

Organizational Climate as Antecedent of Commitment, Effort and Entrepreneurial Orientation in Mexican Family and Non-Family firms

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RESUMEN

El objetivo de esta investigación fue determinar si la variable de clima organizacional está asociada con variables de compromiso organizacional, orientación emprendedora y esfuerzo. Los instrumentos de medición se aplicaron a 839 sujetos de pequeñas, medianas y grandes empresas divididas en miembros de empresas familiares (521) y miembros de empresas no familiares (318). Los resultados indican que el clima organizacional, en las seis dimensiones consideradas, es una variable que influye significativamente en los cinco factores de la orientación emprendedora considerados en este estudio. Se identificó que el factor de autonomía arroja un alto porcentaje de varianza explicada (23.7%) considerando como variables independientes las dimensiones de clima organizacional. En los factores de pro actividad, innovación, toma de riesgos y competitividad se identificó un bajo porcentaje de la varianza explicada.

Palabras clave: negocio familiar, orientación emprendedora, compromiso organizacional, clima organizacional, esfuerzo.

ABSTRACT

The objective of this paper was to determine if variables of organizational climate are positively associated with variables of organizational commitment, entrepreneurial orientation and effort. The measuring instruments were applied to 839 subjects from small, medium and large firms divided into family firm members (521) and non-family firm members (318). The results indicate that organizational climate in the six dimensions considered is a variable that significantly influences the five factors of entrepreneurial

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orientation considered in this study (innovation, risk taking, pro-activeness, competitive aggressiveness, and autonomy). We see that the factor autonomy contains the highest percent of explained variance (23.7%) considering antecedent variables of organizational climate (clarity, self-expression, supportive management and contribution). In the factors pro-activeness, innovation, risk taking, and competitive aggressiveness, we identified the percent of lowest variance explained.

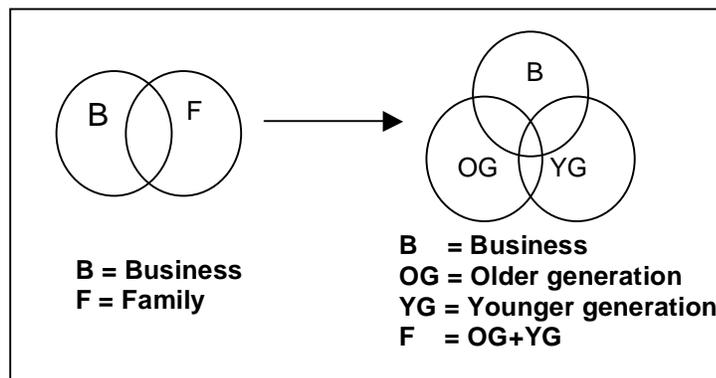
Key words: family business, entrepreneurial orientation, organizational commitment, organizational climate, effort.

INTRODUCTION

There is an increasing interest worldwide in understanding family business, because of its importance to the economy and social relations. Family business (FB) has been defined in many different ways, and until now there is no unified definition. For the purpose of this study, Rosenblatt's [1] definition is used: "Family business is any business in which majority ownership or control lies within a single family and in which two or more family members are or at some time were directly involved in the business."

Most family firms are intergenerational, where the older generation (usually father and/or mother) are actively involved in the operation or management of the business with their adult children [2].

Exhibit 1. The inter-generational family firm.



The intergenerational family business (IFB) is a peculiar system that can be represented by three overlapped circles, as shown in Exhibit 1. Compared to a traditional family business model, the family is divided into old and young generation subsystems. The model suggests analyzing each of these three subsystems (old and young generations, and business) and their four overlapping areas (interactions) [2].

The lack of commitment of younger generations toward their families' organizations is frequently a great concern to the old generations, and perhaps also the cause of failure of many family firms. Frequently, the founders of these companies do not know if they could take some actions to enhance the involvement of their offspring in their businesses. On the one hand, young generations believe that it is not enough to devote their lives to companies that cannot provide satisfaction (not only material) to their needs, even if the firms belong to their own family [3]. They frequently complain about their lack of independence and power to make important managerial decisions. In this sense there is concordance with the norm of reciprocity, which states that one who receives some benefit acquires the moral duty to give back to the one who gave. On the other hand, one's negative perception of the organization will affect his or her job involvement. The

loss of entrepreneurial activity in FBs might have its origin in the inability to create an adequate climate that enhances the entrepreneurial spirit of all members, especially those of younger generations.

According to empirical evidence, there is some truth to the common observation that the first generation builds the company, the second preserves it, and the third squanders it. Fewer than 15% of family-owned businesses survive under family control beyond the third generation. IFBs need stronger governance structures to survive and thrive in an era of globalization. Through this structure, the firms are more likely to design appropriate strategies and labor conditions, as the organizational climate variables studied in this paper indicate.

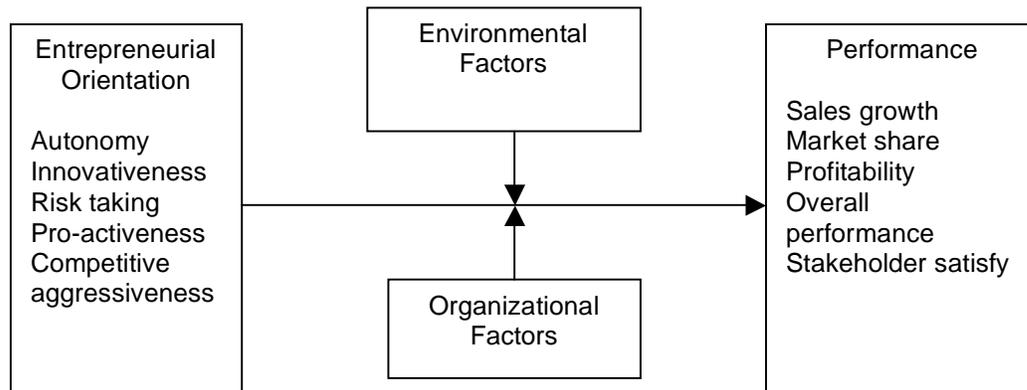
ENTREPRENEURIAL ORIENTATION

Frese, Brantjes and Hoorn [4] think of entrepreneurial orientation as a psychological concept in the sense of an attitude or orientation. Miller [5] and Covin and Slevin [6] described entrepreneurial orientation to be involved in innovative products, to undertake somewhat risky ventures and to be proactively orientated. Lumpkin and Dess [7] incorporated two additional dimensions: autonomy (propensity to act autonomously) and competitive aggressiveness (tendency to act aggressively toward competitors). An *entrepreneurial orientation*, refers to the process, practices and decision-making activities that lead to a new entry, and include the intentions and actions of people involved in a new venture creation. Different multidimensional models describe the entrepreneurial orientation of organizations. According to Lumpkin and Dess, this construct (EO) should include a propensity to act autonomously, a willingness to innovate and take risks, and a tendency to be aggressive toward competitors and proactive relative to marketplace opportunities. Nevertheless the required characteristics may vary independently of each other in a given context.

Authors have linked EO to environmental factors and performance as shown in Exhibit 2. The results and effects of EO are seen reflected in the growth of sales in organizations, the increase in the market share of the firm, profitability and income, as well as in the satisfaction of investors with the dividends they receive. However, there are many environmental factors, such as organizational factors, that enhance or inhibit the positive results that facilitate *entrepreneurial orientation* among the organization's members. Existing research has considered the organizational climate as an antecedent for EO because it is an element of organizations that cannot be avoided, but rather requires establishing so that it is positive and favorable, not only for EO; also for other types of results that make the organization better off.

Low and MacMillan [8] suggested that research into entrepreneurial behavior should consider contextual issues and identify the processes that explain rather merely the entrepreneurial phenomenon. Studies of Ucbasaran, Westhead and Wright [9] examine the relationship between external environmental conditions and the nature of entrepreneurial activity. Van de Ven [10] has argued that the study of entrepreneurship is deficient if it focuses exclusively on the characteristics and behaviors of individual entrepreneurs and treats the social, economic, and political infrastructure for entrepreneurship as externalities. Covin and Slevin explored the relationship between an organization's overall strategic orientation, its competitive tactics, and the organizational attributes of firms in hostile and benign environments. Gnyawali and Fogel [11] have argued that an integrated, theoretically driven and comprehensive framework is not available for studying the environmental conditions conducive for entrepreneurship. Moreover, they asserted that a conceptual framework is needed that integrates existing literature on external environments for entrepreneurship.

Exhibit 2. Conceptual Framework of Entrepreneurial Orientation (Lumpkin & Dess, 1996).



ORGANIZATIONAL CLIMATE

Organizational climate, understood as the employees' interpretation of the work environment, cannot be overlooked due to its influence on performance. Brown and Leigh [12], based on Kahn's [13] writings, proposed six components of organizational climate divided into the following two groups: *Psychological Safety* and *Psychological Meaningfulness*. Kahn defined *Psychological Safety* as the employee's sense of being able to express oneself without fear of negative consequences to self-image, status or career. The dimensions considered by Brown and Leigh in this group are: *supportive management, clarity and self-expression*.

Psychological Meaningfulness, in turn, is defined as a feeling that one is receiving a return on investment from one's work in a currency of physical, cognitive or emotional energy. People experience their work as meaningful when they perceive it to be challenging, worthwhile and rewarding. Thus, the three factors associated with *Psychological Meaningfulness* are: *contribution, recognition and work as a challenge*.

According to Brown and Leigh [12], an *organizational climate* that is perceived as safe and meaningful will be connected with a higher level of job involvement, effort and performance. Toro Alvarez [14] in a study of 2,426 employees of different regions and sectors of Colombia has found that commitment to work and to the organization is influenced by the psychological climate. Eisenberger, Huntington, Hutchison, and Sowa [15] demonstrated that as a result of supportive leadership behaviors and a generally facilitative organizational climate, individuals feel the need to reciprocate favorable organizational treatment with positive attitudes and behaviors. It appears that employees with higher levels of "Perceived Organizational Support" are likely to be more committed than are employees who feel that the organization does not value them highly.

ORGANIZATIONAL COMMITMENT

For what is referred to as *organizational commitment*, consistent with Bozeman and Perrewé [16], in the last two decades a main focus in research in organizations has been in the construct of *organizational commitment* (see, e.g., Buchanan, 1974; Cook and Wall, 1980; Franklin, 1975; Hrebiniak and Alutto, 1972; Hunt and Morgan, 1994; Meyer and Allen, 1984; 1991; Mowday, Porter and Steers, 1982; O'Reilly and Chatman, 1986; Reichers, 1985; White, Parks, Gallagher, Tetrault and Wakabayashi, 1995; cited by Bozeman and Perrewé.) *Organizational commitment* refers to the loyalty and bond of an individual with the organization that employs him. According to Mudrack [17] *organizational commitment* can also be defined as a construct that reflects the degree to

which an individual identifies with his work, whether it is very important to his life and whether it represents a basic part of his self concept. Mathieu and Zajac [18] say that *organizational commitment* is a variable that is correlated with or resulting from important organizational constructs such as motivation, stress, job satisfaction, work involvement, and intention to remain or quit the organization.

Authors such as Mowday, Porter and Steers [19] consider *organizational commitment* as being related to three factors: a) a strong belief and acceptance of the goals and values of the organization; b) a disposition or motivation to make a considerable effort for the organization; and c) a strong desire to continue being a member of the organization.

In Mexico, Arias-Galicia and Heredia-Espinosa [20] argued that organizations with problems such as stress, employer-employee conflicts, absenteeism, and workers quitting can be a result of annoyance and contempt toward the organization, since a person can free himself from an obligatory contractual employment without an emotional bond that makes remaining in the firm an enjoyable experience.

Related to this, Meyer and Allen [21] define *organizational commitment* as a psychological state that characterizes the relationship between a person and an organization, leading to consequences on the decision to stay in the organization or leave it. According to these researchers, *organizational commitment* can be divided into three components: affective, continuation, and normative; and in this way the compromise can have an origin in the desire (I want to,) need (I need to,) or requirement (I have to) to stay in the organization.

The consequences of poor affective and normative linkages to organizations are visible and can be reflected in incremental costs [21]. Even though quality systems are helpful tools to assure that proceedings are accurately applied, they are not a substitute for having a committed worker. Katz and Kahn [22] stated long ago that a high *organizational commitment* to workers can enhance worker creativity. Although commitment is a desired trait in organizations, Randall [23] believes that a high level of commitment could also bring negative consequences through an inability to change and adapt, and inflexibility. In a study of high-level executives, Meyer *et al.* [24] found that affective commitment was positively related to performance, while continuance commitment was negatively correlated to performance.

EFFORT

Effort is defined as the time and energy that a person invests in obtaining results as expected of him from his employment; effort can be seen as a two-dimensional construct [12]. These dimensions of effort are: a) time dedicated to work, represented by the number of hours invested by the person in his employment; and b) intensity of work, represented by the energy a person invests in doing his work.

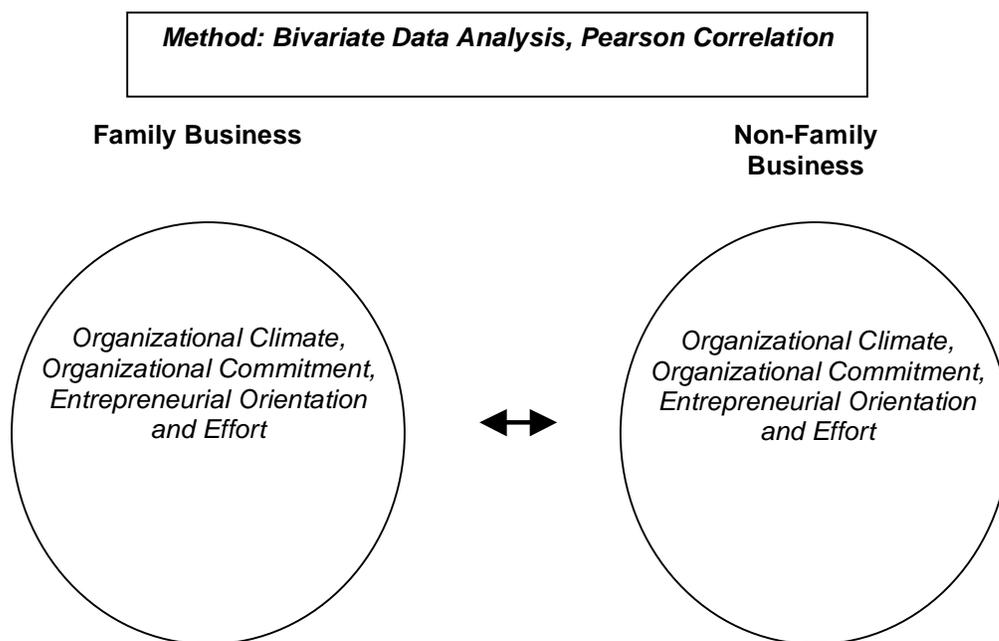
PURPOSE

- To determine if variables of *Organizational Climate* are positively associated with variables of *Organizational Commitment, Entrepreneurial Orientation and Effort*, disregarding type of organization (*family businesses and non-family businesses*.)
- To compare the values of these variables in *Family and non-family businesses* to determine significant differences.
- To determine the causal association between *Organizational Climate, Organizational Commitment, Entrepreneurial Orientation and Effort* in *family and non-family firms*.

HYPOTHESIS

- H1 Organizational climate will be positively associated with *Organizational Commitment, Entrepreneurial Orientation and Effort*, disregarding type of organization (family businesses and non-family businesses.)

Exhibit 3. Organizational climate will be positively associated with *Organizational Commitment, Entrepreneurial Orientation and Effort*, disregarding type of organization (family businesses and non-family businesses.)



- H2 Significant differences exist between values of *Organizational Climate, Organizational Commitment, Entrepreneurial Orientation and Effort* of Family and Non-Family businesses.

- H3 A causal association exists between *Organizational Climate* (supportive management, role clarity, self-expression, contribution, recognition, challenge), *Organizational Commitment* (affective, normative and continuance), *Entrepreneurial Orientation* (innovation, risk taking, proactiveness, competitiveness, aggressiveness, autonomy) and *Effort* (time and intensity) for family business and non-family business.

Exhibit 4. Causal association between Organizational Climate, Organizational Commitment, Entrepreneurial Orientation, and Effort.



METHODOLOGY

For this study, *Family business* is any organization in which majority ownership or control lies within a single family and in which two or more family members are or at some time were directly involved in the business [1]. A Non-Family Business is an organization that does not match the characteristics described for a Family Business.

A) Definition of variables and the instrument utilized

1) Organizational Climate

The *organizational climate* is defined as the properties of the work environment that the employees perceive as characteristic of the nature of the organization, as well as the manner in which the people perceive and interpret their surroundings. To measure *organizational climate*, we utilized the instrument designed by Brown and Leigh [12] to measure the following factors: the contribution of work to the organization, the challenge represented by the work, role clarity, support from superiors, and the expression of feelings and acknowledgement. The authors separate these climate factors into two groups: a) psychological meaningfulness, represented by the factors: contribution to work, recognition and challenge of work; and b) psychological safety, represented by the factors: support from your immediate superiors, clarity of role, and the expression of own feelings.

Exhibit 5. Psychological Safety and Psychological Meaningfulness Factors.

Factors and concepts	
Psychological Safety	<i>Supportive Management</i> : A supportive management style that allows workers to try, and to fail without fear of reprisals. It gives them control over their work and the methods they used to accomplish it.
	<i>Clarity of Role</i> : expectations and work situations (how clear, consistent, and predictable). It is expected that clear, consistent and predictable work norms create a psychologically safe environment and increase job involvement.
	<i>Self-expression</i> : When employees feel psychologically safe, they are more likely to infuse their personalities, creativity, feelings, and self-concepts into their work role.
Psychological meaningfulness	<i>Contribution</i> : The perception that one's work significantly affects organizational processes and outcomes is likely to contribute to the perceivers' meaningfulness of work and enhance employees' identification with their work roles.
	<i>Recognition</i> : The belief that the organization appreciates and recognizes one's effort and contributions is likely to increase job involvement and identification.
	<i>Work as a Challenge</i> : Personal growth in the work role can only occur when work is challenging and requires the use of creativity and a variety of skills. Challenging work induces employees to invest greater amounts of effort.

2) Organizational Commitment

Organizational commitment is the level at which an individual identifies and is involved with an organization. Consistent with Meyer and Allen [21], it is a psychological state that characterizes the relation between a person and an organization. In this research, we utilize the instrument of Meyer and Allen [21], an instrument that is made up of 18 items and measures three factors: affective commitment, continuance commitment, and normative commitment.

Exhibit 6. Organizational Commitment Factors and Concepts.

Factors	Concepts
<i>Affective Commitment</i>	Degree to which an individual is involved emotionally with his organization
<i>Continuance Commitment</i>	Degree to which an individual perceives that she/he has to stay in his organization.
<i>Normative Commitment</i>	Degree to which an individual feels that she/he is morally obliged to stay in his organization.

3) Entrepreneurial Orientation

An *entrepreneurial orientation* [7] refers to the process, practices and decision-making activities that lead to a new entry, and include the intentions and actions of people involved in a new venture creation. Different multidimensional models describe the *entrepreneurial orientation* of organizations. According to Lumpkin and Dess [7], this construct (EO) should include a propensity to act autonomously, a willingness to innovate and take risks, and a tendency to be aggressive toward competitors and proactive relative to marketplace opportunities. Nevertheless, these characteristics may vary independently of each other in a given context. The *entrepreneurial orientation* factors and definitions are presented in:

Exhibit 7. Entrepreneurial Orientation Factors and Definitions.

Factors	Concepts
<i>Innovation</i>	Willingness to depart from familiar capabilities or practices and venture beyond the current state of the art (Lumpkin and Sloat, 2001)
<i>Risk Taking</i>	Person's willingness to pursue or avoid risks; likelihood that someone will forego a safe alternative with a known outcome in favor of a more attractive choice with a less certain reward. (Brockhaus, 1980)
<i>Proactiveness</i>	Acting in advance to deal with an expected difficulty (Dictionary.com)
<i>Competitive aggressiveness</i>	Strong offense posture or a combative response (Lumpkin and Sloat, 2001)
<i>Autonomy</i>	Independent action of an individual or a team in bringing forth an idea or vision and carrying it through to completion (Lumpkin and Dess, 1996)

4) Effort

Similar to Brown and Leigh [12], effort is defined as the time and energy that a person invests in obtaining results as expected of him from his employment. In their research, Brown and Leigh included two dimensions of effort: a) time dedicated to work, represented by the number of hours invested by the person in his employment; and b) intensity of work, represented by the energy a person invests in doing his work. In measuring effort, we use the instrument variables designed by Brown and Leigh: time dedicated to work, and intensity of work.

Exhibit 8. Effort Factors and Concepts.

Factors	Concepts
<i>Time Commitment</i>	Number of hours invested by a person in his employment.
<i>Intensity of Work</i>	The energy invested by a person in doing his job.

With the instruments described above, I developed an integrated questionnaire that included 64 items and 8 socio-demographic questions. Responses were given on a Likert scale of 5 options ranging from total disagreement to total agreement.

Exhibit 9. Measuring Instruments Used.

Instrument	Authors	No. of items
Organizational Commitment	Meyer and Allen (1991)	18
Organizational Climate	Brown and Leigh (1996)	21
Entrepreneurial Orientation	Lumpkin and Dess (1996)	15
Effort	Brown and Leigh (1996)	10

B) Sample

The measuring instruments previously described were applied to 839 subjects from small, medium and large firms divided into Family Firm Members (521) and Non Family Firm Members (318) that had been advised by the largest consulting firm in Mexico called Cetro-Crece.

C) Procedure

The instruments were applied individually, primarily at the place of work. Each subject read the instructions and then they were asked if they had any doubts about the questionnaire. Respondents took about 30 minutes to answer the questionnaire, and the length of time ranged from 20 minutes to 45 minutes. Due to the fact that the questionnaire was applied to subjects in firms located in various states of Mexico, the survey was completed in approximately 90 days. The statistical analysis was based on Martínez-Arias [25] and consisted of: a) an analysis of frequencies, central tendency measures, and dispersion of various variables; b) an analysis of internal confidence (alfa of Cronbach); c) a bivariate correlations analysis between the variables *organizational climate* and entrepreneurial spirit, *organizational commitment*, and effort; and d) a path analysis in order to test the hypotheses of the present study.

D) Analysis of internal confidence (Alfa of Cronbach)

In order to obtain the level of confidence of the instruments applied, we proceed by estimating the coefficient of confidence by a method based on a single application. The chosen method was that of internal consistency of Cronbach that consists of identifying the extent to which the subjects have consistent responses in various parts of a test. This method was applied to the measuring instruments utilized in the investigation considering each one of the factors that make up each variable. The results of the analysis of confidence are presented in Exhibit 10.

Exhibit 10. Analysis of Internal Consistency for the variables:
 Entrepreneurial Spirit, Organizational Commitment,
 Organizational Climate, Effort,
 and Intention of Remaining in the Firm.

Scale-Factor	Cronbach's Alfa
Organizational Commitment	
○ Affective Commitment	0.6985
○ Normative Commitment	0.7046
○ Continuance Commitment	0.6115
Organizational Climate	
<i>Factors of psychological safety</i>	
○ Supportive management	0.4575
○ Role clarity	0.6315
○ Self- expression	0.6496
<i>Factors of psychological meaningfulness</i>	
○ Personal contribution	0.6659
○ Recognition	0.5252
○ Work as a challenge	0.4649
Entrepreneurial Orientation	
○ Innovation	0.5202
○ Risk taking	0.6810
○ Pro-activeness	0.5496
○ Competitive aggressiveness	0.5302
○ Autonomy	0.6011
Effort	
○ Time commitment	0.8434
○ Intensity	0.7749

From the previous table, we can conclude that the four measuring instruments have alphas sufficiently high with the exception of two factors of *organizational climate* (support from immediate superiors and work as a challenge). These results suggest that the internal confidence of the instruments used show a good level of consistency, the condition for determining that the subjects had homogeneous responses in not only one, but in three of the instruments utilized.

RESULTS

A) Analysis of frequencies, measures of central tendency and dispersion for the variables

Descriptive statistics were used to examine all of the variables used in this study, and used later, presented in statistical analysis to test the proposed hypotheses. The mean, median, mode and standard deviation are given in Exhibit 11.

Exhibit 11. Descriptive Statistics: Entrepreneurial orientation, organizational commitment, organizational climate and effort (Family business and Non-Family business).

Factor	Family Business				Non-Family Business			
	Mean	Median	Mode*	Standard Deviation	Mean	Median	Mode	Standard Deviation
Organizational Commitment								
○ Affective	3.78	3.83	4.33	0.73	3.66	3.66	3.00	0.74
○ Normative	3.70	3.83	4.00	0.75	3.59	3.66	3.33a	0.76
○ Continuance	3.40	3.50	3.67	0.70	3.30	3.33	3.67	0.75
Organizational Climate								
Psychological safety factors	3.45	3.50	3.50	0.66	3.55	3.50	3.50	0.61
○ Supportive Management	3.91	4.00	4.00	0.75	4.05	4.00	4.00	0.63
○ Role clarity	3.74	3.75	3.50	0.80	3.72	3.75	4.00	0.69
○ Self-expression	4.14	4.25	4.00	0.65	4.07	4.00	4.00	0.68
Psychological meaningfulness factors	3.70	3.66	4.00	0.76	3.72	4.00	4.00	0.76
○ Contribution	3.84	4.00	4.00	0.67	3.82	4.00	4.00	0.69
○ Recognition								
○ Work as a challenge								
Entrepreneurial Orientation								
○ Innovation	3.45	3.66	3.67	0.88	3.59	3.66	4.00	0.75
○ Risk taking	3.49	3.66	4.00	0.81	3.64	3.66	4.00	0.76
○ Pro-activeness	3.42	3.33	3.33	0.90	3.50	3.66	4.00	0.85
○ Competitive aggressiveness	3.40	3.33	3.33a	0.84	3.48	3.50	3.33	0.81
○ Autonomy	3.76	4.00	4.00	0.83	3.81	4.00	4.00	0.69
Effort								
○ Time Commitment	3.46	3.60	3.60	0.85	3.30	3.20	3.00	0.79
○ Work intensity	3.60	4.20	4.00	0.64	4.19	4.20	4.00	0.60

*There are several modes. The smaller value is shown.

In Exhibit 12 descriptive data are shown for the socio-demographic data related to the personal characteristics of the research subjects:

- Family business: 39.5% are males and 60.5% females. 2.3% of the interviewed subjects are younger than 20 years old, 34.0% are between 20 and 29 years, 33.3% are between 30 and 39 years, 18.8% are between 40 and 59 years, 9.9% are between 50 and 59 years and 1.7% are older than 59 years old.
- Non-Family Business: 57.6% are males and 42.4% females. 0.6% of the interviewed subjects are younger than 20 years old, 41.0% are between 20 and 29 years, 34.9% are between 30 and 39 years, 17.5% are between 40 and 59 years, 4.8% are between 50 and 59 years and 1.3% are older than 59 years old.

Exhibit 12. Demographic Descriptive Statistics

(Family business and Non-Family business).

		Family Business		Non-Family Business	
Variable	Group	N	%	N	%
Sex		516	100.0	316	100.0
	Masculine	312	60.5	182	57.6
	Feminine	204	39.5	134	42.4
Age		517	100.0	315	100.0
	-20 years	12	2.3	2	0.6
	20-29	176	34.0	129	41.0
	30-39	172	33.3	110	34.9
	40-59	97	18.8	55	17.5
	50-59	51	9.9	15	4.8
	+ 59	9	1.7	4	1.3

Exhibit 13 reveals the descriptive socio-demographic data related to labor characteristics of the research subjects.

- **Family Business:** 40.2% of the respondents belong to firms with less than 5 employees, 35.5% to firms with 6 to 20 employees, 10.3% to firms with 21 to 30 employees, 6.4% to firms with 31 to 50 employees, 4.9% to firms with 51 to 100 employees, and 2.7% to firms with 101 to 500 employees. 39.7% are in positions of director general, 26.8% are managers, 15.5% are heads of their areas, 13.1% work in the office, and 4.9% are secretaries. 9.5% have less than one year working in the organization, 20.5% have 1 to 2 years, 26.2% have 3 to 5 years, 21.3% have 5 to 10 years, 17.6% have 10 to 20 years, and 4.8% have over 20 years. 29.6% of the research subjects did not have any family relation with the principal owner of the firm, 28.4% are investors in the firm, 17.6% are sons or daughters, 12.2% are husbands or wives, 2.5% are in laws and the remaining 9.6% otherwise related to the family.
- **Non-Family Business:** 32.2% of the respondents belong to firms with less than 5 employees, 30.6% to firms with 6 to 20 employees, 12.1% to firms with 21 to 30 employees, 10.8% to firms with 31 to 50 employees, 11.5% to firms with 51 to 100 employees, and 2.9% to firms with 101 to 500 employees. 30.4% are in positions of general director, 21.2% are managers, 23.1% are heads of their areas, 20.5% work in the office, and 4.8% are secretaries. 17.3% have less than one year working in the organization, 27.5% have 1 to 2 years, 28.1% have 3 to 5 years, 15.3% have 5 to 10 years, 9.6% have 10 to 20 years, and 2.2% have over 20 years. 71.0% of the research subjects did not have any family relation with the principal owner of the firm, 23.1% are investors in the firm, 1.3% are sons or daughters, 1.0% are husbands or wives, 1.6% are in laws and the remaining 2.0% otherwise related to the family.

Exhibit 13. Descriptive Statistics related to work variables (Family Business and Business).

Variable	Group	Family Business		Business	
		N	%	N	%
Type of business		491	100.0	303	100.0
	Commerce	180	36.7	84	27.7
	Industry	140	28.5	63	20.8
	Services	171	34.8	156	51.5
Number of employees		513	100.0	314	100.0
	- 5	206	40.2	101	32.2
	5-20	182	35.5	96	30.6
	21-30	53	10.3	38	12.1
	31-50	33	6.4	34	10.8
	51-100	25	4.9	36	11.5
	101-500	14	2.7	9	2.9
Position		511	100.0	312	100.0
	CEO	203	39.7	95	30.4
	Manager	137	26.8	66	21.2
	Chief	79	15.5	72	23.1
	Employee (office)	67	13.1	64	20.5
	Secretary	25	4.9	15	4.8
Years working at the firm		516	100.0	313	100.0
	-1	49	9.5	54	17.3
	1-2	106	20.5	86	27.5
	3-5	135	26.2	88	28.1
	5-10	110	21.3	48	15.3
	10-20	91	17.6	30	9.6
	+ 20	25	4.8	7	2.2
Family relation with the owner (s)		510	100.0	307	100.0
	None	151	29.6	218	71.0
	Main shareholder	145	28.4	71	23.1
	Sibling	90	17.6	4	1.3
	Spouse	62	12.2	3	1.0
	In law	13	2.5	5	1.6
	Other family relation	49	9.6	6	2.0

B) Bivariate analysis

Pearson bivariate correlations were derived in order to examine the level of association between the variables considered in this research: *organizational climate*, *organizational commitment*, *entrepreneurial orientation*, and effort. The correlation matrices between the values of the variables considered in this inquiry are presented in Exhibits 14 to 19.

The results indicate that all of the factors of *organizational climate* have a significant statistic correlation with the factors of *entrepreneurial orientation* except for the following cases: supportive management and competitive aggressiveness, and self-expression and competitive aggressiveness. **Exhibit 14 and 15.**

Exhibit 14. Pearson's Correlation Coefficients between organizational climate and entrepreneurial orientation (Family Business).

Organizational Climate Factors	Entrepreneurial Orientation Factors - Family Business				
	Innovation	Risk taking	Pro-activeness	Competitive aggressiveness	Autonomy
Contribution	.362**	.319**	.273**	.303**	.458**
Challenge	.341**	.303**	.288**	.369**	.297**
Recognition	.336**	.325**	.315**	.318**	.515**
Clarity	.417**	.429**	.395**	.383**	.470**
Supportive management	.334**	.253**	.350**	.187**	.488**
Self-expression	.350**	.307**	.315**	.242**	.574**

**Correlation is significant at the 0.01 level. *Correlation is significant at the 0.05 level.

Exhibit 15. Pearson's Correlation Coefficients between organizational climate and entrepreneurial orientation (Non-Family Business).

Organizational Climate Factors	Entrepreneurial Orientation Factors – Non-Family Business				
	Innovation	Risk taking	Pro-activeness	Competitive aggressiveness	Autonomy
Contribution	.374**	.331**	.347**	.317**	.475**
Challenge	.389**	.338**	.326**	.307**	.236**
Recognition	.347**	.234**	.345**	.307**	.394**
Clarity	.332**	.309**	.347**	.329**	.468**
Supportive management	.337**	.278**	.295**	.160**	.455**
Self-expression	.314**	.254**	.283**	.162**	.540**

**Correlation is significant at the 0.01 level. *Correlation is significant at the 0.05 level.

Similarly, all of the factors of *organizational climate* show high and significant correlations with the factors of *organizational commitment*, with the exception of the supportive management and normative commitment, self-expression and normative commitment.

Exhibit 16. Pearson's Correlation Coefficients between organizational climate and organizational commitment (Family Business).

Family Business			
Organizational Climate Factors	Organizational Commitment Factors		
	Affective	Normative	Continuance
Contribution	.490**	.526**	.347**
Challenge	.321**	.448**	.406**
Recognition	.370**	.425**	.286**
Clarity	.336**	.379**	.230**
Supportive management	.327**	.365**	.115**
Self-expression	.479**	.434**	.098*

**Correlation is significant at the 0.01 level. *Correlation is significant at the 0.05 level.

Exhibit 17. Pearson's Correlation Coefficients between organizational climate and organizational commitment (Non-Family Business).

Non-Family Business			
Organizational Climate Factors	Organizational Commitment Factors		
	Affective	Normative	Continuance
Contribution	.546**	.558**	.319**
Challenge	.407**	.493**	.415**
Non-Family Business			
Organizational Climate Factors	Organizational Commitment Factors		
	Affective	Normative	Continuance
Recognition	.324**	.396**	.336**
Clarity	.465**	.383**	.208**
Supportive management	.368**	.261**	.159**
Self-expression	.430**	.400**	.166**

** Correlation is significant at the 0.01 level. *Correlation is significant at the 0.05 level.

The coefficients of correlation between the factors of *organizational climate* and *work intensity* are high and statistically significant. In the case of the correlation between the factors of *organizational climate* and *time commitment*, correlations below 0.3 were found in the factors of *recognition*, *clarity*, *supportive management* and *self-expression*.

Exhibit 18. Pearson's Correlation Coefficients between organizational climate and effort (Family Business)

Family Business		
Organizational Climate Factors	Effort Factors	
	Time Commitment	Work Intensity
Contribution	.370**	.630**
Challenge	.501**	.577**
Recognition	.263**	.433**
Clarity	.218**	.544**
Supportive management	.082	.234**
Self-expression	.223**	.430**

**Correlation is significant at the 0.01 level. *Correlation is significant at the 0.05 level.

Exhibit 19. Pearson's Correlation Coefficients between organizational climate and effort (Non-Family Business)

Non-Family Business		
Organizational Climate Factors	Effort Factors	
	Time Commitment	Work Intensity
Contribution	.405**	.631**
Challenge	.543**	.542**
Recognition	.255**	.359**
Clarity	.259**	.552**
Supportive management	.197**	.291**
Self-expression	.207**	.419**

**Correlation is significant at the 0.01 level. *Correlation is significant at the 0.05 level.

The t-test between the family business and non family business and the factors of organizational commitment (affective, normative and continuance), organizational climate (supportive management and role clarity), entrepreneurial orientation (innovation and risk taking) and effort (time commitment) are statistically significant. **Exhibit 20.**

Exhibit 20. Method: t Test.

Factor	Median Family business	Median Non-Family Business	t	Sig.
Organizational Commitment	3.7873	3.6635	2.352	.019
○ Affective	3.7092	3.5980	2.045	.041
○ Normative	3.4075	3.3029	2.048	.041
○ Continuance				
Organizational Climate Psychological safety factors	3.4511	3.5535	-2.240	.025
○ Supportive Management	3.9149	4.0514	-2.815	.005
○ Role clarity	3.7433	3.7288	.276	.782
○ Self-expression	4.1430	4.0700	1.519	.129
Psychological meaningfulness factors	3.7070	3.7296	-.415	.678
○ Contribution	3.8458	3.8239	.613	.540
○ Recognition				
○ Work as a challenge				
Entrepreneurial Orientation	3.4517	3.5901	-2.409	.016
○ Innovation	3.4952	3.6447	-2.682	.007
○ Risk taking	3.4242	3.5094	-1.364	.173
○ Proactiveness	3.4063	3.4885	-1.392	.164
○ Competitive aggressiveness	3.7684	3.8187	-.942	.346
○ Autonomy				
Effort	3.4633	3.3050	2.725	.007
○ Time Commitment	4.2257	4.1987	.613	.540
○ Work intensity				

C) Path Analysis

The results confirm the hypothesis:

For Family Business:

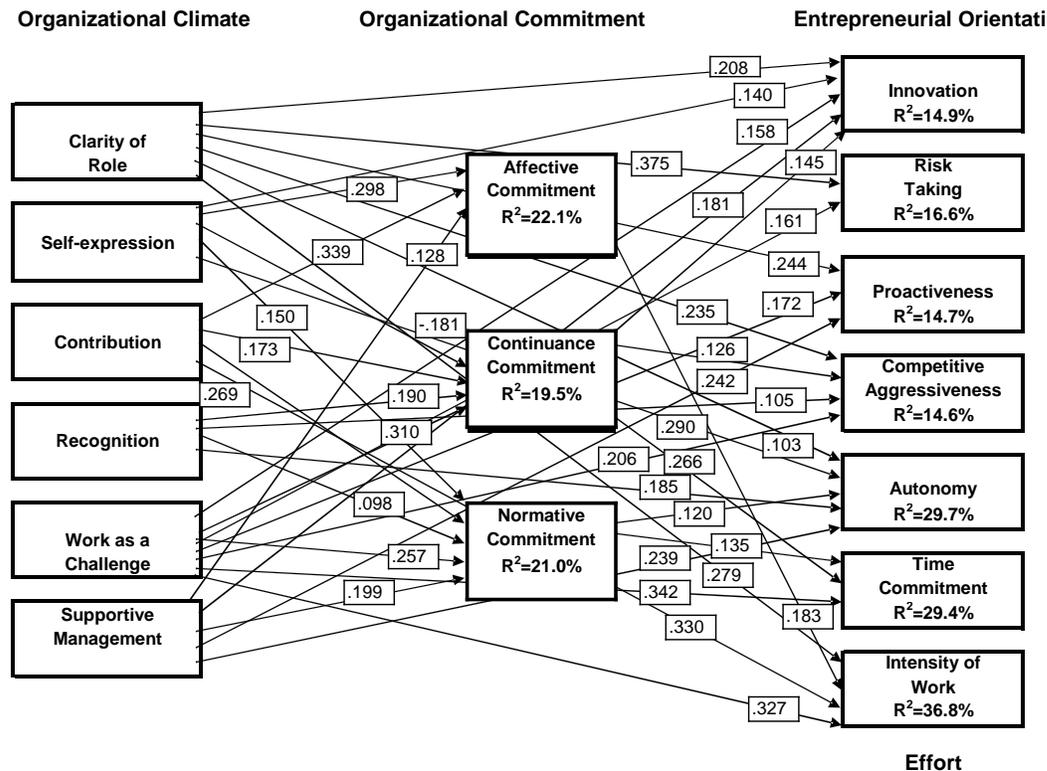
- Five out of six factors of *organizational climate* (all except Clarity of Role) significantly affect *organizational commitment*.
- The six (out of six) factors for *organizational climate* significantly affect *entrepreneurial orientation*.
- Three out of six proposed *organizational climate* factors (all except recognition, self-expression, and supportive management), significantly affect effort.
- The three organizational commitment factors (affective, continuance and normative commitment) significantly affect four of the *entrepreneurial orientation* factors (pro-activeness, innovation, autonomy and competitive aggressiveness).

The results of the path analysis indicate that *organizational climate* in the six dimensions considered (supportive management, clarity, self-expression, contribution, recognition, and work as a challenge) is a variable that significantly influences the five factors of *entrepreneurial orientation* considered in this study (innovation, risk taking, pro-activeness, competitive aggressiveness, and autonomy). We see that the factor Autonomy contains the highest percent of explained variance (29.7%) considering

antecedent variables of *organizational climate* (clarity, self-expression, recognition and supportive management).

In the factors pro-activeness, innovation, risk taking, and competitive aggressiveness, we identified the percent of lowest variance explained.

Exhibit 21. Path Analysis: Organizational Climate, Organizational Commitment, Entrepreneurial Orientation, and Effort in Mexican Family Business.



Ji-square = 1584.997; gl = 81; p = 0.000

For non Family Business:

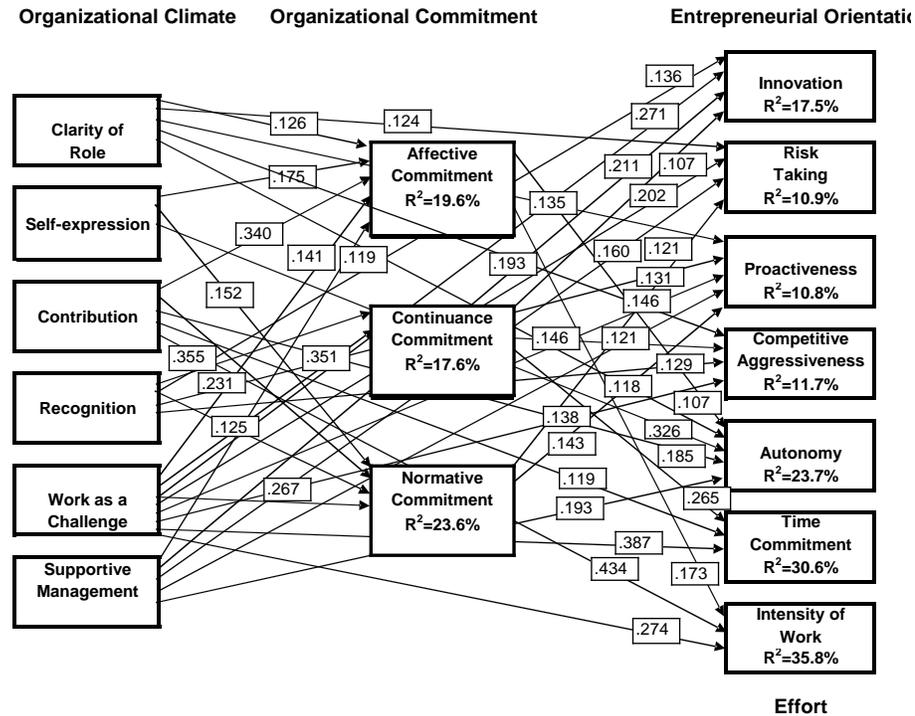
- o The six (out of six) factors of *organizational climate* significantly affect *organizational commitment*.
- o The six (out of six) factors for *organizational climate* significantly affect *entrepreneurial orientation*.
- o Two out of six proposed *organizational climate* factors (all except clarity, self-expression, recognition, and supportive management), significantly affect effort.
- o The three organizational commitment factors (affective, continuance, and normative commitment) significantly affect four of the *entrepreneurial orientation* factors (pro-activeness, innovation, autonomy, and competitive aggressiveness).

The results of the path analysis indicate that *organizational climate* in the six dimensions considered (supportive management, clarity, self-expression, contribution, recognition, and work as a challenge) is a variable that significantly influences the five factors of *entrepreneurial orientation* considered in this study (innovation, risk taking, pro-activeness, competitive aggressiveness, and autonomy). We see that the factor Autonomy contains the highest percent of explained variance (23.7%) considering

antecedent variables of *organizational climate* (clarity, self-expression, supportive management, and contribution).

In the factors pro-activeness, innovation, risk taking, and competitive aggressiveness, we identified the percent of lowest variance explained.

Exhibit 22. Path Analysis: Organizational Climate, Organizational Commitment, Entrepreneurial Orientation and Effort in Mexican Non-Family Business.



Ji-square = 1050.328; gl = 81; p = 0.000

DISCUSSION

While *Organizational Climate* is a significant antecedent of *Entrepreneurial Orientation*, the effect of *Organizational commitment* on Entrepreneurial Orientation is small. Therefore other significant antecedents of Entrepreneurial Orientation should be identified. These other factors may be inherent in organizations, in individuals, or in the environment in which the firm operates.

To our surprise, effort was not significantly explained by Entrepreneurial Orientation, that means that not necessarily an individual works with more intensity or invest more time if is entrepreneurially oriented. It may be the case that Entrepreneurial Orientation influences other factors that might be important for the organization, such as productivity or other constructs related to it. The development of Entrepreneurial orientation among firms requires an adequate environment that enhances innovation, initiative and allows employees to make creative decisions. In this respect Port and McCall [26] argue that successful innovations in organizations require different focus from the model proposed by Frederick Taylor characterized by centralization and control.

Latin American countries, as other nations may benefit on adapting an entrepreneurial orientation. In order to clarify in which way they experience this benefit, we suggest studying the consequences of entrepreneurial orientation.

The results obtained in the path analysis, that test the hypothesis for Family and Non-Family Firms are quite similar. Nevertheless, we believe it is important to do further comparative analysis. Comparison of Competing or Nested Models are the most common modeling strategies (a competing model or model development strategy) involving the comparison of model results to determine the best fitting model from a set of models. The objective of this comparison is to fit the best from among the set of models, using a large number of measures that have been developed to assess model fit.

Just as in previous studies, this research finds that the factors of *organizational commitment* are associated with the factors of effort. However, associations between the factors of *organizational commitment* and those of *entrepreneurial orientation* were not found, indicating that *organizational climate* is an important antecedent factor of *entrepreneurial orientation* while *organizational commitment* is not. It is therefore necessary to continue researching the other antecedent factors that influences in the *entrepreneurial orientation* of the members of organizations.

In the short term, we will compare the path analysis regarding family members and non family members. It is possible, according to previous research that significant differences might be found, leading to practical implications.

We hope the results of this investigation will raise questions that may be resolved in future research.

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