for categories 4 and 5 are positive. The hypothesis stated that the influence was negative, thus although there was a confirmed statistically proven relationship, the direction model shows that the relationship is positive, thus the null hypothesis is rejected. Against the expectations of Hypothesis 2, one point of transactional leadership had 3.235 more probability to attain category 5 with higher organizational effectiveness than category 3. In both categories, transactional leadership proved as positive influence on organizational effectiveness.
Table 17

Logistic regression parameter estimates for Hypothesis 2

<table>
<thead>
<tr>
<th>Organizational Effectiveness</th>
<th>B</th>
<th>Std. Error</th>
<th>Exp(B)</th>
<th>Exp(B) Lower Bound</th>
<th>Exp(B) Upper Bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>-1.843</td>
<td>0.803</td>
<td>0.803</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transactional Leadership</td>
<td>0.645</td>
<td>0.263</td>
<td>1.906</td>
<td>1.138</td>
<td>3.193</td>
</tr>
<tr>
<td>Intercept</td>
<td>-3.520</td>
<td>0.902</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transactional Leadership</td>
<td>1.174</td>
<td>0.282</td>
<td>3.235</td>
<td>1.860</td>
<td>5.626</td>
</tr>
</tbody>
</table>

The logistic regression formula would be as follows. For the probability to have a score of 5 in organizational effectiveness, due to transactional leadership was: \( \log_{\text{nat}} (-1.843 + 0.645 \times \text{transactional leadership}) \). For the probability to have a score of 4 in organizational effectiveness \( \log_{\text{nat}} (-3.520 + 1.174 \times \text{transactional leadership}) \).

The prediction model of the logistic regression with the independent variable transactional leadership influencing organizational behavior had an overall adjustment of 39.3% as evidenced in Table 18, which is low, meaning there were more factors explaining organizational effectiveness besides transactional leadership.

Table 18

Prediction rate of occurrence for Hypothesis 2

<table>
<thead>
<tr>
<th>Observed</th>
<th>Predicted</th>
<th>Percent Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>25</td>
<td>22</td>
</tr>
<tr>
<td>4</td>
<td>19</td>
<td>16</td>
</tr>
<tr>
<td>5</td>
<td>7</td>
<td>27</td>
</tr>
<tr>
<td>Overall Percentage</td>
<td>26.0%</td>
<td>33.2%</td>
</tr>
</tbody>
</table>
Transactional leadership in conclusion, appeared to influence organizational effectiveness and contrary to the original hypothesis with negative direction, it appeared positive. Thus Hypothesis 2 could not be confirmed.

**Hypothesis 3**

This Hypothesis 3 pretended to establish the effect of organizational culture in organizational effectiveness. “Constructive organizational culture will have a positive effect on organizational effectiveness”. Here again, the dependent variable organizational efficiency was measured in 3 categories, 3 for just satisfied, 4 satisfied and 5 very satisfied. As stated in Table 19, random sampling was used to determine a smaller selection of category 4 and 5 answers.

<table>
<thead>
<tr>
<th>Organizational Effectiveness Category</th>
<th>N</th>
<th>Marginal Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>61</td>
<td>33.5%</td>
</tr>
<tr>
<td>4</td>
<td>60</td>
<td>33.0%</td>
</tr>
<tr>
<td>5</td>
<td>61</td>
<td>33.5%</td>
</tr>
<tr>
<td>Valid</td>
<td>182</td>
<td>100.0%</td>
</tr>
<tr>
<td>Missing</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>182</td>
<td></td>
</tr>
<tr>
<td>Subpopulation</td>
<td>13</td>
<td></td>
</tr>
</tbody>
</table>

The model fitting criteria proved significance of the model at p-value <0.05 as is shown in Table 20. The model showed thus an overall significant relationship between the variables.
Table 20

*Model fitting and likelihood ratio test for logistic regression Hypothesis 3*

<table>
<thead>
<tr>
<th>Model</th>
<th>Chi-Square</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final</td>
<td>42.194</td>
<td>2</td>
<td>0.000</td>
</tr>
</tbody>
</table>

The adjustment of the model did not perform as good as the first two hypothesis with Goodness of fit lower than 5% in the Pearson and Deviance statistics, as reviewed in Table 21. The Pseudo R-square is at the minimum acceptable level in the 20% as per Table 22, so it is determined that the model has an acceptable minimal adjustment to pursue evaluating the model.

Table 21

*Goodness of fit for logistic regression Hypothesis 3*

<table>
<thead>
<tr>
<th></th>
<th>Chi-Square</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson</td>
<td>40.778</td>
<td>22</td>
<td>0.009</td>
</tr>
<tr>
<td>Deviance</td>
<td>36.496</td>
<td>22</td>
<td>0.027</td>
</tr>
</tbody>
</table>

Table 22

*Pseudo R-square for logistic regression Hypothesis 3*

<table>
<thead>
<tr>
<th>Pseudo R-square for logistic regression Hypothesis 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cox and Snell</td>
</tr>
<tr>
<td>Nagelkerke</td>
</tr>
<tr>
<td>McFadden</td>
</tr>
</tbody>
</table>

Referring now to the specific relation of the independent variable constructive culture, as seen in Table 23, the likelihood ratio test for the influence of constructive organizational culture in organizational effectiveness proved statistically significant with p-value <.05
Table 23

**Likelihood ratio test for logistic regression Hypothesis 3**

<table>
<thead>
<tr>
<th>Effect</th>
<th>Chi-Square</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>40.960</td>
<td>2</td>
<td>0.000</td>
</tr>
<tr>
<td>Constructive Culture</td>
<td>42.194</td>
<td>2</td>
<td>0.000</td>
</tr>
</tbody>
</table>

In order to determine the direction of the influence of the constructive culture, either positive or negative, the parameter estimated in Table 24 showed positive influence.

Table 24

**Logistic regression parameter estimates for Hypothesis 3**

<table>
<thead>
<tr>
<th>Organizational Effectiveness</th>
<th>B</th>
<th>Std. Error</th>
<th>Exp(B)</th>
<th>95% Confidence Interval for Exp(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower Bound</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>−3.611</td>
<td>1.432</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constructive Culture</td>
<td>0.936</td>
<td>0.365</td>
<td>2.549</td>
<td>1.247</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>−7.777</td>
<td>1.880</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constructive Culture</td>
<td>1.921</td>
<td>0.454</td>
<td>6.825</td>
<td>2.804</td>
</tr>
</tbody>
</table>

There was statistical evidence of a positive relationship between constructive culture and organizational effectiveness and thus there was no evidence to reject the null hypothesis.

The logistic regression formula for the probability to attain category 4 in organizational effectiveness was \( \text{Log}_\text{nat} \left(-3.611+0.936\times\text{constructive culture}\right) \). The logistic regression formula for the probability to attain category 5 was \( \text{Log}_\text{nat} \left(-7.777+1.921\times\text{constructive culture}\right) \).

The predictive capacity of this model proved overall at 54.9% as in Table 25, was higher than the first two hypothesis, but still showed that individually the constructive culture was not able to explain organizational effectiveness.
Table 25

*Prediction rate of occurrence for Hypothesis 3*

<table>
<thead>
<tr>
<th>Observed</th>
<th>Predicted</th>
<th>Percent Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>29</td>
<td>20</td>
</tr>
<tr>
<td>4</td>
<td>13</td>
<td>33</td>
</tr>
<tr>
<td>5</td>
<td>8</td>
<td>15</td>
</tr>
<tr>
<td>Overall Percentage</td>
<td>27.5%</td>
<td>37.4%</td>
</tr>
</tbody>
</table>

Constructive culture was proved in Hypothesis 3 to be a positive predictor of organizational effectiveness with significance at 5% and thus there was no evidence to reject the null hypothesis.

**Hypothesis 4**

The last two hypotheses pretended to find the relation of culture and leadership with organizational effectiveness. Hypothesis 4 stated: “the transformational leadership style and the constructive organizational culture will have a positive impact in the organizational effectiveness”.

Following same path as in previous hypothesis, the first transformation for the dependent variable organizational effectiveness was its establishment in categories 3, 4 and 5. Table 26 resembles the random sample assigned for categories 4 and 5.
Table 26

*Case processing summary for organizational effectiveness Hypothesis 4*

<table>
<thead>
<tr>
<th>Organizational Effectiveness Categories</th>
<th>N</th>
<th>Marginal Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>61</td>
<td>34.9%</td>
</tr>
<tr>
<td>4</td>
<td>55</td>
<td>31.4%</td>
</tr>
<tr>
<td>5</td>
<td>59</td>
<td>33.7%</td>
</tr>
<tr>
<td>Valid</td>
<td>175</td>
<td>100.0%</td>
</tr>
<tr>
<td>Missing</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>175</td>
<td></td>
</tr>
<tr>
<td>Subpopulation</td>
<td>57</td>
<td></td>
</tr>
</tbody>
</table>

The overall fit of the model proved statistical significance at p-value <0.05, as per Table 27, meaning that due to at least one variable there is a model with significant relationship with organizational effectiveness, which was previously confirmed in Hypothesis 1 and 3.

Table 27

*Model fitting and likelihood ratio test for logistic regression Hypothesis 4*

<table>
<thead>
<tr>
<th>Model</th>
<th>Chi-Square</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept Only</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Final</td>
<td>79.127</td>
<td>4</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Confirming there was an existent model, its adjustment proved to be acceptable through the goodness of fit and Pseudo R-square. Goodness of fit as explained in Table 28 shows that the statistics Pearson and Deviance had a significance above 5%.
Table 28

*Goodness of fit for logistic regression Hypothesis 4*

<table>
<thead>
<tr>
<th></th>
<th>Chi-Square</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson</td>
<td>91.838</td>
<td>108</td>
<td>0.867</td>
</tr>
<tr>
<td>Deviance</td>
<td>96.273</td>
<td>108</td>
<td>0.783</td>
</tr>
</tbody>
</table>

In complement, Table 29 provided data of the adjustment statistics in the 20%-40% range also confirming acceptable model adjustment.

Table 29

*Pseudo R-square for logistic regression Hypothesis 4*

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cox and Snell</td>
<td>0.364</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nagelkerke</td>
<td>0.409</td>
<td></td>
<td></td>
</tr>
<tr>
<td>McFadden</td>
<td>0.206</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

After finding the overall model adjustment, to determine if transformational leadership and constructive culture influenced organizational effectiveness, the likelihood ratio test was performed with results showing in Table 30. It was confirmed with statistical significance at 5% that the two independent variables had influence on the dependent one.

Table 30

*Likelihood ratio test for logistic regression Hypothesis 4*

<table>
<thead>
<tr>
<th>Organization effectiveness</th>
<th>Chi-Square</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>77.502</td>
<td>2</td>
<td>0.000</td>
</tr>
<tr>
<td>Transformational Leadership</td>
<td>6.820</td>
<td>2</td>
<td>0.033</td>
</tr>
<tr>
<td>Constructive culture</td>
<td>63.829</td>
<td>2</td>
<td>0.000</td>
</tr>
</tbody>
</table>
To determine if the influence was positive or negative and the parameters for the logistic regression formula, Table 31 shows that both models predicted the organizational effectiveness in the assigned category in positive direction.

Table 31

*Logistic regression parameter estimates for Hypothesis 4*

<table>
<thead>
<tr>
<th>Organizational Effectiveness</th>
<th>B</th>
<th>Std. Error</th>
<th>Exp(B)</th>
<th>95% Confidence Interval for Exp(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower Bound</td>
</tr>
<tr>
<td>Intercept</td>
<td>−5.192</td>
<td>1.334</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Transformational leadership</td>
<td>0.274</td>
<td>0.220</td>
<td>1.315</td>
<td>0.855</td>
</tr>
<tr>
<td>Constructive culture</td>
<td>1.135</td>
<td>0.310</td>
<td>3.113</td>
<td>1.696</td>
</tr>
<tr>
<td>Intercept</td>
<td>−14.121</td>
<td>2.031</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Transformational leadership</td>
<td>0.674</td>
<td>0.254</td>
<td>1.963</td>
<td>1.194</td>
</tr>
<tr>
<td>Constructive culture</td>
<td>2.928</td>
<td>0.441</td>
<td>18.697</td>
<td>7.874</td>
</tr>
</tbody>
</table>

The statistic Exp(b) for the constructive culture in category 5 showed that for each point of constructive culture there were 18.67 times more probability to attain category 5 compared to probability to get category 3, being this independent variable the highest so far in influencing organizational effectiveness. No statistical evidence was found to reject the null hypothesis; thus, the relationship was confirmed positive and significant. There was a major influence of the constructive culture over the organizational effectiveness than the transformational leadership style. The logistic regression formula for the probability to obtain a category 4 in organizational effectiveness, was \( \text{Log}_n (-5.192 + 0.274 \times \text{transformational leadership} + 1.135 \times \text{constructive culture}) \). For the probability to obtain category 5, the logistic regression formula was \( \text{Log}_n (-14.121 + 0.674 \times \text{transformational leadership} + 2.928 \times \text{constructive culture}) \).
With more variables in the model, transformational leaderships and constructive culture, the predictability of the model improved to 60% as indicated in Table 32, with categories 3 and five also with probability above 60% to be attained through the model.

Table 32

*Prediction rate of occurrence for Hypothesis 4*

<table>
<thead>
<tr>
<th>Observed</th>
<th>Predicted</th>
<th>Percent Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>38</td>
<td>16</td>
</tr>
<tr>
<td>4</td>
<td>17</td>
<td>26</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>13</td>
</tr>
<tr>
<td>Overall Percentage</td>
<td>34.3%</td>
<td>31.4%</td>
</tr>
</tbody>
</table>

Constructive culture appeared as a strong variable in the statistical analysis which altogether with transformational leadership confirmed a positive influence over organizational effectiveness, thus confirming Hypothesis 4.

**Hypothesis 5**

In contrast with the latter, this hypothesis tested the transactional leadership style with defensive culture in order to determine the effect on organizational effectiveness. “The transactional leadership style and the defensive organizational culture will have a negative impact in the organizational effectiveness”. Since defensive culture was composed of two clusters, the aggressive defensive and the passive defensive and the transactional leadership contingent reward and transactional leadership management by exception, all were entered in the model to review their influence in organizational effectiveness.
For this last hypothesis, Table 33 provided information on the transformation for the dependent variable organizational effectiveness in categories 3, 4 and 5.

Table 33

*Case Processing Summary*

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Marginal Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>61</td>
<td>36.3%</td>
</tr>
<tr>
<td>Organizational Effectiveness 4</td>
<td>61</td>
<td>36.3%</td>
</tr>
<tr>
<td>5</td>
<td>46</td>
<td>27.4%</td>
</tr>
<tr>
<td>Valid</td>
<td>168</td>
<td>100.0%</td>
</tr>
<tr>
<td>Missing</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>168</td>
<td></td>
</tr>
<tr>
<td>Subpopulation</td>
<td>168</td>
<td></td>
</tr>
</tbody>
</table>

The step model analysis shown in Table 34 proved that all sub-variables had statistical significance on organizational effectiveness, also proven in the likelihood ratio test in Table 35.

Table 34

*Step model for Hypothesis 5*

<table>
<thead>
<tr>
<th>Model</th>
<th>Action</th>
<th>Effect(s)</th>
<th>Chi-Square</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 0</td>
<td>0</td>
<td>Intercept</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 1</td>
<td>1</td>
<td>Transactional contingent Reward</td>
<td>36.447</td>
<td>2</td>
<td>0.000</td>
</tr>
<tr>
<td>Step 2</td>
<td>2</td>
<td>Passive Aggressive culture</td>
<td>17.028</td>
<td>2</td>
<td>0.000</td>
</tr>
<tr>
<td>Step 3</td>
<td>3</td>
<td>Transactional management by exception</td>
<td>7.668</td>
<td>2</td>
<td>0.022</td>
</tr>
<tr>
<td>Step 4</td>
<td>4</td>
<td>Aggressive Defensive culture</td>
<td>9.790</td>
<td>2</td>
<td>0.007</td>
</tr>
</tbody>
</table>
Table 35

*Model fitting and likelihood ratio test for logistic regression Hypothesis 5*

<table>
<thead>
<tr>
<th>Model</th>
<th>Likelihood Ratio Tests</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Chi-Square</td>
</tr>
<tr>
<td>Intercept Only</td>
<td></td>
</tr>
<tr>
<td>Final</td>
<td>75.836</td>
</tr>
</tbody>
</table>

The goodness of fit in Table 36 showed above 5% for Deviance but <5% for Person, but the Pseudo R-square in Table 37 statistics proved acceptable adjustment of the model.

Table 36

*Goodness of fit Hypothesis 5*

<table>
<thead>
<tr>
<th></th>
<th>Chi-Square</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson</td>
<td>389.979</td>
<td>326</td>
<td>0.009</td>
</tr>
<tr>
<td>Deviance</td>
<td>290.528</td>
<td>326</td>
<td>0.922</td>
</tr>
</tbody>
</table>

Table 37

*Pseudo R-square for Hypothesis 5*

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cox and Snell</td>
<td>0.363</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nagelkerke</td>
<td>0.410</td>
<td></td>
<td></td>
</tr>
<tr>
<td>McFadden</td>
<td>0.207</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

When reviewing individual variables and their significance, the likelihood ratio test in Table 38 indicated that the four variables were significant at 5% showing all of them are significant in explaining organizational effectiveness.
Table 38

Likelihood ratio test for Hypothesis 5

<table>
<thead>
<tr>
<th>Effect</th>
<th>Chi-Square</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>11.956</td>
<td>2</td>
<td>0.003</td>
</tr>
<tr>
<td>Aggressive Defensive culture</td>
<td>10.043</td>
<td>2</td>
<td>0.007</td>
</tr>
<tr>
<td>Passive Aggressive culture</td>
<td>17.127</td>
<td>2</td>
<td>0.000</td>
</tr>
<tr>
<td>Transactional contingent Reward</td>
<td>41.345</td>
<td>2</td>
<td>0.000</td>
</tr>
<tr>
<td>Transactional management by exception</td>
<td>10.208</td>
<td>2</td>
<td>0.006</td>
</tr>
</tbody>
</table>

With the fact that there is a significant relationship between the variables, Table 39 showed the individual influence on organizational effectiveness, where there was negative direction with passive defensive style in both category 4 and 5, but in the case of aggressive defensive it resulted negative in category 4 and positive in category 5. This could mean that people less satisfied with the organizational effectiveness are more influential of the aggressive culture, while more satisfied people consider a little bit of aggressiveness as positive to attain better results. The parameter estimates also revealed that the transactional leadership contingent reward style is positive while the management by exception did not convey positive results.
Table 39

*Logistic regression parameter estimates for Hypothesis 5*

<table>
<thead>
<tr>
<th>Organizational Effectiveness</th>
<th>B</th>
<th>Std. Error</th>
<th>Exp(B)</th>
<th>95% Confidence Interval for Exp(B)</th>
<th>Lower Bound</th>
<th>Upper Bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>−0.378</td>
<td>0.853</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aggressive defensive culture</td>
<td>−0.125</td>
<td>0.257</td>
<td>0.882</td>
<td>0.533</td>
<td></td>
<td>1.462</td>
</tr>
<tr>
<td>Passive defensive culture</td>
<td>−0.857</td>
<td>0.271</td>
<td>0.425</td>
<td>0.250</td>
<td></td>
<td>0.722</td>
</tr>
<tr>
<td>Transactional contingent reward</td>
<td>0.941</td>
<td>0.224</td>
<td>2.563</td>
<td>1.653</td>
<td></td>
<td>3.973</td>
</tr>
<tr>
<td>Transactional management by exception</td>
<td>−0.222</td>
<td>0.193</td>
<td>0.801</td>
<td>0.548</td>
<td></td>
<td>1.170</td>
</tr>
<tr>
<td>Intercept</td>
<td>−3.795</td>
<td>1.157</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aggressive defensive culture</td>
<td>0.697</td>
<td>0.298</td>
<td>2.007</td>
<td>1.119</td>
<td></td>
<td>3.600</td>
</tr>
<tr>
<td>Passive defensive culture</td>
<td>−1.224</td>
<td>0.324</td>
<td>0.294</td>
<td>0.156</td>
<td></td>
<td>0.555</td>
</tr>
<tr>
<td>Transactional contingent reward</td>
<td>1.674</td>
<td>0.305</td>
<td>5.334</td>
<td>2.934</td>
<td></td>
<td>9.695</td>
</tr>
<tr>
<td>Transactional management by exception</td>
<td>−0.707</td>
<td>0.227</td>
<td>0.493</td>
<td>0.316</td>
<td></td>
<td>0.769</td>
</tr>
</tbody>
</table>

With the finding that transactional leadership proved to have a positive effect on organizational effectiveness when was contingent and that the passive-defensive culture proved negative, there was enough statistical evidence to reject the null hypothesis. It cannot be said that the transactional leadership together with defensive culture had a negative effect on organizational effectiveness. The formula of this model for Hypothesis 5, for the probability to attain category 4 was: \( \log_n (-3.78 - 0.125 \times \text{aggressive defensive} - 0.857 \times \text{passive defensive} + 0.941 \times \text{transactional contingent reward} - 0.222 \times \text{transactional management by exception}) \). For the probability to obtain category 5, the logistic regression formula was \( \log_n (-14.121 + 0.674 \times \text{transactional leadership} + 2.928 \times \text{constructive culture}) \).
The predictability of the model provided in Table 40 indicated 59% which is similar to the model shown in Hypothesis 4 with constructive culture and transformational leadership. Both models however are different since each had different variables. Thus, more analysis was necessary to determine the combination of variables to attain better organizational effectiveness.

Table 40

*Prediction rate of occurrence for Hypothesis 5*

<table>
<thead>
<tr>
<th>Observed</th>
<th>Predicted</th>
<th>Percent Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>44</td>
<td>11</td>
</tr>
<tr>
<td>4</td>
<td>15</td>
<td>33</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
<td>17</td>
</tr>
<tr>
<td>Overall Percentage</td>
<td>38.7%</td>
<td>36.3%</td>
</tr>
</tbody>
</table>

**Multivariate analysis**

With previous results concluding that transformational leadership was not as strong as constructive culture, that the transactional leadership did not prove to be negative in all instances on organizational effectiveness, and that the aggressive-defensive culture could be accepted in persons with more satisfaction, it was necessary to conduct a reviewed statistical model to predict the organizational effectiveness due to leadership and culture. The researcher proved a multivariate analysis to determine the relationship of all the sub components of each one of the independent variables. For leadership, transformational leadership and transactional leadership and for culture, constructive, aggressive-defensive and passive-defensive. The analysis maintained the rationale of the logistic regression with three categories to estimate the probability of occurrence of each one of them due to the
combination of the sub categories. Table 41 provided the random sample selected for categories 4 and 5 to match the sample of category 3.

Table 41

**Case processing summary for organizational effectiveness multivariate analysis**

<table>
<thead>
<tr>
<th>Organizational effectiveness categories</th>
<th>N</th>
<th>Marginal Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>61</td>
<td>33.0%</td>
</tr>
<tr>
<td>4</td>
<td>61</td>
<td>33.0%</td>
</tr>
<tr>
<td>5</td>
<td>63</td>
<td>34.1%</td>
</tr>
<tr>
<td>Valid</td>
<td>185</td>
<td>100.0%</td>
</tr>
<tr>
<td>Missing</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>185</td>
<td></td>
</tr>
<tr>
<td>Subpopulation</td>
<td>178</td>
<td></td>
</tr>
</tbody>
</table>

The step model analysis performed for the five variables, in Table 42 indicated significance influence on organizational factor for transformational leadership and for constructive culture, which was very similar to the Hypothesis 4 findings, resulting in the highest predictability of 60%. Thus, no further analysis was conducted.

Table 42

**Step summary for multivariate analysis – effect selection test**

<table>
<thead>
<tr>
<th>Model</th>
<th>Action</th>
<th>Effect(s)</th>
<th>Chi-Square</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 0</td>
<td>0</td>
<td>Entered</td>
<td>Intercept</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 1</td>
<td>1</td>
<td>Entered</td>
<td>Constructive culture</td>
<td>55.404</td>
<td>2</td>
</tr>
<tr>
<td>Step 2</td>
<td>2</td>
<td>Entered</td>
<td>Transformational leadership</td>
<td>11.395</td>
<td>2</td>
</tr>
</tbody>
</table>
Main findings by demographic segmentation – hierarchical level

To compare media results of dependent and independent variables, the hypothesis test of Kruskal-Wallis was performed. This is the alternative ANOVA for non-parametric model. All demographic levels were tested, finding significant differences at 5% in two groups: country and hierarchical level.

Colombia showed a significant difference in transactional and transformational leadership, compared to Costa Rica, El Salvador, Guatemala, Nicaragua and Panama. This is aligned with the same significance in Sodimac, compared to HL Ingenieros and Pozuelo, because all the sample of Sodimac was in Colombia.

In terms of the hierarchical level, as reviewed in Table 43, transformational leadership had lower rating followers, meaning positions below General Manager and Director, with statistical significance. Aligned with this result, general management believes there is less transactional leadership than what is perceived by their reports.

Table 43

Kruskal-Wallis analysis of significant variances by hierarchical level

<table>
<thead>
<tr>
<th></th>
<th>Analyst/ not managerial</th>
<th>Area Manager</th>
<th>Coordinators/ Specialists</th>
<th>Director/ Vicepresident</th>
<th>General Manager/ President</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passive defensive culture</td>
<td>(A)</td>
<td>B</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constructive Culture</td>
<td></td>
<td>A</td>
<td>A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aggressive defensive culture</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transformational leadership</td>
<td>E</td>
<td>D E</td>
<td>A B D E</td>
<td>E</td>
<td></td>
</tr>
<tr>
<td>Transactional leadership</td>
<td>D E</td>
<td>D E</td>
<td>D E</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organizational Effectiveness</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>A</td>
</tr>
</tbody>
</table>
There seemed to be a dichotomy in the belief of the upper level management and the direct reports, in both cases leaders believed things were better than what their followers did.

**Summary**

The objective of the research was to find the effect of culture and leadership on organizational effectiveness. The linear regression models did not prove correct for the model due to non-normal distribution of the organizational effectiveness variable, which led to logistic regression for better adjustment. All hypotheses were tested with the transformed variable organizational effectiveness in three categories, 5- (equivalent to totally satisfied), 4- (equivalent to satisfied) and 3- (equivalent to just satisfied or less).

Hypothesis 1, “transformational leadership will have a positive impact in organizational effectiveness” was confirmed, albeit with a low prediction rate of 45.8% confirming there are other variables that explain organizational effectiveness. Hypothesis 2 “transactional leadership will have a negative impact in organizational effectiveness” was not confirmed, because although there was a significant relationship at 5% it was positive and not negative as supposed. Hypothesis 3, “constructive culture will have a positive impact in organizational effectiveness” was confirmed, and showed the power of this independent variable, which exposed the highest Exp(B) factor in all models with 18 incremental probability to obtain a score of 5 versus a score of 3 in organizational effectiveness all due to constructive culture. Hypothesis 4 “constructive culture and transformational leadership will have a positive influence in organizational behavior” was confirmed, both due to direction of the influence and due to the significance at 5%. The sub model attained with these variables showed a predictive ratio of 60% being the strongest among all variables. For Hypothesis 5 “transactional leadership and aggressive culture will have negative
impact in organizational effectiveness” the leadership and culture variables were analyzed into its individual components, transactional contingent reward and transactional management by exception for leadership, and aggressive-defensive and passive defensive for culture. The four variables were considered into the logistic regression showing through the model fitting and likelihood ratio test that there existed a statistically significant relationship. However, not all variables were negative impacting culture. Transactional contingent reward showed significant and positive effect on organizational leadership for categories 4 and 5. Passive-aggressive cultural style resulted positive in the probability to attain category 5 but negative in category 4. Transactional management by exception and passive defensive culture proved negative in all instances. With the myriad of results of Hypothesis 5, the null hypothesis was rejected and the hypothesis could not be sustained.

The best model after analyzing combination of the variables, resulted the ones shown in Hypothesis 4, constructive culture and transformational leadership with a predictive capacity of 60%, meaning there are other factors different from culture and leadership that influence organizational behavior. Noteworthy that transactional leadership is a positive factor for organizational leadership and was not seen as negative influence.
Chapter 5: Conclusions and Recommendations

Multilatinas or multinational firms with headquarters originated in Latin America is a growing phenomenon where incumbents showed growth above global multinationals by the beginning of the 21st century until 2013, however the economic downturn after the oil price drop put them in a challenging situation with lower growth (ECLAC, 2013). This situation enhanced the importance of leadership and culture to cope with economic challenges and people uncertainty. Former studies on culture and leadership were performed mostly in developed countries, but few in developing regions such as Latin America. The purpose of this research was to find the relationship between leadership and culture with organizational effectiveness, in order to provide multilatinas and leadership scholars with management findings about the most effective combination of culture and leadership that would conduct to better business outcome. The research was done with the positivist paradigm with quantitative research tools that have shown positive results in previous studies, because these provide specific action items to modulate leadership, culture and effectiveness. Two well recognized questionnaires were used, the MLQ (Multilevel Leadership Questionnaire) from Bass and Avolio (1993) and the OCI© (Organizational Culture Inventory) from Cooke and Laferty (1994). The MLQ measured independent variable leadership style, the OCI© measured the independent variable organizational culture and the dependent variable organizational effectiveness. Three multilatinas were surveyed, Pozuelo from Nutresa, Sodimac and HL Ingenieros, with a total of 602 respondents who answered in a web base platform administered by Human Synergistics.

Given the fact that the measurement of leadership and employee performance is subjective, there could be a bias in the true intention in the rating of the leadership style, in
the perception of the organizational culture and the organizational effectiveness. Due to the length of the questionnaire, it was not possible to separate two different versions, one for leader and one for followers. The survey rated the leadership style as an overall construct, and thus, there was not an identification of the style of the leader, but an overall assessment of the firm leadership style.

This chapter illustrated the conclusions of the quantitative research of the leadership style and organizational culture in multilatinas, providing ample insights on the effects of these variables in employees’ organizational effectiveness beliefs. Conclusions not only drew findings of leadership and culture in Latin America, but also the implications for talent development, to ensure CEO’s, directors and managers exhibit specific behaviors and skills to support international expansion. With the novelty of the research findings, implications are also valuable for the research community in the leadership, organizational culture, multilatinas and EMNEs topics. Finally, in this chapter were portrayed recommendations for leaders holding influencing positions in multilatinas, advice for future researchers in similar topics as well as proposed new questions that were not answered in the scope of the present study.

Conclusions

This dissertation answered the following questions: Is there a relationship between transformational leadership style and organizational effectiveness? Is there a relationship between transactional leadership style and organizational effectiveness? Is there a relationship between organizational culture and organizational effectiveness? Is there a relationship between transformational leadership style, organizational culture and organizational effectiveness? Is there a relationship between transactional leadership style,
organizational culture and organizational effectiveness? The conclusions of the study are the following:

**Transformational and transactional styles in symbiosis for optimal effectiveness.** This study proved that the first research question, the effect of the transformational leader in organizational culture was positive and significant but could not support the second question, the transactional leadership negatively affecting the organizational culture. Evidence proved that employees with high scores of organizational effectiveness embraced both profiles.

For the transformational leadership style, the traits better perceived were the inspirational motivation and the idealized behaviors. This finding concludes that in Latin America multinationals, employees grant importance to the charisma of a leader combined with solid integrity and ethical behavior. As explained in previous research (Bass & Avolio, 1993), the transformational leader can share a vision among followers, has an impactful strategic orientation and is able to convey masses with individual commitment towards a business objective. In multilatinas this characteristic is important to lead employees to exert superior performance in midst of changing environments, adapt new cultures, expose cosmopolitan behaviors, entrepreneurism and with the resilience to adapt to other country business settings (Yeganeh, 2016). Transformational leadership by itself was significant but was only able to explain 45% of the variation of organizational effectiveness, concluding that this only characteristic was not enough to produce high levels of effectiveness and that this should be accompanied by other variables.

Contrary to what the initial hypothesis stated about a negative impact of the transactional leadership style into organizational effectiveness, evidence in this study proved otherwise, indicating that it is significantly and positively correlated with effectiveness. It was concluded that the part of the transactional leadership that exercised
largest and positive influence in effectiveness was the contingent reward. It was especially influential in Colombia where there is appreciation for power distance (Hofstede et al., 2010) and the fact that a leader is specific in the rules, the rewards, the way of implementing expected tasks is interpreted as good leadership. The management by exception profile, which is the leader that only shows up when there is trouble, did not even prove to be significant in the effectiveness variable.

In terms of the demographic variables, the leadership score, did not show significant differences by age nor by gender. There were however, significant differences in leadership style appreciation per country of origin and per organization hierarchy. The Colombians provided higher scores for both transformational and transactional, compared to Costa Rica, El Salvador, Guatemala, Nicaragua and Panama. Middle management believes that there are higher scores of transformational and transactional, compared to what CEO’s and Vice-presidents believe, concluding that as managers get more separated from lower hierarchical levels, their beliefs about leadership get distorted, believing they are doing either too good –there is not such a transactional leadership– or too bad –we still need to go further on transformational leadership–.

The Latin American leader, heroic and effective. Both traits of the leadership framework from Bass and Avolio (1993), the transformational and the transactional were positively rated among Latin America employees. Similar findings of the conjunction of the transformational – transactional leader was presented by Prasad and Junni (2016) where a research on the influence of the CEO in the organizational innovation proved that a combination of both characteristics was positively and significantly correlated with innovation. The transformational leadership posed the visionary communication of the corporate strategy while the transactional determined the detailed managerial practices expected to convert initiatives in innovation. For the Latin American case, this finding
concludes that there seems to be an ambiguous expectation of the leader: the one who proposes a vision and entails individuals to have initiative, but at the same time the urge to have a detailed managerial direction on how things should be done, the framework of the relationship to get reward/punishment. This finding concludes that the Latin American business leader is admired and effective, somewhat feared, which is a profile that looks somehow contradictory, because if the transformational leader delegates and empowers how is it that followers demand that transactional leader provide detailed direction, place the task prior to the person and command rules about rewards? Conclusion from the research shows that this ambiguity was positively rated to ensure business goals are attained with committed employees.

Transformational leadership traits showing the highest influence were inspirational motivation and idealized behavior, both indicating aspirational personality still resembling the XX century leader that was considered powerful not for their interaction with followers but for their heroic halo. Results concluded that leaders that develop others’ intellectual capacity, incentive career conversations and scarify own needs to satisfy the group did not produce higher levels of satisfaction nor admiration. It is possible that followers want leaders with an admirable personality and high ethics rather than a “down to earth” person that cares for the individuals and delegates indiscriminately.

In parallel, the transactional leader was not regarded as a negative influence but rather proved as a positive for organizational effectiveness. The conclusion about the positive rating of the contingent reward profile shows that a leader that has a constant presence providing clear direction is expected rather than the leader than only shows up when there are problems. The effective leader that provides specific guidance in terms of the job to be done seems to be better appreciated than the leader that entails individual engagement, getting “too personal”. Followers prefer strong and idealistic personalities
that tell exactly what to do, giving employees a sense of security of a leader responsible, knowledgeable and with high standards.

In opposition to the contingent reward profile, the study concluded that the management by exception active-passive was not a significant driver of organizational effectiveness. This finding shows that a manager that is not close to direct reports does not influence at all in the effectiveness of an organization. This behavior received a low score under 3 in the likert scale, indicating that this type of leader is not present in the three organizations researched.

The combination of a heroic-ethical figure with strong direction style forms the ideal of the Latin American leader. The emphasis to transactional leadership might be associated with the power distance demonstrated in various countries of the Latin American culture, where the leader is expected to be a strong authority, and far from being perceived as a tyrant, is understood as a person that unquestionably can move entire crowds and thus is trustable. In conclusion, the successful multilatina leader is a transformational-transactional leader whose guidance is expected and accepted, because comes from individuals that create environments full of emotion, vision, with proved ethics and full of optimism.

**Constructive culture as the main driver of effectiveness.** Culture has been also extensively reviewed as main factor influencing business outcome and with scholar indication of the constructive culture as the dominant style (Cooke & Laferty, 1994; Cooke & Szumal, 2000). In the case of this research, the third research question, is the constructive culture positively and significantly related to organizational effectiveness, was empirically confirmed.

This conclusion is totally aligned with the expectations of the Organizational Culture Inventory from Cooke and Laferty (1994) where their ideal culture is a
constructive one. Constructive culture appeared by far as the most important variable influencing organizational effectiveness. In the multivariate statistical analysis, this type of behavior appeared to impact about six times more than transformational leadership in the probability to attain the highest organizational effectiveness score. A constructive culture seems to have a universal applicability. In studies conducted in developed economies and in this research with multilatinas from various countries in Latin America, employees think business results would be better when the believes and behaviors of the group are towards affiliation, achievement, care about human beings and creativity.

The fact that Latin Americans want to work in an environment full of teamwork, appreciation, achievement and affiliation, contrasts with the fact that they want to have a clear direction and heroic leadership. This could mean that they feel comfortable to attain positive business results if the environment is friendly, oriented to people, inciting achievement, if it is done within the group and not individually. Combined with the fact that followers want to be told what to do, the constructive culture grants a setting where individuals merge with others in a safe environment with high level of affiliation, but with difficulty wanting to outstand from the crowd. Since the boss tells what to do, and the group achievement conveys in positive organizational effectiveness, why bother thinking differently and risking the position with new ideas. Even if they believe that the culture promotes creativity and develop on their own, they still want the protection of their hero to maintain their job stability. Another way to understand this conflict, is that employees do appreciate the self-actualizing culture but they run it within safe frames that protect their jobs.

The constructive culture had an overwhelming agreement among all demographic groups, namely age, gender, country, education, years in organization, work area. The only significant difference was in the hierarchical level, where area managers, coordinators and
directors, believed that the constructive organizational behavior is higher than other upper/lower levels. It is possible that this middle management is effectively living in their day to day a constructive culture, while lower levels as analyst have lower perceptions and upper management is still not believer of the good constructive culture their followers are living.

Beware of management by exception leadership with a passive culture: are detractors of organizational effectiveness. The last research question, about the influence of aggressive culture and transactional leadership exhibited mixed results. Each variable was statistically tested by subcomponents. For the transactional leadership, the contingent reward and the management by exception were statistically tested and for culture, the aggressive and the passive traits. The management by exception and the passive culture, proved to be negative in organizational effectiveness, while the contingent reward and the aggressive culture were positive.

Findings on passiveness and avoidance are aligned. A culture where it is expected to find agreement without discussion, avoid responsibility to blame others for failure and discourage initiative, indicates either total absence of a leader or strong authoritarian one who only interacts to inflict punishment after unwanted behaviors. Although this type of passiveness and contingent reward was not high is score in multilatinas, these types of behaviors are wrong and should be not be present in Latin America multinationals if the pursue is to continue innovating and expanding internationally.

A dose of aggressiveness is well appreciated. Also derived from question 5 empirical evidence proved that aggressive defensive culture, resulted in positive direction in the probability to attain category 5 or high in organizational effectiveness. Aggressive defensive culture is characterized by opposition, power, competitiveness and perfectionism. A little bit of aggressiveness could be a counter balance of affiliation where
people want to agree with the team need to be accepted. Aggressiveness also provide the possibility to outstand from the group and show a different opinion all to move to a new level of innovation. The OCI organizational culture inventory from Cooke and Laferty (1994) also indicate a minimum level of aggressiveness as positive order to have a healthy culture. There were not significant differences per demographic group, showing unanimous belief about the important of a dose of aggressiveness in the multilatinas culture.

Conclusions from this study reveal that while in developed countries lower levels of aggressiveness are precursors of high effectiveness, in Latin America these traits are well appreciated and considered necessary to survive and ensure there is recognition of company quality, employee satisfaction and role clarity.

**Upper management still far from earth.** When analyzing significant difference among demographic groups in all studied variables, the only one that showed significant differences was the hierarchical level. Upper management seems a kind of naïve, still thinking that they are either to nice or too harsh. Findings in this research show that multilatinas leaders perceive they are strong in transformational leadership but their followers don’t. Likewise, they believe that their leadership is normal in transactional leadership but followers rated significantly higher this leadership style. This is a call for senior management to come down to the earth and understand better what are their followers thinking about their performance. Might look contradictory with the fact that employees granted a higher rating to a distant heroic leader, the problem is that the leader believes this and behaves this way. Leaders should open more communication channels reducing power distance and challenging their reports to openly say what they think, how they feel and what are their suggestions, without any punishment for behaving this way.
Implications

Findings of this research propose new insights in the multilatinas leadership challenge. Developed countries frameworks did not necessarily proved aligned with Latin America posing the need to do amplify research on leadership and culture, and propose new schemes that develop multilatinas organizations into global multinationals.

The need of more independent and self-motivated followers. Should the leader be directive and heroic, promoting a safe environment? Empirical results might direct to this conclusion, but that is the vision of a backward paradigm. The future of the leader of the XXI century is much more challenging, with an environment that is in constant change, with full diversity being accepted, and with world shifts occurring faster than before. The adaptive leader, of the Latin America multilatinas, should be a catalyzer of the imminent change of the society, maintaining the mystery of the heroic hero, but still motivating to work as a team, regardless of the position, gender, race or sexual orientation. A leader that can show vision, but is able enough to adapt to change and communicate this at the individual and group level. A leader that is humble enough to accept being defeated, showing with example that it is possible to fail as the way to promote innovation to move faster to new worlds. This XXI century leader at the same time is skilled in reaching results, there will be no leader with proven achievements, after trying, failing but consequently attaining results worth following. The cradle for this type of leader is certainly the constructive culture which is fertile, but cannot grow to the next level if the leader maintains distant and the follower keeps safe in the anonymity. Is a two-sided effort to build a more developed Latin America that could cope with challenging environment, but with the certainty that with revised leadership is able to develop new multilatinas and be successful in the attempt.
The challenge is not to pursue on heroic leadership and constructive culture as the recipe of a dynamic organization but to be promoters of change in the level of maturity of current employees that seem to be low, being reluctant to take control of their own fate and are waiting for their boss to tell them what do.

The responsibility of such behavior, is not necessarily a short-term vision of the employee of the XXI century, but the results of the Latin American culture which is still entrepreneurial avoidant with hurdles to implement innovation, thus is easier to follow the leader and be told what to do and what to think. It is precisely the leaders the ones to become more sensible to the need to take their followers out of their comfort zone, provide a safe environment to develop themselves and promote a sincere relationship with lower power distance.

**Leadership for multilatinas to global multinationals endeavor.** The fast evolution of multilatinas is aligned with the development of emerging markets multinationals or EMNEs, sharing same ground characteristics as the evolution of the middle social class, favorable neoliberal policies and growth beyond developed markets. This is not a Latin America phenomenon but a global one, evidenced in other emerging markets multinationals such as the ones from China, South Korea, Thailand, and Hong Kong (Yeganeh, 2016). While overall there is scarce research on multilatinas, the few found is related to internationalization strategies rather than mere leadership considerations. De Villa (2015) reports in the case study for Nutresa, that human factor was definitive in the internationalization process of this large processed food enterprise from Colombia. Commitment, talent, innovation, and responsibility were pointed by upper management as a key driver, along with competitive product and brand offer to foreign markets. Connecting findings from this research and proposing new approach to collective-empowering leadership, it is implied that future multilatinas’ leaders need to develop their
teams from bottom to top levels of the organization to promote innovation, accountability for results in order to embrace internationalization beyond Latin America. Leadership and culture in multilatinas, despite being central to definition of strategy still seems to be a separate construct worthwhile being further developed.

**Recommendations**

For future research it is recommended to deepen into the scope of the multilatinas and into revised concepts of leadership. In terms of scope, this study had limitations due to geographical reach and budget, thus aiming only to three multilatinas in 9 countries. While it was innovative to include countries different from Brazil and Mexico, it is recommended for future research to include more countries to establish a real Latin American leadership and culture profile. It is also advised to include more types of industries, beyond retail, construction, and processed food. In the multilatinas ranking 2016, the largest multilatinas are in the petrochemical, finance – banking, cement, airline, and telecommunication, which were not considered here in this research.

In terms of novel leadership findings, for future research it is recommended to delve into the concept of collective-empowering leadership. On one hand conclusions revealed that the ideal leader is considered a one portraying heroism and ethics, probably traits from an individual. On the other hand, the imminent appraisal of a constructive culture, understood as a collective understanding of behaviors, artifacts, and decision-making processes. The fracture between individual and collective thinking, might avoid the integral vision posed by Burns (1978), where leadership cannot be appraised an individual crusade but a system among individuals and stated that leadership is a “structure of action that engages persons, to varying degrees, throughout levels and among the interstices of society” (p. 3). This gap is worth more analysis in research to determine the impact in
Latin America led organizations and in other social systems such as politics or religion where the leader exerts larger power than the follower. The implications of the collective-empowering leadership for multilatinas is important so they can develop more leaders and not only followers. This region has an immense need to evolve to a more collective vision of success, abandoning beliefs about the solely responsibility of the leader in the company results and turning into a collective responsibility where everyone has a superlative role into the system efficiency. This evolution needs visionary leaders who will devote more time to the transformational aspect of the leadership profile, delegating more, and encouraging individuals to respond for their acts while at the same time respecting the possibility to fail. This evolved behavior from leaders and from follower-leaders starts not only on the job, but right from home education further nurtured by university. Leadership education should turn into massive responsibility for own’s fate within interaction with the society.

With novel findings towards attraction for transactional leadership, it is recommended to do further qualitative and quantitative research to understand the underlying reasons for this belief. Due to the nature of closed questions with Likert scale, it was not possible to appraise the qualitative reasons for the answers of the acceptance of transactional leadership, acceptance of constructive culture, and rejection of the passive culture. Future research should delve into unconscious influences from family education, Latin America history legacy, and business evolution in the past 40 years after economic liberalization, may provide hints to turnaround these beliefs.

Findings of the research on leadership and culture in multilatinas provided new knowledge about the Latin American leadership style opening doors for future leadership profiling, both in the academic world as well as for business applicability. In the academic world, findings show that the Transformational-Transactional framework might not be
totally attainable for all societies, and do not necessarily represent the new leader of the XXI century since the model does not explain totally the influence on result. New research could be developed around new leadership models or the combination of leadership with other factors in business such as innovation and strategy. In business, findings about the high appraisal for transactional leadership pose a challenge for leaders to devote more effort to develop other leaders, to challenge their employees to be more independent, and to take higher risks.

In the business world, findings of this research show that the multilatinas phenomenon is a rising one and that leaders of this firms have shown with results their ability to succeed amidst challenging and changing environments. Future research could be directed towards exploring additional factors different from leadership and culture, that influence the expansion of multilatinas to become global multinationals.

This research is one of the scarce efforts in Latin America leadership scholar initiative. There is a lot more room to develop more research in Latin American leadership, not only to uncover the status, but to envision the new regional leader able to cope with multiple changing challenges or our economies and societies.
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Appendix A: Survey Permission MLQ

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Multifactor Leadership Questionnaire
Instrument (Leader and Rater Form)
and Scoring Guide
(Form E-S-Short)
English and Spanish versions

by Bruce Avolio and Bernard Bass

Published by Mind Garden, Inc.

info@mindgarden.com
www.mindgarden.com

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Thank you for your response. As mentioned in previous emails, I will use this sen-
tice in the MLQ and the E-SMLQ. It will be helpful if you could provide more de-
tail on how this is applied in practice and any other insights that might be use-
fult. Thank you for your commitment to the research.

Can I ask you a few short questions about the MLQ?

Thank you.
Appendix B: Survey Permission OCI© – OEI

Letter of Agreement for Researchers
Organizational Culture Inventory® (OCI®) and Organizational Effectiveness Inventory® (OEI®)

Ana Claudia Alvarez Echavaria
Casa #21 condominio Via Nova Pozos
San Jose –Costa Rica
anaclaudialvarez@hotmail.com

February 15, 2016

Dear Ms. Echavaria:

Your research, tentatively titled “Merger and Acquisition process in Brazil, Mexico, Colombia, Peru, Costa Rica and Chile: Post-acquisition phase” has been reviewed by Human Synergistics and I am pleased to inform you that permission is granted for the use of the Organizational Culture Inventory® (OCI®) and Organizational Effectiveness Inventory® (OEI®) in your research.

Human Synergistics will provide you with OCI and OEI surveys and deemed appropriate for your research (pricing to be determined). Under this agreement, Human Synergistics is not responsible for any other activities or costs associated with this project (e.g., for data analysis) or for providing technical advice on statistical analyses or the results obtained. Other reporting options will be at regular price (to be determined as needed).

In exchange for the research discount we are extending, you agree to the conditions outlined in the OCI-OEI “Research Applications” document and summarized below:

1. You will provide Human Synergistics with electronic copies or two hard copies of all working papers, presentations, reports to sponsors, dissertations, and manuscripts to be submitted for publication which present LWS results or otherwise incorporate LWS materials.

2. Human Synergistics has your permission to add the OCI and OEI data you provide to its confidential database which is used for testing and updating the norms, reliability, and validity of the inventory.

3. Researchers may not reproduce any of the OCI or OEI items in their manuscripts or in any typewritten, typeset, computerized, or translated survey.

4. The following citation must be included in your manuscript where the OCI circumplex is displayed: Research and Development by Robert A. Cooke, Ph.D. and
J. Clayton Lafferty, Ph.D. Copyright © 1973-2013 by Human Synergistics. Used by permission.

(5) The following citation must be included in your manuscript where the OCI style descriptions are discussed or reproduced: From Organizational Culture Inventory by R.A. Cooke and J.C. Lafferty, 2003, Plymouth, MI: Human Synergistics. Copyright © 2013 by Human Synergistics©. Adapted by permission; and, and

(6) More generally, you will use the LWS, conduct your research and report your results in a manner that is consistent with the Publication Manual of the American Psychological Association (2001) and that respects and protects Human Synergistics’ copyrights, trademarks, and proprietary data and materials.

Upon determination of study details, I will send an agreement letter to you.

Please contact me if you have any questions. Best of luck with your research.

Sincerely,

Cheryl A. Boglarsky, Ph.D.
Research & Product Development
Appendix C: Sample invitation letter for firms to participate - Latin American transnational Nutresa

San José, Costa Rica 7 de marzo de 2016

Señor
Juan Felipe Maica
Presidente
Pozuelo/Nutresa

Estimado Juan Felipe:

El propósito de esta comunicación es ofrecer a Pozuelo/Nutresa el desarrollo de mi investigación doctoral sobre liderazgo, cultura y eficiencia organizacional, en empleados de Pozuelo/Nutresa en varios países. Se realizará una encuesta web-based, con probados instrumentos cuantitativos, durante el periodo Abril-Diciembre 2016. Los resultados son confidenciales de Pozuelo/Nutresa, entregados con su exhaustivo análisis y recomendaciones. Las bases de datos se entregarán también a Pozuelo/Nutresa.

Estoy próxima a obtener la candidatura a DBA (Doctor of Business Administration), con Centrum Graduate Business School (Perú) y Maastricht School of Management (Holanda) y estoy realizando una investigación de carácter doctoral referente a liderazgo y Cultura Organizacional y su impacto en la Eficiencia Organizacional en el marco de multinacionales Latinoamericanas. Estoy presentando en mi propuesta, la realización de la investigación en empresas con incorporación en más de dos países en Latinoamérica.

Me interesa enfocar mis investigaciones en este tema debido dos situaciones: (1) Más de 23 años de experiencia gerencial en América Latina en industria de consumo masivo y farmacéutica, luego de trabajar en 3M, Pfizer y en Bayer, actualmente Gerente General de Aspen Labs para Centroamérica y Caribe. He evidenciado la inmensa necesidad de desarrollar líderes y de administrar la cultura organizacional como vehículo para lograr los objetivos empresariales. (2) Abundante evidencia en investigación sobre el positivo impacto del liderazgo transformacional y de la cultura constructiva en eficiencia superior, así como la importancia de medir estas variables para acionar estrategia competitiva.

La variable “estilo de liderazgo”, empleará la encuesta MLQ® de Mind Garden y las variables “cultura organizacional” y “eficiencia organizacional”, el OGI® y el OEI®, respectivamente, de Human Synergistics. A cada participante le llegará a su email, una comunicación como la que adjunto en el Anexo A, solicitando su participación, asegurando confidencialidad y anonimato de su identidad. La encuesta no les tomará mucho tiempo, estimo que lo pueden responder entre 30 y 35 minutos.

Yo me encargo del pago de derechos de uso de la encuesta, la recolección de información, el procesamiento de datos y la presentación gerencial con resultados, conclusiones y recomendaciones. De Pozuelo/Nutresa requiero la autorización para realizar la encuesta, los emails de los participantes y comunicación interna desde el Presidente, HR Director –o quien considere apropiado– hasta todos los empleados que responderán la encuesta. Pueden usar esta encuesta como una iniciativa propia de Pozuelo/Nutresa dentro del plan estratégico de HR de medición y acción de cultura y clima organizacional.

En el Anexo A describo la invitación que recibirán los participantes y el consentimiento informado, en el Anexo B podrán encontrar detalles sobre los cuestionarios y los temas específicos de las encuestas.

Quedo atenta a sus comentarios y esperando podemos trabajar en conjunto esta investigación.

Ana Claudia Álvarez Echevarría
Estudiante Doctorado en Administración de Empresas
Centrum Graduate Business School – Maastricht School of Management
Teléfono: 506 70712194 anaclaudiaalvarez@hotmail.com y a20134359@pucp.pe
Anexo B: Descripción de las encuestas

Liderazgo

El concepto “liderazgo transformacional” fue inicialmente presentado por James McGregor Burns en el año 1978 y posteriormente profundizado por los investigadores Bernard Bass y Bruce Avolio desde los años 90. Este modelo es uno de los más usados actualmente en investigación y en consultorías en grandes empresas en el mundo. El modelo teórico define dos estilos básicos de liderazgo: el transformacional y el transaccional.

- Liderazgo Transaccional: El líder trabaja con individuos o grupos definiendo acuerdos para llevar a cabo tareas. En su modo correctivo busca estándares de desempeño y de cualquier forma está atento a la ocurrencia de errores para corregir.
- Liderazgo Transformacional: Son líderes que inspiran, se preocupan por trabajar con los talentos de cada uno, inspirar visión compartida y estimulación del intelecto para retar formas nuevas de trabajar.

Se administrará la encuesta MLQ (5v-Short) de Mind Garden, desarrollada por Bass & Avolio (2004), a la cual consta de 40 preguntas con respuesta en escala de Likert de 1 a 5. Se administrarán dos tipos de encuesta, una para líderes y otra para seguidores. Ver detalles en http://www.mingarden.com/16-multifactor-leadership-questionnaire.

Cultura

Desde su conceptualización en antropología, la cultura en los últimos décadas ha tomado relevancia en las organizaciones, con amplia investigación y aplicación tanto cualitativa como cuantitativa. El modelo de cultura desarrollado por Robert Cooke desde el año 1987 propone revisar la cultura en tres vectores:

- Constructiva: Establece objetivos retadores y los busca con entusiasmo. Las personas se preocupan por los otros.
- Agresiva / defensiva: En este caso las personas buscan aprobación, causar buena impresión, hacer lo que dice el superior y tratar de responsabilizar a otros para no ser culpados.
- Psicológica / defensiva: Admisión de criticar adveramente a otros, modelos gene-piecen al administrar a otros y perfeccionistas.

Efectividad Organizacional

Como resultado del estilo de liderazgo y la cultura organizacional, los encuestados reportarán la efectividad de su empresa, tanto a nivel individual, grupal y organizacional. Se reportarán indicadores de calidad de la unidad de negocios, seguridad en el trabajo (temor a ser despachado), intención de quedarse, claridad del rol, adaptación, estrés, satisfacción, claridad del rol, motivación y trabajo en equipo.

Se administrará la encuesta OCI, Organizational Culture Inventory de Human Synergistics, y la encuesta ODI, Organizational Effectiveness Index, ambas desarrolladas por Robert Cooke en 1997. La encuesta es de selección múltiple en escala de Likert. Ver detalles en http://www.humansynergistics.com/Products/OrganizationDevelopment/OrganizationalCultureInventory y http://www.humansynergistics.com/Products/OrganizationDevelopment/OrganizationalEffectivenessInventory.
Appendix D: Sample invitation email for employee to participate in the survey

From: survey@humansynergistics.com
To: anaclauelavarez@hotmail.com
Date: Thu, 24 Sep 2015 11:43:56 -0500
Subject: Human Synergistics, Inc. Sample Site Encuestas de cultura y efectividad empresarial

To: [Client Sponsor of Project]

We invite you to complete our Organizational Culture Inventory (OCI) and Organizational Effectiveness Inventory (OEI) for Human Synergistics, Inc. Sample Site.

The survey is designed to help you understand your organization’s current culture and effectiveness. The results will be used to identify key strengths and areas for improvement.

The survey is available at: https://hs.mysurveyserver.com/sur/2M4Z22W/pq-mysampledSampleSite.

To complete the OCI, please follow the instructions provided. Next, you will need to complete the OEI. This process should take approximately 20-25 minutes.

The survey is designed to be completed in a single session. However, if you need to take a break, you can return to the survey at a later time. Your responses will be kept confidential and will not be shared with anyone outside of our organization.

Please answer all questions honestly and thoughtfully. Your participation is voluntary and will not affect your employment status.

Thank you for your time and contribution.

Sincerely,
[Your Name]
Human Synergistics, Inc.
Appendix E: Informed consent form

Inventario de cultura organizacional (OCI) ® y Liderazgo Multifactor (MLQ) - Consentimiento informado del encuestado

Por favor lea la siguiente información con respecto a su invitación para llenar esta encuesta para su organización. Después de que usted haya leído acerca de la encuesta, usted debe elegir "Consentimiento" o "Rechazar". Se garantiza que la participación en la encuesta es anónima y confidencial. No habrá identificación individual en las respuestas, ni en los reportes a HL Ingenieros, ni en la presentación consolidada de la encuesta para propósitos de estudios.

Utilice la barra de desplazamiento a la derecha para revisar las diferentes secciones de este documento de consentimiento.

Las siguientes secciones le proporcionarán información sobre la encuesta: controlador de datos, procesador de datos, propósito del proyecto y destinatarios de los informes. Se informará también sobre su participación voluntaria, su derecho de acceso y la transferencia de datos.

Las encuestas

**Inventario de cultura organizacional (OCI) ®**

El Inventario de cultura organizacional de Human Synergistics International es una encuesta que proporciona a las organizaciones una imagen de su cultura operativa del día a día. Mide la cultura en términos de los comportamientos que los miembros creen se espera de ellos dentro de la organización. Estas "normas de comportamiento" se relacionan con valores compartidos, creencias y otros factores dentro de las organizaciones.

La OCI® le pide que revise 120 declaraciones breves que describen comportamientos diferentes que se pueden esperar en las organizaciones con diferentes tipos de cultura. Se les pide responder en la medida en que cada comportamiento sea esperado o implícitamente requerido de usted y personas como usted. La encuesta también incluye algunos puntos sobre su satisfacción con la organización, la calidad del servicio prestado a los clientes o consumidores y la claridad y la consistencia de las expectativas.

**Encuesta de Liderazgo Multifactor ® (MLQ)**

Esta encuesta de Mind Garden, Multifactor Leadership Questionnaire ® pretende medir el estilo de liderazgo de una organización. Es un grupo de 45 preguntas en las cuales se pregunta sobre el estilo de liderazgo que los líderes de la organización exhiben en su forma de trabajar.

Human Synergistics se reserva el derecho de corregir los errores u omisiones en la recolección de datos, relacionados con las variables la unidad de negocios, demográficos, o posicionales, que de lo contrario pueden afectar la viabilidad o la exactitud de los reportes de agrupaciones o unidades de negocio dentro de la organización.

**Destinatarios de los informes**

Los informes sobre los resultados compuestos serán proporcionados de manera agregada al departamento de recursos humanos de HL Ingenieros y otras personas asignadas por la empresa en iniciativas de desarrollo. Esta encuesta está siendo realizada dentro del marco de la investigación de un estudio de carácter doctoral en empresas en Latinoamérica para identificar la relación entre cultura organizacional, estilo de liderazgo y efectividad organizacional. Pueden solicitar mayor información a anaclaudiaalvarez@hotmail.com.
Los encuestados al completar la encuesta on-line no reciben retroalimentación sobre sus propias respuestas; por el contrario, sus respuestas se almacenan en un servidor en la Unión Europea o Estados Unidos para combinar con las otras encuestas mundiales.

La participación es voluntaria
Participación en el proceso de la encuesta es voluntaria. Los invitados a participar deben proporcionar su consentimiento informado con el fin de completar la encuesta. Los invitados que opriman clic en "Rechazar" en la parte inferior de esta pantalla no serán capaces de aportar comentarios a menos que vuelvan a visitar este sitio y elegir el "Consentimiento". Los encuestados pueden saltar preguntas que prefieren no responder; sin embargo, las preguntas que son contestadas por los que dejan a muchos espacios en blanco, podrían no ser incluidas en el informe de retroalimentación.

Derecho de acceso
Después de haber presentado la encuesta, los encuestados pueden re-ingresar y revisar sus respuestas a la encuesta, mientras que aún se están recopilando datos. Por favor contactar a Human Synergistics para solicitar este acceso.

Transferencia de datos (y almacenamiento en) los Estados Unidos o la Unión Europea
Los datos serán transferidos a los Estados Unidos o a un Estado miembro de la Unión Europea para el análisis y preparación del informe en cumplimiento del contrato. No habrá identificación específica de cada participante ya que la encuesta se envía de manera anónima.

Los datos pueden almacenarse en un servidor seguro en los Estados Unidos o en un Estado miembro de la Unión Europea durante un periodo razonable de tiempo en relación con la finalidad de la recolección de datos y procesamiento indicado y para permitir el análisis del cambio en el tiempo que puede ser solicitada por el controlador de datos.

Los datos almacenados se pueden utilizar para realizar investigaciones sobre individuos, grupos y organizaciones. La investigación por personal de Human Synergistics y coautores se rige por el código de ética de la American Psychological Association. Se mantiene la confidencialidad de los participantes individuales y sus organizaciones en el uso de estos datos.

Transferencia de datos a terceros
Datos de la encuesta para este programa no se transferirán a terceros. Ver la sección "Los destinatarios de informes" para obtener información sobre los destinatarios de los informes de retroalimentación, que se basan en los datos recolectados de la encuesta.

¿Preguntas?
Para preguntas sobre el programa y su participación, por favor póngase en contacto con a Julia Solano en su mail jsolano@hlingenieros.com
### Appendix F: Demographic information

#### Age – translation to Spanish

<table>
<thead>
<tr>
<th>Edad</th>
<th>Translation to Spanish</th>
</tr>
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<tbody>
<tr>
<td>Menos de 20 años</td>
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</tr>
<tr>
<td>20 a 29</td>
<td></td>
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<tr>
<td>30 a 39</td>
<td></td>
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<tr>
<td>40 a 49</td>
<td></td>
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<tr>
<td>50 a 59</td>
<td></td>
</tr>
<tr>
<td>60 años o más</td>
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<td>Prefiere no responder</td>
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#### Gender – Translation to Spanish

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<th>Sexo</th>
<th>Translation to Spanish</th>
</tr>
</thead>
<tbody>
<tr>
<td>Femenino</td>
<td></td>
</tr>
<tr>
<td>Masculino</td>
<td></td>
</tr>
<tr>
<td>Prefiere no responder</td>
<td></td>
</tr>
</tbody>
</table>

#### Education – Translation to Spanish

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<tr>
<th>Educación (indique el nivel más alto alcanzado)</th>
<th>Translation to Spanish</th>
</tr>
</thead>
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<td>Secundaria</td>
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</tr>
<tr>
<td>Algun estudio universitario</td>
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</tr>
<tr>
<td>Título técnico / de asociado</td>
<td></td>
</tr>
<tr>
<td>Título universitario</td>
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</tr>
<tr>
<td>Algún estudio de licenciatura</td>
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<tr>
<td>Maestría</td>
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<tr>
<td>Doctorado</td>
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<tr>
<td>Otro</td>
<td></td>
</tr>
<tr>
<td>Prefiere no responder</td>
<td></td>
</tr>
</tbody>
</table>

#### Years with organization – Translation to Spanish

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<thead>
<tr>
<th>Años en la organización</th>
<th>Translation to Spanish</th>
</tr>
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<td>6 meses a 1 año</td>
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<td>1 a 2 años</td>
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<td>2 a 4 años</td>
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<tr>
<td>4 a 6 años</td>
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<tr>
<td>6 a 10 años</td>
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<tr>
<td>10 a 15 años</td>
<td></td>
</tr>
<tr>
<td>Más de 15 años</td>
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<tr>
<td>Prefiere no responder</td>
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### Organizational Level – Translation to Spanish

<table>
<thead>
<tr>
<th>Nivel organizacional</th>
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<tbody>
<tr>
<td>Presidente</td>
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<tr>
<td>Vicepresidente</td>
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<tr>
<td>Director</td>
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<tr>
<td>Coordinador</td>
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<tr>
<td>Analista</td>
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<tr>
<td>Asistente</td>
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<tr>
<td>Gerente de proyecto</td>
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<tr>
<td>Ingeniero profesional de proyecto</td>
</tr>
<tr>
<td>Supervisor de proyecto</td>
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<tr>
<td>Almacenista</td>
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</tbody>
</table>

### Work Area – Translation to Spanish

<table>
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<th>Area de trabajo</th>
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<tbody>
<tr>
<td>Gestión humana</td>
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<tr>
<td>Innovación y gestión del conocimiento</td>
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<tr>
<td>Financiera</td>
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<tr>
<td>Operaciones</td>
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<tr>
<td>Desarrollo de negocios</td>
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<tr>
<td>Presidencia</td>
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### Country – Translation to Spanish

<table>
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<th>País</th>
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<td>Argentina</td>
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<td>Bolivia</td>
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<td>Puerto Rico</td>
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<td>Republica Dominicana</td>
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<tr>
<td>Uruguay</td>
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<tr>
<td>Venezuela</td>
</tr>
<tr>
<td>Prefers not to respond</td>
</tr>
</tbody>
</table>