

**BEHAVIOURAL DYNAMIC MODEL OF TOP MANAGEMENT TEAMS:
CONSENSUS, COHESION, CONFLICT AND POTENCY IN PERUVIAN
TEXTILE AND APPAREL SECTOR**

Dissertation

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Abstract

This study researches the behavioural dynamics of top management teams (TMTs) in the Peruvian textile and apparel sector. Following Ensley and Pearson's (2005) work, this study considers four constructs: cohesion, consensus, conflict and potency, and additionally proposes a model in an attempt to explain the constructs correlation among each other.

Based on different studies conducted by authors such as Driskell, Salas and Hogan (1987) and others, this study states that behavioural dynamics take place in a "process" which is responsible for producing results or outputs based on inputs such as skills, personalities and more.

In order to achieve its goals, this study uses four well-known scales: (a) the Perceived Cohesion Scale (PCS) developed by Bollen and Hoyle (1990) to measure cohesion; (b) the Interpersonal Conflict Scale (ICS) proposed by Jehn (1994) to measure conflict; (c) the Guzzo, Yost, and Campbell Scale (1993) to measure potency; and finally, (d) the Strategic Orientation of Business Enterprises (STROBE) developed by Venkatraman (1989) to measure consensus. These scales, and the information gathered by them, are tested to establish how suitable are their observed variables to measure the behavioural dynamics of TMTs in the Peruvian textile and apparel sector.

Finally, this research concludes by finding the goodness of fit of the model, explaining the correlation of the four constructs among each other and suggesting some topics not fully covered by this research as a starting point for further studies.

Dedication

To my beloved wife Jennifer, for her patience and love during this research without her support this would have been impossible. To my three children: Ignacio, Tamara Maria, and Isabella Maria for the hours I have dedicated to this research and not been able to be with them. To my mother Maria Tomasa who always repeated me: “He that studies, triumphs”, and I still study for these reason. To my late brother Manuel, first in the family to become Docteur d’État in France, and all those in my family who will decide to do the same in the future: Welcome.

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1. Introduction

Teams and their importance in firms' successes is a widely studied topic. Teams are often evaluated to measure their contribution to firms' goals. In fact, teams are usually assessed using performance and effectiveness as measures, but there is little explanation about the process responsible for these results. Any positive or negative result obtained by any team has its origin in an input, a process and an output. Furthermore, this research pretends to focus on one element present in the process: the behavioural dynamics, specifically on four constructs: cohesion, consensus, conflict and potency and the correlation among each other. The result of this analysis is represented in a general model which will be tested in next chapters.

Several authors like Driskell, Salas and Hogan (1987) and Tannenbaum, Beard and Salas (1992) have developed models to represent and conceptualise the relationship among different factors and how they impact on team performance. These models have three components in common: inputs with an individual, group and environmental level; a process which composition varies from model to model and; outcome composed by process gain or loss, or group performance. Out of the three components process, and specifically behavioural dynamics present in this process, is the focus of this research.

A large group of models can be presented as an example, but these two models have been taken into consideration due to their similarities with some of the ideas presented in this research. According to Driskell et al. (1987), the inputs reflect the team's potential for productivity which cannot be said to be equal to effectiveness. In fact, according to these authors, the process is the catalyst of the potential and the current effectiveness, because during the process is possible to observe not only what individuals bring to the team as input, but also the result of team interaction.

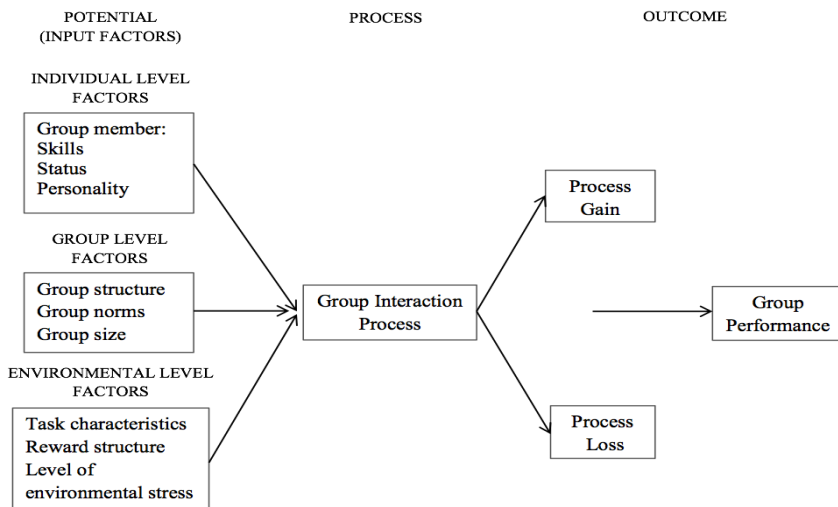


Figure 1. Model of Team Effectiveness from Driskell, Salas and Hogan (1987).

According to Tannenbaum et al. (1992) the model these authors present can be considered representative of the variables present in group effectiveness. In fact, these authors recommend that all variables to fit in the model should be considered in context depending on the peculiarities of each firm. This model also distinguishes between teamwork and task work on both individual and group level. Additionally, the importance for this study and the resulting model rely on the recognition and presentation of conflict and cohesion made by the authors perhaps with some difference on where these constructs fit inside the model, but accepting their presence and significance.

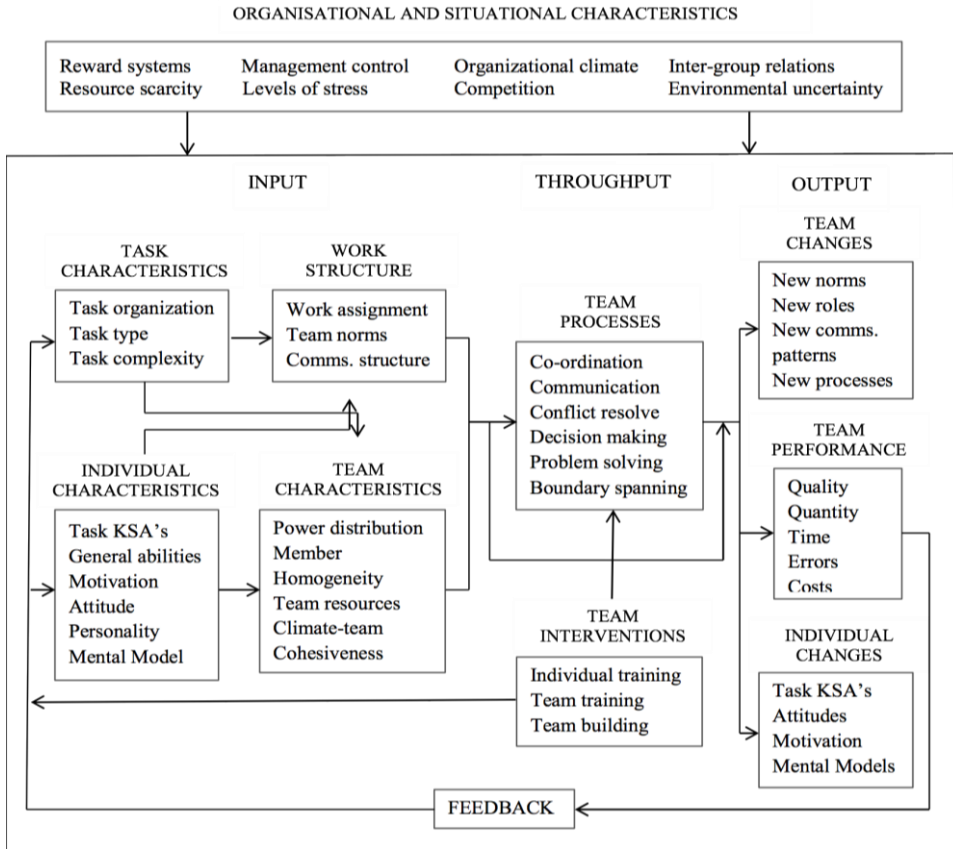


Figure 2. Model of Team Effectiveness from Tannenbaum, Beard, and Salas (1992).

Finally, the present research argues that team interaction can be observed through, among others which are not part of this study, four constructs present in behavioural dynamics which are conflict, consensus, cohesion and potency; and although these constructs' latent variables cannot be observed; it is possible to measure the individual's perception on their

presence and the correlation among each other in top management teams working in homogeneous firms in a mature sector such as the Peruvian textile and apparel sector; and also to present a model in an attempt to explain what happens in the so called “process” where the constructs are present and correlate among each other.

1.1 Background of the Problem

According to Delgado, Romero, and Gomez (2007), team performance can be measured using two different measures: objective and subjective measures. On the one hand, objective measures which emphasises the use of financial equations such as return on equity, return on assets and others to measure financial performance. On the other hand, subjective measures which point out the analysis of behavioural dynamics such as cohesion, consensus, conflict, potency and others resulting from the interaction of team members. Although these authors go a step further presenting two different measures besides the classic financial equations; it is important to specify that team performance can not only be measured but also analysed by these two currents. Even more, it is possible to state that financial performance can be considered an output and behavioural dynamics must be analysed as part of the process responsible for such outputs.

Behavioural dynamics are the study topic of several authors. In fact, authors such as Youngjin and Alavi (2001), Bourgeois (1980), Guzzo et al. (1993) and Bollen and Hoyle (1990), studied independently different behavioural elements. These authors developed scales using observed variables in an attempt to identify latent variables and finally establish the presence or absence of constructs. The method developed by these researchers pretends to establish the presence of a construct by measuring the individuals’ perception as result of team interaction. These studies limited their efforts in establishing the constructs presence or absence but did not research on how these constructs correlate among each other. Ensley and Pearson (2005), researched on dynamic behavioural inside family and none family top management teams. These authors considered four constructs in their studies: cohesion, conflict, consensus and potency which they argued are present in all top management team but might or might not be managed correctly. These authors claimed that family top management teams bundle through ‘familiness’, and these special characteristics makes them better managers of behavioural constructs. According to Chrisman, Chua and Steier (2005), familiness is a term use to encompass why, when, and how family business succeed or fail.

Ensley and Pearson (2005) analysis of the four constructs did not consider how they correlate among each other as part of their hypothesis. Although Ensley and Pearson (2005) work is considered an important contribution to family business studies; Nordqvist (2005) postulates that these authors’ conclusions could be improved by placing the research on homogeneous top management teams from mature industries.

The existence and importance of the four constructs: cohesion, consensus, conflict and potency have being explained at length by several authors as mentioned in previous paragraphs. Authors such as Bollen and Hoyle (1990), Jehn (1997), Guzzo et al. (1993), and Venkatraman (1989) agreed that the presence and analysis of behavioural dynamics are as important as reaching financial goals. In fact, it is possible to state that positive or negative financial results do not portray the top management team effective or ineffective

management of behavioural dynamics. For example, it is possible to argue that a top management team which is able to successfully manage its behavioural dynamics could obtain negative financial results under given negative external conditions. Therefore, the study of behavioural dynamics and how do constructs correlate among each other as part of the process leading to team performance deserves an individual analysis without considering financial success as a variable.

1.2 Statement of the Problem

Individuals bring inputs to the top management team, and expect positive outputs, but to reach expected goals, a process is needed. This process, according to Ensley and Pearson (2005), is characterised by team interaction which contains behavioural dynamics: cohesion, consensus, conflict and potency; and the presence of these constructs, as perceived by top management team members, can be measured using different scales which validity and reliability has been proved by the same authors whom developed them. However, Ensley and Pearson (2005), argues that Nordqvist (2005), are not conclusive. This author made several recommendations one of them suggesting the development of a new study using homogeneous top management teams proceeding from a mature industry. Therefore, the importance of this research relies on the need to, in some way, continue Ensley and Pearson (2005) research outside the familial and none familial top management team classification. First, using structural equations and modelling, research on the presence of behavioural dynamics in Peruvian textile and apparel top management teams and, second developing a model to show constructs correlation among each other in a mature Peruvian textile and apparel sector.

1.3 Purpose of the Study

The purpose of this quantitative research is, using the scales developed by Guzzo (1993), Bollen and Hoyle (1990), Jehn (1994) and Venkatraman (1989) establish the presence of four constructs: cohesion, consensus, conflict and potency, and develop a model to show the correlation among each other on top management teams from medium and large companies in the Peruvian textile and apparel industry. The study of these constructs is relevant because it could help to increase the effectiveness of top management teams by presenting findings which could allow an understanding of the way behavioural dynamics take place in top management teams from this industry and become the starting point of improvement.

This research measures the individuals' perception of behavioural dynamics as elements present in the process leading to team performance. These elements are described separately for different authors like Youngjin and Alavi (2001) and Lester, Meglino and Korsgaard (2002) and others, but are Ensley and Pearson (2005) whom gather a group of them and pointed out their importance as an alternative to analyse top management teams effectiveness.

According to Shimizu (2004) after the 1990's due to the reform and liberalisation of the Peruvian economy and the introduction of foreign capital; national capitals, as part of their strategy to remain present in the country's economy, refuge in industries such as construction, cement, agriculture, real states and textile. These capitals were able to generate strong firms in the textile industry first and later in the construction industry.

Therefore, the top management teams selected as subjects under study come from companies belonging to the textile and apparel industry. The selection of this industry as sampling source obey to the need of measuring the behavioural elements selected and described by Ensley and Pearson (2005) in top management teams from homogeneous companies belonging to a mature industry. This need comes from the consideration of one of the recommendations made by Nordqvist (2005) academic work on a critic of Ensley and Pearson (2005) research.

1.4 Significance of the Problem

1.4.1 Significance of the study

Although this research follows Ensley and Pearson (2005) hypothesis by analysing four constructs as part of behavioural dynamics; it goes one step further and argues about the importance of behavioural dynamics as part of a process leading to team performance. This process, as presented in figures 1 and 2, takes place between top management team's contribution and team performance. This research also develops a model to possibly explain the constructs correlation among each other.

The model developed in this research adopts some elements present in Driskell et al. (1987) and Mathieu (2012) models such as the separation in three different stages: input, process and output; the three dimensions in the input: firm, team and individual; and group interaction as part of the process. Additionally, this model adds some elements and argues about the content of the so called process. It also states that behavioural dynamics are an important part of the team interaction and sets performance as an output resulting from the process.

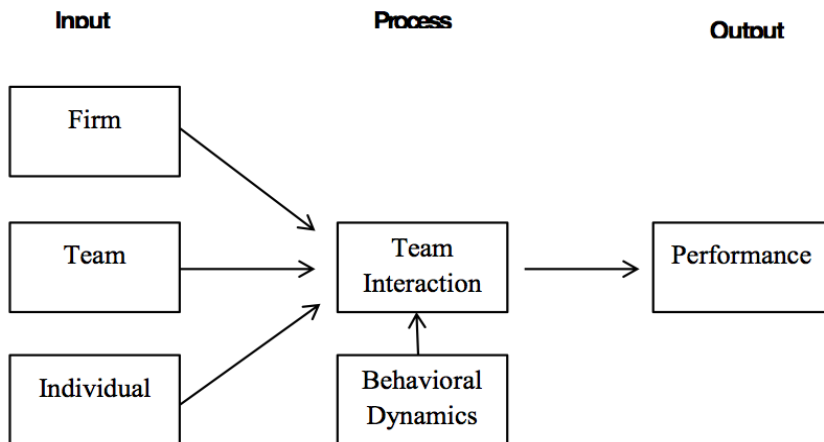


Figure 3. Model for Team Effectiveness. Adapted from Driskell et al. (1987) and Mathieu (2012)

Moreover, this research argues that the behavioural dynamics contain several constructs; but because of its importance, established by Ensley and Pearson (2005) research, four behavioural constructs: cohesion, consensus, conflict and potency, are studied to observe

their presence in the Peruvian textile and apparel sector. Furthermore, this research also argues on the constructs correlation among each other as presented in the following figure:

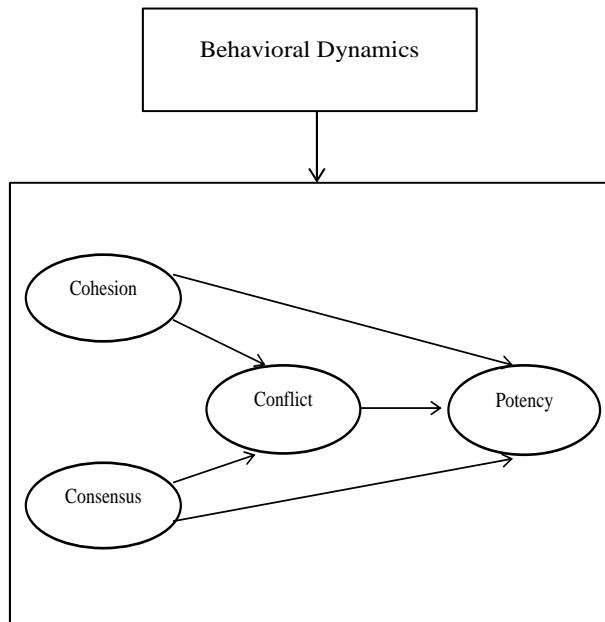


Figure 4. Model Showing the Correlation among the Four Constructs, by the Researcher.

1.5 Nature of the Study

This research uses structural equations modelling in a cross sectional assessment of Peruvian textile and apparel medium and large firms to examine TMTs' behavioural dynamics. The constructs: cohesion, consensus, conflict and potency correlation among each other is analysed using a variety of scales and a questionnaire as instrument. This research applies the Perceived Cohesion Scale (PCS) developed by Bollen and Hoyle (1990) to measure cohesion; the Interpersonal Conflict Scale (ICS) proposed by Jehn (1994) to measure conflict; the Strategic Orientation of Business Enterprises (STROBE) developed by Venkatraman (1989) to measure consensus and performance and, finally the Shea and Guzzo's scale (1987), reduced by Guzzo et al. (1993) to measure potency.

The selected population for this research is all the medium and large firms working on the Peruvian textile and apparel industry. These firms were selected following Peru Top Publications (2007) and Peruvian Exporters' Association (ADEX in Spanish) information. Peruvian Top Publications, with more than 40 editions, is Peru's most recognised business report. In 2007 this publication reported the existence of 230 medium and large textile and apparel firms. On 2012, ADEX reported the presence of another additional 100 firms

which were not considered in Peru Top Publications (2007). Therefore, this research considers a population of 330 firms as subjects under study.

Although is not the intention of this research to research on family TMTs; this work follows Ensley and Pearson (2005) study of behavioural dynamics in top management teams. These authors' main hypothesis stated the possibility that family top management teams manage their behavioural dynamics more effectively than nonfamily TMTs. Some of their findings did not fully support their hypothesis. In fact, they concluded that firstly family top management teams should be separated into parental top management teams, firms where parents are part of the company, and familial top management teams, firms which are integrated by siblings, cousins, and other family members. Secondly, they found that parental top management teams manage their behavioural dynamics better than none family top management teams, but none family top management teams manage their behavioural dynamics better than family top management teams. This research pretends to adopt Ensley and Pearson (2005) research by studying four constructs present in top management teams' behavioural dynamics, but does not pretend to make any research or obtain any conclusion related to family top management teams.

Another driver of this research is Nordqvist (2005)'s recommendations. This author's academic work presented the reader with three recommendations to improve the findings obtained by Ensley and Pearson (2005). The first recommendation, and the one followed by this research, states the need to apply the measurement of behavioural dynamics on homogeneous family business in a mature industry. Once again, this research does not pretend to research specifically on family or none family teams, but to test Ensley and Pearson (2005) theory about behavioural dynamics. This research also presents a self-constructed model which claims that cohesion, consensus and conflict are elements which give potency as result.

1.6 Research Questions

This research pretends to demonstrate the constructs correlation among each other, specifically behaviour constructs like cohesion, consensus, conflict and potency in top management teams from firms in the Peruvian textile and apparel sector.

Research question is:

1. What is the relation between cohesion, consensus, conflict and potency in TMTs working at Peruvian textile and apparel firms?

1.7 Hypothesis

As presented in figure 3, outputs are the result of inputs and a process. The process is where behavioural dynamics take place and constructs such as cohesion, consensus, conflict and potency are part of these behavioural dynamics. Therefore, the presence or absence of these constructs can be considered as the reason behind positive or negative outcomes. Moreover, understanding the correlation of these constructs could possibly give managers a tool to increase team effectiveness.

The following hypotheses argue about the presence of the four constructs in the Peruvian TMTs and also the way they correlate among each other. Therefore, after testing these hypotheses under the scientific method, the results obtained will take researchers a step further on the study of Peruvian TMTs performance.

General Hypothesis: There is correlation and also relation among the constructs cohesion, consensus, conflict and potency and among each other in the TMTs working at Peruvian textile and apparel firms.

Authors such McDowell and Zhang (2009) examined the relation between cohesion and potency. According to these authors' research there is a significant and consistent relationship between potency and cohesion mainly because teams that get along well together should have a sense of ability to perform.

Specific Hypothesis 1: Cohesion and potency are positively related in the TMT working at Peruvian textile and apparel firms.

For Larson and Wikstrom+ (2001), consensus and conflict are intertwined and coexist in relational interaction. Moreover, these authors state that the function of consensus dynamics is to create stability and continuity, and the function of conflict dynamics is to create change and transformation.

Specific Hypothesis 2: Consensus and Conflict are negatively related in the TMT working at Peruvian textile and apparel firms.

According to Ensley and Pearce (2001), the members of cohesive teams are less likely to take their disagreement personally. In fact, the members of cohesive teams should be more effective in embracing conflict than less cohesive teams. Therefore, cohesion is negatively related to the level of affective conflict experienced during decision making.

Specific Hypothesis 3: Cohesion and Conflict are negatively related in the TMT working at Peruvian textile and apparel firms.

Research performed by Lira, Ripoll, Peiro and Gonzales (2006), found that group potency moderates the relation between conflict and team effectiveness. The present research, following Lira et al. (2006) work pretends to analyse the relation between conflict and potency and presents the next hypothesis.

Specific Hypothesis 4: Conflict and Potency are negatively related in the TMT working at Peruvian textile and apparel firms.

According to Hornaday (2001), there is a positive correlation between consensus and potency. Although Hornaday (2001) research was performed using sex composition as variable, it is important to point out that apparently, consensus and potency are correlated no matter its composition or teams' purpose.

Specific Hypothesis 5: Consensus and Potency are positively related in the TMT working at Peruvian textile and apparel firms.

To answer these hypothesis the existing scales developed by Guzzo et al. (1993), Venkatraman (1989), Bollen and Hoyle (1990) and Jehn (1995) will be tested to find out whether these scales for measuring cohesion, consensus, conflict and potency are useful to measure these constructs in TMTs working at Peruvian textile and apparel firms.

1.8 Theoretical Framework

The importance of teams among organisations has increased in the last decades (Edmonson, Roberto and Watkins, 2003; Georgopoulos & Tannenbaum, 1957; Jehn, 1995, 1997; Senior and Swailes, 2004; White and Lean, 2008). Authors like Cohen and Bailey (1997), and Guzzo et al. (1993), defined team as a collection of individuals, interdependent in their tasks and having to share the responsibility of outcomes. In these teams, people's relationship is limited and ruled by organisational boundaries. Also, this group of people is seen by others as an entity which is part of a larger system.

The Upper Echelon Theory states that a top management team consists of all top executives in the firm and is the whole team, and not only the CEO, whom should be hold responsible for improving the organisational performance (Hambrick and Mason, 1984). Therefore, the process in which these top management teams work on improvements to organisational performance needs to be studied. Several models present in the academic literature pretend to show the context in which this process takes place. For example, Mathieu (2012), presents a model featuring three elements: organisational, process and outcomes. This author pays special attention on how the process and the elements in it are responsible for turning inputs into outputs. In fact, this author worked on conceptualising and measuring cohesion. Driskell et al. (1987) presented a model where individual, group, and environmental level are the inputs; group interaction is the process; and process gain and loss, and group performance are the outcome.

These models allow understanding the existence of the process as an element to be considered while analysing team performance. In fact, this research argues that the process, the interaction of team's members, gives as result behavioural dynamics which are defined by the presence of constructs. According to Ensley and Pearson (2005), four of the most important behavioural constructs present in team's behavioural dynamics are cohesion, consensus, conflict and potency. Although authors such as Klimoski and Jones (1995), and Tannenbaum et al. (1992) claim the presence of different constructs or variables such as use of skills, strategies, effort level and coordination among others; this research focuses on the analysis of only the mentioned four constructs: cohesion, consensus, conflict and potency. These constructs and no others are analysed in this research due to the existence of reliable and valid instruments developed to accurately measure the individuals' perception.

After analysing the literature on behavioural dynamics and the four constructs under analysis, it is possible to state that there is a clear gap in the literature. Literature on behavioural dynamics study one by one a variety of constructs but none of them researched on the constructs correlation among each other. Moreover, there is no literature on top management teams working at the Peruvian textile and apparel firms and how behavioural dynamics take place among these teams.

1.9 Definition of Terms

The next terms are considered key terms to understand the setting and purpose of this research. These terms and their concepts are considered relevant and important to establish the framework of the research and to give a clear insight of the topics under study. Therefore, the concepts presented in the next paragraphs are constant ideas which can be found in all the research.

According to Katzenbach and Smith (1993), “a team is a small number of people with complementary skills who are committed to a common purpose, performance goals, and approach for which they hold themselves mutually accountable”. This concept of team argues on the common direction and responsibilities inside any given team. Moreover, this concept states on the need to complement team members’ skills. This characteristic of teams which could be considered present in all of them has its exceptions when analysing top management teams.

A top management team is “the dominant coalition of senior managers at the top of an organization” (Kippenberger, 1997, p. 23). These “are usually composed of key managers who are responsible for making, planning and execution of business strategies” (Wu, Chiang and Juang, 2002, p. 172). This concept follows the ideas behind the upper echelon theory. In fact, inside the firms are possible to find several teams, but there is only one top management team which is in charge of conducting the entire company.

Cohesion is a behavioural construct which can be analysed through two latent variables: sense of belonging and feeling of morale. In fact, “perceived cohesion encompasses an individual’s sense of belonging to a particular “perceived cohesion encompasses an individual’s sense of belonging to a particular group and his or her feeling of morale associated with membership in the group” (Bollen and Hoyle, 1990, p. 498). This concept clearly states the presence of these two variables and the relevance of this construct among team members. They can be reflected not only as individual’s perception but also as a part of group interaction.

Consensus is another construct part of behavioural dynamics. Consensus can be defined as “the ability of the team members to agree on and accept a course of action” (Carpenter, 2011, p. 160). This construct argues on the possibility of all team members to agree on the same idea and to represent the same ideas even if they differ from personal beliefs or own ideas.

Conflict is “awareness by the parties involved that there are discrepancies, or incompatible wishes or desires present” (Jehn, 1994, p. 225). Conflict is a construct present permanently in teams due to the different ideas, opinions, and beliefs that every team member brings to the team. According to Jehn (1997), two types of conflict are present in teams: cognitive conflict and relationship conflict. Cognitive conflict relates to conflict of ideas. This type of conflict is considered positive and helpful in developing the team’s strategy to perform certain tasks. Meanwhile relationship conflict relates to interpersonal incompatibilities among team members. Although its presence is considered

negative top management teams' leaders should find the balance and manage this conflict before it creates serious ruptures of individuals' ability to perform a task together. Finally, potency is conceptualised as "the shared belief members have about the team's general effectiveness when face with a broad set of tasks in complex environments" (Guzzo et al., 1993, p. 89). The individuals' sense of potency can be divided into internal and external factors which contribute to this perception. Internal factors are related to the qualities and attributes of the individual members. External factors depend on the social system and working environment the team is embedded in.

1.10 Assumptions

This study assumes that the subjects under study are responding the provided questionnaires honestly and showing their personal and individual perception of the behavioural dynamics present in the top management team they are part of. This research also assumes that the selected firms share similarities in relation to their internal realities and processes, and are affected by the same external facts. Another assumption related to the firms' reality states that small firms do not hold top management teams. This assumption obeys to the fact that Peruvian statistics on small businesses include micro businesses which usually have only one individual as leader and owner. Therefore, under that assumption, this research considers only medium and large firms as subjects under study.

1.11 Scope and Limitations

This study is limited to the study of behavioural dynamics present in the process. Therefore, an abstraction of the inputs: team, individual and firm; and outputs: financial results and personal results, is needed. In fact, the research is also limited to the number of elements present in the process; in this case, only four elements are under study: cohesion, consensus, conflict and potency.

1.12 Delimitations

This study is limited to 330 medium and large firms working on the Peruvian textile and apparel sector. The behavioural dynamics of members in TMT working on these firms is analysed to obtain the individuals' perception of four behavioural constructs: cohesion, consensus, conflict and potency.

1.13 Summary

The topic in this research is the existence of correlation between each one of the constructs cohesion, consensus, conflict and potency in TMTs from the Peruvian textile and apparel sector. This research argues about the presence of these constructs in a process leading to team performance as output. It is important to point out that this process has a variety of elements but this research only focuses on one of them: behavioural dynamics.

The aim of the present research is to study the presence and correlation of the four constructs in TMTs from the Peruvian textile and apparel industry. These constructs have been previously studied by authors like Jehn (1996), Bollen (1999) and others, but only

Ensley and Person (2005) studied all of them together as behavioural dynamics present in family businesses.

A questionnaire was used to obtain information from 330 medium and large businesses from the Peruvian textile and apparel industry assuming that the questions were answered honestly. This data will be used in next paragraphs to confirm the presence of the constructs and to validate the model which shows the correlation among each one of the constructs.

2. Literature Review

This chapter contains the theory and interrelated concepts that are present and shape this study. The following theory guides the research and establishes the parameters or boundaries around which the research develops and focuses on the specific sections that need to be studied.

2.1 Teams

Performance challenge is a main objective for entrepreneurs every time they launch a business. There are several examples and cases of successful entrepreneurs such as Bill Gates and Steve Jobs who started up small businesses and became a well-known rich and successful man. Although they were responsible for starting their business by themselves as soon as a business grows and with it the size of the organisation; there is a need to include more people as business partners or employees to increase production, sales and profits. To sum up, they move from a single business initiative into an organisation (Katzenbach and Smith, 1993).

Although single and small start-up businesses at their very early stages do not need a team to perform effectively; teams are now a day's one of the most influential trends in the business world due to their importance for organisational success (Mekys, Zydziunaite, Saparnis, Urbonaite, Slyziuviene and Dromantas, 2006; White and Lean, 2008). In fact, Senior and Swales (2004) argued on favour of the proliferation of teams inside organisations because they constitute an efficient form of organizing a business. Even more, teams are extremely important and vital for organisations because most of their key activities are managed by a team and its designated leader (George, 1977).

There are several team definitions, however some of the most important agree that “a team is a small number of people with complementary skills who are committed to a common purpose, performance goals and approach for which they hold themselves accountable” (Katzenbach and Smith, 1993, p. 45). This definition points out characteristics that can apply to any given team, but do not go deeper into the dynamics and subjective characteristics present in any group of people considering the need for interaction.

Even more, Delgado et al. (2007) emphasised the need to differentiate team from group. They argued that team connotes more than group because a group becomes a team when they develop a sense of commitment and synergy among their members. In fact, there are some evident qualities inherent to any team work: higher quality work, results with achieved higher standards, more possibilities to open the great abilities of people, flexibility, and ability to adapt to changes (Merkys et al., 2006).

Inside an organisation there can be several types of teams all of them with different characteristics. One of these classifications organises teams in three different general groups: some are project teams which are temporary and have a unique focus; there are ongoing or functional work teams which are permanent and involve all the people working in a common area and; virtual teams which use technology to communicate and

perform tasks (Scholtes, Joiner and Streibel, 2003). Another classification done by Delgado et al. (2007) group teams considering the type of tasks they do: work teams, parallel teams, project teams, and management teams. The present research goes deeper into an examination of management teams, especially top management teams. It seems clear that teams' importance relies on the organisations' need to increase competitiveness, become more flexible, and easily adapt to a changing economy scenarios (Delgado et al., 2007). But organisations need more than just teams to exceed their planned annual profits; organisations need teams that work in between the next dimensions: orientation to aim a task and achievement, devotion to work and responsibility, communication in teams, team management, team organisation, and team role status in the organization (Merkys et al., 2006).

2.2 Top Management Teams

In 1994, Mobil Oil Corporation's CEO Lucio Noto decided to change the way the company was managed. He decided it was time to move from single-executive leadership to top management team; having as a first task to accelerate the development of the next generation of Mobil's leaders. As a consequence, the Mobil Oil Corporation's top management team re-designed the company's management structure by establishing a new leadership-development profile. This profile was used to identify the best candidates for the top 100 managerial positions which at the same time helped to strengthen the company's strategic position and leadership capacity for the next generation of senior managers (Katsenbach, 1997).

The previous example gives an insight on the importance of a top management team for the company's development. In fact, top management team has great impact on organisations primarily through the strategic decisions they take (Carpenter, 2011). In contrast, Katzenbach (1997), claimed that although organisations believe that an excellent top management team is the key to succeed in a given industry; top management team hardly behave as real teams due to the following reasons: a meaningful purpose for a team at the top is difficult to define, a top management team relates on abstract goals such as improve the company's performance; tangible performance goals are hard to articulate, and at the top goals are much harder to determine; the right mix of skills is often absent, top management team assignments are based on members' formal position rather than skills; no time commitment, because top executives are usually busy, therefore, they can only devote a small part of their time for team's assignment; a top management team does not fit the power structure and top level executives are used to work within a hierarchy early in their careers; finally top management teams are not fast and efficient, it is common that executives have little patience to go through the process of forming, norming and storming that teams commonly require at the start. However, top management teams are still and will continue being important at the top level of any kind of middle or large.

There is no clear definition of what a top management team is. In fact, "the term top management team is used to refer the dominant coalition of senior managers at the top of an organization" (Kippenberger, 1997, p. 23). Even more, a top management team is "usually composed of key managers who are responsible for making, planning, and

execution of business strategies” (Wu et al., 2002, p. 172). None of the previous definitions give a clear insight on what a top management team clearly is in terms of the number, qualities and skills that managers should have to be considered as part of the top management team.

Effectiveness is a key attribute of any top management team. This attribute can be defined as “the extent to and organization as a social system given certain resources and means, fulfils its objectives without incapacitating its means and resources and without placing undue strain upon its members” (Georgopoulos and Tannenbaum, 1957, p. 535). According to Wu et al. (2002), an effective top management team must be able to operate in competitive environments and copy strategies to influence the business’s survival, integrate the relations between important internal departments and external stakeholders, and promote organisational learning. In addition, Cohen and Bailey (1997), stated that there are three dimensions of effectiveness: performance, related to quality and productivity; attitudinal outcomes, as in job satisfaction and trust; and behavioural outcomes, such as turnover and absenteeism.

Being effectiveness such as important top management team’ attribute, it is relevant to establish ways to measure it among teams. According to Delgado et al. (2007), effectiveness can be measured using objective and subjective measures. Objective measures such as return on equity, return on assets, sales growth, total return to shareholder, and change in sales and change in profitability; which is the most common way of measuring effectiveness and the most extended topic in teams’ effectiveness research. In contrast, a second way to perform such measuring is using subjective measures such as attitudinal and behavioural outcomes which consider strategic consensus, information sharing, and affective acceptance. In addition, Ensley and Pearson (2005), argued about the existence of critical behavioural dynamics: cohesion, conflict, group potency and strategic consensus, which will be analysed in detail in following paragraphs.

2.3 The Model

Ensley and Pearson (2005), conducted a research on a sample of 224 top management teams of new ventures to explore the behavioural dynamics of top management teams in family and non-family organisations. The authors’ argued that familial top management teams have better behavioural dynamics than non-family top management teams, due to a component called “familiness” which is present only in familial top management teams.

In order to prove this hypothesis the authors measured, with different scales, four elements of team behavioural dynamics which are decisive for team’s effectiveness: cohesion, consensus, and conflict which together result in team’s potency. Finally, the authors concluded that family top management teams should be separate in two categories: parental top management teams, where the parents are present and familial top management teams, compounded by siblings, cousins and other family members. Parental top management teams have better behavioural dynamics than non-family top management team, but this last group has better behavioural dynamics than familial teams.

The elements considered by the mentioned authors are elements present in the interaction of team members. Even more, the positive presence of these elements can be an indication of team effectiveness. Therefore, it is possible to infer close connections between the three first elements: cohesion, consensus and conflict. In fact, in a research performed by Youngjin and Alavi (2001), these authors found that group cohesion, members attraction to the group, increased task participation which at the same time enhanced group consensus. Additionally, Knight et al. (1999) denoted that team processes or dynamics such as interpersonal conflict and agreement seeking are likely to influence the level of consensus within top management team. Even more, this author also argued that cohesiveness is opposite to interpersonal conflict. The next paragraphs detail one by one the three elements considered by Ensley and Pearsen (2005) as part of the behavioural dynamics within teams.

There is no agreement in the literature about the nature of perceived cohesion. One of the most referred concepts in research literature points out that cohesion “encompasses individual’s sense of belonging to a particular group and his or her feeling of morale associated with membership in the group” (Bollen and Hoyle, 1990, p. 498). The same authors argue that cohesion in a top management team environment refers to the unity of purpose and experience shown by the team as a whole. In fact, it is such the importance of cohesion in group integration that cohesive teams react faster, are more flexible, use superior problem solving techniques, and are more productive and efficient than less cohesive teams (Smith, Smith, Olian, Sims and Scully as cited in Ensley and Pearson, 2005).

Moreover, the study of cohesion as an important element of team’s effectiveness has guided to the development of two perspectives in an attempt to understand the nature of cohesion. “The first perspective gathers research and theory that focuses on factors which contribute to team’s cohesion. The second perspective gathers research and theory that focuses on team cohesion as an independent construct that can be conceptualized and measure apart from the factors that produce it. This last perspective can be divided into two approaches: the first explain cohesion as an objective attribute of the team as a whole and relies primarily on composite measures of inter-member ratings to operationalize cohesion. The second considers cohesion as a function of each member’s perception of his or her own standing in the team” (Bollen and Hoyle, 1990, p. 483).

To comply with its objectives, the present dissertation focuses on the second perspective of cohesion which assets team cohesion as an independent construct measurable independently from the factors that produce it. Additionally, this research considers both approaches of the second perspective, the team as a whole and the personal perceptions. These perspectives and approaches of cohesion were measured using the perceived cohesion scale (PCS) provided by Bollen and Hoyle (1990).

According to Bourgeois (1980), consensus is a key stone in team effectiveness and team performance because consensus precedes action. Even more, consensus among TMT supposes an agreement on the objectives’ priority which leads to a successful attaining. Therefore, and considering the clearness of this concept among all the other concepts,

consensus can be defined as “the ability of the team members to agree on and accept a course of action” (Carpenter, 2011, p. 160). In contrast, Amason (as cited in Ensley and Pearson, 2005), argued that consensus is far more than agreement because real consensus requires active cooperation, faith and trust among members.

Conflict is another element of the behavioural dynamic inside teams. Conflict can be defined as “awareness by the parties involved that there are discrepancies, or incompatible wishes or desires present” (Jehn, 1994, p.225). According to Amason (as cited in Ensley and Pearson, 2005) and Jehn (1994), among top management team there are two types of conflict present: cognitive and relationship conflict. On the one hand, cognitive conflict is task oriented conflict which is considered to be able to improve decision quality. On the other hand, relationship conflict is based on interpersonal issues, likes, dislikes, affective or relationship conflict; therefore, managers or team leaders should pay attention to this type of conflict to manage it and avoid further behaviour complications.

Although, the presence of conflict can be positive or negative for team effectiveness; the lack of conflict has been associated with complacency about problems and decisions (Jehn, 1994). Therefore, it seems that positive conflict, task oriented or cognitive conflict, is needed to encourage conflict of ideas which allows better achieving common objectives. On the contrary, high levels of cognitive conflict are detrimental for group performance. Team members became overwhelmed with the conflicting information, became side-tracked, and lost sight of the main goal of the discussion Jehn (1997). Additionally, interpersonal or affective conflict seriously limits team and individual level performance. In fact, when relationship conflict is present the team members’ efforts focused heavily on solving this conflict and the team’s productivity is affected (Jehn, 1995).

Finally, as mentioned in the first chapter, and as introduced in the proposed model featuring the elements of team’s behavioural dynamics presented by Ensley and Pearson (2005), this research argues that it is possible that, the confluence and good management of cohesion, conflict and consensus, and potency bring as a result performance. The mentioned model places potency in a privilege position because potency is a predictor of performance.

Potency can be defined as “the shared belief members have about the team’s general effectiveness when faced with a broad set of tasks in a complex environment” (Guzzo, Yost and Campbell, 1993, p.89). Even more, “group potency established during group’s development was a significant predictor of work group outcomes later in the group’s existence” (Lester, Meglino and Korsgaard, 2002, p.357). In fact, the potential of the group to contribute to the organisation’s effectiveness is established by the fit of team’s goals with organisation’s goals, the position of the team in the organisation, and the nature of the team’s work (Guzzo et al., 1993).

Although group potency is the result of the parallel construction of individual self-efficacy; group potency and self-efficacy are two different constructs. On the one hand, self-efficacy reflects an individual’s belief about his or her own competence; on the other

hand, group potency reflects the competency of the team as a whole. Therefore, the individual belief of performance may be completely different from their belief about the team's performance (Jong, Ruyter and Weltzels, 2005). Even more, Guzzo et al. (1993), argued that there are internal and external factors which contribute to the team's sense of potency. Internal factors are related to the qualities and attributes of the individual members. External factors depend on the social system the team is embedded in, for example, companies which bring ample resources for teams such as opportunities for training, information, materials, budget, and others. This last factor calls for means to stimulate the team members' perceptual agreement of their potency.

2.4 The Peruvian textile and clothing sector

Nordqvist (2005) work is a commentary on Ensley and Pearson (2005) research detailed on previous paragraphs. This author stated that "familiness" cannot be the only advantage contributing to more effective behavioural processes in familial top management teams. In fact, this author suggests three routes for extending the results of the commented research: extend the perspective on top management teams to more homogeneous teams among well-established industries; extending the concept of "familiness" and, extending the family business definition. Following Nordqvist (2005) recommendations, this work adopts the first route and pretends to research on the relationship between cohesion, consensus, conflict and potency within more uniformed top management teams from a mature industry, in this case, the Peruvian textile and clothing industry was selected because this industry gathers the elements asked by the referenced author as it is discussed in the next paragraphs.

The Peruvian textile and clothing industry has successfully passed through different stages of Peruvian economic history. Shimizu (2004) stated that after 1990's reform and liberalisation established policies, such as privatisation of public companies, simplification and reduction of import taxes, deregulation of foreign exchange regime were introduced in the Peruvian economy, making it more competitive and dynamic due to the introduction of foreign capitals. In fact, foreign capital took over petroleum, mining and banking and telecommunication companies meanwhile national capitals refuge in industries such as construction, cement, agriculture, real states and textile industry. Furthermore, some of the strategies national enterprises used to remain competitive considered foreign investment, fusions and merges, and others.

Nowadays, Peruvian economy is well known in global economy because this country's economy is showing high growth income year by year in comparison with other Latin-American economies. Even more, the 2008 global crisis was successfully borne, showing the triumph of macroeconomic policies based on domestic demand and exceptional growing of construction sector (Dancourt and Jimenez, 2009). In fact, the construction industry is the fastest growing industry in Peru. According to Banco Central de Reservas del Peru and Instituto Nacional de Estadística e Informática (2012), during the last ten years this industry has grown twice its size from 2003 to 2012, having 2007 and 2008 as its best years where this industry achieved a grown of three times its size. Furthermore, this industry's growth is related to Peru's economic growth which produced and increase in public investment and family incomes.

Although macroeconomic anti-crisis' policies avoided recession, which spread all over the world in 2009 because of the world's financial crisis, Peruvian economy only grew 0,9 %. As a result, an important industry, the textile and apparel industry declined because its growth is conditioned to exportation. In fact, this industry was affected worldwide. As an example, yarn and fabric orders decreased in all regions with the exception of Brazil. Even more, China's export of textile and clothing which doubled its growing every year, increased by only 4.7% during 2008. Even more, during 2009, Chinese exports of textile and clothing dropped by 11% due mainly to lower price per unit (Yuen_Hoi, 2009). In recent years, Peruvian textile industry has showed recovery. Moreover, according to Sociedad Nacional de Industrias (2012), Peruvian textile increased its exports during 2012 mostly due to market diversification. In fact, the international financial crisis has turned Peruvian textile exports from Europe to Latin America. Peru exports to neighbour countries such as Venezuela, 33%, Brazil, 5,25%, Colombia, 2,43% and, Mexico, 1,32%, and this percentages are expected to grow in country like Brazil and Mexico, but the major export destination still being USA, 39%.

Although, Areskurrinaga, Barrutia, and Martinez (2007), argued that due to the textile sector maturity and to keep low handmade costs companies have to be re-located to poor countries; these authors also claimed that there are other conditions needed to secure competitiveness: technology, design, distribution, brand, distance, and clusters. In fact, due to the need of controlling the distribution chain, companies have to reduce inventories and require better lead time. For example, after the 2001 terrorist attacks, the USA companies reduced strategically their inventory and searched for new suppliers closer to USA shores like Mexico and Central America; they also decided to look for local suppliers in case new terrorist attacks disrupt transportation lines (Yossi Sheffi, 2002). Additionally, developed countries maintain their textile and clothing industry due to distribution needs and the fact that the textile industry is capital intensive. In contrast, developing countries prefer clothing industry because it is handmade intensive and has low entry barriers. In both cases, developed and developing countries, favour the permanence of the textile and clothing industry because it is an important source of employment and do not required skilful employees.

Latin America, a continent of developing nations, is home of four major textile producing nations: Peru, Brazil, Colombia and Mexico. Peru is South America's biggest clothing exporter and boasts unique domestic raw materials, especially alpaca fibre and Tanguis cotton (De Coster, 2012). Globalisation forced Latin American countries to find their place in the world within a Western Hemisphere dominated by USA. This struggle is visible at analysing strategies applied by textile and clothing companies (De Coster, 2012). In fact, Latin America is USA's second clothing provider after Asia. Moreover, between 1992 and 2003, Latin American clothing exports increased from 1,542 millions of square meters equivalent to 6,193 million. This increase shows clearly this industry's growing tendency. Additionally, this industry offered Latin American countries the possibility of diversifying their exports which, during the 80's, consisted almost entirely in agricultural products (Condo, Jenkins, Figueroa, Obando, Morales and Reyes, 2004).

Peru, Latin America's biggest clothing exporter, took advantage of the regional tendency. In fact, Peruvian clothing and textile exports grew from 9,5% of total Peruvian exports in 2000 to 16% in 2007 (Banco Central de Reservas del Peru and Instituto Nacional de Estadística e Informática, 2012). Moreover, according to Cock, Ortiz, Trujillo and Guillen (2004), there are 13,469 businesses in this sector. These companies can be divided into small, medium and large sized enterprises. In fact, there are 230 medium and large enterprises which sell over 5 and 240 million new soles, local currency, every year. These enterprises are concentrated in Lima, the country's capital, due to the convergence of raw material suppliers, input providers, and port infrastructure; and Arequipa, the second city in economic activity importance, due to this city the largest Alpaca fibre production concentrates in the country. Even more, according to Banco Central de Reservas and Instituto Nacional de Estadística e Informática (2012), the textile and apparel sector represents 11% of the manufacture industry's GDP and 1,6% of Peru's GDP.

Finally, this industry has a long tradition in Peru. The beginnings of the textile and apparel work can be traced even before Inca's empire. Today, this industry's maturity can be established following the sector's new strategies and its importance for the country's employment rates. According to Sociedad Nacional de Industria (2012), the textile and apparel industry has designed new strategies to overcome the financial crisis and secure the sectors growth and profitability, one of the strategies considers the creation of national brands to compete in international markets; the success of local brands such as Topitop, Michele Belau and 15.50 are good examples of the implementation and significance of this strategy.

This tendency can be found also in the Chinese textile and apparel industry where, according to the China Textile and Apparel Council (2012), China's textile and apparel industry has passed from product's age, quality's age to brand's age. In fact, China has a large number of independent brands, including 75 famous Chinese trademarks and 38 China famous brands. Another good example can be found in the history and development of Italy's manufacturing district Pratos, once Europe's centre of textile and apparel manufacturing and distribution, which after in 2001 due to the a series of international events had to change its structure and adopt the development of brands and specialized in high quality products as an alternative to secure competitiveness and profit (Unione Industriale Pratese, 2012).

Although the textile and apparel industry represents a small portion of Peru's GDP, 1, 6%, the importance of this sector relies on the employment opportunities it offers to skilful and non-skilful individuals. Ministerio de Trabajo y Promocion del Empleo (2012) reported that, only in Lima, the textile and clothing sector brings employment to the 7% of the population in working age. Even more, the work conditions and human rights protection in this industry are among the best in Latin America. For example, in Argentina, labour unions gather only formal employees, and in Chile the possibility to establish a labour union is reduced to employees working for a company; in contrast, Peru holds the biggest number of labour unions and they include all sorts of employees and people dedicated to the textile industry (Observatorio Social de Brazil, Union de Costureros y Cooperativa La

Alema de Argentina, INTI, Red de Maquilas Solidarias de Mexico, Red Latinoamericana de Trabajadores a Domicilio, and SOMO, 2008).

2.5 Conclusion

This literature review has as purpose to give an insight in team and top management team concepts to establish its components, importance and relation with the company's success. However, it is clear that not any team can be considered a top management team because the conditions a top management team faces are beyond any regular team's developing scenario. In fact, top management teams hold elements that can be considered unique, for example, a top management team regularly begins with a group of people which is not related because of skill needs, or emotional attachment, instead, this top management team gets together because of its members managerial position in the company (Katzenbach, 1997), making it impossible to call it a team. Therefore, top management teams' dynamics are complex and its study requires the analysis of components outside financial measures and enters into more personal and behavioural dynamics such as cohesion, conflict, consensus and potency.

Although, behavioural dynamics can be measured and tested in any top management team, this research argues that cohesion, conflict and consensus, together in a positive convergence, give as a result potency. In fact, this chapter's conceptual analysis of these elements allows establishing their importance for team effectiveness which is the desired outcome for any top management teams performance. Moreover, to measure these behavioural elements some conditions must be accomplished. In fact, Nordqvist (2005) argued that appropriate way to measure these elements is by doing so in top management team working in companies which are part of mature industries. This research argues that the Peruvian textile and apparel industry is mature enough due to its history and importance in the country's economy, but most of all due to the new strategies and considerations that have as objective the success of the industry in the future.

2.6 Summary

This chapter presents the theoretical background which gives an insight in to the concepts and theories behind the teams, top management team, the model and the Peruvian textile and apparel sector. These concepts are important to understand and create a framework for the study.

According to Katzenbach and Smith (1993) "a team is a small number of people with complementary skills who are committed to a common purpose, performance goals, and approach for which they hold themselves mutually accountable. A top management team, TMT, is "the dominant coalition of senior managers at the top of the organization" (Kippenberger, 1997, p.23).

Behavioural dynamics are present among top management teams. For example, according to Bollen (1999), Cohesion is a behavioural construct which can be analysed through two latent variables: sense of belonging and feeling of morale. Consensus can be defined as "the ability of the team members to agree on and accept a course of action" (Carpenter, 2011, p. 160). Conflict is "awareness by the parties involved that there are discrepancies,

or incompatible wishes or desires present” (Jehn, 1994, p.225). Finally, Potency is conceptualised as “the shared belief members have about the team’s general effectiveness when faced with a broad set of tasks in a complex environment” (Guzzo et al., 1993, p.89).

The Peruvian textile and apparel industry sector has being chosen because is one of the mature and homogeneous sectors in Peruvian economy. This sector gathers a large number of businesses being small business the large quantity. This industry success relies on the new politics and measures taken to improve competitiveness and compete at the highest international level.

3. Method

After presenting the objective and the reasons behind this research in the previous chapters, and also presenting the literature review to understand the elements involved and the framework in which the research was developed, this chapter presents the research design, explains the convenience of the method, the research questions, the population under study and the instrument used to collect information among others.

3.1 Research Method and Design Appropriateness

According to Creswell (2009), there are four worldviews considered to develop a research: post positivism, constructivism, advocacy/participatory, and pragmatism. This research uses the post positivism or so called scientific method because it has better results in quantitative researches. In fact, this research uses empirical observations, measurement and theory verification to propose the four variables model presented in the first chapter.

Several studies have researched about the perception of cohesion, conflict, consensus and potency, but only Ensley and Pearson (2005) research gathered them in one work. This kind of research has never been done in the Peruvian textile and apparel industry or in any other Peruvian industry. This research presents one hypothesis which have been exposed in the first chapter. According to Sekaran (2003), researches which involve the use of hypothesis generally explain the nature of certain relationships, or differences among groups. The present study researches the possibility of correlation among cohesion, conflict, consensus and potency in the top management teams in the Peruvian textile and apparel industry and presents a model (figure 4) that could explain this relationship. The reason behind this analysis relies in the fact that this is a transversal study: it collects data at one specific point in time. Therefore, due to this peculiarity, this study has to focus on correlation rather than simultaneous influence, because this can only be determined using a longitudinal study.

Additionally, this research is quantitative and uses a questionnaire as instrument to collect information. The questionnaire is an accepted instrument in this kind of research where finding the relationship between elements is the objective. In the present case, the questionnaires are used to favour an exploratory research to preliminary study the possibility of correlation among the four constructs, the existence of a relationship between them, and to validate the proposed model (Creswell, 2009).

The targeted population was established by discarding all the companies in the textile and apparel sector which do not have a top management team. The existence of a top management team was established by each one the firm's CEOs. Even more, firms' CEOs decided who among the firms' managers are considered as a member of the firms' TMT. Therefore, all the individuals belonging to a top management team in a medium or large company were target as subjects under study. All of them were approached with a questionnaire after receiving consent from the firms' CEO.

Several studies have used the quantitative method to establish the existence of one or more of the four constructs. For example, Bollen and Hoyle (1990) researched on the perception of cohesion among two different groups: students at a small college and residents of a midsized city. These authors applied a questionnaire to each one of these groups' members to establish the individuals' perception of cohesion.

Another example of the use of a questionnaire in a qualitative research regarding behavioural constructs comes from Guzzo et al. (1993). These authors researched on the analysis of potency elements and measurement. They tested the validity of the questionnaire used to measure potency by first analysing questionnaires used in other studies and second applying an eight-item measure of potency. They applied the questionnaire on 19 teams from one geographic location of a consumer products company.

Finally, mathematical and statistical models and tools are used to process data and find values to possibly prove the existence of correlation and relationship between constructs. The Exploratory Factor Analysis, employed to find homogenous groups of observed variables which were used in the Structural Equation Modelling (SEM) in order to create a model and finally to determine how the model fits the four constructs and establish the validity of the proposed model for the data collected from the population under study.

3.2 Research Question

One research question is taken into consideration in the present research:

1. What is the relationship between cohesion, consensus, conflict and potency in TMTs working at Peruvian textile and apparel firms?

3.3 Population

The Peruvian textile and apparel sector has a large number of firms which operate in a variety of conditions. This research, following Nordqvist (2005), focuses in this particular sector (allowing choice due to its large number of companies) on an important number of firms which are all part of a homogeneous sector.

Therefore, the population in this research is defined by the total medium and the large firms reported by the Peru Top Publications (2007) and Peruvian Exporters Association (ADEX in Spanish). According to these two sources, there are 330 medium and large firms in this sector. These firms have a number of employees between 50 and 200 the medium firms, and over two hundred the large firms (Shimizu, 2004).

The selected group of firms is considered legal businesses located mainly in cities like Lima and Arequipa. The specific groups under analysis are the top management teams working in these firms. The respondents are top management teams members whom were identified by each business's CEO. A questionnaire was sent to all teams' members in all 330 firms. As result, 196 answered questionnaires were obtained from 72 companies. The next table shows all the 72 firms that took part in this research.

Lima	Arequipa	Piura	Ica
TEXTILES CAMONES	MICHELL & CIA S.A.	IND. TEXTIL PIURA S.A.	TEXTIL DEL VALLE
SOUTH BAY APPAREL PERU S.A.C.	INCALPACA TPX S.A.		
TOPY TOP S.A.	INCA TOPS S.A.		
CONSORCIO CAROLINA S.A.C.	TEXAO LANAS S.A.C.		
EL MODELADOR S.A.	FRANKY Y RICKY		
INDUSTRIAL GORAK S.A.	TEXTIL VISO S.A.C.		
MODAS DIVERSAS DEL PERÚ S.A.C.	BORDADOS DEL SUR S.A.C.		
TEXTIL ARLEY S.A.C.	MAKITEX CONSORCIO TEXTIL		
CONFECCIONES POLCYR S.R.L.	TEXTILON PERU S.A.C.		
PERU PIMA S.A.	CONFECCIONES PARETTO		
TEJIDOS SAN JACINTO S.A.	MFH KNITS S.A.C.		
CONFECCIONES TEXTIMAX S.A.	MANUFACTURAS DEL SUR S.A.		
INTEXAP S.R.L.	DOLPHINTEX S.A.		
MANUFACTURA CHRISTCI S.R.L.			
BAVELA S.A.C.			
TEXTILES BUSTAMANTE S.A.			
CONFECCIONES FOKKER			
INDUSTRIAS DE LA MODA S.A.			
HILANDERÍA DEL ALGODÓN PERUANO			
FILASUR S.A.			
TEXTIL OCÉANO			
CIA INDUSTRIAL ROMOSA S.A.C.			
HILANDERIA ANDINA			
INDUSTRIAS NETTALCO S.A.			
CIA INDUSTRIAL NUEVO MUNDO			
PERÚ FASHIONS			
TEXTIL SAN CRISTOBAL			
SERVICIO DE PUNTO Y ACABADO S.A.C.			
FIJESA SAC			
DISEÑOS FILIPPO ALPI S.A.			
UNIVERSAL TEXTIL			
CORPORACION DAMHER			
MAKLU S.A			
CIA. IND. TEXTIL CREDISA-TRUTEX S.A.A.			
ETIQUETAS ZALAQUETT DEL PERU S.A.C.			
COTTON EXPRESS PERU S.A.C.			
MAN. DE PASADORES Y CINTAS SAC			
FIBRAS QUIMICAS INDUSTRIALES S.A.			
DARLAS COLLECTION			
ALL COTTON S.A.			
INKA DESIGNS S.A.C.			
TEXFINA S.A.			
SAMITEX			
PRODUCTOS DEL SUR S.A.			
KATHERINE FASHION S.A.C.			
GRUPO SARFATY			
FARAH S.R.L.			
V & V BUSINESS & FASHION S.A.C.			
PERUVIAN HOLDS S.A.C.			
SERVICIO DE CONFECCIONES A1 S.A.C			
MANUFACTURAS AMERICA E.I.R.L.			
FIVE EMPRESAS S.A.C.			
TEXTIL POLITEX S.A.C.			
SERVICIOS FLEXIBLES SAC			
L & Z TEXTIL S.A.			
SUMIT S.A.C.			
TEXTILES LA MODA S.A.C.			

Table 1. Peruvian Textile and Apparel Firms by Location, by the Researcher.

3.4 Informed Consent

All the selected companies were informed about the purpose of the study and decided to participate voluntarily. The researcher approached firms' CEOs through a letter and got an appointment with each one of them to explain the purpose of the research. In this meeting, the researcher presented the instruments to be applied. After confirmation of participation, the CEOs signed an Inform Consent Form making clear their support and collaboration to the development of the research.

3.5 Confidentiality

The names of the final participant will remain confidential as well as the data base. Because the respondents were not asked to write down their names there is no record of the identity of the participants, but although the number of respondents and the firm origin can be established, this information will remain confidential following the agreement between the researcher and the firms' CEO.

3.6 Geographic Location

The study was conducted in Peru and covered all the medium and large firms in the textile and apparel sector. These firms are located mainly in Lima and Arequipa.

3.7 Data Collection

After identifying the 330 businesses as the selected population, an interview was held with each business's CEO. The interview had as purpose to get the companies' participation and to obtain information about the number of top management teams' members and the right day and hour to apply the questionnaire.

The questionnaires were applied in the top management teams' work place with assistance of MBA students who were previously familiarised with the questionnaire to avoid errors during the data collection. These MBA students are part of CENTRUM and were randomly supervised by the researcher.

The questionnaires were divided in four blocks each one of them containing specific questions for cohesion, consensus, conflict and potency. These different blocks were not presented as such to the subjects to favour a spontaneous answer to each question.

3.8 Instrumentation

The instruments used in this research have being applied and proved by other authors such as Ensley and Pearson (2005) in previous researches. In fact, this research specifically uses these instruments to in some degree follow these authors' work. The next paragraphs describe the instruments and give insight in their creation and previous use.

The questionnaire, originally in English, was first translated into Spanish and then translated back into English to establish its accuracy. The questionnaires were applied in Spanish due to the fact that all the subjects were Spanish speakers. The applied instrument was composed of six sections, two of them asking for general information about the firm and subject, and the next four sections assessing the subjects' perception of cohesion, consensus, conflict and potency in their top management teams.

Potency was measured by Ensley and Pearson (2005) under the hypothesis that this behavioural dynamic characteristic improves top management team performance. The instrument used to measure this construct was a revised eight-item measure of potency derived from the original 33 items of Shea and Guzzo (as cited in Guzzo et al., 1993) questionnaire. The reported internal consistency reliability of Potency for this questionnaire was .88. Meanwhile, Pearce, Gallagher and Ensley (2002) obtained internal consistency reliability for Potency of .89 in a first time, and .93 in a second time.

Consensus and performance were measured by the Strategy Orientation of Business Enterprises (STROBE) Scale developed by Venkatraman (1989). This scale has eight dimensions: aggressiveness, analysis, defensiveness, futurity, proactivity, riskiness, profitability and growth. All these dimensions were presented in 37 Likert items to measure the business strategy in order to devise the extent to which consensus influences top management team performance. Previous researches have demonstrated the validity and reliability of the STROBE scale. In fact, Ensley and Pearson (2005) obtained alpha coefficients ranging from .68 to .79 for this scale during their investigation.

The Perceived Cohesion Scale (PCS) was developed by Bollen and Hoyle (1990). This scale presents six items three of them assess the individual's sense of belonging while the other three assess the individual's feeling of morale. After a preliminary analysis applying this scale in different groups the authors suggested that it shows indicators with high reliability, validity and some degree of invariance in different groups presenting a .96 goodness of fit. Other studies performed by Chin, Salisbury, Pearson, and Stollak (as cited in Ensley Pearson, 2005) to examine the psychometric properties of the PCS, using the confirmatory factor analysis to test the two-factor structure, found acceptable goodness-of-fit indexes for the belonging and moral constructs. In fact, the two factors yielded Cronbach's alphas of .95 and .87 respectively which shows the reliability of the test. Even more, Ensley and Pearson (2005) obtained Cronbach's Alphas coefficients of .83 for morale and .85 for the sense of belonging.

Jehn (1995) developed the Intragroup Conflict Scale (ICS) to measure two dimensions of conflict: relationship and task or cognitive conflict. This scale was originally developed with 9 items, but it was modified by Pearson, Ensley and Amason (2002) into a 6-item scale. These authors argued that the 9-items scale lacked validation. Therefore, they applied the best practices in scale development in several scales with different number of items and decided that the 6-items scale complied with the predictive validity required by a scale. Additionally, this scale was tested by several theoretically derived hypotheses and in all of them obtained the confirmatory validity of the scale. This research applies the modified 6-item scale as used in Ensley and Pearson (2005) research. In fact, this authors' research, confirming the result of previous research, obtained a subscale reliability of .79 for cognitive conflict and .85 for affective conflict.

It is important to point out that authorisation for the use of all the four instruments was obtained directly from their developers. Later, the four instruments were grouped in one questionnaire translated into Spanish and translated back into English. This Spanish questionnaire was presented to all firms' top management team in order to collect

information for this research. A modified version also in Spanish was applied in a pilot study to determine the validity and reliability. This pilot study was applied also to determine in which degree the respondents understood the questionnaire. The importance of this pilot relates on the fact that questionnaires in their original language, English, lost some clearness when translated into Spanish. To avoid such distortion it was needed to apply a first translated version, collect the respondents' impressions and finally modify it to secure the clearness of the questions. All data collected were reviewed with exploratory factor analysis and a structural equation model. The final questionnaire is shown in Appendix A.

3.9 Validity and Reliability

Validity of a measure is considered to be the degree in which the tool measures what it claims to measure, in other words, "whether the items included in an instrument cover the whole domain of factors it is intended to address" (Simon, 2006, p. 77). The validity of the instruments used in this research has been proved by the authors Guzzo (1993), Bollen and Hoyle (1990), Jehn (1994), Venkatraman (1989), who previously developed each one of the scales and other authors, such as Ensley and Pearson (2005), who successfully applied the scales in their research.

Reliability refers to the extent in which a measurement gives results that can be considered consistent. This attribute can be measured using Cronbach's Alpha. Moreover, Cronbach's Alpha allows measuring the scale's reliability in using observed variables to establish the existence of latent variables which in this case are the origin of four constructs: cohesion, conflict, consensus and performance.

Simon (2006), argued about the importance of internal reliability. According to this author internal reliability is "the extent to which items in an index or score are correlated with one another and, by extension, the extent to which they measure the same thing" (p.76). Additionally, Schmitt (1996) claims about the use of Cronbach's Alpha as the most common measure of consistency or internal reliability. In fact, according to this author, reliability is a proportion of test variance that is attributable to group and general factors; specific item variance is considered error.

Internal consistency test is a way to evaluate the reliability of tests or scales where a group of items are expected to measure a certain attribute. According to Miles and Gilbert (2005), this test consists on finding the degree to which variance in the indicators of a construct can be attributed to the latent variables required to explain the covariance among the indicators. Even more, according to these authors, a way to measure the internal consistency is through the Cronbach's Alpha. In this study, the Cronbach's Alpha was applied to calculate simultaneously the reliability of each of the constructs: consensus, potency, cohesion and conflict as a whole because the individual's perception of the presence of these constructs were requested in a single questionnaire without any specification of the relation between the question and the construct. The items used for this calculation was the number of variables or questions per construct, asked in Appendix 1, as well as the variance's proportion of each of the elements regarding the total variance.

The next formula was used for the calculation:

$$\alpha = \frac{N}{N - 1} \left[1 - \frac{\sum_{i=1}^N \sigma_i^2}{\sigma_x^2} \right]$$

Where N is the number of components, σ_i^2 is the variance of the observed total test scores, and σ_x^2 is the variance of component i. The resulting Cronbach's Alpha after processing the data in a first attempt using SPSS was .802; this result indicates a satisfactory level of reliability for the research. In a last attempt to process the data, after removing the items which showed lack of homogeneity among a group of homogeneous values, the resulting Cronbach's Alpha was .78.

Additionally, reliability can also be measured using inter-rated reliability (rWG). Inter-rated reliability refers to the concern that scores may vary from rater to rater. Authors like James, Demaree, and Wolf (1993) focused on the interpretation of rWG as a measure of agreement among judges' rating of a single target, and presented and observed that rWG (j) was really a measure of within-team agreement rather than a measure of within-team reliability as it was conceived in the first place. Ensley and Pearson (2005), developed this inter-rated reliability for cohesion, conflict, potency and consensus in order to check the consistency among raters. Additionally, it is important to remember that "without set criteria to guide the rating process, two independent raters may not assign the same score to a given response. Each rater has his or her own evaluation criteria" (Simon, 2006, p.76).

3.10 Data Analysis

The data collected from the questionnaires applied to the 196 subjects was a process using statistics programs. These questions or observed variables were presented using a Likert scale where questions of cohesion were presented in a response scale of 10 and the rest of the constructs were presented with 5 possible responses. Because other authors already have developed scales and established the four constructs under analysis, questionnaires are validated using Cronbach's Alpha Technique (internal consistency index). The closer Cronbach's Alpha value to the unit, the more reliable the questionnaire is, meaning that it can be used to make stable and consistent measures.

First, the data base was processed using SPSS 21. This first analysis, which is an exploratory analysis, pretends to confirm the adequacy of the questions in the scales to measure the correlation of the four constructs in the top management teams in the Peruvian textile and apparel industry. The conceptualisation and measurement of these constructs in different scenarios were already established by Bollen and Hoyle (1990), Jehn (1997), Guzzo et al. (1993), and Venkatraman (1989) respectively. These authors developed scales, using observed variables, to determine the presence of latent variables and later constructs. In fact, these constructs have long been accepted as a form of strategy and these scales were designed as a perceptual measure of how much of this strategy is being used in the firm (Venkatraman, 1989).

This analysis presented groups of observed variables which grouped together in small homogeneous groups which shared alike values. This data analysis presented a Cronbach's Alpha of .802 for reliability; a Kaiser-Meyer-Olkin of .769 for the good fit to the statistical technique and a total explained variance of 60.988 for the accuracy in which the variables explain the observed phenomenon.

Furthermore, the first data analyses showed the presence of some observed variables without any homogeneity and with no apparent group to fit in. Therefore, seven variables, V37 and from V42 to V47, were separated from the data base and a second processing using SPSS was applied. The reasoning behind this lack of homogeneity from these variables has to do with different factors related mostly to industry's peculiarities. For example, variable 37 has no homogeneity possibly because the textile and apparel industry do not focus on short term due to the long term use in contracts and production. As for variables from 42 to 46, these are observed variables to establish the presence of proactivity as part of the construct consensus. These variables did not present homogeneity, because both the textile and the apparel industry don't have strong policies about brand developing as they are used to produce in bulk; these industries also rely on contracts to secure future production which reduce notably future risk. This is also the reason behind variable 47 lack of homogeneity. Also in this first analysis two of the latent variables: growth and profit and their 8 observed variables were excluded because they measure performance which is not the aim of this study.

A second data base processing presented results like a Cronbach's Alpha of .801, a Kaiser-Meyer-Olkin of .791 and a total explained variance of 60.398. Finally, a third analysis was performed after removing another two variables, V6 and V32. Variable 6 was removed because neither the textile or the apparel industry have the need to compete, due to the security that long data clients and a product that can be considered a commodity brings to these industries. Variable 32 was removed because there was no consistency on the answers obtained from the subjects under analysis. On the one hand, the textile industry is capital intense and uses technology in all their processes therefore do not rely on large numbers of workers. On the other hand, the apparel industry is work intense and hires large numbers of workers when needed. The resulting 42 observed variables were grouped in their respective scale as showed in the following tables. Additionally, each one of the resulting scales with their observed variables were tested using reliability statistics and the Inter-Item Correlation Matrix.

3.10.1 Cohesion Scale

The scale developed by Bollen and Hoyle (1990) to measure the perception of cohesion does not exactly measure the perception of this construct in the TMTs from the Peruvian textile and apparel sector. In fact, after subjecting this scale to a reliability analysis one out of these six original observed variables of the scale had to be excluded because it did not significantly contribute to the analysis.

The final scale presents five observed variables obtaining a Cronbach's Alpha equal to 0.93. This value is close to the unit so it verifies the reliability of the questionnaire. Moreover, the values present in the Inter-Item Correlation Matrix are close to the unit therefore explaining the observed variables homogeneity which allows to measure cohesion, and also how these observed variables are related to the two latent variables: sense of belonging and feeling of morale.

COHESION SCALE

Sense of belonging		Totally disagree										Totally agree									
		0	1	2	3	4	5	6	7	8	9	10									
V1	1. I feel a sence of belonging of this company's TMT																				
V2	2. I feel that I am a member of this company's TMT																				
V3	3. I see myself as part of this company's TMT																				
Feeling of morale		Totally disagree										Totally agree									
		0	1	2	3	4	5	6	7	8	9	10									
V4	1. I am enthusiastic about being part of this company's TMT																				
V5	2. I am happy to be part of this company's TMT																				

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.930	.931	5

Table 2. Cohesion Cronbach's Alpha Reliability Statistics

Inter-Item Correlation Matrix

	V1	V2	V3	V4	V5
V1	1.000	.910	.834	.635	.639
V2	.910	1.000	.830	.657	.666
V3	.834	.830	1.000	.594	.639
V4	.635	.657	.594	1.000	.901
V5	.639	.666	.639	.901	1.000

The covariance matrix is calculated and used in the analysis.

Table 3. Cohesion Inter-Item Correlation Matrix

3.10.2. Conflict Scale

The scale developed by Jehn (1994) to measure the perception of conflict exactly measure the perception of this construct in the TMTs from the Peruvian textile and apparel sector. In fact, after subjecting this scale to a reliability analysis, the eight original observed variables proved to be homogeneous significantly contributing to the analysis. This scale holds eight observed variables with a Cronbach's Alpha equal to 0.878; this value is close to the unit therefore, the questionnaire is reliable and its questions or

observed variables are related between each other. Furthermore, the values present in the Inter-Item Correlation Matrix are also close to the unit and explain the observed variables homogeneity which allows to measure conflict; and also show how these observed variables are related to the two latent variables: affective conflict and cognitive conflict.

CONFLICT SCALE

Affective conflict		None					Lots						
		1	2	3	4	5	1	2	3	4	5		
V7	1. How much friction is present in your work?												
V8	2. To what extent are personalities clashes present in your work group?												
V9	3. How much anger is present in your work group?												
V10	4. How much emotional conflict is there in your work group?												
Cognitive conflict		None					Lots						
		1	2	3	4	5	1	2	3	4	5		
V11	1. To what extent are there differences of opinions regarding the task in your work group?												
V12	2. How often do people in your work group disagree about the work being done?												
V13	3. How frequently are there disagreements about the task you are working on in your workgroup?												
V14	4. How often do people in your work group disagree about ideas regarding the task?												

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.878	.878	8

Table 4. Conflict Cronbach's Alpha Reliability Statistics

Inter-Item Correlation Matrix

	V7	V8	V9	V10	V11	V12	V13	V14
V7	1.000	.678	.602	.527	.483	.477	.393	.367
V8	.678	1.000	.653	.537	.520	.396	.329	.267
V9	.602	.653	1.000	.677	.441	.388	.442	.344
V10	.527	.537	.677	1.000	.430	.422	.440	.409
V11	.483	.520	.441	.430	1.000	.542	.465	.404
V12	.477	.396	.388	.422	.542	1.000	.519	.466
V13	.393	.329	.442	.440	.465	.519	1.000	.641
V14	.367	.267	.344	.409	.404	.466	.641	1.000

The covariance matrix is calculated and used in the analysis.

Table 5. Conflict Inter-Item Correlation Matrix

3.10.3. Potency Scale

The original scale developed by Guzzo (1993) to measure the perception of potency consisted on eight observed variables. After subjecting this scale to reliability analysis, all eight of the observed variables had to be taken into consideration because they significantly contribute to the study. In fact, the eight observed variables contribute on

measuring the perception of consensus in the TMTs from the Peruvian textile and apparel sector.

This scale holds a group of eight observed variables with a Cronbach Alpha equal to 0.832. Being this value close to the unit it is possible to state that the applied scale is reliable. Even more, it is possible to state that the eight observed variables are related. Despite the fact that some of the values present in the Inter-Item Correlation Matrix are less close to the unit, these values should be considered, together with the observed variables presenting better values, as a group. The reason behind this logic has to do with the fact that the Cronbach's Alpha value showed for the whole set of observed variables is closed to the unit which validates the whole set.

POTENCY SCALE

		None			Lots	
		1	2	3	4	5
V15	1. This team has confidence in itself					
V16	2. This team believes it can become unusually good at producing high-quality work					
V17	3. this team expects to be known as a high-performing team					
V18	4. This team feels it can solve any problem it encounters					
V19	5. This team believes it can be very productive					
V20	6. This team can get a lot done when it works hard					
V21	7. No task is too tough for this team.					
V22	8. This team expects to have a lot of influence around here.					

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.832	.845	8

Table 6. Potency Cronbach's Alpha Reliability Statistics

Inter-Item Correlation Matrix

	V15	V16	V17	V18	V19	V20	V21	V22
V15	1.000	.476	.274	.428	.478	.423	.221	.384
V16	.476	1.000	.458	.449	.446	.441	.247	.443
V17	.274	.458	1.000	.447	.399	.292	.181	.289
V18	.428	.449	.447	1.000	.608	.532	.291	.452
V19	.478	.446	.399	.608	1.000	.481	.266	.463
V20	.423	.441	.292	.532	.481	1.000	.458	.594
V21	.221	.247	.181	.291	.266	.458	1.000	.435
V22	.384	.443	.289	.452	.463	.594	.435	1.000

The covariance matrix is calculated and used in the analysis.

Table 7. Potency Inter-Item Correlation Matrix

3.10.4. Consensus Scale or STROBE

STROBE is the name of the original scale developed by Venkatraman (1989) to measure the perception of consensus consisted on thirty seven observed variables, eight of them were removed because they measure growth and profit dimension. After subjecting this scale to a reliability analysis eight of these observed variables had to be removed because they did not significantly contribute to the study. In fact, only twenty one out of the original thirty seven observed variables contribute on measuring the perception of consensus in the TMTs from the Peruvian textile and apparel sector.

This scale presents a set of twenty-one observed variables with a Cronbach's Alpha of 0.823. This value is again close to the unit therefore, the questionnaire is reliable. Even more, the twenty-one observed variables are related.

Despite the fact that some of the values present in the Inter-Item Correlation Matrix are less close to the unit, these values should be considered, together with the observed variables presenting better values, as a group. The reason behind this logic has to do with the fact that the Cronbach's Alpha value showed for the whole set of observed variables is closed to the unit which validates the whole set.

Additionally, the values present in Inter-Item Correlation Matrix group together homogeneously in the same latent variables, but heterogeneously between different latent variables. The latent variables for this construct are: aggressiveness dimension, analysis dimension, defensiveness dimension, futurity dimension and riskiness dimension.

STROBE

		None					Lots						
		1	2	3	4	5	1	2	3	4	5		
Agressiveness dimension													
V23	1. Sacrificing profitability to gain market share.												
V24	2. Cutting prices to increase market share												
V25	3. Setting prices below competition												
V26	4. Seeking market share position at the expense of cash flow and profitability												
Analysis dimension													
		1	2	3	4	5	1	2	3	4	5		
V27	1. Emphasize effective coordination among different functional areas.												
V28	2. Information systems provide support for decision making.												
V29	3. When confronted with a major decision, we usually try to develop through analysis.												
V30	4. Use of planning techniques.												
V31	5. Use of the outputs of management information and control systems.												
Defensiveness dimension													
		1	2	3	4	5	1	2	3	4	5		
V33	1. Significant modifications to the manufacturing technology.												
V34	2. Use of cost control systems for monitoring persomance.												
V35	3. Use of production management techniques.												
V36	4. Emphasis on product quality through use of quality circles.												
Futurity dimension													
		1	2	3	4	5	1	2	3	4	5		
V38	2. We emphasize basic research to provide us with future competitive edge.												
V39	3. Forecasting key indicators of operations												
V40	4. Formal tracking of significant general trends												
V41	5. "What-if" analysis of critical issues.												
Riskiness dimension													
		1	2	3	4	5	1	2	3	4	5		
V48	2. We seem to adopt a rather conservative view when making major decisions.												
V49	3. New projects are approved on a "stage-bystage" basis rather than with "blanquet" approval.												
V50	4. A tendency to support projects where the expected returns are certain.												
V51	5. Operations have generally followed the "tried and true" paths.												

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.823	.840	21

Table 8. Consensus Cronbach's Alpha Reliability Statistics

Inter-Item Correlation Matrix

	v23	v24	v25	v26	v27	v28	v29	v30	v31	v32	v33	v34	v35	v36	v37	v38	v39	v40	v41	v48	v49	v50	v51				
v23	1.000	.595	.347	.447	-.171	-.157	.134	.118	-.036	-.183	.228	.227	.190	-.160	.111	-.157	.048	.111	-.120	.009							
v24	.595	1.000	.490	.336	.090	.078	.112	.070	-.032	-.170	.092	.159	.175	.106	.028	.094	.097	.028	.119	-.054	-.094						
v25	.347	.490	1.000	.347	.043	.098	.079	.091	-.020	-.169	.061	.078	.060	.011	.027	.018	.050	-.025	-.005	-.034	-.045						
v26	.447	.336	.347	1.000	.108	.045	.035	.078	.055	.088	.062	.094	.067	.173	.122	.186	.258	.030	.100	.060	.146						
v27	-.171	.090	.043	.108	1.000	.384	.225	.342	.279	.161	.197	.232	.193	.067	.162	.147	.199	.007	-.025	.136	.191						
v28	.157	.078	.098	.045	.384	1.000	.383	.380	.494	.349	.305	.311	.265	.288	.230	.186	.337	-.020	.032	.114	.161						
v29	.134	.112	.079	.035	.225	.383	1.000	.358	.462	.168	.273	.227	.122	.294	.294	.404	.355	.120	.127	.288	.325						
v30	.118	.070	.091	.078	.342	.389	.358	1.000	.863	.245	.424	.357	.271	.207	.332	.270	.321	-.102	.012	.065	.150						
v31	.036	-.032	-.020	.055	.279	.494	.462	.863	1.000	.331	.490	.427	.343	.303	.407	.302	.407	.324	-.046	.110	.147	.218					
v32	.163	.170	.169	.088	.161	.349	.168	.345	.331	1.000	.514	.591	.591	.409	.253	.326	.202	.215	.068	.122	.074	.123					
v33	.228	.092	.081	.062	.197	.305	.273	.424	.490	.514	1.000	.761	.390	.243	.415	.364	.340	-.016	.207	.165	.134						
v34	.227	.159	.078	.094	.232	.311	.227	.357	.427	.591	.761	1.000	.533	.278	.332	.216	.339	.013	.158	.105	.110						
v35	.190	.175	.060	.067	.193	.265	.122	.271	.343	.409	.390	.533	1.000	.265	.214	.215	.361	.009	.142	.049	.114						
v36	.160	.106	.011	.173	.097	.288	.294	.207	.303	.253	.243	.278	.265	1.000	.532	.540	.447	.044	.166	.062	.198						
v37	.111	.028	.027	.122	.162	.230	.294	.332	.407	.326	.415	.332	.214	.532	1.000	.570	.541	-.008	.219	.169	.228						
v38	.167	.094	.018	.186	.147	.186	.404	.270	.324	.202	.364	.216	.215	.540	.570	1.000	.505	.005	.117	.165	.262						
v39	.157	.097	.050	.258	.199	.337	.355	.321	.380	.215	.340	.339	.361	.447	.541	.505	1.000	.003	.175	.152	.168						
v40	.048	.026	-.025	.030	.007	-.020	.120	-.102	-.046	.068	-.016	.013	.009	.044	-.008	.005	.003	1.000	.260	.173	.267						
v41	.111	.119	-.005	.100	-.025	.032	.127	.012	.110	.122	.207	.158	.142	.166	.219	.117	.175	.260	1.000	.310	.245						
v48	-.120	-.054	-.034	.060	.136	.114	.288	.065	.147	.074	.185	.105	.049	.062	.169	.185	.152	.173	.310	1.000	.505						
v49	.009	-.094	-.045	.146	.191	.161	.325	.150	.218	.123	.134	.110	.114	.198	.228	.282	.188	.267	.245	.505	1.000						

The covariance matrix is calculated and used in the analysis.

Table 9. Consensus Inter-Item Correlation Matrix

Finally, the final data base was composed of the answers obtained for the 42 observed variables. All these observed variables were analysed using factorial analysis. The objective of this analysis is to confirm the presence of the latent variables therefore, the presence of the constructs. The Barlett Test of Sphericity is significant $> 0.70.$, and the KMO Test of sampling adequacy presented a significance value of 0.00. Both of these results indicate that it is pertinent to make a factorial analysis.

Reliability Statistics	
Cronbach Alpha	Number of elements
0.788	42

Table 10. Questionnaire Cronbach's Alpha Reliability Statistics

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.790
Bartlett's Test of Sphericity	Approx. Chi-Square	4537.919
	df	861
	Sig.	.000

Table 11. Questionnaire Inter-Item Correlation Matrix

3.11 Summary

The analysis of team performance and effectiveness has been commonly done by using financial measurements such as ratios or other financial tools. This research pretends to study top management teams by focusing on their behavioural dynamics through the analysis of four constructs: cohesion, consensus, conflict and potency.

This research uses the quantitative method. Therefore a questionnaire is needed to gather information from the top management teams working on the Peruvian textile and apparel sector. This instrument has a group of four measuring scales developed by authors such as Bollen (1999) and Jehn (1996) who previously studied the constructs individually. The questionnaire was applied on 330 medium and large businesses all of them established on the capital, Lima. As a result a data set of 196 individuals' responses was obtained. These data were first analysed using SPSS 21 in a first exploratory analysis to confirm the presence of the four constructs.

The first analysis permits to reduce the scales and the data set to only the variables showing correlation and relevance. The second analysis was performed using AMOS. This analysis pretends to examine the constructs correlation among each other therefore accept or not the general model.

4. Results

This chapter presents the results obtained from the questionnaires applied to top management team members. The data obtained has been used to elaborate, using computer programs a group of tables and figures which present relevant information to finally give answers to the research questions.

4.1 Findings

The previous chapter presented the way data gathered by the questionnaire was analysed and different ratios such as Cronbach Alpha were presented to establish the scales' reliability.

This chapter gathers and presents all the findings resulting from the previous chapter and uses structural equation modelling (SME) to analyse the proposed model. SME grows out and serves purposes similar to multiple regressions but in a more powerful way which takes into account multiple latent independents each measured by multiple indicators, the modelling of mediators as both causes and effects, modelling of interactions, nonlinearities, correlated independents, measurement error, and correlated error terms (Garson, 2012).

SEM is usually viewed as a confirmatory rather than exploratory procedure, using one of three approaches: 1. strictly confirmatory approach; 2. alternative models approach; 3. model development approach. The SEM is a family of multivariable statistic models which allows studying multiple variables relation. This model is less restrictive than the regression models because it allows including measure errors in the exogenous and endogenous variables (Garson, 2012).

The first analysis aims to test the measurement model validity which depends on the goodness-of-fit for the measurement model and specific evidence of construct validity. The goodness-of-fit indicates how well the specified model reproduces the covariance matrix among the indicator items. In other words, once the researcher specifies a model from which the parameters are estimated, the model fit compares the theory to reality as portrayed by the data. Therefore, if a researcher's theory were perfect, the estimated covariance matrix and the actual observed covariance matrix (S) would be the same. The closer the values of these two matrices are to each other, the better the model is said to fit. The most fundamental measure of fit is the chi-square (χ^2). However, the tendency of this index is to reject models with large samples or a large number of observed variables (Hair, Black, Babin, Anderson and Tatham, 2005).

There are different groups of measures used to quantify the differences between the observed and estimated co-variance matrices. In fact, these measures are divided in three groups: absolute fit indices, which are a direct measure of how well the model specified by the researcher reproduces the observed data, these indices do not specifically compare the goodness-of-fit of a specific model to any other model, but each model is evaluated independently of other possible models; incremental fit indices which assess how well a specific model fits relative to some baseline model, called the null model, which implies

that all observed variables are uncorrelated; and parsimony fit indices which were designed specifically to provide information about which model among a set of competing models is the best taking into consideration that its fit is relative to its complexity which means that a parsimony fit measure can only be improved by a better fit or a simpler model (Hair et al., 2005). The fit indices used in this research are showed in the next graphic:

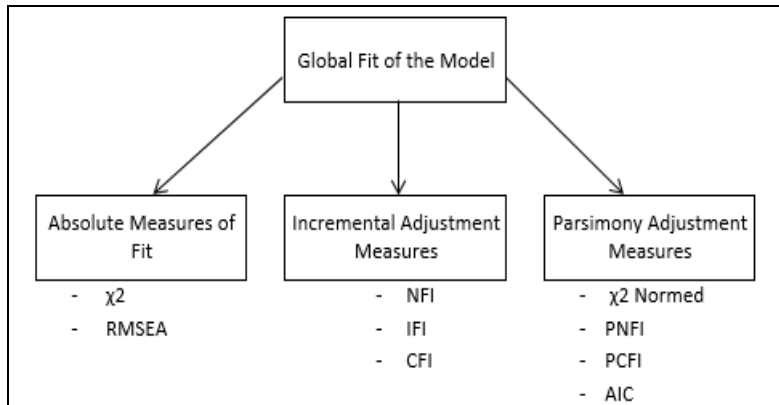


Figure 5. Global Fit of the Model. Adapted from Hair et al. (2005).

In previous paragraphs a general description of each one of the three groups of indices was presented. The graphic above shows all the indices for each one of the specific groups. The χ^2 Statistic is the most fundamental absolute fit index. In fact, it is the only statistically based structural equation modelling fit measure. On the used of this index the researches will look as a result a value to show no differences between matrices to support the model as representative of the data. Another index, the Root Mean Square Error of Approximation (RMSEA) pretends to correct the chi-square error. This index can represent how well a model fits a population, not just a sample used for estimation. A lower RMSEA value means a better fit (Hair et al., 2005). The Akaike Information Criterion (AIC) helps to adjust the model chi-square to penalise for model complexity which presents for reasons such as lack of parsimony and over parameterisation. In fact, AIC may be used to compare non-hierarchical and hierarchical models using the same dataset unless chi-square which can only be used to compare hierarchical models (Garson, 2012).

As for the next group of indices, the Incremental Fit Index also known as BL89 or Delta2 this index is relatively independent of sample size and is this quality which makes it one of the index to be taken into consideration by researchers (Garson, 2012). Another important index, such as the Normed Fit Index (NFI), is a ratio of the difference in the χ^2 value for the fitter model and the null model divided by the χ^2 value for the null model. The values for this index range between 0 and 1 and a perfect model would produce an NFI of 1. The Comparative Fit Index (CFI) is one of the most used indices due to its relative insensitivity to model complexity. The CFI is normed so that values range

between 0 and 1 and higher values indicate better fit, moreover, values less than .90 are not usually associated with a model that fits well (Hair et al., 2005).

Among the Parsimony Fit Indices, one of the most representative ones is the Parsimony Normed Fit Index (PNFI). The values of the PNFI are meant to be used in comparing one model to another being the highest PNFI value signal of a better fit. The PNFI has some of the added characteristics of the incremental fit indices especially the ones relative to absolute fit indices and favouring less complex models (Hair et al., 2005). There is not agreed value for an acceptable model, although the closer the researcher's model is to the saturated model the more CFI is penalised (Garson, 2012).

Each construct and their respective models were analysed to establish the fit of the model to the data obtained by applying a questionnaire to the top management teams in the Peruvian textile and apparel industry. For each construct a model featuring observed and latent variables was developed using AMOS software. These models follow the findings and indications obtained from authors whom studied the existence and relevance of these constructs such as Bollen and Hoyle (1990), Jehn (1997), and others. The next figures and tables show the results obtained for each one of the constructs after being analysed using AMOS.

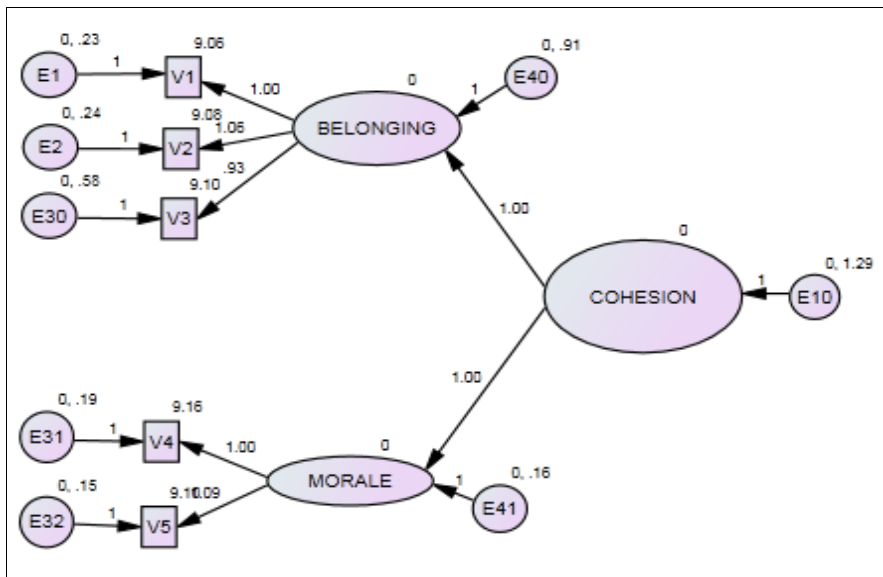


Figure 6. Cohesion Structural Model by the Researcher using AMOS 21.

Adjustment Index	Default Model	Independence Model	Saturated Model	Value Indicating	Acceptable Fit
χ^2	7.799	1063.789	0.000	≈ 0.09	$p \leq 0.05$
RMSEA	0.069	0.731	0.000	≈ 0.00	$RMSEA \leq 0.08$
NFI	0.993	0	1.000	≈ 0.09	$NFI \geq 0.90$
IFI	0.996	0	1.000	≈ 0.09	$IFI \geq 0.90$
CFI	0.996	0	1.000	≈ 0.09	$CFI \geq 0.90$
PNFI	0.397	0	0.000	Higher Values	$PNFI \geq 0.60$
PCFI	0.399	0	0.000	Higher Values	$PCFI \geq 0.60$
χ^2 Normed	1.95	106.379			≤ 5.00
AIC	39.799	1083.789	40.000	Low Values	$p \leq 0.05$

Table 12. Goodness-of-Fit for the Cohesion Structural Model, by the Researcher using AMOS 21.

The table shows the results obtained by processing the data using AMOS. The last group of this table presents the minimum results needed to establish goodness-of-fit. As discussed before, some specific indices must be taken into consideration to establish the goodness of fit of a model. On the one hand, for this specific construct the results obtained such as χ^2 , PNFI and PCFI present values which differed from the minimum values needed to establish and acceptable fit. On the other hand, values such as RMSEA, NFI, IFI, CFI, χ^2 Normed and AIC present values which, according to authors like Hair et al. (2005) and Garson (2012) can be interpreted as an acceptable fit. Furthermore, being these findings contradictory, and not being able to establish with certainty the goodness of fit for this construct's structural model, the next step is to closely observe the research, on this construct, performed by Bollen and Hoyle (1990).

This research obtained similar results for χ^2 , so another goodness of fit measure, such as the incremental fit indices presented above, needed to complement the chi square statistic's results. Moreover, being these results optimal the researcher concluded that it was possible to establish the fitness of good in the cohesion model for his specific research. Following Bollen and Hoyle (1990) results, it is possible to conclude that, based on the optimal results obtained for the incremental fit indices, the cohesion model for this specific research presents goodness-of-fit, therefore the model should be accepted. Even more, according to Garson (2012), the fit of all model's components is not needed to establish the goodness-of-fit for the entire model. In other words, and being the case of this research, the fact that some indices do not present acceptable results does not mean that the model should be rejected. In fact, according to the same author, there is not an agreement on the number of indices needed to accept or reject a model, but all researchers such as Thompson (2000) and Kline (2005) (all cited in Garson (2012) agree that should be more than one index.

The next graphics and tables present the results for consensus, conflict and potency:

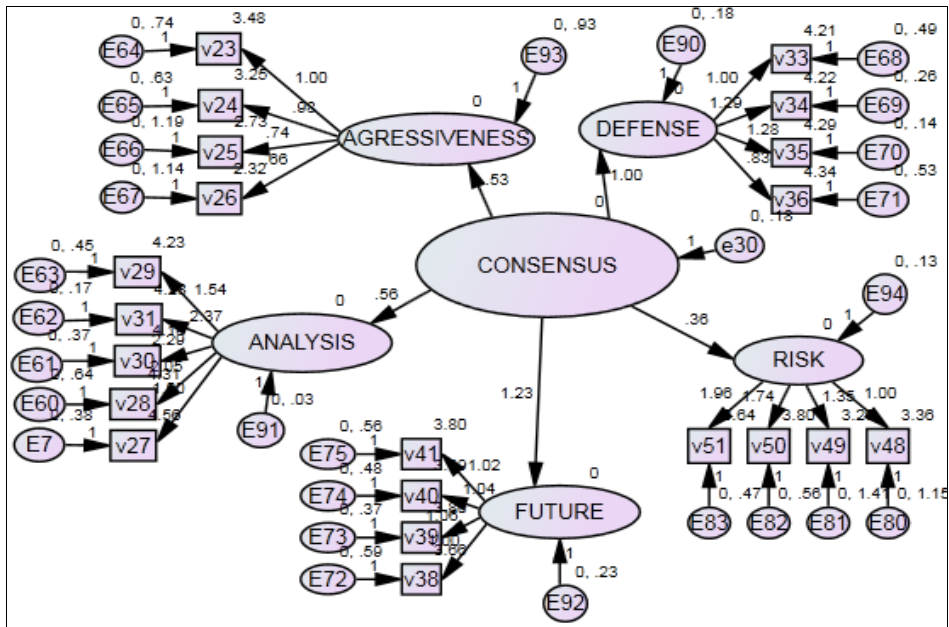


Figure 7. Consensus Structural Model, by the Researcher using AMOS 21.

Adjustment Index	Default Model	Independence Model	Saturated Model	Value Indicating	Acceptable Fit
χ^2	298.17	1063.789	0.000	≈ 0.00	$p \leq 0.05$
RMSEA	0.056	0.172	0.000	≈ 0.00	$RMSEA \leq 0.08$
NFI	0.81	0	1.000	≈ 0.90	$NFI \geq 0.90$
IFI	0.918	0	1.000	≈ 0.90	$IFI \geq 0.90$
CFI	0.915	0	1.000	≈ 0.90	$CFI \geq 0.90$
PNFI	0.645	0	0.000	Higher Values	$PNFI \geq 0.60$
PCFI	0.729	0	0.000	Higher Values	$PCFI \geq 0.60$
χ^2 Normed	1.95	6.805			≤ 5.00
AIC	170	1613.89	40.000	Low Values	

Table 13. Goodness-of-Fit for the Consensus Structural Model, by the Researcher using AMOS 21.

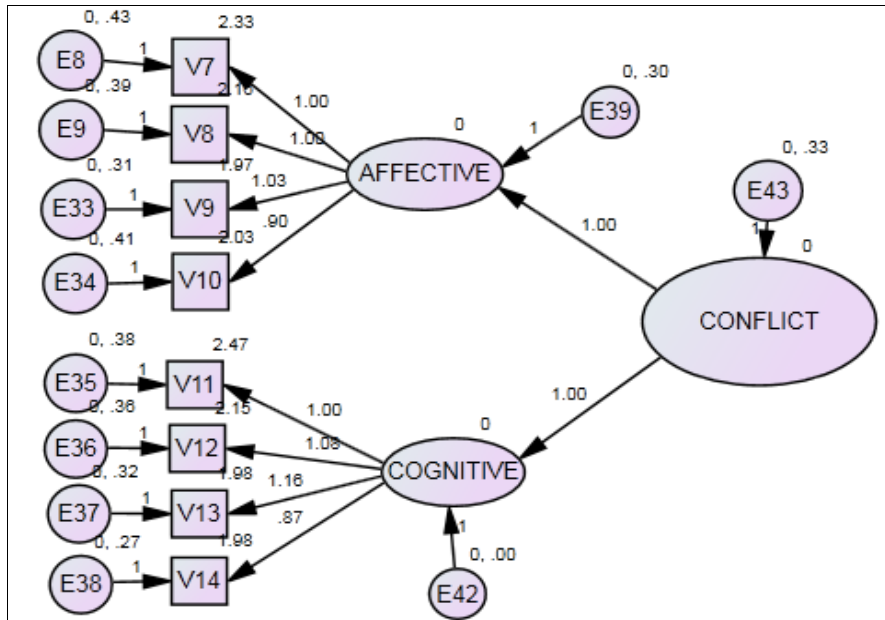


Figure 8. Conflict Structural Model, by the Researcher using AMOS 21.

Adjustment Index	Default Model	Independence Model	Saturated Model	Value Indicating	Acceptable Fit
χ^2	69.284	757.793	0.000	≈ 0.00	$p \leq 0.05$
RMSEA	0.116	0.364	0.000	≈ 0.00	$RMSEA \leq 0.08$
NFI	0.909	0	1.000	≈ 0.90	$NFI \geq 0.90$
IFI	0.932	0	1.000	≈ 0.90	$IFI \geq 0.90$
CFI	0.931	0	1.000	≈ 0.90	$CFI \geq 0.90$
PNFI	0.617	0	0.000	Higher Values	$PNFI \geq 0.60$
PCFI	0.632	0	0.000	Higher Values	$PCFI \geq 0.60$
χ^2 Normed	3.647	27.064			≤ 5.00
AIC	119.284	789.793	88.000	Low Values	

Table 14. Goodness-of-Fit for the Conflict Structural Model, by the Researcher using AMOS 21.

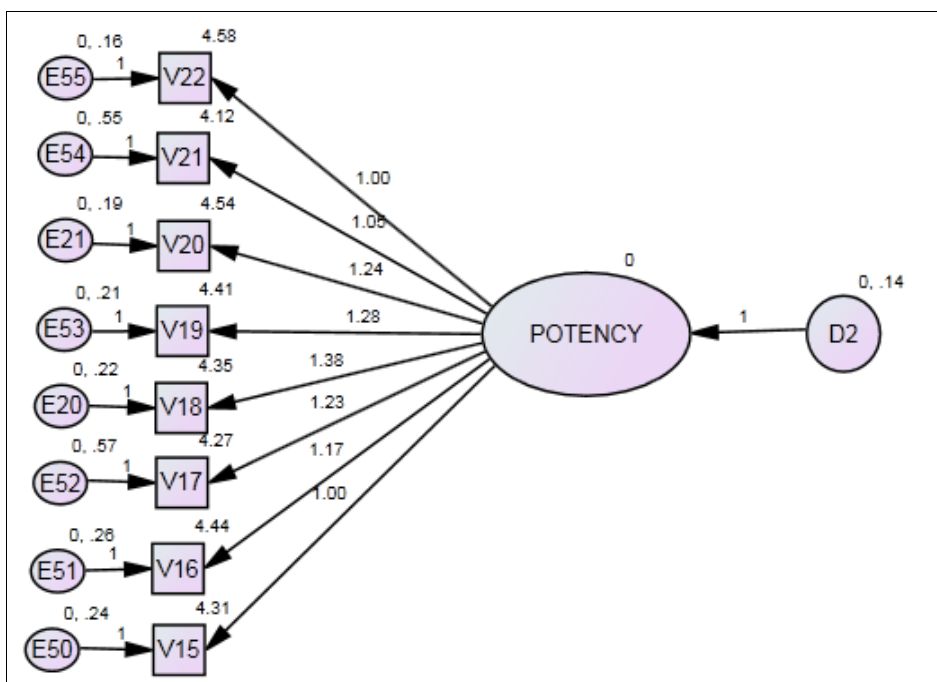


Figure 9. Potency Structural Model, by the Researcher using AMOS 21.

Adjustment Index	Default Model	Independence Model	Saturated Model	Value Indicating	Acceptable Fit
χ^2	57.726	548.052	0.000	≈ 0.00	$p \leq 0.05$
RMSEA	0.98	0.364	0.000	≈ 0.00	$RMSEA \leq 0.08$
NFI	0.895	0	1.000	≈ 0.90	$NFI \geq 0.90$
IFI	0.929	0	1.000	≈ 0.90	$IFI \geq 0.90$
CFI	0.927	0	1.000	≈ 0.90	$CFI \geq 0.90$
PNFI	0.639	0	0.000	Higher Values	$PNFI \geq 0.60$
PCFI	0.662	0	0.000	Higher Values	$PCFI \geq 0.60$
χ^2 Normed	3.647	27.064			≤ 5.00
AIC	105.726	580.052	88.000	Low Values	

Table 15. Goodness-of-Fit for the Potency Structural Model, by the Researcher using AMOS 21.

The results for the last three constructs show some similarities for the three of them. According to the results, those three models are significant which means that these models present goodness-of-fit or, in other words, strongly portray factual bases present in the

data obtained from the Peruvian textile and apparel industry. In fact, it is possible to state that the latent variables presented in each one of the constructs are also present among the top management teams from Peruvian textile and apparel industry. Even though, there are several similarities between the results of these constructs which point out to a positive goodness-of-fit, it is also important to mention that for both, conflict and potency, there is not an acceptable result for the RMSEA. However, being this index the only one in a set of nine indices which presents an unacceptable result, the models should be accepted based on Garson (2012) explanation about the number of indices needed to accept or reject a model. This explanation has been fully detailed in previous paragraphs.

After finding the goodness of fit for each one of the constructs therefore accepting their models, and establishing their presence in the Peruvian textile and apparel industry, the next step is to find the goodness of fit for the general model presented in the first chapter of this research. These general includes the presence of all the four constructs and their relations.

The next figure presents the general model and their latent and observed variables:

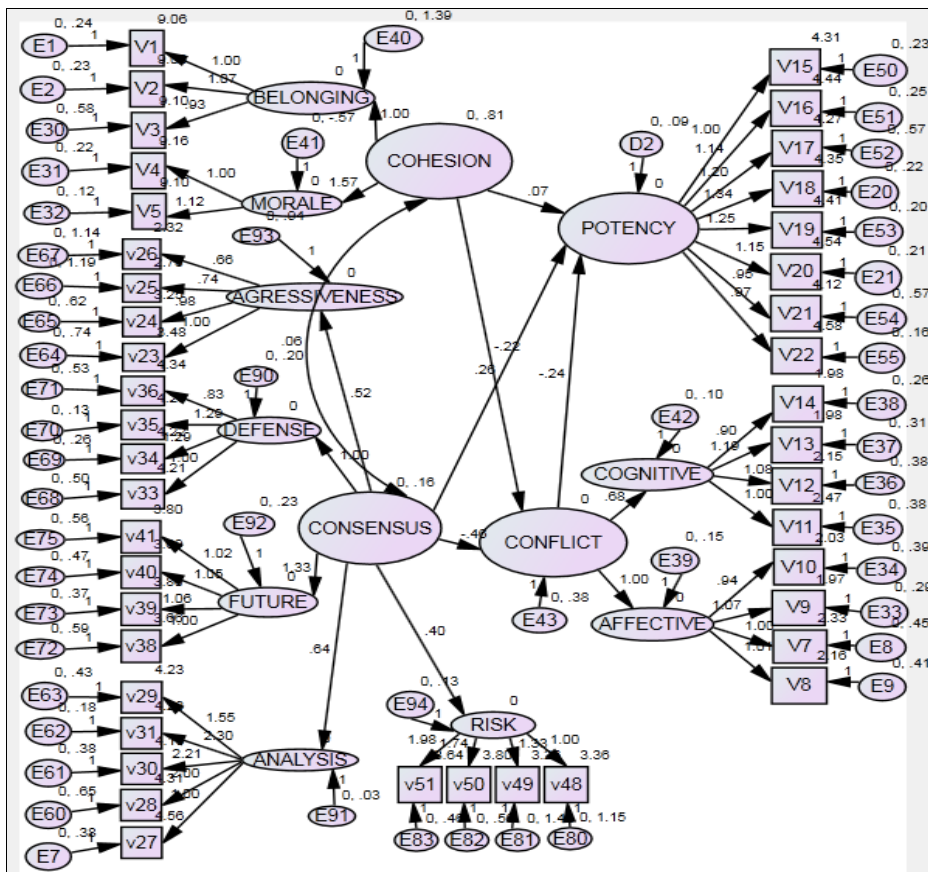


Figure 10. General Structural Model, by the Researcher using AMOS 21.

The proposed model was analysed using structural equations to verify the importance of the relation between the constructs' latent variables. The correlation coefficients were used to, having the hypothesis presented in first chapter as a guide, obtained conclusions on the model goodness-of-fit and therefore the confirmation of the offered hypothesis. The most important results from this figure are to establish the relation between the constructs given the data obtained from the top management teams working in the Peruvian textile and apparel industry. The results presented in the next table show the type of relation between all the four constructs:

Adjustment Index	Default Model	Independence Model	Saturated Model	Value Indicating	Acceptable Fit
χ^2	1351.041	4972.567	0.000	≈ 0.00	$p \leq 0.05$
RMSEA	0.059	0.151	0.000	≈ 0.00	$RMSEA \leq 0.08$
NFI	0.728	0	1.000	≈ 0.90	$NFI \geq 0.90$
IFI	0.869	0	1.000	≈ 0.90	$IFI \geq 0.90$
CFI	0.866	0	1.000	≈ 0.90	$CFI \geq 0.90$
PNFI	0.648	0	0.000	Higher Values	$PNFI \geq 0.60$
PCFI	0.771	0	0.000	Higher Values	$PCFI \geq 0.60$
χ^2 Normed	1.68	5.507		≤ 5.00	≤ 5.00
AIC	1633.041	5054.103	1890.000	Low Values	

Table 16. Goodness-of-Fit for the General Model, by the Researcher using AMOS 21.

As it is possible to see, the value for χ^2 is 1351.041 and $p = 0.000$, which according to Hair et al. (2005), should be $p \leq 0.05$ to be accepted. Therefore, due to the obtained results, it is possible to infer that the model reflects the given reality presented by the data under analysis. Even more, the χ^2 Normed = 1.68 and because it is lower than 5.00, it is possible to state that the general model has a positive goodness-of-fit. Furthermore, the RMSEA obtained is equal to 0.059, which according to Hair et al. (2005), needs to present a result minor or equal to 0.08 therefore, it is possible to infer that the general model has an acceptable goodness-of-fit.

Moreover, the other indices presented in the table above support the detailed results in previous paragraphs and identify the model's goodness-of-fit as acceptable. Furthermore, the result obtained for the AIC index talks about a good parsimony proposal, and an acceptable goodness-of-fit. However, one index, the NFI obtained a value of 0.80 which is lower to the minimum required result, 0.90. An interpretation for the obtained result shows a model's goodness-of-fit to be considered poor. In general terms, the model has acceptable values for goodness-of-fit because most of their indices are above the recommended minimum values according to Hair et al. (2005).

The analysis given to the results is similar to a regression analysis. The gamma estimator weight between consensus and conflict is -0.46, which means that every time consensus is high in one unit, conflict goes down -0.46 units. Therefore, in this first analysis, the relation between these two constructs is good as expected. The gamma estimator weight between cohesion and conflict is -0.22 and means that when cohesion is high one unit, conflict goes down 0.22 units. The relation between these two constructs is also good but there is margin for improvement. As for the relation between cohesion and consensus the relation's indicator is a covariance. This relation can be explained as the inexistence of a lineal correlation between these two constructs due to the covariance's value being close to zero.

The results obtained at analysing the relation between potency and the other constructs is one of the most important findings of this research. The gamma estimator results were expected to be high and significant having into consideration the results obtained for the general model. The relation between cohesion and potency presented a gamma estimator weight of 0.07 and this result means that when cohesion goes high one unit, potency goes high 0.07 units. Therefore, the relation between these two constructs is not strong. Furthermore, the gamma estimator weight between consensus and potency is 0.26 which means that when consensus goes high one unit, potency also have the same behaviour. The result of this is a positive relation between these two constructs. Finally, the relation between conflict and potency presented a gamma estimator weight of -0.24 which means that when conflict goes high one unit, potency goes down 0.24 units. Therefore, these constructs showed to have a good relation as showed by the results.

The next table presents the degree of influence between one latent variable over the others. The meaning of this table does not rely solely on the gamma estimator weight, but on other indicators to conclude whether the relation is strong or not. One of the indicators used is the Standard Error (SE) which explains the deviation of the data in a distribution. Another indicator used to calculate the significance of the relation between latent variables is the Critic Relation (CR) which calculation requires combining the results obtained for the gamma estimator's weight and the standard error.

		Estimate	S.E.	C.R.	P
CONFLICT	<i>COHESION</i>	-0.218	0.057	-3.847	***
CONFLICT	<i>CONSENSUS</i>	-0.461	0.169	-2.728	0.006
POTENCY	<i>COHESION</i>	0.075	0.027	2.738	0.006
POTENCY	<i>CONFLICT</i>	-0.236	0.06	-3.929	***
POTENCY	<i>CONSENSUS</i>	0.261	0.088	2.957	0.003
BELONGING	<i>COHESION</i>	1			
MORALE	<i>COHESION</i>	1.567	0.383	4.093	***
AFFECTIVE	<i>CONFLICT</i>	1			
COGNITIVE	<i>CONFLICT</i>	0.683	0.121	5.652	***
AGRESSIVENESS	<i>CONSENSUS</i>	0.524	0.238	2.203	0.028
FUTURE	<i>CONSENSUS</i>	1.328	0.249	5.325	***
ANALYSIS	<i>CONSENSUS</i>	0.637	0.143	4.438	***
DEFENSE	<i>CONSENSUS</i>	1			
RISK	<i>CONSENSUS</i>	0.397	0.139	2.843	0.004

Table 17. Gamma Estimator's weights, Standard Error and Critic Relation, by the Researcher using AMOS 21.

The research question and hypothesis resulting can now be responded and verified. All six hypotheses can be confirmed based on the results obtained by applying SEM.

General Hypothesis:

There is relation among cohesion, conflict, consensus and potency in TMTs from the Peruvian textile and apparel firms. The values for χ^2 and the p-value are important to validate the SEM. In this study the data set considers over 30 interviewed which represent a normal distribution with 95% confidence level. Comparing $\chi^2= 1351.041$ with the normal distribution this value falls on the reject area therefore SEM is adequate. Based on this result is possible to conclude that the observed variables explain the latent variables and late the four constructs, and they are correlated among each other even with variables of superior order.

Specific Hypothesis 1:

Cohesion and potency are positively related in TMT working at Peruvian textile and apparel firms. With a 95% confidence level, the gamma estimator between cohesion and potency is 0.07; therefore there is a positive relation between these two constructs in TMT working in the Peruvian textile and apparel firms.

Specific Hypothesis 2:

Consensus and Conflict are negatively related in the TMT working in the Peruvian textile and apparel firms. With a 95% confidence level, the gamma estimator between consensus and conflict is -0.46, which means that there is effectively a negative relation between consensus and conflict in TMT working at Peruvian textile and apparel firms.

Specific Hypothesis 3:

Cohesion and Conflict are negatively related in the TMT working at Peruvian textile and apparel firms. With a 95% confidence level, the gamma estimator between cohesion and conflict is -0.22, therefore it is possible to state that there is a negative relation between cohesion and conflict in TMT working at Peruvian textile and apparel firms.

Specific Hypothesis 4:

Conflict and Potency are negatively related in the TMT working at Peruvian textile and apparel firms. With a 95% confidence level, the gamma estimator between conflict and potency is -0.24 meaning that there is a negative relation between conflict and potency in TMT working at Peruvian textile and apparel firms.

Specific Hypothesis 5:

Consensus and Potency are positively related in the TMT working at Peruvian textile and apparel firms. With a 95% confidence level, the gamma estimator between consensus and potency is 0.26 which means that there is in fact a positive relation between consensus and potency in TMT working at Peruvian textile and apparel firms.

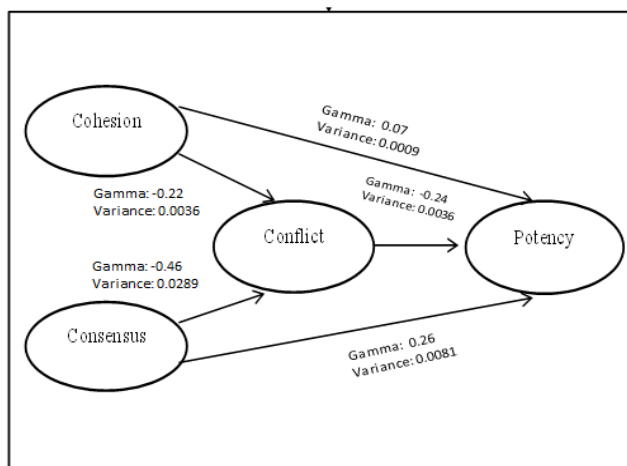


Figure 11. Significance Test and Gamma estimators.

The hexogen variables: cohesion and consensus explain the endogen variables: conflict and potency. In fact, at 95% confidence is possible to state that according to the SEM gamma estimators there is an inconsistent mediation; this means that the endogen variable potency is explained following the path of the mediating variable conflict because the gamma estimators present negative values (Little, Card, Bovaird, Preacher and Crandall, 2007).

4.2 Discussion

The general model for the behavioural dynamics of top management teams in the Peruvian textile and apparel sector based on Cohesion, Consensus, Conflict and Potency

fits well as a whole. Although, some of the indices' results obtained for the cohesion structural model present values outside acceptable parameters; Cohesion must be included in the general model fit because if it is not included, the model does not presents goodness-of-fit. Moreover, the obtained results and the hypothesis confirmation bring enough support to extent the original analysis made by Bollen et al. (1990) and conclude that cohesion influence over conflict management. Although, this influence is relatively low, when cohesion increases 1 unit conflict decreases 0.22, the confirmation of its presence and its influence over the general model supports the given conclusion. This could possibly mean that conflict is an element always present in any team because it is somehow part of all individuals, therefore as much cohesion present in any group it would not prevent the team from encountering conflict among its members.

Conflict can be considered as the centre of the general model as well as a mediating variable. Conflict is the result of two latent variables: affective conflict and cognitive conflict. In the present research the Conflict construct has presented the same behaviour reported in Jehn (1997) seminal research. Moreover, this author concluded that relationship conflict lowers the job satisfaction and, therefore, the individuals desire to remain with a team. Jehn (1997) research found evidence on how conflict affects individual and group performance. In this research the evidence showed the negative effect of conflict over potency. Even more, by analysing the gamma estimator's values and the variance, it is possible to state that the endogenous variables are explained throw the exogenous variables.

Consensus is another construct with influence over conflict. In fact, when Consensus increases one unit conflict reduces in -0.46. Therefore, managers should reach consensus as a way to cause a greater impact in conflict management.

The presence of the construct Potency in teams can be identified by three variables: cohesion, consensus and conflict. In this group, Consensus has a clear predominance over the other variables. In fact, Consensus influences Potency in 0.26; meanwhile Conflict only influences Potency in -0.24. These results show that Consensus is relatively more powerful than Conflict when assessing team's Potency. However, conflict is a mediator between Consensus and Potency. Therefore, the TMTs' behavioural dynamic should be oriented to increase Potency by increasing Consensus, focusing on reducing Conflict while working on increasing Cohesion.

4.3 Summary

After analysing the data set using AMOS, the results obtained show the correlation among the constructs: cohesion, consensus, conflict and potency in the TMTs from the Peruvian textile and apparel firms. Therefore the individual structural model for each one of them should be accepted. However, in the case of cohesion, not all the indices present acceptable values. According to Garson (2012), at least three indices are needed to accept a model and in this case 5 acceptable indices result on the acceptance of the model. Moreover, the analysis of the data for the general model gave as result the acceptance of the model and proved that there is correlation among the four constructs. Although all the constructs have the same value, the analysis showed that conflict is the centre of the

model as well as the moderating variable, and cohesion, consensus and conflict well managed give potency as result.

5. Conclusions and Recommendations

This research aim is to demonstrate the correlation of behavioural dynamic, specifically constructs such as cohesion, consensus, conflict and potency in top management teams from firms in the Peruvian textile and apparel sector.

The correlation among these constructs has being presented in a so called general model which after processing the data, using statistical computer programs and structural equation modelling programs, gave these results: It accepted the model and brought the evidence to establish the correlation among the constructs in the Peruvian management reality, or at least in one of its economic sectors. Even more, this research had limitations, such as the study of only four of the many other constructs present in teams' process. It is also limited by a necessary abstraction of team, individual and firm because there was not a study of these components. These limitations bring, as a consequence, ideas on different settings and improvement for future researches.

This chapter presents a group of ideas which concentrate the conclusions obtained from the whole research experience and also recommendations for improvement and extend the research under different considerations and topics.

5.1 Conclusions

Driskell et al. (1978) and Tannenbaum et al. (1992) presented their model of team effectiveness, including input, process and output factors. This research focuses on process considering some different factors as *ceteris paribus* (they do not influence on the phenomenological studied), the behavioural dynamic four constructs model here presented focuses on cohesion, consensus, conflict and potency of top management teams in the textile and apparel Peruvian sector in a population of 72 different middle and large companies and 196 individual respondents. Moreover, this research pretends to answer one question about the relationship between the constructs cohesion, consensus, conflict and potency in TMT working at Peruvian textile and apparel firms. In order to answer this question, it was necessary first to test whether existing scales for measuring cohesion, consensus, conflict and potency are useful to measure these constructs in TMT working at Peruvian textile and apparel firms.

It is possible to conclude that the four constructs perception can be measure, using the scales developed by the authors detailed in previous chapters with only small adjustments, in the top management teams from the Peruvian textile and apparel sector; the results obtained in Chapter three support this affirmation. In fact, each one of the constructs own models presenting their observed and latent variables where tested using AMOS21. The results obtained for all of them were satisfactory and helped to establish with no doubt that each one of the models presented goodness of fit, including the cohesion construct based on incremental adjustment measures.

According to the analysis performed and relying on the results, it is possible to conclude that the general model (*figure 4*), presented in Chapter one should be accepted and therefore should also be accepted that there is correlation among the construct: cohesion, consensus, conflict and potency. In fact, the correlation among the constructs was tested as showed in figure 10, table 15 and especially table 16. As general model the four variables interact as a model due to cohesion gamma estimators to potency (0.07), consensus gamma estimators to potency (0.26), conflict gamma estimators to potency (-0.24). These three variables influence directly on potency, and at the same time potency is moderated by conflict. In fact, potency depends on the way a top management team manage their conflict, their consensus, and their cohesion. Cohesion influence by itself seems not too important. In conclusion, the two research questions presented in the first chapter have been answered positively. The constructs perception can be definitely measure in Peruvian top management teams from apparel and textile industry and, the constructs do correlate among each other.

The importance of the results mentioned in paragraphs above relies on the fact that there is no other research about the correlation among these four constructs. Although authors like Jehn (1996), Bollen (1990), and others have researched and on at least one of the constructs and their relation with at least other construct, and although Ensley and Pearson (2005) have researched on the four constructs in family business, none of them have research on the four constructs' correlation among each other. This research is also important because it constitutes the first study of some of the behavioural dynamics in any group of Peruvian management teams.

The findings in this research are consistent with the findings from other researches over the same topics; the only difference is that in those researches constructs were analysed in an isolated way. In fact, in the case of cohesion, this research encounters the same difficulties, and the similarity of the results obtained using structural equation modelling in both, Bollen (1990) research and this research were extraordinary. This can be explained by the fact that in both researches a rather small dataset was used. This fact causes those indices such as χ^2 statistics which tend to discriminate on sample, to show values which are considered unacceptable.

5.2 Recommendations

The results obtained show that by well managing cohesion, consensus and conflict, the team can acquire potency. Therefore the obtained results recommend that CEOs find a balance in managing these three elements to improve top management teams potency. Even more, managers should pay close attention to conflict because as has being explained in Chapter four this construct increase means a decrease of the other constructs. Although this research, using a questionnaire, gathered information from top management teams working in the major Peruvian textile and apparel firms, coming researches should increase the data size to avoid complications as the one encounter while analysing cohesion. In fact, a bigger data size could be the solution to fully validate the presence of cohesion in the top management teams from Peruvian textile and apparel sector and other sectors.

Finally, further study can be performed on the presence of these and other constructs in the Peruvian textile and apparel sector and other sectors among the Peruvian economy to have a general idea of the behavioural dynamics among Peruvian top management teams. Even more, further studies could research on the influence of behavioural dynamics over performance in the Peruvian top management teams.

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Appendix A: Scales for Measuring Cohesion, Consensus, Conflict and Potency

Conflict Scale

Affective conflict	None				A lot
	1	2	3	4	5
1. How much friction is present in your work group? 2. To what extent are personalities clashes present in your work group? 3. How much anger is present in your work group? 4. How much emotional conflict is there in your work group?					
Cognitive conflict	None				A lot
	1	2	3	4	5
5. To what extent are there differences of opinions regarding the task in your work group? 6. How often do people in your work group disagree about the work being done? 7. How frequently are there disagreements about the task you are working on in your work group? 8. How often do people in your work group disagree about ideas regarding the task?					

Cohesion Scale

Sense of belonging	I totally disagree		Neutral				I totally agree			
	1	2	3	4	5	6	7	8	9	10
1. I feel a sense of belonging to the TMT of this company 2. I feel that I am a member of the TMT of this company 3. I see myself as part of the TMT of this company										
Feeling of morale	I totally disagree		Neutral				I totally agree			
	1	2	3	4	5	6	7	8	9	10
5. I am enthusiastic about being part of the TMT of this company 6. I am happy to be member of the TMT of this company 7. The TMT of this company is one of the best of this industry.										

Potency Scale

	To no extent	To a limited extent	To some extent	To a considerable extent	To a great extent.
1. This team has confidence in itself.					
2. This team believes it can become unusually good at producing high-quality work.					
3. This team expects to be known as a high-performing team.					
4. This team feels it can solve any problem it encounters.					
5. This team believes it can be very productive.					
6. This team can get a lot done when it works hard.					
7. No task is too tough for this team.					
8. This team expects to have a lot of influence around here.					

STROBE

Aggressiveness Dimension
<ol style="list-style-type: none"> 1. Sacrificing profitability to gain market share. 2. Cutting prices to increase market share. 3. Setting prices below competition. 4. Seeking market share position at the expense of cash flow and profitability.
Analysis Dimension
<ol style="list-style-type: none"> 1. Emphasise effective coordination among different functional areas. 2. Information systems provide support for decision making. 3. When confronted with a major decision, we usually try to develop thorough analysis. 4. Use of planning techniques. 5. Use of the outputs of management information and control systems. 6. Manpower planning and performance appraisal of senior managers.

STROBE (continue)

Defensiveness Dimension
<ol style="list-style-type: none"> 1. Significant modifications to the manufacturing technology. 2. Use of cost control systems for monitoring performance. 3. Use of production management techniques. 4. Emphasis on product quality through use of quality circles.
Futurity Dimension
<ol style="list-style-type: none"> 1. Our criteria for resource allocation generally reflect short-term considerations. 2. We emphasise basic research to provide us with future competitive edge. 3. Forecasting key indicators of operations. 4. Formal tracking of significant general trends. 5. "What-if" analysis of critical issues.
Pro-activity Dimension
<ol style="list-style-type: none"> 1. Constantly seeking new opportunities related to the present operations. 2. Usually the first ones introduce new brands or products in the market. 3. Constantly on the look-out for businesses that can be acquired. 4. Competitors generally pre-empt us by expanding capacity ahead of them. 5. Operations in larger stages of life cycle are strategically eliminated.
Riskiness Dimension
<ol style="list-style-type: none"> 1. Our operations can be generally characterised as high-risk. 2. We seem to adopt a rather conservative view when making major decisions. 3. New projects are approved on a "stage-by-stage" basis rather than with "blanket" approval. 4. A tendency to support projects where the expected returns are certain. 5. Operations have generally followed the "tried and true" paths.

STROBE (continue)

Growth Dimension
1. Sales growth position relative to competition. 2. Satisfaction with sales growth rate. 3. Market share gains relative to competition.
Profitability Dimension
1. Satisfaction with return on corporate investment. 2. Net profit position relative to competition. 3. ROI position relative to competition. 4. Satisfaction with return on sales. 5. Financial liquidity position relative to competition.

Appendix B: Authors' Authorisation

De: Ken Bollen [bollen@unc.edu]
Enviado el: Viernes, 06 de Marzo de 2009 04:33 p.m.
Para: Luis Chang Ching
Asunto: Re: Perceived cohesion scale
Datos adjuntos: Bollen Hoyle SF 1990.pdf

Dear Luis,

Yes, you can use the scale in the described research project. The items in the scale are described in the attached article. The article also discusses how to modify this to refer to different groups.

Good luck in your work.

Ken

Luis Chang Ching wrote:

Dear Professor Bollen:

I am Luis E. Chang Ching, a doctoral student at Maastricht School of Management, and CENTRUM School of Management at Pontificia Universidad Católica from Peru. I am writing my Research Proposal, and require your authorization to use the Perceived cohesion scale. Perceived cohesion: A conceptual and empirical examination. *Social Forces*. 69, 479-504

This Perceived cohesion scale was used by Ensley & Pearson (2005). An exploratory Comparison of the Behavioral Dynamics of Top Management Teams in Family and Nonfamily New Ventures: Cohesion, Conflict, Potency, and Consensus. *Entrepreneurship Theory and Practice*. 29. 267-284.

I really appreciate a copy of your Perceived cohesion scale (PCS) instrument with your permission in order to use it in my research.

Best regards.

Luis E. Chang Ching

Director
Howard W. Odum Institute for Research in Social Science
C.B. 3355 Manning Hall
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Chapel Hill, NC 27599-3355

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C.B. 3210 Hamilton Hall
Department of Sociology
University of North Carolina
Chapel Hill, NC 27599-3210

Office: 919-962-7501

Fax:919-962-7568

De: Guzzo, Rick [Rick.Guzzo@mercerc.com]
Enviado el: Miércoles, 08 de Abril de 2009 10:14 a.m.
Para: Luis Chang Ching
Asunto: RE: Use of Shea &Guzzo scale in a doctoral research

You have our permission to use the scale and our best wishes for a successful doctoral dissertation.

Rick Guzzo

Rick Guzzo
Mercer
202 331 3695 | 240 381 1687

From: Luis Chang Ching [mailto:lchang@pucp.edu.pe]
Sent: Wednesday, April 08, 2009 10:56 AM
To: Guzzo, Rick
Subject: Use of Shea & Guzzo scale in a doctoral research

I am Luis E. Chang Ching, professor of CENTRUM Católica, the school of management and business center of the Pontificia Universidad Católica of Peru. Currently I am a doctoral student at Maastricht School of management and CENTRUM Católica. My doctoral dissertation deals with certain data for which I need to use the Shea & Guzzo scale. Could you please give me permission to use this scale?.

Kindest regards.

Luis E. Chang Ching
Professor of Economics
CENTRUM Católica

De: Guzzo, Rick [Rick.Guzzo@mercerc.com]
Enviado el: Miércoles, 08 de Abril de 2009 10:14 a.m.
Para: Luis Chang Ching
Asunto: RE: Use of Shea & Guzzo scale in a doctoral research

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Rick Guzzo

Rick Guzzo
Mercer
202 331 3695 | 240 381 1687

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Sent: Wednesday, April 08, 2009 10:56 AM
To: Guzzo, Rick
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Kindest regards.

Luis E. Chang Ching
Professor of Economics
CENTRUM Católica

De: Venkat Venkatraman [venkat@bu.edu]
Enviado el: Miércoles, 08 de Abril de 2009 10:23 a.m.
Para: Luis Chang Ching
Asunto: Re: Permission to use the STROBE scale

Please feel free to use the scale
Best Wishes

On 4/8/09 11:14 AM, "Luis Chang Ching" <lchang@pucp.edu.pe> wrote:

Dear Prof. Venkatraman

I write you in order to get your authorization to use the STROBE scale in my doctoral research.

Best regards.

Luis E. Chang Ching

De: Luis Chang Ching [<mailto:lchang@pucp.edu.pe>]
Enviado el: Miércoles, 01 de Abril de 2009 11:15 a.m.
Para: 'venkat@bu.edu'
Asunto:

Dear Prof. Venkatraman

I am Luis E. Chang Ching, professor of CENTRUM Católica, the school of management and business center of the Pontificia Universidad Católica of Peru. Currently I am a doctoral student at Maastricht School of management and CENTRUM Católica. My doctoral dissertation deals with certain data for which I need to use the STROBE scale. Could you please give me permission to use the STROBE scale?.

Kindest regards.

Luis E. Chang Ching
Professor of Economics
CENTRUM CATOLICA