

# Technology, Innovation, Finance and CRM: Repercussions on Competitiveness

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UNIVERSIDAD DE GUADALAJARA

RED INTERNACIONAL DE INVESTIGADORES EN COMPETITIVIDAD

Technology Innovation,  
Finance and CRM: Repercussions  
on Competitiveness



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Competitiveness  
Universidad de Guadalajara

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This work is a product of the members of RIICO (Red Internacional de Investigadores en Competitividad) with external contributions. The findings, interpretations, and conclusions expressed in this work do not necessarily reflect the views of Universidad de Guadalajara and RIICO.

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# Prologue

Technology Innovation, Finance, and CRM, their repercussions on Competitiveness is an excellent book for experts, students and entrepreneurs. Into their pages, we can discover different topics about the competitiveness factors like CRM, Marketing, Social Network, Innovation and Technology, CSR, and so on.

In seven chapters, academics and experts explain the situation of the organization. Every part of this book was based on empiric and real evidence from enterprises, universities, governments and institutions. All of these studied organizations are part of the competitive environment that involve the market. The writers believe in the economic progress across of the innovation, the entrepreneurship, the social responsibility and the international cooperation between regions, countries and corporations.

The authors are from Mexico and Spain. Everyone is an expert in economic and business Sciences. The universities that participate in this project are: Universidad de Guadalajara, Universitat Rovira I Virgili, Universitat Politècnica de València and Universidad Autónoma de Querétaro.

This publication was created under the best practices of scientific edition. The editorial team analyzed carefully the quality and originality of the contents. Every chapter was selected, evaluated, and modified with the support of international peers.

We hope that this book contributes for Publishers, researchers and academics to the advancement of theoretical and practical knowledge.

José Sánchez Gutiérrez





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# Chapter 2

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## Adaptation and Anticipation to the Future by the Small and Medium Enterprises at the Metropolitan Zone of Guadalajara

*By Luis Alberto Bellón-Álvarez, Francisco Javier López-Cerpa, Martha Filomena Muñoz-Fajardo, Juan Antonio Vargas-Barraza*



# Adaptation and Anticipation to the Future by the Small and Medium Enterprises at the Metropolitan Zone of Guadalajara

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## INTRODUCTION

Change is a constant in the world. Since the dawn of humankind and the civilization the change has been present and nowadays there are many factors that require for companies to react faster in order to continue operating in the markets. Changes involve persons, and can call up sentiments, uncertainties and contradictions.



Change is constantly present and is one of the essential aspects of good administration, as it is becoming more recurrent and complex, with greater impact. The competition between companies is getting more difficult. The importance of the study of organizational change lies in the widespread hypothesis that organizations must be in constant transformation, so it is very important to comprehend the way firms change, as well as the reasons they have to make these changes or not. The adaptability is fundamental to face the environment's uncertainty in a successful way. So firms need to be adapted and to adequate themselves to those changes that are happening in the worldwide. Also the remaining companies in the markets have to plan the actions for the future and be more competitive day by day. In addition, it's extremely important to know what factors are involved in organizational change, such as the uncertainty in the environment, as well as the resistance to change that exists in employees when the company has an organizational change.

## 1. CHANGE IN ORGANIZATIONS.

The unpredictability and uncertainty of change is an aspect mentioned by several authors who study organizational change, including Kim, Eugene and Seongsoo (2013). Xu, Payne, Horner and Alexander (2016), Mintzberg (1990), Chih, Yang and Chang (2012), Maldonado, Sanchez, Mejia and Gaytan (2013), Rafferty, Jimmieson and Armenakis (2013), Bordia, Kiazad, Restubog, DiFonzo, Stenson and Tang, (2014), Hirsh, Mar and Peterson (2012), Van den Heuvel, Schalk and Van Assen (2016), Van der Voet (2015), Hirsh and Kang (2016), and Siegel (2016).

The actual aspect of the environment in the markets is described by being more and more competitive and persistently changing, so companies require to adapt to those changes, and even to anticipate them (Zaleznik, 1992; Nohria & Berkley, 1994; Bordia et al., 2004; Charbonnier-Voirin & El Akremi, 2011; Smollan, 2015; Mintzberg, 1990; Rafferty, Jimmieson & Armenakis, 2013; MacKay & Chia, 2013; Lord & Dinh, 2015; Xu, Payne, Horner & Alexander, 2016).

The incessant changes in the world become into uncertainty in the social order, unceasing fears about change in this era. The technological advances reduce the useful lives of employees' assets and abilities in a labor market in which peer competitiveness becomes progressively more severe. An immediate effect of organizational change is this rise of uncertainty, which is one of the most common psychological conditions that people suffer in an organizational change process (Bordia et al., 2004). For Liu, Caldwell, Fedor & Herold (2012), the cultural change in organizations generates uncertainty, having notorious impact in employee's attitudes, such as the incapacity of a person to precisely predict something. And also it refers to a mental state during which individuals cannot adequately predict what will happen in the immediate future (Milliken, 1987). Uncertainty sometimes results in employee's resistance to change (Xu, Payne, Horner & Alexander, 2016), and a resistance to share information. (Clampitt & Williams, 2005).

There are an increasing number of texts about the uncertainties nature and effects, in an organizational change (Hirsh, Mar & Peterson, 2012; Hirsh & Kang, 2016; Siegel, 2016; DiFonzo & Bordia 1998; Maurier & Northcott 2000; Nelson, Cooper & Jackson, 1995; Pollard, 2001; Rafferty et al., 2013; Schweiger & Denisi, 1991; Terry, Callan & Sartori, 1996; Bordia et al., 2014). Although these authors have pointed out the existence of uncertainty and its adverse consequences for the

psychological wellness of the staff, there is a limited research about the exact psychological mechanism that describes the negative consequences of uncertainty.

During an organizational change, the uncertainty of future and changes in jobs, can cause fear among the workforces, and influence their attitudes, so the greater the changes in the organization, this will cause uncertainty and negative reactions in the workers, which may influence their performance. So management needs to reduce that fear and uncertainty, so that employees support organizational change. (Chih, Yang & Chang, 2012).

Since neuropsychology's perspective, anxiety, uncertainty and behavioral conflicts are indistinguishable (Hirsh et al., 2012). That is why people have to face personally the conflicts of behavior, such as anxiety and uncertainty, about a course of action that is appropriate caused by identification with numerous social groups, roles and experienced values (Hirsh & Kang, 2016).

Changes have intense repercussions for workers; they have to deal with uncertainty and stress that are connected with the changing work environment and bigger work demands (Bordia et al., 2011, Bordia et al., 2014; Bordia et al., 2006; Jimmieson, Terry, & Callan, 2004). An uncertain environment has many negative consequences, both for the wellness of people, as well as satisfaction in the organization. It is linked with stress (Ashford, 1988; Pollard, 2001; Schweiger & Denisi, 1991); and with intentions of rotation (Greenhalgh & Sutton, 1991; Johnson, Bernhagen, Miller & Allen, 1996). It is also related negatively with job satisfaction (Ashford, Lee & Bobko, 1989; Nelson, Cooper & Jackson, 1995), commitment (Ashford et al., 1989; Hui & Lee, 2000), and trust in the organization (Schweiger & Denisi, 1991; Bordia et al., 2014).

During organizational change the employees face uncertainty about the nature and consequences of change (Bordia & DiFonzo, 2013). The change in organizations is determined by uncertainty and ambiguity, and the relevant and accurate information doesn't exist regularly (Chaudhry & Jiwen, 2014). When there is not reliable information regarding organizational culture change, this causes rumors and uncertainty (Van



den Heuvel, Schalk & Van Assen, 2016); and these rumors serve to give employees meaning to change, and thus predict the nature of these changes (Bordia et al., 2014). The negative consequences of an unpredictable environment on psychological wellness are caused by the feelings of lack of control that the uncertainty itself generates (Bordia et al., 2004; DiFonzo & Bordia, 2002; Lazarus & Folkman, 1984). Therefore, communication contributes considerably serving as a guide in a process of change in organizations (Campbell, Carmichael & Naidoo, 2015). Good communication reduces uncertainty in relation to changes that are going to be implanted (Van der Voet, 2015).

The environment's uncertainty, or the confusion about present or future events, impairs our aptitude to influence or control such events. This absence of control has negative effects, such as anxiety (DiFonzo & Bordia, 2002), psychological stress (Spector, 2002; Terry & Jimmieson, 1999), learned impotence (Martinko & Gardner, 1982), and lower yield (Bazerman, 1982; Orpen, 1994). Bigger uncertainty with one's job future and potential for professional progress subsequent to a change were also positively related with change recipients' rotations (Fried, et al. 1996; Johnson, et al. 1996). In the other hand, communication about the change was associated with several of other reactions like inferior levels of angst and uncertainty, improved trust in management, and some consequences like less rotations (Ashford, 1988; Bordia. et al. 2004; Gopinath & Becker, 2000; Johnson, Bernhagen, Miller, & Allen, 1996; Miller & Monge, 1985; Miller. et al. 1994; Paterson & Cary, 2002).

The complex characteristics existing in the modern working environment force the personnel capability to assimilate new abilities, and to adapt them to new circumstances motivated by the change process; these skills are critical to succeed in organizational competitiveness. These behaviors in the work environment, which are linked in an adaptive performance concept, are necessary to get the company's objectives in an environment characterized by continuous change, convolution and uncertainty (Charbonnier-Voirin & El Akremi, 2011).

Today, world's uncertainty is bigger, influenced by economic and international circumstances (Siegel, 2016). Taleb (2010), specifies that the world changes in an unpredictable way, reason why it's hard to anticipate these changes. Such unanticipated changes could be explicated as a result of a wild environment characterized by unstoppable changes (MacKay & Chia, 2013). Specialists in organizational studies have pointed

out that irregular changes cannot be anticipated certainly. (MacKay & Chia, 2013; Plowman et al., 2007). This has facilitated the emergence of new aptitudes such as adaptability, which previously didn't occurs (Lord & Dinh, 2015). In a different research, use of maladaptive defense mechanisms, such as refutation, disconnection, and isolation generated bigger resistance to an organizational change in contrast with the use of adaptive mechanisms, like humor and anticipation (Bovey & Hede, 2001; Oreg, Vakola, & Armenakis, 2011).

Opposing to another researches on support, in one research about numerous firms, management involvement was measured by aggregating change recipients' support evaluations to the organizational level. This aggregate evaluation of management involvement was found to be fundamental in inducing change recipients' adaptation in changing role demands (Caldwell et al., 2004).

Nohria and Berkley (1994) specify that pragmatic managers are sensitive to the organization's context, and are open to the uncertainty surrounding change; and Mintzberg (1990) indicates that any firm can anticipate all contingencies that may arise in an uncertain environment.

By the other hand, Nohria & Berkley (1994) say that actions that are successful in the present can lead to ruin a company in the future. Nohria & Berkley (1994) argue that a prosperous change initiative in one situation, may fail in another, and this can be associated to the fact that many organizations fail when they take actions that were previously successful, but those actions in the current circumstances leads them to failure for not adapting to the changes that occur over the time in the market's environment that surrounds the firm. One of the first goals of an effective action in a company is the capability to adapt to the environment (Bordia et al., 2014). That is why firms that value adaptability and improvement, admit changes better than stability-oriented organizations (Rafferty, Jimmieson & Armenakis, 2013).

Changes in markets are unpredictable and irregular. Taleb (2010), point out that we are in a new and unpredictable world; where the old techniques that gave results in a world with a slower pace are already useless; so that what is established and true formerly has no validity at present-day; this requires a new way of thinking, to adapt and anticipate changes, and the increasing competition (Chih, Yang & Chang, 2012).

A change in self-efficacy leads to less uncertainty in an organizational culture change process (Xu, Payne, Horner & Alexander, 2016). Hogg and



Terry (2000) propose that decreasing uncertainty may be more adaptive because it defines Who we are and What to do. Organizational change is a context in which the demanding situations have to face up to the anticipated results (Smollan, 2015). A company can be huge and intricate and at the same time be capable to adapt in an organized and successful manner to changes, which shows that these changes are faster and unexpected.

In short, today, uncertainty is an intrinsic part of the environment and markets, which is why companies need to adapt and anticipate the future and their changes to be better prepared to deal with the environment and the unpredictable changes. Today, prosperous organizations must have the ability to anticipate changes, and even to provoke these changes.

## 2. RESEARCH METHODOLOGY.

The methodology for this research consisted of two parts: first a stage of theoretic and academic nature that examined the state of the art of the studied subject; and a second phase, the experimental study. In order to carry out the fieldwork of this project, an instrument was elaborated that consisted of a questionnaire of closed questions, in which the different alternatives were included as possible answers to each question.

### 2.1 Unit of analysis.

To be part of the research, the companies must be: 1) micro, small and medium organization (1 to 250 employees); 2) commercial organizations; and, 3) placed in the Metropolitan Zone of Guadalajara (MZG), including Guadalajara, Zapopan, Tlaquepaque and Tonalá. These type of firms were studied, as part of this research project.

### 2.2. Sample.

For this research a non-probabilistic sampling was used and the questionnaire was applied to 78 individuals who belong to 78 micro, small and medium commercial firms situated in the MZG, whose organizations underwent a process of organizational change.

### 2.3. Operationalization of Variables.

To make this research study the variables were operationalized using Likert Scale enquiries into the questionnaire (McDaniel Jr. & Gates, 2015).

### 2.4. Problem Statement.

This research seeks to find the factors and effects related to Adaptation and anticipate the future and its changes that are involved in an Organizational Change process in commercial firms located in the MZG.

The Adaptation and anticipation of the future and its changes have an effect in an Organizational Change, having an influence in company's performance.

For the study project that was realized, the research questions were:

- What are the factors related to Adaptation and anticipate the future and its changes, which intervene by facilitating or hindering an organizational change in commercial firms located in the MZG?
- What are the effects of Adaptation and anticipate the future and its changes, in a process of organizational change in commercial firms located in the MZG?

## 2.5. Research objectives.

### 2.5.1. General objective.

Analyze the factors and effects related to Adaptation and anticipate the future and its changes, which are involved in a process of implementation of an Organizational Change in commercial firms located in the MZG.

### 2.5.2. Specific objectives.

Identify what factors related to Adaptation and anticipate the future and its changes are involved in a process of implementation of an Organizational Change in commercial firms located in the MZG, whether they facilitate or make it difficult.

## 2.6. Hypothesis.

Within this research project the hypotheses are as follows:

H1: Adaptation facilitates the implementation of a process of organizational culture change in commercial firms located in the MZG.

H2: Anticipating the future and its changes contribute to the implementation of a process of organizational culture change in commercial firms located in the MZG.

## 2.7. Collection and processing of information.

This study tries to find the influence of Adaptation and anticipate the future and its changes, in an organizational change. In addition, this investigation searched for the degree of significance in an ANOVA analysis, relating to the variables of Adaptation and Anticipating the future and its changes, and its effects on an organizational change. Also

this research seeks certain factors, which may favor or hinder the implantation of an organizational change.

The questions of the survey used as part of this research were designed based on the bibliographic review, which sought to identify the factors related to Adaptation and anticipate the future and its changes, which intervene in an organizational change process. So, a questionnaire with choice questions was developed to identify these factors. Once the information was collected, the data were analyzed and classified, to generate the results of this research project.

### 3. RESULTS OF FIELD RESEARCH AND DISCUSSION

As part of this research project, some questions were asked to determine in what way Adaptation and Anticipating the future and its changes were factors that favored organizational change, indicating how often they presented, and how these factors impact in an organizational change.

Table 1. Relationship of Adaptation with an Organizational Change Process  
ANOVAS

	SIG.
Accept taking calculated risks	.000
Actions are taken to develop an attitude of openness to change	.019
Actions are taken to promote leadership	.036
Adequate information is available?	.000
After the change, do employees felt motivated?	.015
Anticipating the future and its changes	.022
Are the existing needs and pressures known, to achieve change?	.059
Benchmarking	.020
Competitively the company is working better after the change than before	.012
Coordination of activities	.031
Create planned and controlled crises and conflicts	.003
Employee´s education	.001
Feedback	.004
Management Involvement	.050
Positive attitude of Management	.001
The reaction of staff to change was favorable?	.011
Team Learning	.012
Shared Vision	.011
Uncertainty	.042
Was the staff willing to change?	.018

Source: Own elaboration based on the results achieved in the research project.

In addition, there were considered certain questions and hypotheses that address the effect of uncertainty in a process of organizational change.

This study found that adaptation favors organizational change in a significantly way. The data collected, reveals a substantial relationship between adaptation, with: Actions are taken to develop an attitude of openness to change, After the change, do employees felt motivated?, Are the existing needs and pressures known to achieve change?, Benchmarking, Coordination of activities, Feedback, Employee's education, Were the staff willing to change?, The reaction of staff to change was favorable?, Team Learning, Shared vision, Accept taking calculated risks, Management Involvement, Positive attitude of Management and Competitively the company is working better after than before the change.

Similarly, there is a relationship between Uncertainty and Adaptation, as well as between Adaptation and Anticipating the future and its changes; these results means that in an uncertain environment, it's essential that an organization has the ability to adapt to changes that come, and even anticipate them, this will help in an organizational change, to get it. These results correspond with that established by Lord and Dinh (2015), Taleb (2010), Nohria and Berkley (1994), Charbonnier-Voirin and El Akremi (2011), Bordia and others (2014), Rafferty, Jimmieson and Armenakis (2013), Xu, Payne, Horner and Alexander (2016), who said that we live in an unpredictable world, old methods are useless; a new vision is required to adapt and anticipate changes, in order to reduce uncertainty, and in that way, firms can get employees support to the organizational change process (Chih, Yang & Chang, 2012).

The table 2 shows the relation of anticipating the future and its changes with an Organizational Change process. As the results indicates, there is a significant relationship between anticipating the future and its changes, with several factors and questions such as: Actions are taken to develop an attitude of openness to change, Actions are taken to promote leadership, Adaptation, Create planned and controlled crises and conflicts, After the change there was order?, A measurement of the organizational culture change results is made, Employee's education, Employees performance was recognized and rewarded, Was there a need to be able to handle continuous change, not just modest change projects ?, Adequate information is available, Coordination of activities, Shared

vision, As a result of change: staff developed new skills, and Positive Attitude and Management Involvement.

The results of the research coincide with Nohria & Berkley (1994), Taleb (2010), Chih, Yang & Chang (2012) and Smollan (2015); which say that the world is changing and it's uncertain, the procedures need to change; so firms must anticipate the changes that come in the future, to be more competitive.

Table 2. Anticipating the future and its changes and its relation with the Organizational Change. ANOVAS

	SIG.
A measurement of the organizational culture change results is made	.024
Actions are taken to develop an attitude of openness to change	.011
Actions are taken to promote leadership	.036
Adaptation	.002
Adequate information is available?	.015
After the change there was order?	.002
As a result of the change, staff developed new skills and abilities	.022
Coordination of activities	.048
Create planned and controlled crises and conflicts	.038
Employee's education	.005
Employees performance was recognized and rewarded	.033
Management Involvement	.039
Positive attitude of Management	.000
Shared Vision	.025
Was there a need to be able to handle continuous change, not just modest change projects?	.007

Source: Own elaboration based on the results achieved in the research project

In conclusion, this research project reveals that anticipating the future and its changes significantly favors the process of culture change in organizations. The results of this research indicate that there is a relationship between Uncertainty with some factors like: Anticipating the future and its changes, Adaptation, Resistance to change, as a result of the change, staff developed new skills and abilities and the competitors. Also, the research results show that management has a fundamental role in an organizational change process, since it was found that there is a close relationship between adaptation, as well as anticipate the future and its changes, with Management Involvement and Positive attitude of Management, which indicates that it's a factor that favors in a very important way the process of organizational change. Other factors that also favorably influence a process of organizational change according to

the results of the research are: Create planned and controlled crises and conflicts, Actions are taken to develop an attitude of openness to change, Actions are taken to promote leadership, Adequate information is available, Employee's education and Coordination of activities.

Table 3. Uncertainty and its relation with an Organizational Change Process.

#### ANOVAS

	SIG.
Adaptation	.031
Anticipate the future and its changes	.037
Resistance to chance	.001
As a result of the change, staff developed new skills and abilities	.007
Competitors	.057

Source: Own elaboration based on the results achieved in the research project

Uncertainty is defined as the incapacity to precisely predict results and consequences resulting from the absence of information (Milliken, 1987). Also, uncertainty is an aversive state that provokes plans designed to deal with it, and frequently reveals a deficiency of visualization and planned direction by the organizational change leaders (Kotter, 1996). An organizational change process causes uncertainty (Lawrence & Callan, 2010; Paulsen et al., 2005). So, in the course of change, another source of tension were uncertainty (Smollan, 2015). During an organizational change process workers are challenged with uncertainty about the nature and costs of the change (Bordia & DiFonzo, 2013). Management communication and involvement is effective to diminish uncertainty about planned aspects of the organizational change process (Bordia et al., 2004).

So, Hypotheses are accepted. Adaptation facilitates the implementation of a process of organizational culture change in commercial firms located in the MZG. Anticipating the future and its changes contribute to the implementation of a process of organizational culture change in commercial firms located in the MZG (Tables 1, 2, 3).

## CONCLUSIONS

Changes are inevitable in companies, and there are persistent in our world. Competition is getting harder and consumers are stricter, so companies must meet as soon as possible the customer's needs and desires. The changes in the environment, means that firms must adapt to this new horizon of uncertainty that exists in the market and in the business. These firms must make changes in their organization, their

manufacturing processes and in their organizational philosophy. In order to be able to adapt and adjust to the new characteristics of this unforeseen business environment that exists in the world, and in this way to remain in the market, seeking to be more competitive and efficient.

The never-ending changes in the business environment are a clear sign of the unpredictable environment in markets. Changes are needed in the organizational structure of firms, in manufacturing and administration systems, in the use of new technologies, and to develop new goods and services that better satisfy the consumer's desires and necessities. The bigger speed of change in the world has produced greater complications for managers; they are fighting to help their firms' adaptation. So today's companies must have constant learning. They cannot remain static, because if they do, the competitors would outdo them. An important aspect in company's failure to adapt to changes in international markets is the deficiency of the change direction. Leaders, who can efficaciously complete changes, describe themselves as change leaders. Successful companies don't wait to react to changes in their environment, they anticipate and induce changes, in order to retain their leadership and force competition to be the one that have to react and adapt to those changes. Leaders define a future company's vision in intense expressions; they also define the principles that promote change and adaptability in their organizations. While making an organizational change can be expensive, the truth is that when it's done accurately, the benefits are bigger, because systems and processes are better, helping to cut expenses; and the investment in this procedure contributes to the savings gained through the reduction of costs that the company has, and also being more competitive.

As part of this research project that discusses the effect of Adaptation and anticipate the future and its changes, in an Organizational Change; it was revealed that both factors favor change in organizations. This is noted in the results obtained in this study, since it illustrates that there is a relationship between Adaptation and Uncertainty, within a process of Organizational Change and because competitively the company works better after the change. Also, this research found that there are significant relationships between the Adaptation with: After the change, do employees felt motivated?, Are the existing needs and pressures known to achieve change?, Benchmarking, Feedback, Employee's education, Were the staff willing to change?, The reaction of staff to

change was favorable?, Team Learning, Shared vision, Accept taking calculated risks. It was also found that there are very important relationships between Anticipating the future and its changes with: Actions are taken to promote leadership, Shared Vision, As a result of change, staff developed new skills and abilities, and after the change there was order; which ratifies that these factors help to the implementation of an organizational culture change.

The results of this research show that the executives have a main role in an organizational change process, since it was found that there is an important relation between adaptation, and anticipate the future and its changes with a Positive Attitude of Management and Management Involvement which indicates that it's a factor that considerably favors an organizational culture change. Other factors that also favorably impact an organizational change process in firms, according to the research's results are: Actions are taken to develop an attitude of openness to change in the staff, Adequate information is available, Create planned and controlled crises and conflicts, and Coordination of activities.

It is not possible to predict what is going to happen in the future, but whether it's possible, is to be prepared to what that future brings with it. Therefore, in an uncertain world, it's fundamental that a firm be able to adapt to and even anticipate changes, since this will help to carry out the organizational culture change process. It's necessary to help employees to deal with uncertainty, and get a better knowledge of its nature and reaction to uncertainty. It's imperative an appropriate preparation by firms and their members, because, in that way they can effectively face the challenges of the future.

The study of organizational change it's important because firms are in continuous evolution, so it's essential to know the way organizations change, and the motives they have to make those changes or not. An organization can be very big, but at the same time have the capability to adapt to changes, which are becoming more vertiginous and are presented without advice. It is necessary the right preparation of organizations to anticipate those changes.

For future study projects it is suggested to do case studies in organizations that are immerse in an organizational change process. It's proposed to do this kind of study in firms at national level. Also, it's recommended to carry out similar researches like this one, in companies of other line business, such as the industrial, or the service sectors.



Organizational changes are necessary to continue in an uncertain business environment that is the one that describes the markets of today. Nowadays, making an organizational change is a tactic to be able to remain in markets for the firms.

## REFERENCES

- Ashford, S. J. (1988). Individual strategies for coping with stress during organizational transitions. *Journal of Applied Behavioural Science*, 24(1), 19-36.
- Ashford, S. J., Lee, C. & Bobko, P. (1989). Content, Causes, and Consequences of Job Insecurity: A Theory-Based Measure and Substantive Test. *The Academy of Management Journal*, 32(4), 803-829.
- Bazerman, M. H. (1982). Impact of personal control on performance: Is added control always beneficial? *Journal of Applied Psychology*, 67(1), 472-479.
- Bordia, P. & DiFonzo, N. (2013). Rumors during organizational change: A motivational analysis. In Oreg, S. & Michel, A. (Eds.), *Psychology of organizational change* (232-252). UK: Cambridge University.
- Bordia, P., Hobman, E., Jones, E., Gallois, C. & Callan, V. (2004). Uncertainty during organizational change: Types, consequences, and management strategies. *Journal of Business and Psychology*, 18(4), 507-532.
- Bordia, P., Hunt, E., Paulsen, N., Tourish, D. & DiFonzo, N. (2004). Uncertainty during organizational change: Is it all about control? *European Journal of Work & Organizational Psychology*, 13(3), 345-365.
- Bordia, P., Jones, E., Gallois, C., Callan, V. J., & DiFonzo, N. (2006). Management are aliens! Rumors and stress during organizational change. *Group and Organization Management*, 31(5), 601-621.
- Bordia, P., Kiazad, K., Restubog, S. D., DiFonzo, N., Stenson, N. & Tang, R. L. (2014). Rumor as Revenge in the Workplace. *Group & Organization Management*, 39(4), 363-388.
- Bordia, P., Restubog, S., Jimmieson, N., & Irmer, B. (2011). Haunted by the Past: Effects of Poor Change Management History on Employee Attitudes and Turnover. *Group & Organization Management*, 36(2), 191-222.

- Bovey, W. H., & Hede, A. (2001). Resistance to organisational change: The role of defense mechanisms. *Journal of Managerial Psychology*, 16(7), 534-548.
- Caldwell, S. D., Herold, D. M., & Fedor, D. B. (2004). Toward an understanding of the relationships among organizational change, individual differences, and changes in person-environment fit: A cross-level study. *Journal of Applied Psychology*, 89(5), 868-882.
- Campbell, K. S., Carmichael, P. & Naidoo, J. S. (2015). Responding to Hostility: Evidence-Based Guidance for Communication During Planned Organizational Change. *Business and Professional Communication Quarterly*, 78(2), 197-214.
- Charbonnier-Voirin, A. & El Akremi, A. (2011). L'effet de l'habilitation sur la performance adaptative des employés. *Relations Industrielles*, 66(1), 122-149.
- Chaudhry, A. & Jiwen, L. (2014). Rethinking Psychological Contracts in the Context of Organizational Change: The Moderating Role of Social Comparison and Social Exchange. *The Journal of Applied Behavioral Science*, 50(3), 337-363.
- Chih, W. W., Yang, F. & Chih, C. (2012). The Study of the Antecedents and Outcomes of Attitude Toward Organizational Change. *Public Personnel Management*, 41(4), 597-617.
- Clampitt, P., DeKoch, R. & Williams, M. (2002). Embracing uncertainty: The hidden dimension of growth. *Ivey Business Journal*, 66(3), 57-67.
- Clampitt, P. G. & Williams, M. L. (2005). Conceptualizing and measuring how employees and organizations manage uncertainty. *Communication Research Reports*, 22(4), 315-324.
- DiFonzo, N. & Bordia, P. (1998). A tale of two corporations: Managing uncertainty during organizational change. *Human Resource Management*, 37(3&4), 295-303.
- DiFonzo, N. & Bordia, P. (2002). Corporate rumor activity, belief and accuracy. *Public Relations Review*, 28(1), 1-19.
- Fried, Y., Tieg, R., Naughton, T., & Ashforth, B. (1996). Managers' reactions to a corporate acquisition: A test of an integrative model. *Journal of Organizational Behavior*, 17(5), 401-427.
- Gopinath, C., & Becker, T. E. (2000). Communication, procedural justice and employee attitudes: Relationships under conditions of divestiture. *Journal of Management*, 26(1), 63-83.

- Greenhalgh, L., & Sutton, R. (1991). Organizational effectiveness and job insecurity. In Hartley, J., Jacobsen, D., Klandermans, B. & van Vuuren, T. (Eds.), *Job insecurity: Coping with jobs at risk* (151–171). London: Sage.
- Hirsh, J. B. & Kang, S. K. (2016). Mechanisms of identity conflict: Uncertainty, anxiety, and the behavioral inhibition system. *Personality and Social Psychology Review*, 20(3), 223–244.
- Hirsh, J. B., Mar, R. A. & Peterson, J. B. (2012). Psychological entropy: A framework for understanding uncertainty related anxiety. *Psychological Review*, 119(2), 304–320.
- Hogg, M. A. & Terry, D. J. (2000). Social identity and self-categorization processes in organizational contexts. *Academy of Management Review*, 25(1), 121–140.
- Hui, C. & Lee, C. (2000). Moderating effects of organization-based self-esteem on organizational uncertainty: Employee response relationships. *Journal of Management*, 26(2), 215–232.
- Jimmieson, N. L., Terry, D. J. & Callan, V. J. (2004). A longitudinal study of employee adaptation to organizational change: The role of change-related information and change-related self-efficacy. *Journal of Occupational Health Psychology*, 9(1), 11–27.
- Johnson, J. R., Bernhagen, M. J., Miller, V. & Allen, M. (1996). The role of communication in managing reductions in work force. *Journal of Applied Communication Research*, 24(3), 139–164.
- Kim, J., Eugene, S. & Seongsoo, L. (2013). Organizational change and employee organizational identification: mediation of perceived uncertainty. *Social Behavior and Personality: An International Journal*, 41(6), 1019–1034.
- Kotter, J. (1996). *Leading change*. Boston: Harvard Business School.
- Lawrence, S., & Callan, V. J. (2010). The role of social support in coping during the anticipatory stage of organizational change: A test of an integrative model. *British Journal of Management*, 22(4), 567–585.
- Lazarus, R. S. & Folkman, S. (1984). *Stress, appraisal, and coping*. New York: Springer.
- Liu, Y., Caldwell, S., Fedor, D. & Herold, D. (2012). When Does Management's Support for a Change Translate to Perceptions of Fair Treatment? The Moderating Roles of Change Attributions and Conscientiousness. *Journal of Applied Behavioral Science*, 48(4).

- Lord, R. G., Dinh, J. E. & Hoffman, E. L. (2015). A Quantum Approach To Time And Organizational Change. *Academy Of Management Review*, 40(2), 263-290.
- MacKay, R. B. & Chia, R. (2013). Choice, change, and unintended consequences in strategic change: A process understanding of the rise and fall of Northco automotive. *Academy of Management Journal*, 56(1), 208-230.
- Maldonado, G., Sanchez, J., Mejia, J., & Gaytan, J. (2013). Flexibility as a Logistics Business Strategy in the Industry Furniture Spain. *European Scientific Journal*, 9(1).
- Martinko, M. J. & Gardner, W. L. (1982). Learned Helplessness: An alternative explanation for performance deficits. *Academy of Management Review*, 7(2), 195-204.
- Maurier, W. L. & Northcott, H. C. (2000). Job uncertainty and health status for nurses during restructuring of health care in Alberta. *Western Journal of Nursing Research*, 22(5), 623-641.
- McDaniel, C. & Gates, R. (2015). *Marketing Research Essentials*. New Jersey: Wiley.
- Miller, K. I., & Monge, P. R. (1985). Social information and employee anxiety about organizational change. *Human Communication Research*, 11(3), 365-386.
- Miller, V. D., Johnson, J. R., & Grau, J. (1994). Antecedents to willingness to participate in a planned organizational change. *Journal of Applied Communication Research*, 22(1), 59-80.
- Milliken, F. J. (1987). Three types of perceived uncertainty about the environment: State, effect, and response uncertainty. *The Academy of Management Review*, 12(1), 133-143.
- Mintzberg, H. (1990). The manager's job: folklore and fact. *Harvard Business Review*, 90(2), 163-176.
- Nelson, A., Cooper, C. L. & Jackson, P. R. (1995). Uncertainty amidst change: The impact of privatization on employee job satisfaction and well-being. *Journal of Occupational and Organizational Psychology*, 68(1), 57-71.
- Nohria, N. & Berkley, J. D. (1994). Whatever happened to the take-charge manager? *Harvard Business Review*, 72(1), 128-137.
- Oreg, S., Vakola, M. & Armenakis, A. (2011). Change Recipients' Reactions to Organizational Change: A 60-Year Review of Quantitative Studies. *The Journal of Applied Behavioral Science*, 47(4), 461-524.

- Orpen, C. (1994). The Effects of Organizational and Individual Career Management on Career Success. *International Journal of Manpower*, 15(1), 27–37.
- Paterson, J. M., & Cary, J. (2002). Organizational justice, change anxiety, and acceptance of downsizing: Preliminary tests of an AET-based model. *Motivation and Emotion*, 26(1), 83–103.
- Paulsen, N., Callan, V. J., Grice, T. A., Rooney, D., Gallois, C., Jones, E., Jimmieson, N.L., & Bordia, P. (2005). Job uncertainty and personal control during downsizing: A comparison of survivors and victims. *Human Relations*, 58(4), 463–496.
- Plowman, D. A., Baker, T. E., Kulkarni, M., Solansky, S. T. & Travis, D. V. (2007). Radical change accidentally: The emergence and amplification of small change. *Academy of Management Journal*, 50(3), 515–543.
- Pollard, T. M. (2001). Changes in mental well-being, blood pressure and total cholesterol levels during workplace reorganization: The impact of uncertainty. *Work & Stress*, 15(1), 14–28.
- Rafferty, A. E. & Griffin, M. A. (2006). Perceptions of organizational change: A Stress and coping perspective. *Journal of Applied Psychology*, 91(5), 1154–1162.
- Rafferty, A., Jimmieson, N., & Armenakis, A. (2013). Change Readiness: A Multilevel Review. *Journal of Management*, 39(1), 110–135.
- Schweiger, D. M. & Denisi, A. S. (1991). Communication with employees following a merger: A longitudinal field experiment. *Academy of Management Journal*, 34(1), 110–135.
- Siegel, G. (2016). FOMC Minutes: Increased Uncertainty, Too Soon to Change Outlook. *Health Business Elite*, 1(34462), 1–1.
- Smollan, R. K. (2015). The Personal Costs of Organizational Change: A Qualitative Study. *Public Performance & Management Review*, 39(1), 223–247.
- Spector, P. E. (2002). Employee control and occupational stress. *Current Directions in Psychological Science*, 11(4), 133–136.
- Taleb, N. (2010). *The black swan*. London: Penguin.
- Terry, D. J., Callan, V. J. & Sartori, G. (1996). Employee adjustment to an organizational merger: Stress, coping and intergroup differences. *Stress Medicine*, 12(2), 105–122.
- Terry, D. J. & Jimmieson, N. (1999). Work control and employee well-being: A decade review. *International Review of Industrial and Organizational Psychology*, 14(1), 95–148.

- Van den Heuvel, S., Schalk, R. & Van Assen, M. (2016). Does a Well-Informed Employee Have a More Positive Attitude Toward Change? The Mediating Role of Psychological Contract Fulfillment, Trust, and Perceived Need for Change. *The Journal of Applied Behavioral Science*, 51(1), 1-22.
- Van der Voet, J. (2015). Change Leadership and Public Sector Organizational Change: Examining the Interactions of Transformational Leadership Style and Red Tape. *American Review of Public Administration*, 46(6), 660-682
- Xu, X., Payne, S. C., Horner, M. T. & Alexander, A. L. (2016). Individual difference predictors of perceived organizational change fairness. *Journal of Managerial Psychology*, 31(2), 420-433.
- Zaleznik, A. (1992). Managers and leaders: are they different? *Harvard Business Review*, 70(2), 126-135.



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# Chapter 3

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## Impact of Cronyism in Mexican Multinationals

*By Jorge Pelayo-Maciél, Manuel Alfredo Ortiz-Barrera and  
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# Impact of Cronyism in Mexican Multinationals

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## INTRODUCTION

This work seeks to analyze how the cronyism, even known as friendship networks, can affect the Mexican multinationals. This is because the importance of having partner networks to develop a synergy to consolidate resulting businesses from such networks. The term has its origin in “social exchange, whose main analysis are relations between the actors” that can be defined as well like a “reciprocal exchange transaction, where agent “A” shows a favorable action to agent “B”, based on shared membership in a social network at expense of agent “C”; where a valuable resource is claimed (Khatri, Tsang & Begley, 2006).

Authors explains that cronyism must exist if “there are a reciprocal exchange where agent “A” gives some value to “B”, and this agent will give something to his partner in the future. In second place, exchange could be tangible or intangible, and third, members in group are based in kinship, friendship, ethnicity, religion, school, workplace, mutual interest, among others; all these forms are basic in favoritism”. To contextualize, a social network is a perspective where agents, seen as individuals, groups and organizations, form a set of interconnected relationships where the behavior of their members is established (Granovetter, 1985; Adler & Kwon, 2002; Borgatti & Foster, 2003; Brass et al., 2004; Inkpen & Tsang, 2005; Begley, Khatri & Tsang, 2010); also the concept can be defined as a “set of agents with one or more relations between them. These actors can be any kind of meaningful social unit, including individuals, collective entities, companies, organizations, [...] such relationships can be formal,

affective (friendship or respect), social interactions, workflows, As not commercial materials and alliances" (Contractor, Wasserman & Faust, 2006).

A business group is therefore a social network (Goto, 1982; Keister, 1998; Yiu, Bruton & Lu, 2005; Chacar & Vissa, 2005; Carney et al., 2011) where it can generate a cronyism (Mathews, 1998; Claessens & Fan, 2002; Chang & Shin, 2006; Carney, 2008; Keles, Özkan & Bezirci, 2011; Chen & Miller, 2011; Barnett, Yandle & Naufal, 2013), since this term as "a set of companies that are controlled by a small group of majority shareholders, usually members of a family or a group of associates with Social or ethnic nexuses "(Chavarin, 2011: 194). The family having ownership or possession of capital of the enterprise implies having the authority or the control to establish the policies of the organization (Cheffins & Bank, 2009). There is no precise data in Mexico when family business groups began, but it can be mentioned that this type of organization began with the industrial revolution in the late nineteenth century (Chavarin, 2011).

## 1. MEXICAN CONTEXT.

In Mexico the context can be understood as a vast majority of family owned corporations with structures known as business groups; these can be identified as a strategy that comes from 19<sup>th</sup> century, which consist in develop a business group through an structured known as market concentration (Chavarín, 2012; Shleifer et al., 2000).

Moreover, this is something common in the world; since 19% of the listed companies in different stock exchanges are controlled by familiar business groups, which seek to obtain the profits of the subsidiaries and in turn to have a control without need of capital contribution (La Porta et al., 1999). Although there may theoretically be disadvantages in family ownership, there are studies that argue that when such structures exist, managers will seek long - term strategies to ensure the wealth of their family (Leff, 1978; Granovetter, 2010; Miller et al., 2008; Minichilli, Corbetta & MacMillan, 2010).



Table 1. The thirteen largest Mexican multinationals in 2015.

Ranking	Companies	Sales (mdd)	Earnings (mdd)	Assets (mdd)	Market Value (mdd)
125	América Móvil	63,700	3,500	85,200	74,500
379	FEMSA	20,900	1,300	25,500	33,800
519	Banorte	8,100	1,100	74,500	16,900
556	Grupo México	9,300	1,800	20,600	23,700
794	Grupo Inbursa	4,000	1,400	26,200	17,700
846	Cemex	15,800	-510	34,900	12,400
1,003	Grupo Televisa	6,000	405	15,800	20,400
1,036	Alfa	17,200	-170	15,800	11,000
1,068	Grupo Bimbo	14,200	287	12,000	14,000
1,163	Liverpool	6,100	583	7,100	16,200
1,419	Grupo Elektra	5,600	551	13,300	6,500
1,446	Grupo Carso	6,200	427	6,200	10,100
1,557	Arca Continental	4,700	489	5,400	10,300

Source: Forbes (2015).

It can also be mentioned that family property exists because there is a conflict between the one who controls the company and the shareholder (Castillo Ponce, 2007). When analyzing business groups in emerging economies, the family establishes a pyramid-owned structure to control its multiple affiliated companies (Almeida & Wolfenzon, 2006; Claessens et al., 2000; La Porta et al., 1999, 2002). In other words, they have a certain percentage of ownership sufficient to exercise control over them, in addition to which business groups are the structure that prevails at the global level (Masulis, Pham & Zein, 2011). Within this scope, it is estimated that by 2015 in Mexico there were thirteen of the 2,000 multinationals with the highest income and market value in the world (Global 2000, cited by Forbes, 2015), of which are part of Mexican family-owned business groups are: América Móvil, Inbursa Group and Carso Group (Slim family); FEMSA (Fernández family); Grupo México (the Mota-Velasco family); Grupo Televisa (Azcárraga family); Alfa (Fernández Garza family); Grupo Bimbo (Servitje family); Liverpool (Suberville family); Grupo Elektra (Salinas family) and Arca Continental (Barragán family), the economic importance for Mexico is high, as can be seen in Table 1, these thirteen companies generated global sales of US \$ 181,800 billion, which is equivalent To 22% of Mexican GDP generated in the fourth quarter of 2015.

## 2. THEORETICAL FRAMEWORK.

Multinational companies are those that generate direct investments abroad, which, control activities of generation of value in these international markets, these corporations have been object of study in different parts of the world, which they have analyzed from industries of commodities like are The industrialization of the oil sector in Chile and steel in India (Bucheli, 2010; Ganguli, 2007), to high technology industries such as TATA (Gaur, 2010); Have also generated studies analyzing their success in countries such as China and India (Carney & Dieleman, 2001); As well as the creation of strategies to diversify its business portfolio to the global level, to take advantage of market failures in emerging countries (Carrera, Mesquita & Perkins Vassolo, 2003; Gaur, 2009; Kumar, Gaur & Pattnaik, 2012). It also deals with this issue from the perspective of transaction costs, strategic management, institutional theory and resource-based theory (Göksen & Üsdiken, 2001; Li, Ramaswamy, & Pettit, 2006). Has served to understand the different strategies that multinational companies have sought in their international expansion, it has also been seen that Latin American multinational companies develop a type of organization called business groups (Sargent & Ghaddar, 2001), and it has also been seen how this faces to market imperfections (Yiu, 2010), but to date, little has been studied of the business and friendship networks generated by such companies.

For the development of the present study it is taken as the basic theories of agency and institutional, the first one analyzes the motivations and behaviors of the agent and the main one (Jensen & Meckling, 1976), this seen as a contract by which one or more people (The principal), designates another person (the agent) to perform some service on his behalf, which involves delegating to the agent some authority for decision making. While the second, it can be seen simply as the rules of the game, which include institutional changes over time which may be formal or informal, which, on the one hand, are laws and standards planned humanely and on the other, are moral norms and culture, of which in both cases determines the behavior of both individuals and companies (North, 1993). For this research is taken as an informal institution the behavior that follow the directors and advisers when creating links with other people from different organizations and different industries.

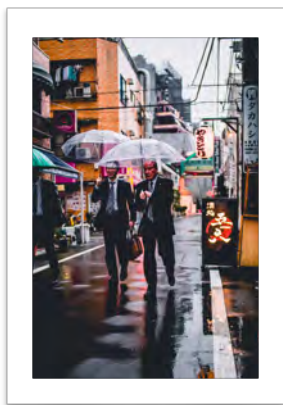
With this, we seek to support the behavior of the agent consistent with the generation of wealth of the principal. It is believed that changes in the structure or process of having a board of directors independent of the control or management of the organization leads to greater efficiency in monitoring and therefore leads to the interests of the principal (Anderson, Melanson & Maly 2007). However the empirical findings show mixed results (Kang, Zardkoohi, 2005), in fact it has been argued that the closeness between the board of directors and the management of the company can enhance the financial benefits, or in other words, the duality between Ownership and control leads to better financial performance (Anderson et al., 2007).

Based on the above, we study an investigation made with information from the Taiwan Stock Exchange (Chung & Luo, 2008), where it finds that business groups are created to reduce agency costs and that in addition these are taken for granted Institutional context. Based on a study done in Canada, however, (Chung & Luo, 2008) mention that when generating such structures there are agency costs for small shareholders and the benefits exist for the controlling family, Financial performance than companies that are totally independent.

In another study by Kuhnén (2009), he mentions that business groups can mitigate agency conflicts by facilitating the transfer of information efficiently, suggesting that the effects of a pyramid structure give better oversight of the board of directors and Increase the possibility of collusion of the same, but does not find relevant that this can improve the results for shareholders.

In emerging economies, external monitoring institutions aimed at the supervision of management are only beginning to be created, this is usually solved with the concentration of ownership and direct management of the company, especially through controlling families (Khanna & Palepu, 1999). Another reason why firms concentrate ownership is for cultural reasons of a society, understanding this as the set of shared beliefs that condition the behavior of individuals (Smircich, 1983). These cultural elements are socially created and, therefore, it cannot be assumed that the corporate governance structure is entirely a product of rationality and the explicit design of individuals. For the above, different studies were analyzed where the term cronyism or cronyism was studied in the corporative as well as its relation with the performance of the company.

It begins by saying that the studies have focused on the crisis that occurred in that continent in the late 1990s, where Dieleman and Sachs (2008), where they analyze business groups in emerging economies, particularly in Indonesia, where Institutional context analyzes the increase in the resources and capacities of a family business group for the friendships generated during the regime of President Suharto, to achieve



this, the company was studied for 20 years through the information available from the Jakarta Stock Exchange and Where 56 interviews were made. On the other hand, in Malaysia, Gul (2006) verified by means of a linear regression and with information from the Worldscoop database that during 1996 to 1998 the fees paid to audit firms increased more in the companies with political ties of the Which did not have, in addition that in 1998 imposed capital controls that in the end turned out to be a financial subsidy that favored the companies with political ties with which the risks derived from the crisis were reduced.

This represented a gain of five billion dollars in the stock market (Johnson & Milton, 2001). In this same line of research, but in China, Allen and Li (2011) analyzed the long-term impact of the recovery on the compensation of managers in the banking sector in China, where through a linear regression they find evidence that The existence of political cronyism in the main four Chinese banks, find the existence of preferential loans, the same happened in Romania where during crisis the companies of nationality of that country had access to preferential loans unlike foreign investors, resulting in low Levels of indebtedness of the former (Valsan, 2005).

This theme of cronyism, not only covers issues of political ties with companies, has also been studied through organizational relationships (, such as Begley and Khatri (2010), who analyze these networks in a context of change Social, where two types of networks identify comrades (clique) and business networks, in addition to two forms of competition, inter and intra net, in each of them it is shown that network competition increases the cronyism that is something natural In family ties, among friends, business partners, but in any case must be analyzed to avoid acts

of corruption, which have caused financial crises such as those in Asia and the United States (Khatri & Tsang, 2006). Also from the business perspective, it can be mentioned that they work in networks and that in this 21st century are quite sophisticated, based on friendship, family ties or business networks (Contractor, Wasserman & Faust, 2006). Similarly, organizational cronyism reflects the reciprocal exchange and is found to be the most important factor for the generation of confidence on the part of the managers.

As a result, it is clear that this issue is broad and can be exploited further, previous research has focused on issues of political friendship (Dieleman & Sachs, 2008; Gul, 2006; Johnson & Milton 2001; Khatri & Tsang, 2006; Contractor, Wasserman & Faust, 2006), but not only cronyism occurs in these spheres is also held in the business or organizational domain. Therefore, the present research aims to increase the knowledge of this subject in a greater extent in the business networks, it is analyzed the general managers and the chairmen of council of the business groups in Mexico the following hypotheses are proposed:

H<sub>1a</sub>: The level of existing relations of the CEO with members of the board of directors is positively related to the performance of the company.

H<sub>1b</sub>: The level of existing relations of the CEO with other organizations is positively related to the performance of the company.

H<sub>1c</sub>: The level of the CEO's existing relationships with other industries is positively related to the company's performance.

H<sub>2a</sub>: The level of existing relations of the chairman of the board of directors with members of the board itself is positively related to the performance of the company.

H<sub>2b</sub>: The level of existing relations of the chairman of the board of directors with other organizations is positively related to the performance of the company.

H<sub>2c</sub>: The level of existing relations of the chairman of the board of directors with other industries is positively related to the performance of the company.

### 3. METHODOLOGY.

To test the hypotheses, we used information from the 143 companies listed on the Mexico Stock Exchange, completing the information with the ISI Emerging Markets and Bloomberg database, of the companies with



information available only 87, since the remaining 56, did not have complete information. The present research is developed with an analysis of variance (ANOVA), this tool seeks to analyze the differences between means of different groups in this case investigates if there are differences between both the directors and the presidents of the companies In the relationships they have with members of the board, with other companies and with companies from other industries.

### 3.1 Variables Measurement.

To measure the dependent variable, as already mentioned, secondary databases were taken, "relations of the director general with board members, with other organizations and other industries" was developed as a continuum and what Bloomberg published as the number of Identified connections exist with board members, connections with different organizations and connections with different industries. In the same way the relations of the chairman of the board of directors were analyzed.

The independent variables were developed through financial indicators such as return on assets (ROA), which is obtained by dividing net profits over total assets; The return on shareholders' equity (ROE), which is obtained by dividing post-tax earnings on the total capital of the shareholders; The net return on sales, which is calculated by dividing earnings after tax on income; The gross profit margin (UOB) is obtained by dividing the income minus the cost of the goods between the income and finally the net profit margin (OU) which is calculated by dividing the profit after tax between the income.

## 4. RESULTS.

This section analyzes the relations of both the CEO and the CEO of the company and in the first case analyzes the results generated between the CEO and the board members generates a good performance of the company by throwing the information that Of advice shedding the indicators return on assets (ROA), return on equity of the shareholders (ROE); Which can not be significant with the F statistic; (ROS) results in a .10 level of significance, while the gross profit margin (UOB) and net profit margin (UO) indicators result in a significance level of .01, In addition it can be seen that the return on sales is the one that has the most impact by the sum of squares of inter-groups (Table 2), in this case you can see the ties in the intra or intra-organizational relationships can generate A better performance of the company (Begley & Khatri, 2010).

Table 2. One way ANOVA of the relations of the general director with members of the council

		Suma de cuadrados	gl	Media cuadrática	F	Sig.
ROA	Inter-grupos	4.711	44	.107	.267	1.000
	Intra-grupos	16.445	41	.401		
	Total	21.156	85			
ROE	Inter-grupos	1.720	44	.039	1.446	.116
	Intra-grupos	1.136	42	.027		
	Total	2.856	86			
ROS	Inter-grupos	78.669	44	1.788	1.976	.015
	Intra-grupos	37.101	41	.905		
	Total	115.769	85			
UOB	Inter-grupos	32.741	44	.744	9.323	.000
	Intra-grupos	3.352	42	.080		
	Total	36.093	86			
UO	Inter-grupos	70.110	44	1.593	48.564	.000
	Intra-grupos	1.378	42	.033		
	Total	71.488	86			

Table 3. One way ANOVA of the relations of the director general with other organizations

		Suma de cuadrados	gl	Media cuadrática	F	Sig.
ROA	Inter-grupos	.413	9	.046	.168	.997
	Intra-grupos	20.743	76	.273		
	Total	21.156	85			
ROE	Inter-grupos	.069	9	.008	.211	.992
	Intra-grupos	2.787	77	.036		
	Total	2.856	86			
ROS	Inter-grupos	4.198	9	.466	.318	.967
	Intra-grupos	111.571	76	1.468		
	Total	115.769	85			
UOB	Inter-grupos	1.011	9	.112	.247	.986
	Intra-grupos	35.082	77	.456		
	Total	36.093	86			
UO	Inter-grupos	1.655	9	.184	.203	.993
	Intra-grupos	69.832	77	.907		
	Total	71.488	86			

When analyzing the relations of the director general with other organizations and other industries, ie the interorganizational part, you can see that the return on sales has a greater impact on the performance of the company, cannot be said to exist a relationship Significant, since in Tables 3 and 4 a very low value can be seen in the F statistic, so it can be said that there is no relation between the company's performance and the relations that the CEO has with other organizations as with others Industries.

Tabla 4. ANOVA de un factor de las relaciones del director general con otras industrias

		Suma de cuadrados	gl	Media cuadrática	F	Sig.
ROA	Inter-grupos	1.030	9	.114	.432	.914
	Intra-grupos	20.126	76	.265		
	Total	21.156	85			
ROE	Inter-grupos	.283	9	.031	.942	.494
	Intra-grupos	2.573	77	.033		
	Total	2.856	86			
ROS	Inter-grupos	11.477	9	1.275	.929	.505
	Intra-grupos	104.292	76	1.372		
	Total	115.769	85			
UOB	Inter-grupos	2.128	9	.236	.536	.844
	Intra-grupos	33.965	77	.441		
	Total	36.093	86			
UO	Inter-grupos	5.630	9	.626	.731	.679
	Intra-grupos	65.858	77	.855		
	Total	71.488	86			

The following analysis was made of the chairman's relationship with other directors, other companies, and other industries, it is appreciated that there is no level of significance to say that there is an impact on the chairperson's relations with other counselors in the Generating a good financial performance of the company (Table 5). However, observing the levels of significance of the board chairman's relationships with other companies and other industries identifies that the financial indicator called return on assets has a significance level of 0.05 and .010 respectively, but not the same In the other dependent variables, where we can see that there is no relation to the independent variables, with the above it

can be said that relations based on friendship or business networks are quite sophisticated for this first analysis and a study is needed where Reflects the reciprocal exchange that may exist both inside and outside the company (Contractor, Wasserman, Faust, 2006).

Table 5. One way ANOVA of the chairperson's relations with other counselors

		Suma de cuadrados	gl	Media cuadrática	F	Sig.
ROA	Inter-grupos	10.322	45	.229	.847	.707
	Intra-grupos	10.834	40	.271		
	Total	21.156	85			
ROE	Inter-grupos	1.624	45	.036	1.201	.277
	Intra-grupos	1.232	41	.030		
	Total	2.856	86			
ROS	Inter-grupos	29.393	45	.653	.302	1.000
	Intra-grupos	86.376	40	2.159		
	Total	115.769	85			
UOB	Inter-grupos	9.199	45	.204	.312	1.000
	Intra-grupos	26.894	41	.656		
	Total	36.093	86			
UO	Inter-grupos	15.656	45	.348	.255	1.000
	Intra-grupos	55.832	41	1.362		
	Total	71.488	86			

Table 6. One Way ANOVA of the relations of the president of the council with other companies

		Suma de cuadrados	gl	Media cuadrática	F	Sig.
ROA	Inter-grupos	6.849	11	.623	3.220	.001
	Intra-grupos	14.307	74	.193		
	Total	21.156	85			
ROE	Inter-grupos	.245	11	.022	.640	.789
	Intra-grupos	2.611	75	.035		
	Total	2.856	86			
ROS	Inter-grupos	11.842	11	1.077	.767	.672
	Intra-grupos	103.927	74	1.404		
	Total	115.769	85			
UOB	Inter-grupos	1.717	11	.156	.341	.974
	Intra-grupos	34.377	75	.458		
	Total	36.093	86			
UO	Inter-grupos	2.477	11	.225	.245	.993
	Intra-grupos	69.011	75	.920		
	Total	71.488	86			

Tabla 7. One Way ANOVA of a factor of relations of the president of the council of other industries

		Suma de cuadrados	gl	Media cuadrática	F	Sig.
ROA	Inter-grupos	6.928	15	.462	2.272	.011
	Intra-grupos	14.228	70	.203		
	Total	21.156	85			
ROE	Inter-grupos	.524	15	.035	1.065	.404
	Intra-grupos	2.331	71	.033		
	Total	2.856	86			
ROS	Inter-grupos	11.855	15	.790	.532	.914
	Intra-grupos	103.914	70	1.484		
	Total	115.769	85			
UOB	Inter-grupos	3.947	15	.263	.581	.880
	Intra-grupos	32.146	71	.453		
	Total	36.093	86			
UO	Inter-grupos	4.752	15	.317	.337	.989
	Intra-grupos	66.736	71	.940		
	Total	71.488	86			

The results show a contribution to understand the behavior of networks of friendship generated by managers of business groups in Mexico and it can be seen that organizational relationships in the form of friendship is a way to generate greater entrepreneurial skills that benefits them to generate a Positive effect on performance (Begley & Khatri, 2010; Contractor, Wasserman & Faust, 2006).

## CONCLUSIONS

Therefore, within the findings of the present investigation it is considered that the one part of the performance of the company is associated with the relations that have the director general with other members of the council, which contradicts the theory of the agency, which Mentions that the agent (director of the company) must be an independent person so that it can be monitored by the members of the board, the previous thing can be logical if one takes into account that the majority of the companies studied are of familiar origin and is Something common that arise this type of relations.

So you can check the hypothesis 1a, but not the 1b and 1c. With respect to hypothesis 2a, 2b and 2c, it can be tested only partially because it only seems to have relations with the performance of the assets, which can be logical when analyzing that one of the most important functions of the president of the council is to help To establish the investment objectives of the company and to see how the performance generated by the amount of relationships that such person achieves is an interesting finding in this research.

One of the limitations of the present investigation is that it would be necessary to complete the sample with all the companies of the Mexican Stock Exchange to analyze the behavior of the companies that are not part of business groups. Issue in terms of investment decisions in different countries where managers have generated friendly relations and can also be analyzed in different institutional contexts and longitudinally over time.

## REFERENCES

- Adler, P. S., & Kwon, S. W. (2002). Social capital: Prospects for a new concept. *Academy of management review*, 27(1), 17-40.
- Allen, L., & Li, G. (2011). Clawbacks and Cronyism: Evidence from China, *Financial Management*, Fall, 733 – 756.
- Almeida, H. V., & Wolfenzon, D. (2006). A theory of pyramidal ownership and family business groups. *The Journal of Finance*, 61(6), 2637-2680.
- Anderson, D. W., Melanson, S. J., & Maly, J. (2007). The Evolution of Corporate Governance: power redistribution brings boards to life. *Corporate Governance: An International Review*, 15(5), 780-797.
- Barnett, A., Yandle, B., & Naufal, G. (2013). Regulation, trust, and cronyism in Middle Eastern societies: The simple economics of “wasta”. *The Journal of Socio-Economics*, 44, 41-46.
- Begley, T. M., Khatri, N., & Tsang, E. W. (2010). Networks and cronyism: A social exchange analysis. *Asia Pacific Journal of Management*, 27(2), 281-297.
- Borgatti, S. P., & Foster, P. C. (2003). The network paradigm in organizational research: A review and typology. *Journal of management*, 29(6), 991-1013.
- Brass, D. J., Galaskiewicz, J., Greve, H. R., & Tsai, W. (2004). Taking stock of networks and organizations: A multilevel perspective. *Academy of management journal*, 47(6), 795-817.

- Bucheli, M. (2010). Multinational corporations, business groups, and economic nationalism: standard oil (New Jersey), Royal Dutch-Shell, and energy politics in Chile 1913-2005. *Enterprise and society*, 11(02), 350-399.
- Carney, M. (2008). The many futures of Asian business groups. *Asia Pacific Journal of Management*, 25(4), 595-613.
- Carney, M., & Dieleman, M. (2011). Indonesia's missing multinationals: Business groups and outward direct investment. *Bulletin of Indonesian Economic Studies*, 47(1), 105-126.
- Carney, M., Gedajlovic, E. R., Heugens, P. P., Van Essen, M., & Van Oosterhout, J. H. (2011). Business group affiliation, performance, context, and strategy: A meta-analysis. *Academy of Management Journal*, 54(3), 437-460.
- Carrera, A., Mesquita, L., Perkins, G., & Vassolo, R., (2003), Business groups and their corporate strategies on the Argentine roller coaster of competitive and anticompetitive shocks, *Accademy of Management Executive*, 17(3), 32-44.
- Castillo, R. A. (2007). Entre Familia y Amigos: La Elección de la Estructura de Propiedad Corporativa. *Estudios Económicos*, 22(1), 3 – 18.
- Chacar, A., & Vissa, B. (2005). Are emerging economies less efficient? Performance persistence and the impact of business group affiliation. *Strategic Management Journal*, 26(10), 933-946.
- Chang, J. J., & Shin, H. H. (2006). Governance system effectiveness following the crisis: The case of Korean business group headquarters. *Corporate governance: an international review*, 14(2), 85-97.
- Chavarin Rodriguez, R. (2011). Los grupos económicos en México a partir de una tipología de arquitectura y gobiernos corporativos: Una revisión y sus explicaciones teóricas. *El Trimestre Económico*, (LXXVIII)1, 193 – 234.
- Chavarrín Rodríguez, R. (2012). Bancos ligados a grupos económicos en México y concentración de mercado en la banca comercial. *Paradigma económico*, 4(1), 5 – 26.
- Cheffins, B., & Bank, S. (2009). Is Berle and Means really a myth?. *Business History Review*, (83)3, 443 – 474.
- Chen, M. J., & Miller, D. (2011). The relational perspective as a business mindset: Managerial implications for East and West. *The Academy of Management Perspectives*, 25(3), 6-18.

- Chung, C. N., & Luo, X. (2008). Institutional Logics or Agency Costs: The Influence of Corporate Governance Models on Business Group Restructuring in Emerging Economies, *Organization Science*, 19(5), pp. 766 – 784. doi: 10.1287/orsc/1070.0342
- Claessens, S., & Fan, J. P. (2002). Corporate governance in Asia: A survey. *International Review of finance*, 3(2), 71-103.
- Contractor, N. S., Wasserman, S., & Faust, K. (2006). Testing Multitheoretical, Multilevel Hypotheses About Organizational Networks: An Analytic Framework And Empirical Example, *Academy Of Management Review*, 31(3), Pp. 681-703.
- Dieleman, M., & Sachs, W. (2008). Coevolution of Institutions and Corporations in Emerging Economies: How the Salim Group Morphed into an Institution of Suharto's Crony Regime. *Journal of Management Studies*, 45(30), 1275-1300.
- Drory, A., & Romm, T. (1990). The Definition of Organizational Politics: A Review, *Human Relations*, 43, 1133-1154.
- Forbes (2015). Las 13 empresas mexicanas globales más grandes, *Revista Forbes México*, consultado el 1 de junio de 2015 de <http://www.forbes.com.mx/las-13-empresas-mexicanas-globales-mas-grandes/>
- Gaur, A., & Kumar, V. (2009). International Diversification, Business Group Affiliation and Firm Performance: Empirical Evidence from India, *British Journal of Management*, 20, 172-186. DOI: 10.1111/j.1467-8551.2007.00558.x
- Gaur, J. (2010). Financial Performance Measures of Business Group Companies: A Study of Indian Non-Metallic Mineral Products Industries, *The IUP Journal of Business Strategy*, VII(4), 45-53.
- Göksen N., & Üsdiken B. (2001). Uniformity and Diversity in Turkish Business Groups: Effects of Scale and Time of Founding, *British Journal of Management*, 12, 325-340.
- Goto, A. (1982). Business groups in a market economy. *European economic review*, 19(1), 53-70.
- Granovetter, M. (1985). Economic action and social structure: The problem of embeddedness. *American journal of sociology*, 91(3), 481-510.
- Granovetter, M. (2010). 19 Business Groups and Social Organization. *The handbook of economic sociology*, 429.



- Gul, F. A. (2006) Auditors' Response to Political Connections and Cronyism in Malaysia, *Journal of Accounting Research*, 44(5), 931 - 963 DOI: 10.1111/j.1475-679X.2006.00220.x
- Inkpen, A. C., & Tsang, E. W. (2005). Social capital, networks, and knowledge transfer. *Academy of management review*, 30(1), 146-165.
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of financial economics*, 3(4), 305-360.
- Johnson, S., & Mitton, T. (2001). Cronyism and controls: Evidence from Malaysia, NBER Working paper series. No. 8521, 1 - 16.
- Kang, E., & Zardkoobi, A. (2005). Board Leadership Structure and Firm Performance. *Corporate Governance: An International Review*, 13(6), 785 - 799.
- Keister, L. A. (1998). Engineering Growth: Business Group Structure and Firm Performance in China's Transition Economy 1. *American journal of sociology*, 104(2), 404-440.
- Keles, H. N., Özkan, T. K., & Bezirci, M. (2011). A study on the effects of nepotism, favoritism and cronyism on organizational trust in the auditing process in family businesses in Turkey. *The International Business & Economics Research Journal*, 10(9), 9.
- Khanna, T., & Palepu, K. (1999). Emerging Market Business Groups, Foreign Investors, and Corporate Governance. National Bureau of Economic Research. Working Paper, 6955, consultado de: <http://www.nber.org/papers/w6955>
- Khatri N., Tsang, E. W. K., & Begley, T. M. (2006). Cronyism: a cross-cultural analysis, *Journal of International Business Studies*, 37, 61 - 75.
- Khatri, N., & Tsang, E. W. K. (2003). Antecedents and Consequences of Cronyism in Organizations, *Journal of Business Ethics*, 43, 289 - 303.
- Kuhnen, C. (2009). Business Networks, Corporate Governance, and Contracting in the Mutual Fund Industry, *The Journal of Finance*, LXIV(5), pp. 2185 - 2220.
- La Porta, R., Lopez-de-Silanes, F., & Shleifer, A. (1999). "Corporate Ownership around the World", *The Journal of Finance*, (LIV) 2, 471 - 517.
- Leff, N. H. (1978). Industrial organization and entrepreneurship in the developing countries: The economic groups. *Economic development and cultural change*, 26(4), 661-675.

- Li, M., Ramaswamy, K., & Pettit, P. (2006). Business groups and market failures: A focus on vertical and horizontal strategies, *Asia Pacific Journal of Management*, 23, 439–452. DOI 10.1007/s10490-006-9016-1.
- Mathews, J. A. (1998). Fashioning a new Korean model out of the crisis: the rebuilding of institutional capabilities. *Cambridge Journal of Economics*, 22(6), 747-759.
- Miller, D., Breton-Miller, L., & Scholnick, B. (2008). Stewardship vs. stagnation: An empirical comparison of small family and non-family businesses. *Journal of Management Studies*, 45(1), 51-78.
- Minichilli, A., Corbetta, G., & MacMillan, I. C. (2010). Top management teams in family controlled companies: ‘familiness’, ‘faultlines’, and their impact on financial performance. *Journal of Management Studies*, 47(2), 205-222.
- North, D. (1993). *Instituciones, cambio institucional y desempeño económico*. México, DF: Fondo de Cultura Económica.
- Peng, Y-S., Yang, K-P., & Liang, Ch. (2011). The Learning Effect on Business Groups’ Subsequent Foreign Entry Decisions into Transitional Economies, *Asia Pacific Management Review*, 16(1) 1-21.
- Shleifer, A., Vishny, R. W., Porta, R., & Lopez-de-Silanes, F. (2000). “Investor protection and corporate governance”, *Journal of Financial Economics*. 58(1-2), 3-27.
- Smircich, L. (1983). Concepts of Culture and Organizational Analysis. *Administrative Science Quarterly*, 28, 339 – 358.
- Turhan, M. (2014). Organizational Cronyism: A Scale Development and Validation from the Perspective of Teachers, *Journal of Business Ethics*, 295 – 308.
- Valsan, C. (2005). The Determinants of Borrowing by Newly Exchange-listed Firms in Romania: When Adverse Selection Meets Cronyism, *Post-Communist Economies*, 17(1), 109 – 123.
- Yiu, D. (2010). Multinational Advantages of Chinese Business Groups: A Theoretical Exploration. *Management and Organization Review*, 7(2), 249–277. DOI: 10.1111/j.1740-8784.2010.00210.x
- Yiu, D., Bruton, G. D., & Lu, Y. (2005). Understanding business group performance in an emerging economy: Acquiring resources and capabilities in order to prosper. *Journal of Management Studies*, 42(1), 183-206.



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# Chapter 5

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## CRM as a Fostering Tool for Competitiveness: Plastic Manufacturing SMEs

*By José Sánchez-Gutiérrez, Tania-Elena González-Alvarado and  
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# CRM as a Fostering Tool for Competitiveness: Plastic Manufacturing SMEs in the ZMG

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## INTRODUCTION

Manufacturing SMEs, specifically those that are part of the industry, have to take into account several tools such as CRM (Customer Relationship Management), which is an element of business strategy that helps to raise awareness of the importance of the customer (Kaplan & Norton, 2001;



Chalmeta, 2006; Yeh-Yun Lin, & Yi-Ching, M., 2007; Richards & Jones, 2008; Verhoef et al., 2009; Van de Vrande et al., 2009), since they are actually the main reason to remain present. Therefore, it is necessary to make the operational changes that are needed for this purpose, mainly those that have to do with customer service, as well as those regarding to the products offered by the company, sales, order management, everything related to distribution and logistics, billing and collections; But above it all, it requires a change of mentality, company's philosophy and SMEs efforts that have to work a lot in this workforce (Hernandez, Gandara and Macias, 2012).

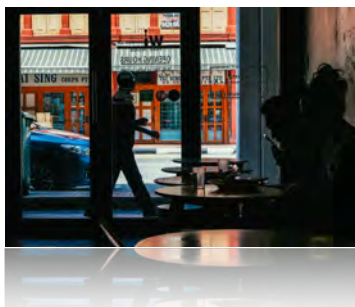
At the international level, the development of the plastic sector has a significance within innovation and competitiveness levels. So, it is important to carry out a diagnosis of the situation of plastic sector SMEs in Jalisco, in order to help to identify the way in which companies are organized and, as well as the strategies that are taking place to generate the conditions that produce innovation processes, that at the same time, impact in their competitiveness levels. According to the OECD (2010), small firms are playing an ever-increasing role in innovation, driven by changes in technologies and markets. Some spin-offs and high growth firms are having remarkable success. However, the broad bulk of small firms are not capitalising on their advantages. (OECD, 2010)

## 1. CONTEXTUAL FRAMEWORK.

### 1.1. Mexican SMEs in the world.

As time goes on, SMEs have realized that they are capable of delivering high quality degree products to their customers (Carpintero, 1998; Anzola, 2002; Perez & Stumpo, 2002), much of this is due to innovation, being in a more demanding market (Salavou, 2002; Keskin, 2006; Low, Chapman, & Sloan, 2007; Lee, et al., 2010). This is actually due to the fact that they have adapted to their customer needs and changes that exist in their environment.

Lloyd, Muller and Wall (2002) argue that SMEs size presents the opportunity to innovate and thus cope with a competitive advantage, since their organizational structures are simpler and adapt more easily to changes. These small enterprises are quite important since they are fundamental to every development country. The small and medium sized enterprise sector accounts for 99% of firms in the OECD area, and 50-70% of value added across these countries. (OECD, 2010)



Small and medium-sized enterprises (SMEs) in Latin America, Asia, the United States and Europe make up the vast majority of the business world (OECD, 2000; Gonzalez, 2002; OECD, 2002; Gonzalez, 2005). That is why it is important for them to acquire regional or local economic development.

SMEs have a key role to play in enhancing Latin America's growth potential. But SMEs are highly heterogeneous in terms of access to markets, technologies and human capital, as well as their linkages with other firms, and these factors affect their productivity, export capacity and potential growth. (OECD & ECLAC, 2012).

Throughout the world there are companies of different dimensions, the variables or criteria that are taken into account for their classification differ in each country (Gonzalez, 2002). Latin American SMEs are highly heterogeneous (Gonzalez, 2002; OECD & ECLAC, 2012). As for Mexico, the business order is instituted by the Ministry of Economy. For this purpose, it establishes the criteria for stratification of the number of

employees and economic activity, resulting in the classification presented in Table 1. Mexican classification includes self-employment, for this reason exist micro enterprises with zero employee.

Tabla 1. Mexican enterprises stratification

Sector	Micro		Small		Medium	
	Employees	Annual Sales Amount Range (mdp)	Employees	Annual Sales Amount Range (mdp)	Employees	Annual Sales Amount Range (mdp)
Industry	0-10	Until \$4	11-50	from \$4.01 until \$100	51-250	from 100.1 until \$250
Commerce	0-10	Until \$4	11-30	from \$4.01 until \$100	31-100	from 100.1 until \$250
Service	0-10	Until \$4	11-50	from \$4.01 until \$100	51-100	from 100.1 until \$250

Source: DOF, 2009.

Data collected by the National Institute of Statistics and Geography (INEGI) during the 2014 economic census shows that in Mexico by 2014 there are more than 4 million companies, 97.6% are micro-enterprise and they concentrate 75.4% of the overall employed people, followed by small companies with 2.0% and 13.5%, finally medium-sized companies representing 0.4% and 11.1%.

Small and medium-sized enterprises, SMEs, are of particular importance to national economies, not only for their contributions to the production and distribution of goods and services, but also for the adaptation flexibility to technological changes and great potential for job creation. They represent an excellent means to boost economic development and a better distribution of wealth.

Today, governments in developing countries recognize the importance of SMEs for their contribution to economic growth, job creation, and regional and local development. To give an idea of what this number of companies means, we can compare our figures with those of other nations, taking into consideration the relative sizes of their respective economies in relation to that of Mexico.

Based on the above information (table 2) almost under any parameter, in our country there is a wide number of companies for the economic apparatus size. The number of industries is similar to that of the United States and Japan if we take the total registered.



Tabla 2.Manufacturing enterprises

Country	Manufacturing enterprises	GDP regarding Mexico´s (Mexico = 1)
United States	355,597	17.5
Japan	331,859	7.9
United Kingdom	240,928	2.4
France	210,778	2.4
Germany	70,777	3.2
Canada	30,254	1.2
Italy	30,122	2.0
Mexico 1)	344,118	1.0
Mexico 2)	144,655	1.0

Source: Encyclopaedia Britannica, Book of the Year 2003.

Table 3. Plastic Manufacturing SMEs at the Metropolitan Area of Guadalajara

	2009	2014	Growth rate
Micro	374	462	24%
Small	206	245	19%
Medium	68	84	24%

Source: IIEG (2017).

### 1.2. The small and medium enterprises of the plastic industry of the Metropolitan Area of Guadalajara.

Jalisco state it is considered as the federative entity of the country that goes to the tip in comparison to other states in the plastic manufacture. The manufacturing industry is considered by the National Institute of Statistics as one of the most important economic activities in the state. The number of plastic manufacturing SMEs has increased in recent years (Table 3).

Mexico imports 55.2% of the total consumption of plastics and exports 33.6% of local production (Conde, 2012). The improvements in design and productivity levels in the processes is the only way to compete with the import products that we have in Mexico. There are opportunities for import substitution according to the national demand (Table 4).

Therefore, we must take advantage of the high consumption of modern plastic that is currently creating designs according to demand, all these characteristic points of industry and knowledge of the international context lead us to thoroughly analyze the mechanisms that allow us to carry out this setting. More ahead there is a table in which strengths and

weaknesses regarding the plastic industry in Metropolitan Area of Guadalajara are analyzed.

Table 4. Mexican Market segmentation (2011)

Market segment	Consumption (Ton/Year)
Container	2,620,000
Consumption	868,000
Construction industry	845,000
Automotive	380,000
Electric-electronic	318,000
Agricultural	220,000
Others	41,000
Total	5,300,000

Source: Conde (2012).

There are a few research projects about the CRM and the SMEs in Guadalajara with interesting results. One of them is about de electronic sector, and the other is about the Jewelry industry (Sanchez, Ramirez & Garcia, 2008; Sanchez, Sigala & Sandoval, 2009). Both of them analyzing the relationship between CRM and Competitiveness. The presents results and discussing in this paper are the continuity of the same study.

## 2. THEORETICAL CONCEPTS

### 2.1. Customer Relationship Management

Customer relationship management (CRM) refers to building one-to-one relationships with customers that can drive value for the firm (Kumnar, 2010; Knox et al, 2007; Payne & Frow, 2005; Barnes, 2001). CRM is a combination of people, processes and technology that seeks to understand a company's customers. It is an integrated approach to managing relationships by focusing on customer retention and relationship development. (Chen & Popovich, 2003)

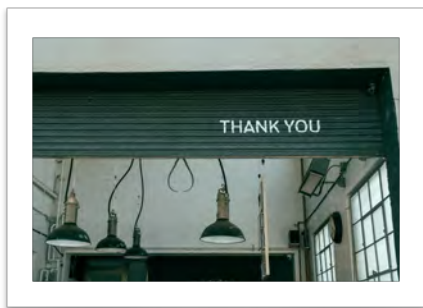
According to Trainor, Adzulis, Rapp and Agnihotri (2014), CRM is much more than the simple management of customer databases, suggesting to analyze the use of technology with the interaction of organizational resources. On the other hand, Porras (2001) says that successful

marketing aims to know and understand the consumer so much that the product or service meets their needs and gets sold without promotion.

CRM states that companies must develop lasting relationships with the client and keep them over time, as the only alternative to develop their trust and loyalty to know their preferences and particularities. In contrast, it has allowed organizations to better listen to their customers to adapt services and products to their true interests and needs. The organizations had an empirical way of treating clients, they did not use database to know their customers, since they lived nearby and everyone knew each other, nowadays it is called CRM.

Hoffman & Bateson (2000) mention that Customer Relationship Management is a process for attracting, differentiating and retaining customers. Moreno (2015) expresses that customer relationship management (CRM) is a strategic procedure that companies do to ensure that their clients are faithful to the company.

For Payne and Frow (2005) CRM combines relational marketing strategies with information technologies to establish relationships with customers, as well as opportunities to use the information obtained to understand customers. This tool is of great help to improve the



profitability, productivity, marketing, the ease of knowing how to satisfy the clients to whom a company is directed, reducing costs, knowing the characteristics of the target clients (Brown 2000). As a matter of fact, CRM helps to segment customers according to the customer's income, tastes and behavior; the key element to this tool is linked to the capacity of the company to respond to

customers' needs and tastes (Cabanelas, Cabanelas and Lorenzo, 2007).

CRM seeks to maintain positive customer relationships, increase loyalty and satisfaction, and most importantly, strive to maximize its Customer Life Cycle Value (LCV) over the relationship duration (Persson and Ryals, 2014). Chen and Popovich (2003) perceive the CRM as an integral combination of people, processes and technology development that try to understand the requirements of the clients, this obviously leads to locate updated the customer satisfaction and its perception of our

relationship with them, it would lead to greater loyalty to them. On the other hand, Mishra and Mishra (2009) comment that relationship marketing helps organizations to effectively manage interactions with consumers, in a way that helps to improve competitiveness.

## 2.2. Competitiveness.

Competitiveness is a concept applicable to different levels of analysis whether it is a country, sector of activity or a company. First, Competitiveness is a central preoccupation of both advanced and developing countries in an increasingly open and integrated world economy (Porter, Ketels & Delgado, 2007). Second, the prevalence of clusters reveals important insights about the microeconomics of competition and the role of location in competitive advantage (Porter, 2000). Clusters represent a way of thinking about national, state, and local economies, and they necessitate new roles for companies, government, and other institutions in enhancing competitiveness (Porter, 2000). Third and last, enterprises means both supporting and supplying activities and the entrepreneurial climate in the industry itself (Padmore & Gibson, 1998).

Porter (1991) conceives competitiveness as competitive advantages have definitively displaced the classical conception of comparative advantages. Capacities in the endowment of natural resources of a country determined the competitive level of it (Rodrik, 2007; Isham et al., 2005; Crouch & Ritchie, 1999; Grant, 1991; Pearce & Turner, 1990; Krugman, 1987; Dunnig, 1980). This is an aspect that becomes increasingly important in the field of business, which is derived from the demands of the current economic environment framed in the global crisis (Li et al., 2016; Shen, Au & Birtch, 2016; Trapczynski et al., 2016; Madrid, García & Van Auken, 2016; Detarsio, North & Ormaetxea, 2016). For Solleiro and Castañón (2005) competitiveness is a complex concept and can be studied from different approaches and disciplines; so it is not possible to establish a single definition; due to its usefulness that lies in identifying ways to promote companies that contribute to raising real levels of well-being. However, there are some concepts related to competitiveness: competitiveness is defined as the process of dynamic integration of countries and products into international markets, depending on both supply and demand conditions (Dussel, 2001). Competitiveness is related to the capacity to increase the standard of living, to generate sustained productivity, to be successfully inserted in

international markets (Reinert, 1995; Cellini & Soci, 2002; Garelli, 2003; Kitson, Martin & Tyler, 2004; Padilla, 2006).

Competitiveness reflects the extent to which a nation, in a system of free trade and fair market conditions, can produce goods and services that surpass the test of international markets, while maintaining and increasing the real income of its population at a long term (OECD, 1996). The concept of competitiveness involves static and dynamic components: although a country's productivity is clearly determined by the ability to sustain its income levels, it is also one of the central investment return determinants, which is one of the Key factors to explain a growing economy (World Economic Forum, 2009).

### 2.3. Competitiveness in the business sector.

Krugman (1994) has pointed out that companies are competing, not nations; a country is competitive due to companies; this is the basis of competitiveness. For this reason, companies' competitiveness depends on factors at three levels: the first level is the competitiveness of the country, which includes variables such as macroeconomic stability, openness and access to international markets or complexity of regulation for the business sector; the second level refers to regional infrastructure; a third level that explains a companies' competitiveness has to do with what happens within the company itself (Cervantes, 2005). Also, business competitiveness is derived from the competitive advantage that a company has through its production and organizational methods (reflected in price and final product quality) in relation to those of its rivals in a specific market (Abdel & Romo, 2004).

For Solleiro and Castañón (2005) competitiveness is the ability of an organization to maintain or increase its participation in the market based on new business strategies, sustained productivity growth, inter-enterprise capacity to participate in negotiations with different institutions and other companies within their environment, in a competitive environment determined by the sector and the consumer market and in policies introduced by national governments and regional economic alliances.

#### 2.3.1. Elements that influence competitiveness in SMEs:

Based on OECD data (1992, cited in Solleiro & Castañón), the elements that influence competitiveness in companies are:

- Successful management of production flows, raw materials and inventories.

- Successful management of the interaction mechanisms between planning, marketing, research and formal development, design, engineering and industrial production.
- The ability to combine research and development and innovation activities in cooperation with universities and other enterprises.
- The ability to incorporate more precise definitions of demand characteristics and market evolution in the design and production of strategies.
- The ability to successfully organize inter-company relationships with suppliers and customers.
- Improvement of workers' capacities through investment in specialized training and the generation of high levels of responsibility for production workers.

The above elements only include aspects that can be controlled by the companies, considering the relationship with the universities and the customer-supplier relationship. Finally, being competitive today is vital for the survival of SMEs by being a reference of anticipation capacity and responses to the challenges of the environment (Bhamra, Dani & Burnard, 2011; Welter & Smallbone, 2011; Camisón, 1997). To improve competitiveness, SMEs have the need to adapt both their strategies and their organizational structure and management to the dynamic environment of today's economy. However, many companies persist in a conservative attitude waiting to observe the operability of certain strategies to introduce changes in their structures. But these companies can learn about its customers, finally it could be the principal factor of organizational change with low cost and big opportunities.

### 3. METHODOLOGY

The methodology is a process or technique that enables to arrive at a determined result. Bernal (2006) mentions that there are different types of methods for conducting research, such as: inductive, deductive, inductive-deductive, hypothetical-deductive, analytical, synthetic, analytical-synthetic, historical-comparative, quantitative, qualitative, comparative and dialectical. The method used for this research is the quantitative method that is defined as the measurement of characteristics of social phenomena through observation and experimentation which quantifies reality and uses statistical tests for data analysis (Lara, 2011).

For a population analysis it is preferably done by means of a sample that is the representative set of elements, since it helps to obtain information similar to the one of a census of quickly and low cost. There are several types of sampling: stratified sampling, clusters, simple and systematic random. In this case the type of simple random sampling was used, that is to say that each company of the population has the same probability of being selected. A personal survey was conducted to 129 companies. The survey was conducted with a confidence level of 97% and with a 4% error. The results were captured in the SPSS program for statistical analysis, since it facilitates the interpretation of the results and helps to have more information about it. This survey was carried out with the Likert scale, where all the items measured with the same intensity. In this process the respondent provides with an answer which goes from 1 to 5, wherein 1 means “totally disagree” and five “totally agree”. Results were obtained through the following formula:

$$n = z^2 \frac{N(p \cdot q)}{i^2 (N - 1) + z^2}$$

Figure 1. Model



Source: Created by the authors based on the results obtained in the project “Determinants of Competitiveness in SMEs” CA-UDG-484.

#### General objective.

To analyze the relationship between CRM and competitiveness within plastic manufacturing SMEs in the ZMG.

#### Specific objectives.

1. To analyze the relationship between Management capacity and CRM within plastic manufacturing SMEs in the ZMG.
2. To analyze the relationship between Marketing innovation and CRM within plastic manufacturing SMEs in the ZMG.

#### Hypothesis

H1: The greater implementation of a CRM system, the greater competitiveness.

H2: The Management capacity is related to CRM, the managers have helped to make changes in the CRM and achieve the planned results.

H3: The Marketing innovation is related to CRM, the managers focuses on terms of regaining the relationship with the lost customer.

#### 4. STUDY RESULTS AND CONCLUSION

We show the results of the applied survey, where Cronbach alpha box helps us to evaluate the reliability of the items of an instrument. Generally, a group of items exploring a common factor shows a high Cronbach alpha value (Streiner, 2003). On the other hand we present the KMO test table and the sphericity of Barlett test. The investigation was carried out for companies dedicated to the plastic industry in the State of Jalisco in the Metropolitan Area of Guadalajara, which is constituted by the municipalities of Zapopan, Tlaquepaque, Tonalá, El Salto and Tlajomulco. The questionnaire was based on the Likert scale where respondents answered one if they totally disagreed or five if they totally agreed. The results obtained are shown below, starting with Cronbach alpha analysis.

Table 4. Cronbach alpha coefficient CRM and competitiveness

Cronbach alpha coefficient	Elements number
.905	26

Source: Created by the authors based on the results obtained in the project “Determinants of Competitiveness in SMEs” CA-UDG-484.

It can be observed that the variables of the questionnaire can be explained with statistics, that is to say, that there is a high reliability in the questionnaire applied with an index of 0.905.

Table 5. Bartlett and KMO test. CRM and Competitiveness

Kaiser-Meyer-Olkin measure of sampling adequacyMedida Kaiser-Meyer- mn		.848
Adecuacity sampling Oklin		
Bartlett esphericity test	Aprox. Chi-cuadrado	1654.793
	gl	325
	Sig.	.000

Source: Created by the authors based on the results obtained in the project “Determinants of Competitiveness in SMEs” CA-UDG-484.

Table 5 shows that the Kaiser-Meyer-Olkin measure of sampling adequacy is considerably high: 0.848, and a 1654.793 Chi-square. This means that the number of items that are useful in the questionnaire is



high. It is observed that there are 325 degrees of freedom which means that manufacturing companies answered several different answers.

Based on table 6, it is corroborated that the Management capacity is related to CRM, the managers have helped to make changes in the CRM and achieve the planned results, so the first hypothesis is proven. As for the current analysis, it is worth to mention that CRM 3 (7.082 quadratic mean) and CRM 1 (6.782 quadratic mean) turned out to be the most important ones since they got a reasonable result, which means that they are highly representative. In CRM 3, it can be assumed that it is quite important to consider the customer relationship since most of the objectives have to do with the customer. It all comes down to the change awareness and objectives orientation.

Table 6. Management Capacity - CRM (ANOVA)

		Sum of squares	gl	Quadratic mean	F	Sig.
CRM1	Between groups	101.733	15	6.782	19.142	.000
	Within groups	40.391	114	.354		
	Total	142.123	129			
CRM2	Between groups	85.358	15	5.691	26.624	.000
	Within groups	24.366	114	.214		
	Total	109.723	129			
CRM3	Between groups	106.226	15	7.082	21.890	.000
	Within groups	36.882	114	.324		
	Total	143.108	129			
CRM4	Between groups	97.595	15	6.506	11.168	.000
	Within groups	66.413	114	.583		
	Total	164.008	129			

Source: Created by the authors based on the results obtained in the project "Determinants of Competitiveness in SMEs" CA-UDG-484.

By giving a deeper glance to table 7 it is simple to detect CRM 1 as the one which follows the most representative. By saying so, a quadratic mean of 6.782 is worth to stand out, since it actually expresses the second most representative one. It is actually linked to identifying related factors that have to do with such a relationship management.

As for measures of marketing innovation with respect to business and innovation, the company focuses on terms of regaining the relationship with the lost customer. Given the circumstances the plastic industries turned out to be more focused on the relationship with the customer and manage to implement a good marketing system to recover customers.

Table 7. Measures of marketing innovation with respect to the company and innovation

		Sum of squares	gl	Quadratic mean	F	Sig.
CRM 1	Between groups	101.733	15	6.782	19.142	.000
	Within groups	40.391	114	.354		
	Total	142.123	129			
CRM 2	Between groups	85.358	15	5.691	26.624	.000
	Within groups	24.366	114	.214		
	Total	109.723	129			
CRM 3	Between groups	106.226	15	7.082	21.890	.000
	Within groups	36.882	114	.324		
	Total	143.108	129			
CRM 4	Between groups	97.595	15	6.506	11.168	.000
	Within groups	66.413	114	.583		
	Total	164.008	129			

Source: Created by the authors based on the results obtained in the project "Determinants of Competitiveness in SMEs" CA-UDG-484.

The current research was carried out for small and medium-sized enterprises (SMEs), which have between 11 and 250 employees in the organization, without considering micro-enterprises that have less than 10 workers.

The study aimed to focus manufacturing industries in the Metropolitan Area of Guadalajara, addressing the municipalities of Guadalajara, Zapopan, Tlaquepaque, Tonalá, Tlajomulco and El Salto.

Surveys were applied only to senior managers, managers or first level managers, which still makes us think whether the given results would have the same appreciation from lower levels.

## REFERENCES

- Abdel, G. & Romo, M. (2004). Sobre el concepto de competitividad. *Comercio Exterior*, 55(3), 200-214.
- Anzola, S. (2002). *Administración de Pequeñas Empresas*. Mexico: McGraw Hill.
- Barnes, J. G. (2001). *Secrets of customer relationship management: It's all about how you make them feel*. McGraw-Hill Companies.

- Bhamra, R., Dani, S., & Burnard, K. (2011). Resilience: the concept, a literature review and future directions. *International Journal of Production Research*, 49(18), 5375-5393.
- Cabanelas J., Cabanelas P. y Lorenzo J. (2007). La gestión de las relaciones con los clientes como característica de la alta rentabilidad empresarial. *Revista Europea de Dirección y Economía de la Empresa*, 16(3), 133-148.
- Carpintero, S. (1998). Los Programas de Apoyo a la Microempresa en América Latina, El microcrédito como la gran esperanza del siglo XXI, Bilbao: Deusto, 182 pp.
- Cellini, R., & Soci, A. (2002). Pop competitiveness. *Banca Nazionale del Lavoro Quarterly Review*, 55(220), 71.
- Chalmeta, R. (2006). Methodology for customer relationship management. *Journal of systems and software*, 79(7), 1015-1024.
- Chen, I. J. & Popovich, K. (2003). Understanding customer relationship management (CRM) People, process and technology. *Business Process Management Journal*, 9(5), 672-688.
- Conde, M. P. (2011). Presente y Futuro de la Industria del Plástico en México. *Ambiente plástico*. México: Centro Empresarial del Plástico.
- Crouch, G. I., & Ritchie, J. B. (1999). Tourism, competitiveness, and societal prosperity. *Journal of business research*, 44(3), 137-152.
- Detarsio, R., North, K., & Ormaetxea, M. (2016). Surviving and Competing in Times of Crisis: Cases of Strategies by Argentine SMEs. In *Competitive Strategies for Small and Medium Enterprises* (pp. 139-151). Springer International Publishing.
- Dunning, J. (1980). Toward an eclectic theory of international production: Some empirical tests. *Journal of international business studies*, 11(1), 9-31.
- Dussel, E. (2001). Un análisis de la competitividad de las exportaciones de prendas de vestir de Centroamérica utilizando los programas y la metodología CAN y MAGIC. Mexico: UN-ECLAC.
- Dwyer, L., & Kim, C. (2003). Destination competitiveness: determinants and indicators. *Current issues in tourism*, 6(5), 369-414.
- Garelli, S. (2003). Competitiveness of nations: the fundamentals. *IMD World competitiveness yearbook*, 702-713.
- González, T. (2002). Limitaciones de la información para estudios comparativos de micro, pequeña y mediana empresas de diferentes

- regiones o países. VII Congreso Internacional en Contaduría Administración e Informática, ANFECA, FCA, UNAM.
- González, T. (2005). Problemas en la definición de microempresa. *Revista Venezolana de Gerencia*, 10(31), 408 - 423.
- Grant, R. M. (1991). Porter's 'competitive advantage of nations': an assessment. *Strategic management journal*, 12(7), 535-548.
- Hernández, M., Gándara, M. y Macías, M. (2012). Factores estratégicos del CRM en las pymes de la ZMG que mejoren su posición competitiva en la industria mueblera. Vol. 6, Mexico: Red Internacional de Investigadores en Competitividad.
- Hoffman, N. (2000). An examination of the Sustainable Competitive Advantage Concept: Past, Present and Future. *Academy of Marketing Science Review*, 4, 1-20.
- IIEG (2017). Industria del Hule y Plástico. Ficha Técnica. Mexico: Instituto de Información Estadística y Geográfica.
- INEGI (2014). Micro, pequeña, mediana y gran empresa. Estratificación de los Establecimientos. Censos económicos, Mexico: INEGI.
- Isham, J., Woolcock, M., Pritchett, L., & Busby, G. (2005). The varieties of resource experience: natural resource export structures and the political economy of economic growth. *The World Bank Economic Review*, 19(2), 141-174.
- Kaplan, R. S., & Norton, D. P. (2001). The strategy-focused organization. *Strategy and Leadership*, 29(3), 41-42.
- Keskin, H. (2006). Market orientation, learning orientation, and innovation capabilities in SMEs: An extended model. *European Journal of innovation management*, 9(4), 396-417.
- Kitson, M., Martin, R., & Tyler, P. (2004). Regional competitiveness: an elusive yet key concept?. *Regional studies*, 38(9), 991-999.
- Knox, S., Payne, A., Ryals, L., Maklan, S., & Peppard, J. (2007). *Customer relationship management*. Routledge.
- Krugman, P. (1994). Competitiveness: a dangerous obsession. *Foreign affairs*, 28-44.
- Krugman, P. (1987). The narrow moving band, the Dutch disease, and the competitive consequences of Mrs. Thatcher: Notes on trade in the presence of dynamic scale economies. *Journal of development Economics*, 27(1-2), 41-55.
- Kumar, V. (2010). *Customer relationship management*. John Wiley & Sons.

- Lara, E. (2011). *Fundamentos de Investigación*. México: Alfaomega.
- Lee, S., Park, G., Yoon, B., & Park, J. (2010). Open innovation in SMEs—An intermediated network model. *Research policy*, 39(2), 290-300.
- Li, W. Y., Chow, P. S., Choi, T. M., & Chan, H. L. (2016). Supplier integration, green sustainability programs, and financial performance of fashion enterprises under global financial crisis. *Journal of Cleaner Production*, 135, 57-70.
- Lloyd, L., Muller, K. & Wall, S. (2002). Innovation and educational policy in SMEs: a Czech perspective. *Education y Training*, 378-387.
- Low, D. R., Chapman, R. L., & Sloan, T. R. (2007). Inter-relationships between innovation and market orientation in SMEs. *Management Research News*, 30(12), 878-891.
- Madrid, A., García, D., & Van Auken, H. (2016). Financing constraints and SME innovation during economic crises. *Academia Revista Latinoamericana de Administración*, 29(1), 84-106.
- Mishra, A. & Mishra, D. (2009). Customer Relationship Management: implementation process perspective. *Acta Polytechnica Hungarica*, 6(4), 83-99.
- Moreno, F. (2015). *Perspectiva General del Customer Relationship Management*. *Gaceta Sansana*, 2(6), 20-41
- OECD. (1996). *Industrial Competitiveness: Benchmarking Business Environments In The Global Economy*. Paris: OECD.
- OECD (2000). *OECD Small and médium Enterprise outlook*, París: OECD, 222 pp.
- OECD (2002). *OECD Small and médium Enterprise outlook*, París: OECD, 248 pp.
- OECD (2010), chapter "Introduction", in *SMEs, Entrepreneurship and Innovation*, OECD Publishing, Paris.
- OECD & ECLAC (2012). *Latin American Economic Outlook 2013: SMEs policies for structural change*. Paris: OECD/UN-ECLAC. 185 pp.
- Padilla, R. (2006). *Instrumento de medición de la competitividad*. Mexico: CEPAL.
- Padmore, T., & Gibson, H. (1998). Modelling systems of innovation:: II. A framework for industrial cluster analysis in regions. *Research policy*, 26(6), 625-641.
- Payne, A. & Frow, P. (2005). A Strategic Framework for Customer Relationship Management, *Journal of Marketing*, 69(4), 167-176.

- Pearce, D. W., & Turner, R. K. (1990). *Economics of natural resources and the environment*. JHU Press.
- Peres, W., & Stumpo, G. (coord.) (2002). *Pequeñas y medianas empresas industriales en América Latina y el Caribe, México, CEPAL/ Siglo XXI*, 550 pp.
- Persson, A. & Ryals, L. (2014). Making customer relationship decisions: Analytics rules of thumb. *Journal of Business Research*, 67(8), 1725-1732.
- Porras, C. (2001). Cuatro pilares para intimar con el cliente. *Biblios Revista Electrónica de Bibliotecología, Archivología y Museología*, (10), 12- 15.
- Porter, M. E., Ketels, C., & Delgado, M. (2007). The microeconomic foundations of prosperity: findings from the business competitiveness index. *The Global Competitiveness Report 2007–2008*, 51-81.
- Porter, M. E. (2000). Location, competition, and economic development: Local clusters in a global economy. *Economic development quarterly*, 14(1), 15-34.
- Reinert, E. S. (1995). Competitiveness and its predecessors—a 500-year cross-national perspective. *Structural change and economic dynamics*, 6(1), 23-42.
- Richards, K. A., & Jones, E. (2008). Customer relationship management: Finding value drivers. *Industrial marketing management*, 37(2), 120-130.
- Rodrik, D. (2007). Industrial development: Some stylized facts and policy directions. *Industrial development for the 21st century: Sustainable development perspectives*, 7-28.
- Salavou, H. (2002). Profitability in market-oriented SMEs: does product innovation matter?. *European journal of innovation management*, 5(3), 164-171.
- Sanchez, J., Ramirez, A., & Garcia, K. (2008). Customer relationship management (CRM) and products development process as marketing knowledge in the Jewelry Industry: Cases in Guadalajara, México. *Competition Forum* 6 (2) p. 252.
- Sanchez, J; Sigala, M., & Sandoval, O. (2009). Customer Relationship Management linking with Marketing Knowledge in the electronic sector in Guadalajara. *Mercados y Negocios*, 1(20), 107-122.

- Shen, N., Au, K., & Birtch, T. (2016). The Performance of Chinese Private Firms in Coping with a Global Financial Crisis: Who Is Best Positioned?. *Frontiers of Business Research in China*, 10(4), 548.
- Solleiro, J. & Castañón, R. (2005). Competitiveness and innovation systems: the challenges for Mexico's insertion in the global context. *Technovation*, 4, 1059-1070.
- Streiner, D. (2003). Being inconsistent about consistency: when coefficient alpha does and doesn't matter. *Journal of personality assessment*, 80(3), 217-222.
- Trainor, K. J., Andzulis, J. M., Rapp, A. & Agnihotri, R. (2014). Social media technology usage and customer relationship performance: A capabilities-based examination of social CRM. *Journal of Business Research*, 67(6), 1201-1208.
- Trapczynski, P., Jankowska, B., Dzikowska, M., & Gorynia, M. (2016). Identification of Linkages between the Competitive Potential and Competitive Position of SMEs Related to their Internationalization Patterns Shortly after the Economic Crisis. *Entrepreneurial Business and Economics Review*, 4(4), 29
- Van de Vrande, V., De Jong, J. P., Vanhaverbeke, W., & De Rochemont, M. (2009). Open innovation in SMEs: Trends, motives and management challenges. *Technovation*, 29(6), 423-437.
- Verhoef, P. C., Lemon, K. N., Parasuraman, A., Roggeveen, A., Tsiros, M., & Schlesinger, A. (2009). Customer experience creation: Determinants, dynamics and management strategies. *Journal of retailing*, 85(1), 31-41.
- Welter, F., & Smallbone, D. (2011). Institutional perspectives on entrepreneurial behavior in challenging environments. *Journal of Small Business Management*, 49(1), 107-125.
- World Economic Forum (2009). *The Global Competitiveness Report 2009-2010*. Geneva.
- Yeh-Yun Lin, C., & Yi-Ching Chen, M. (2007). Does innovation lead to performance? An empirical study of SMEs in Taiwan. *Management Research News*, 30(2), 115-132.

Table 6. Degree of engagement of top chemical companies in various social media channels

As on 21-11-2014	Facebook	Twitter					LinkedIn	Google+		Youtube
	likes	Tweets	Following	Followers	Favorites	Lists	Followers	Followers	Views	Subscribe
BASF	208.562	2.590	683	26.4k	364	6	268.993	3.322	1.455.859	4806
Shell	5.375.981	1.632	130	260k	8		1.236.175	229.306	2.241.993	23.941
LyondellB asell	1.312	313	1.964	3.355	18	1	31.762	75	35.270	38
Bayer	1.079.279	1836	1801	101k	1.362		310.454	1958	689.256	910
Ineos Group	609	410	186	3.599	3					183
Akzo Nobel	67.016	1.428	682	11.3k	84			608	281.715	776
Linde Group	45.575	1.395	1.232	5.640	181	6	49.652	544	266.996	705
Yara	4.419	2.398	1.367	3.647	175		49.652			756
DSM	37.337	5.481	437	66.7k		1	55.617		311.772	1.071
LANXESS	23.063	900	95	3.092	305	1				232
Syngenta	76.799	5.920	1.521	33.9k	5.786	4	82.148			
Arkema	1460	546	233	2.409	2	10				
Eni	16.830	2.115	397	14.1k	518	1	178.037	122	85.620	3.847
Styro lution		21	6	52	7		65	17	2.560	18
Total	2.042.088	7.133	371	52.1k	109					

Data Source: Individual Websites; Author's calculation

Figure 9 shows a comparative graph as how the Facebook page is liked by the visitor. It is seen that Bayer is way ahead of most of the chemical companies and seen to be very active in their Facebook website. Distant second is BASF while the activity of others were pretty low. This shows that even though every chemical company has a Facebook page, they are not very active there and do not emphasize the importance of Facebook marketing. On the other hand, the oil companies even though not appearing in this graph are way ahead of chemical companies in terms of activity at the Facebook page.



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# Technology, Innovation, Finance and CRM: Repercussions on Competitiveness

**T**echnology Innovation, Finance and CRM: Repercussions on Competitiveness is an excellent book for experts, students and entrepreneurs. In its pages we can discover different topics about competitiveness factors like CRM, Marketing, Social Network, Innovation and Technology, CSR, and others.

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