

# Succession Model for Family Businesses in the Highway-Building Field

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## ABSTRACT

Family businesses comprise 90% of production in Mexico's building sector, and are complex because of continuous uncertainty in their management and operations. This paper investigates building companies, specifically highway-building companies, because they provide employment to non-highly educated people in Mexico, who cannot easily access other employment opportunities. Moreover, this sector helps regional economic development in general. This work is a descriptive and non-experimental transversal study. Data were collected by surveying the owners and interviewing their children who work as managers in such companies. The results indicate that the educated population under study is mainly found in the first generation and that they do not consider formal assessment in realizing a generational transition plan. This study contributes to the literature by proposing a transition model which describes the environments, causes, participants and strategies necessary to enable generational transition for these particular family companies; however, it may be adapted for other companies in analogous contexts.

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## Introduction

Data from the Instituto Nacional de Estadística, Geografía e Informática (INEGI) (2009), show that 3,724,019 companies are categorized as family business throughout Mexico. Kajihara (2007) claims that this kind of company accounts for 90% of the production in the building sector in Mexico and points out that these are complex because of constant difficulties in their management and operations areas as well as the matter of succession (Álvarez, 2002).

This sort of company faces a different reality than other organizations because two integrated systems overlap family and business. Such a combination is the origin of conflictive situations, which usually hinder the normal work of a business and prevent it from having a stable position (Kajihara, 2007).

This paper examines companies in the building sector, specifically the highway-building sector, in Mexico. This sector generates jobs for people with low educational background, which blocks their access to other activities. This sector also contributes to regional economic development by building connecting roadways that facilitate commuting and transport as well as the trade of goods and services produced by companies in the region.

According to the last analysis run by the World Economic Forum regarding the competitiveness of infrastructure, Mexico was in 68th place out of 134 countries; within America, it was in ninth place, after the United States (7) Canada (6), Barbados (32), Panama (40), Jamaica (48), Chile (54), Costa Rica (56) and the Dominican Republic (63) (World Economic Forum, 2009).

Regarding the population under study, Campeche State in Mexico employed 9,247 people every month in 2008 according to information issued by the INEGI (2009); however, these economically active people do not possess enough education to perform other activities, which explains the steady growth of the sector for social stability in the state.

Moreover, the Campeche State Government has realized the necessity of encouraging infrastructure development in all sectors by giving priority to roadways; at the federal level, the Mesoamerica Project has

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the mission to create a Mesoamerican region which is well interconnected by safe roadways by 2015. The former reaffirms that it is imperative to have a building industry with solid financial and administrative bases allowing participation in the sustainable development of the country's economy (Gobiernodel Estado de Campeche, 2004).

According to the Mexican Chamber of the Building Industry in Campeche (Cámara Mexicana de la Industria de la Construcción, delegación Campeche, 2008), no previous studies have provided information about how local building companies are administrated; their goals, how they are managed and which tools have been used. Thus, it is important to determine whether these companies have developed strategies to plan to select successors and continue to contribute to the economic development of the country.

The present research supports the theory of generational transition in family businesses, and provides a proposed model of family succession for highway-building family companies. Its aim is to solve the problem of generational transition, maximizing investors' wealth and contributing to the continuity of employment for the growth and social development of the economic region in which these companies are situated.

The results and conclusions of this study are applicable specifically to family building businesses; however, they may be useful as the basis for future research in other activities. The companies in this study are builders specialized in roadway public works, established in the city of Campeche in Campeche State, Mexico, which contribute economically to developing infrastructure in the region and provide sources of employment for less educated people who usually have low salaries and few job opportunities.

### **Theoretical background**

The first point on which a theoretical agreement should be reached is the definition of what a family business really is; the lack of theoretical integration has led to the existence of many different definitions on the concept (Wortman, 1994, quoted by Belausteguigoitia, 2004). Reaching an integrative definition is one of the first challenges faced by researchers; this situation applies to topics such as succession. The parameters to be considered when elaborating on the general concept include the control of stock, the location, the level of direction and the degree of involvement; these are the main elements considered in this study.

Longenecker, Moore and Petty (2001) conceptualize family businesses as those featuring ownership or any other participation by two or more members of the same household in the company's operations. Belausteguigoitia (2004), for his part, defines family businesses as organizations controlled and operated by the members of a family; he takes a spiritual perspective, calling them businesses with a soul, because families put their hearts into them.

Family companies have particular elements that make them different in terms of how they set and achieve goals, because management's pursuit of goals is oriented toward the family. This creates differences from non-family businesses in terms of the kinds of strategies to implement, the culture, the attitudes, the goals and the resolution of conflict.

Poza (2005) points out that family business founders usually have natural disdain for organizational architecture, that is, the setting up of systems, professional management practices and government mechanisms. The differences between family and non-family companies are not necessarily positive or negative, but we can argue that these differences may significantly influence the strategies developed for decision-making. Harris, Martínez and Ward (1994) as quoted in Gudmundson, Hartman and Tower (1999) provide a list of features of family companies which may influence their strategies, including inward orientation, slow growth and less participation in the market, long time horizons, less intensive capital, prioritisation of family harmony, employee loyalty, lower costs, generations of leadership and the influence of the headquarters over the implementation of strategies.

Gudmundson et al. (1999) claim that analysis of the strategies implemented within family businesses allows us to identify their orientation towards the market. In their research, they consider elements such as degree of growth, administrative and operational control, number of employees, inner control politics, external loans and ability to introduce new products or services into the market, as well as the strategies implemented for each area above. The findings suggest that the strategies selected are influenced by aspects

like the gender of the leader of the organization, the degree of professionalization of the executive group and the number of generations in power.

Another factor to be considered indifferentiating family and non-family companies is culture. Vallejo (2008) points this out, saying that it is one of the mightiest and most stable forces within organizations that influence their financial operations and internal development.

On this point Klein, Astrachan and Smyrniotis (2005) show that power, experience and culture influence management and decision making in the organization; they say that power is revealed through the actions and administration activities in which the family participates. The influence of this power is proportional to the position a family member holds in the administration and the experience influenced by the sum of the results of business operations, which generate manager-provoked changes, and, finally, culture is a factor that influences the family's commitment to the values and work developed in the organization. They propose the Factors of Power, Experience and Culture (F-PEC) scale to measure the influences of these elements in the life of a family business.

Corbeta and Salvato (2004) say that the power, experience and culture elements come from the board of directors and that these features, depending on how developed they are, influence the board's decisions when leading family companies. They claim that the board of directors is a regulating body whose functions range from representing stockholders to screening operations and that these roles vary depending on the particular culture in each country.

The research that focus their objective in elements such as culture, power and experience as essential factors in development of family businesses, have as final goal to determine the elements for a successful generational transition, according to Sharma, Chrisman, Pablo and Chua, (2001), quoted by Vera and Dean (2005), and the transition of leadership from one member of the family to another within a family business. Both members could be from the nuclear family or not, and they do not necessarily belong to the same generation.

Successful transition from one generation to another is a hard process, and it is considered the most important commitment in managing family businesses, since each generation will eventually end its leadership for one reason or another. It is well known that failing to plan for succession can lead to family division and, as a result, the disappearance of the organization; on this point, we can see that leadership style contributes to the success of both the family and the company (Sorenson, 2000).

One of the elements found in the literature and considered essential for the succession process is the family protocol; this is defined by Lozano (2000) as a document that clearly states the relatives' values and their politics regarding the business. It is a family document but intentionally designed for the business by setting a mission that will guide family relations and business. It is considered a means for: (a) helping to reduce possible conflicts, (b) defining criteria for dealing with conflicts if they arise, (c) contributing to the definition of politics during strategic planning, (d) showing how the family and business goals form joint interests and (e) helping to maintain or increase affection and the family union bond.

Each family is a particular case in business terms; therefore, each family should have its own protocol; it is indispensable for those who participate in its elaboration to have information and documentation helping them to understand the concept and to develop it.

## **Methodology**

This study is a descriptive one, as its aim is to collect data on the definite variables; the design is transversal and non-experimental because data were collected within their natural context through interviews and surveys of family business partners.

Fieldwork was conducted to collect quantitative and qualitative information through interviews and surveys (Hernández, Fernández and Baptista, 2010).

*Study population*

The population of this study is family building companies specializing in roads in Campeche (located in Campeche state, Mexico), which accepted participation in the study. There are 60 companies registered in the field according to the associates' directory of the Delegación Campeche de la Cámara Mexicana de la Industria de la Construcción[Mexican Chamber of the Building Industry](2008).Of these, 20 companies were eliminated because they were established under the category of an individual person with business activity and were not considered business societies (legal entities), which reduced the population to 40 companies.

Of the 40 family building companies, 31 agreed to participate. However, when carrying out the first interviews with the owners, it became clear that two of the companies did not fulfil one of two minimum requisites to be considered a family business, that is, the share holding and participation of at least two family members in the management and operation of the company (Longenecker et al., 2001). In view of the above, the number of participants was limited to 29 family companies, or 72.5% of the initial universe.

The first tool used to gather information was the questionnaire by Klein et al. (2005), who developed it when studying the influence and repercussion of the variables of culture, power and experience within German family companies. The reliability of this instrument was determined by the Cronbach's alpha coefficient for each factor of the scale: power .749, experience .958 and culture .932. The composition of the tool described above is displayed in Table 1.

**Table 1.**Table of specifications for the questionnaire given to the owner or proprietor of the family company

Variable: Influence of the family	<i>Concept definition:</i> The extent of family influence in a company in terms of making decisions and solving pertinent conflicts.		
	<i>Operational definition:</i> Questionnaire given to the owners of the company to determine and measure the influence of these factors in the management of the family business.		
Dimension	Operational Definition	Items	Proportion
Power	Financial power over the business and control by means of the direction or participation of the family in the directive control team.	1-4	18%
Experience	The added experience the family brings to the business as performed by the generation at the head of the company.	5-10	28%
Culture	The values and commitment of the relatives and employees to the family business.	11-22	54%

*Source:* The authors' own elaboration of Klein, Astrachan and Smyrniotis (2005).

The second part of the project required documentation of the perception of possible successors in the process of family succession. In order to obtain this information, the questionnaire created by Vera and Dean (2005) was administered to 38 children of the managers within the population under study. The aim was to enquire about personal background, how they were incorporated into the firm, business relations and probable work-family conflicts for the children when succession would occur. The specifications for the instrument are displayed in Table 2.The instrument contributes to the study by evaluating the children's perceptions as elements of the proposed model, and the conflicts they point out in terms of generational transition.

**Table 2.** Table of specifications for the interview with children of the members of family businesses

Variable: The role of children in family succession	<i>Concept definition:</i> It is the position reached by the children, possible successors in the organization and the perception about these that the predecessor and the executive body may have according to professional and personal qualities.		
	<i>Operational definition:</i> Semi structured interview applied to the children, members of the firm with the objective of evaluating their currents and future position as a consequences of family succession.		
Dimension	Operational Definition	Items	Proportion
Firm's background	The child's knowledge of the origin of the organization.	1-3	13%
Children's background	Investigates the filial position and the educational level of the children.	4-14	26%
Incorporation into the firm	Evaluation of the motivation for the children's current participation in the firm.	15-18	13%
Family relations	The current condition of the filial relation between owners and children.	19-27	21%
Business relations	The child's opinion about the perception that other participants in the organization have of him.	28-30	9%
Work-family Conflicts	How the binomial family-company may affect the successor.	31	5%
Succession	The child's opinion about the succession process and the possible conflicts that may arise out of this selecting process.	32-36	13%

*Source:* The authors' own elaboration of Vera and Dean (2005).

### Procedure for collecting and analysing data

In the first stage of the study, the owners of the companies filled out the questionnaires individually; each questionnaire took about twenty minutes to complete. To analyse the quantitative information obtained from the questionnaires given to the owners, a statistical analysis, a descriptive analysis and analysis of the frequencies of the main variables were carried out. This instrument considers the cultural dimensions using a Likert scale with values ranging from 1 to 5, where 5 is considered the highest value. Afterwards, a variance analysis (ANOVA) was used to determine the differences between the socio-demographic variables, and the cultural dimensions were determined for the population under study. For the variables of age, gender and marital status, the student t-test was used for performing a more accurate analysis of the average differences.

The second stage comprised obtaining information about development from semi-structured interviews with the children of managers and members of the family, taking approximately one hour for each interview.

The analysis of the information provides our qualitative data, beginning with the segmentation of the universe under analysis into subgroups ordered by topics. The data are structured into categories reflecting a total vision of the situation, known as a taxonomic analysis (Spradley, 1979, 1980, as quoted by Bonilla and Rodríguez, 1997).

The categorization of data begins with defining the unity of analysis from which the information can be divided into two ways: deductive and inductive. In the first case, the descriptive categories are derived from the variables contained in the hypothesis; they are a reflection of the theory and problem under study. This is the procedure of analysis of the general information known thus far (Bonilla and Rodríguez, 1997).

The analysis of qualitative data followed this scheme, and was realized through an analysis of general information that involved codifying the data from the questionnaires into categories and subcategories, defined operationally, and calculating the frequencies of the phenomena involved in them (Goetz and Le

Compte, 1988) by using the frequencies for dichotomy and numeric questions and for linking variables, with an interpretation of every element in each category (Rodríguez, Gil and García, 1999).

In order to have a clearer idea of the perception of the population under study in terms of the company and the succession of children of those who work in management, an index of perception of succession (IPS) was made with the information obtained from the interviews.

To elaborate on the IPS, the most representative comments of all the responses were selected and denominated as 'testimony phrases' through the following steps:

1. The frequency of mentions of each testimony phrase was identified in every answer given by the children of those working in the companies under study. For this reason, scores were assigned according to the parameters in Table 3.

**Table 3.** Quantitative Likert scale for the frequency of repetition of witness phrases

Percentage rank	Rank for 38 people	Likert scale value
More than 90% of people	35 or more people	6
81% to 90% of people	31 to 34	5
61% to 80% of people	24 to 30	4
41% to 60% of people	16 to 23	3
21% to 40% of people	9 to 15	2
1% to 20% of people	1 to 8	1

*Source:* The authors' own elaboration of the data.

2. The total frequency of each testimony phrase was obtained for every company.
3. The maximum possible score for any company was 120 (maximum of 6 points for 20 items).
4. The figure obtained in the second step was divided into 120 and the result multiplied by 100 to get an index of perception of the individual succession for each participant in every company.
5. The individual indices of every participant in every company were added up and divided into the total of individuals in every company, in order to obtain a representation of the IPS for every organization.

## Results

In the first phase, the questionnaire given to the owners of the building companies evaluated three dimensions: power, experience and culture. For the first dimension, the first item of the instrument refers to shareholding in the company and the existence of a board of directors with family members. On this matter, all participating companies stated that shares were in the hands of family members and that no corporation participated in the board. Regarding the bodies for making decisions, one company (3.2%) informed us that they had an administration board and a board of directors; in this case, one of its six members was not a relative, but had been elected by the family. The other 30 companies informed us that they had an administration board as a body of government and that it was made up entirely of family members.

With regard to the experience dimension, only one (3.2%) of the companies was in its second generation. They informed us that some family members do not participate in the organization and there are even relatives who are uninterested in the business (see Table 4).

**Table 4.** Relatives who participate actively, do not participate or are uninterested in the family business

Number of relatives	Active participants		Do not participate		Uninterested	
	Frequency	%	Frequency	%	Frequency	%
0			8	25.8	14	45.2
1	2	6.5	17	54.8	6	19.4
2	13	41.9	4	12.9	5	16.1
3	12	38.7	2	6.5	5	16.1
4	4	12.9			1	3.2

*Source:* The authors, based on the results obtained for the experience dimension from the questionnaire of de Klein, Astrachan and Smyrniotis (2005).

As far as the culture dimension, the instrument has a scale that allowed for a descriptive statistical analysis in which both the mean and its standard deviation were determined. The objective was to analyse the items closest to and furthest from the assigned values as well as the level of dispersion of the answers(see Table5).

**Table 5.**Descriptive statistics related to the culture dimension (scale 1–5)

Item	Minimum value	Maximum value	Mean	Standard deviation
1. Your family has influence on your business.	1	5	4.74	.815
2. Your family members share similar values.	3	5	4.84	.454
3. Your family and your business share similar values.	4	5	4.61	.495
4. Family members support the family business by talking with friends, employees and other family members.	2	5	4.03	.752
5. Family members feel loyalty toward the family business.	3	5	4.52	.677
6. Family members are proud of telling others they are part of the family business.	3	5	4.35	.709
7. There is much to obtain from participating inthe family business on a long-term basis.	4	5	4.87	.341
8. Family members agree with the goals, plans and politics of the family business.	3	5	4.35	.608
9. Family members really care about the course of the family business.	3	5	4.58	.620
10. The decision to get involved in the family business has had a positive influence on my life.	5	5	5.00	.000
11. I understand and support my family's decisions and respect the future of the family business.	4	5	4.42	.502
12. Family members are willing to make a greater effort than expected in order to help the family business be successful.	3	5	4.29	.588

*Source:* The authors, based on the results obtained for the culture dimension of the questionnaire by Klein, Astrachan and Smyrnios (2005).

As shown in Table 5, the highest mean corresponds to item10, which addresses the decision to get involved in the family business and its influence on the life of the owner; the lowest mean was found for question 4, about the support given by the members of the family by talking with friends, employees and other family members. In relation to the standard deviation, the item with the highest dispersion in the answers was the first, related to whether the family has influence on the business, which shows the individuality and power that the owner has within the organization.

To analyse the culture dimension in relation to the socio-demographic variables, the ANOVA analysis of variance was used for the level of education of the founder and the age, and a t-test was applied for the matter of gender. None of these variables reported a statistically significant difference. No analysis of the t-test for the grouping of marital status was required because all the interviewees reported they were married.

The second stage of the study was carried out with the aim of determining the degree of company knowledge held by the children of those who are part of the management of building companies and the positions they currently have with the company as probable successors.

When the dimension of the firm's background was evaluated, the responses of all the children of those working in the company matched with that of the owners regarding the age of the organization and the number of employees they had at the time of the interview.

Out of all interviewed people, 86.8% mentioned that only one generation had been involved in the firm, and 13.2% mentioned that the second generation was currently running the organization. Everyone, without any exceptions, said that the father was the owner.

Regarding the dimension related to the children's background, 94.7% said that they had siblings and 47.4% said that they were the firstborn.

The majority of the interviewed population (81.6%) were married. The average age was 34 years; the youngest was 26 years old, and the oldest, 45, so it can be inferred that the work force at the managerial level is relatively young for most of the cases.

In regards to the age of the children at the time of succession, only the members of two companies said that succession had already occurred, and the average age of the children at succession was 33. In terms of work experience, 55.3% said they had not worked outside of the family business, 60.5% had no previous work experience and 7.9% had worked part time.

Regarding the dimension that evaluates how old the managers were when they decided to join the company, the average age was 28 years; 68.4% were found to be within the range between 25 and 29 years old, and 18.4% were within the range between 20 and 24 years. Therefore, the majority of the children of the entrepreneurs are in the range between 20 and 29 years, thus indicating that they joined the company relatively young.

All manager-children declared having a professional college education. The educational backgrounds with the highest percentage were civil engineer (42.1%), followed by public accountant (26.3%) and bachelor of business administration (15.8%).

The results of the analysis of family relationships show that 84.2% of the children of managers believe that it will be very hard for their fathers to leave the company, and they plan to wait five to 10 years until the predecessor assumes it is time to leave. Moreover, they declare that the father-son relationship has not changed just because they are working in the family company.

In terms of the relationships with their brothers or sisters, the majority (86.8%) reported that those working in the company are very involved with it and affirmed not having conflicts among them to take control.

In the dimension addressing business relations, the interviewees reported that they had experienced discrimination, and regarding succession, 63.15% of them think that gender makes a real difference in determining the future successor, with women being less favoured.

In relation to the categorical analysis of the interview, the children of those working as managers in family building companies state that the main reason for joining the company was patrimony. They identify a set of advantages in family businesses based on their own opinions. First, they list having support, trust, understanding and help from family, and then, they mention work conditions and that any effort is reflected in the growth of the family business.

On the other hand, they identify some disadvantages: First, problems in the company affect the family. Second, there can be problems among relatives. Finally, everyone depends economically on the same business.

Nevertheless, in spite of any difficulty, they realize that working with their fathers and the company directors has been excellent for their learning because they have gained experience in the field after going through a process of adaptation.

In terms of business relations, most participants report no conflicts with other members in the company who are not related to, or part of, the family; however, they expected such situations, and there were a few mentions of perceived attitudes of jealousy or incredulity. Regarding the treatment of clients, suppliers and employees, they said it has been polite, except during periods when their organizations lacked liquidity, where there were two mentions of gender discriminations.

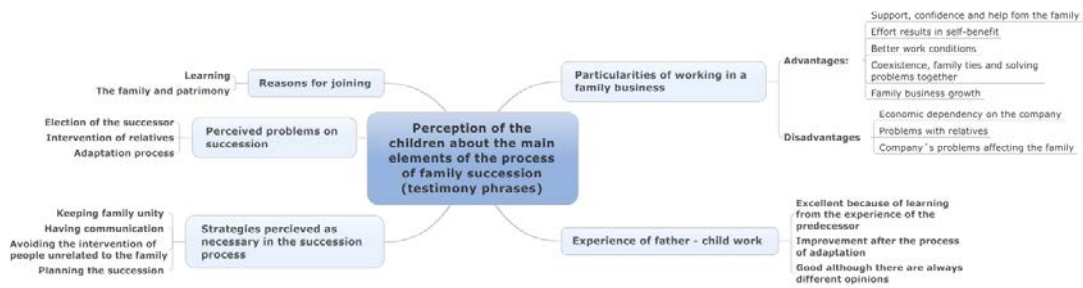


In the dimension of work-family conflict, most participants think they have balance between their work and their personal life, even though the company occasionally demands too much time; some affirm having no problems in this area.

Regarding the succession dimension, participants consider the main problems at the time of generational transition to be the election of a suitable successor and the intervention of relatives, although some think there are no problems at all.

Finally, it was found that in terms of probable successors outside the family, the most important recommendation is awareness of the importance of maintaining family unity through suitable communication. We should point out that among the categories, the less frequent ones in terms of related ideas involve planning the succession; this makes us suppose that even successors do not think about the formal and strategic planning of this process, which is essential during generational transition.

In Figure 1, a conceptual framework is shown with a graphic representation of the main elements described above in terms of the process of categorization of the witnesses' phrases.



**Figure 1.** Concept map of the more frequent testimony phrases

*Source:* The authors, based on the results obtained from the interview based on the guide by Vera and Dean (2005)

To conclude, analysis of interviews with children of the entrepreneurs, together with the answers from the questionnaire about perception of the company and succession given to the children of those working in the management of family businesses, the IPS was elaborated using the methodology described above (see Table 6).

**Table 6.** Index of perception of the succession

Item	C O M P A N Y																								
	2d	2d1	4d	5d	6d	7d	7d1	8d	8d1	9d	10d	11d	11d1	12d	13d	14d	15d	16d	16d1	17d	17d1	18d	19d	20d	20d1
p14	5	5	5	5		5	5	5	5	5		5	5		5			5	5	5	5			5	5
p15	3	2	3	2		1	2	3	1	1		2	3		3			2	3	3	1	2		3	3
p19v1	4	4	4	4		4	4	4	4	4		4	4		4							4		4	4
p19v2	3	3	3	3		3	3	3				3	3		3					3	3	3		3	3
p19v3			3	3					3	3										3	3				
p19v4	1	1																			1				
p19v5						2	2											2	2	2					
p19v6										3					3			3				3		3	3
p19d1	2	2	2	2		2	2	2		2															
p19d2	2	2				2	2											2			2				
p19d3			4	4		4	4	4	4	4		4	4		4				4	4	4	4		4	4
p19d4																									
p19d5																		1							
p22	3	3	3	3		2	3	3	3	2		3	3		3			3	3	3	3	2		2	3
p28	6	6	6	6		6	6	6	6	6		6	6		6			6	6	6	6	6		6	6
p29	4	1	4	1		4	4	4	4	4		1	4		4			4	4	1	1	4		4	1
p31	3	3	2	3		1	2	3	2	3		3	3		3			1	3	1	2	1		3	1
p32	3	3	1	3		1	3	3	1	1		1	1		1			3	3	3	3	1		1	3
p35	3	3	1	2		2	2	3	3	3		2	2		1			2	2	3	3	3		2	2
p36	4	4	4	4		4	4	4	2	4		2	2		4			2	2	2	4	2		4	4
Score	46	42	45	45	0	43	48	47	38	45	0	36	40	0	44	0	0	36	37	39	41	40	0	44	42
Max. score	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
IPS INDIVIDUAL (%)	38.3	35.0	37.5	37.5	0.0	35.8	40.0	39.2	31.7	37.5	0.0	30.0	33.3	0.0	36.7	0.0	0.0	30.0	30.8	32.5	34.2	33.3	0.0	36.7	35.0
IPS COMPANY (%)	36.7		37.5	37.5	0.0	37.92		35.42		37.5	0.0	31.7		0.0	36.7	0.0	0.0	30.42		33.3		33.3	0.0	35.8	

IPS= Index of perception of the succession (average of individual scores)

Source: The authors, based on the results obtained from the interview based on the guide by Vera and Dean (2005)

**Table 6.** Index of perception of the succession (Continued)

Item	COMPANY																					
	21d	22d	23d	23d1	23d2	24d	25d	25d1	26d	26d1	26d2	27d	27d1	28d	28d1	28d2	29d	30d	30d1	31d	31d1	31d2
p14		5	5	5	5		1	1	1	1	5	5	5	5	5	5		5	5	5	5	5
p15		1	3	1	1		2	1	1	3	2	3	2	3	1	3		3	2	3	1	1
p19v1				4					4	4	4				4	4		4	4		4	
p19v2			3	3	3		3												3	3		3
p19v3		3			3		3	3	3			3	3	3		3		3				3
p19v4																			1			
p19v5										2	2	2	2		2	2		2	2			
p19v6		3	3						3			3	3		3	3				3	3	
p19d1												2	2					2				
p19d2					2		2	2	2		2			2								2
p19d3		4	4							4		4	4	4					4			
p19d4				1					1	1	1								1		1	
p19d5		1													1							
p22		2	3	2	2		2	2	3	2	3	2	2	3	3	3		3	3	2	2	2
p28		6	6	6	6		1	1	6	6	6	6	6	6	6	6		1	6	6	6	6
p29		1	4	4	4		4	4	4	4	4	4	4	4	1	4		1	4	4	4	4
p31		2	1	2	3		2	1	3	3	1	3	3	3	3	3		2	2	2	3	3
p32		1	1	3	3		1	1	1	3	1	1	1	1	1	3		3	3	1	3	3
p35		2	1	3	2		3	3	3	3	3	3	3	3	3	3		3	3	1	3	2
p36		4	4	4	2		4	4	4	4	4	4	4	4	4	4		4	2	4	4	2
Score	0	35	38	38	36	0	28	23	36	41	38	45	44	43	35	46	0	36	45	34	39	36
Max. score	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
IPS INDIVIDUAL (%)	0.0	29.2	31.7	31.7	30.0	0.0	23.3	19.2	30.0	34.2	31.7	37.5	36.7	35.8	29.2	38.3	0.0	30.0	37.5	28.3	32.5	30.0
IPS COMPANY (%)	0.0	29.2	31.11			0.0	21.25		31.94			37.08		34.44			0.0	33.8		30.28		

IPS= Index of perception of the succession (average of individual scores)

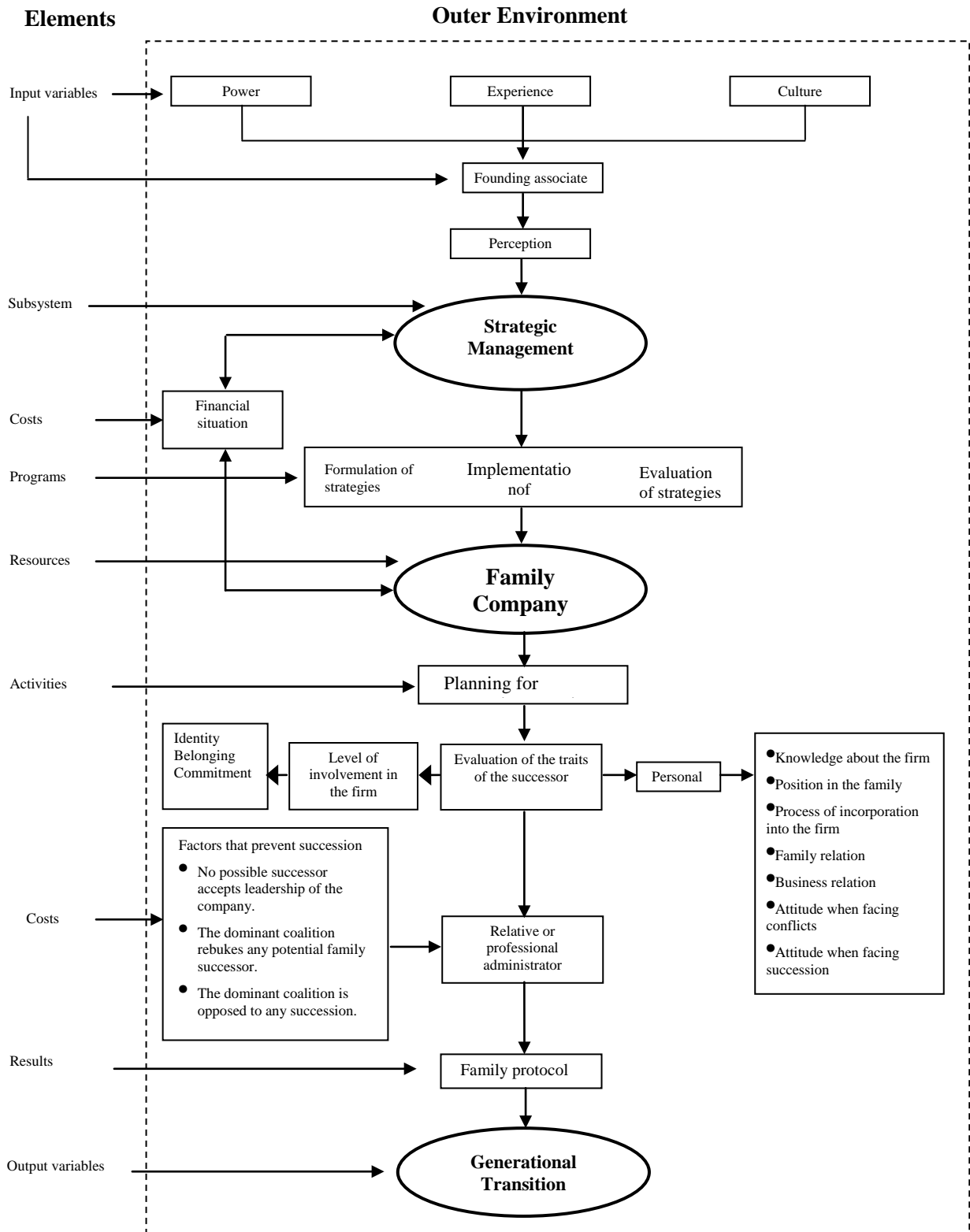
Source: The authors, based on the results obtained from the interview based on the guide by Vera and Dean (2005)

The results presented in Table 6 show that the greater the value reported from the IPS, the more knowledge the children of those working in the company have about the company, in terms of both business and family relations and the importance of succession. It should be clarified that in the cases of companies where only the parents work, with no participation by the children in management, the IPS is zero.

**Model of generational transition**

To contribute to the knowledge on research related to family businesses, this study aimed to develop a proposed conceptual model based on the results and its own theoretical framework, realizing the small number of participants in the field as the main limitation. This study can be taken as a reference and applied to other activities or regions of the country, with changes to the variables based on factors such as the extent of application of strategic administration, the influence and style of leadership, the concentration of power, the ways of transmitting the business culture and the experience the organization has gathered. All of this would result in improvement of the proposed model.

The components of the model were determined following the methodology suggested by Van Gich (2000). They are objective, parameters, input variables, subsystems, programs, costs, resources, the environment, activities, expected results and the output variables or benefits (Figure 2).



**Figure 2.** Proposed model of generational transition  
 Source: The authors

This model aims to present, in a conceptual format, the elements to be considered by family business in the road-building sector which need to plan for succession to reach a suitable generational transition.

In order to be able to evaluate the achievement of the proposed model's objective and validate it, the following features should be considered for the family businesses to which it is to be applied: the management of the company is in the charge of the first generation, all shares are in hands of the family members, there is no board of directors (as an advisory organ), there is a management board made up of family members only and the business culture is represented and transmitted by the founding partner; moreover, there could be up to five family partners and a proven stability in business depending on the yearly average work and number of employees.

The proposed conceptual model considers as input elements the concentration of power, the acquired experience and the culture of the family business, which is essentially represented, for the participant companies, by the founding partner and his personal style of leadership, as pointed out in the work of Klein et al. (2005). We consider as an input element for the model the perception that the main associate has of the strategic administration, because the literature and the results prove the influence this has over the significant decisions in the organization; therefore, this prime associate ought to be the most convinced of the benefits in the medium and long term in terms of the design, implementation and evaluation of very particular strategies according to the characteristics of the company as shown by the studies carried out by Filberck and Smith (1997), Sorenson (2000) and García, López and Saldaña (2002).

Strategic administration is a central element in this proposed model; it is like a subsystem applied to family businesses and has its own methodology, from the identification of the vision, mission, objectives and strategies of the company; through the elaboration of matrixes for identifying opportunities, menaces, weaknesses, strengths and strategic position; to the proposal of strategies and long-term objectives, including how to implement and evaluate them and measure the results.

Implementation of a strategic management plan implies the development of a program that includes the five steps suggested by Hill and Jones (2009), namely: (a) establishment of the organizational direction, (b) diagnosis of the current company situation, and subsequently (c) elaboration, (d) implementation and (e) evaluation of the strategies designed for each company in particular. In every case, the concerned company should view the components and characteristics of its strategic management as a competitive tool.

The proposal considers the necessity of evaluating the current financial situation of the company, which is a reflection of the decisions made at the time by the senior management team in every company, but in turn should be modified positively with the implementation of strategies in each area of the company, as Brockhaus proposes (2004). The application of the strategic management plan should create stability in the company's financial situation so that the company can resist financial fluctuations, even in periods of economic crisis (Cater and Schwab, 2008). Having economic stability (as reflected in the financial statements and reports) favours the quantitative conditions for planning succession, which is to be inserted as part of the family protocol. A methodology must be established to evaluate the probable successors of the firm, as suggested by Lozano (2000), and prevent factors that may impede the succession, such as lack of concerned successors, rejection from the dominant coalition or open opposition of the coalition to any succession. Vilaseca (2002), Corbetta and Salvato (2004), Vera and Dean (2005) and De Massis, Chua and Chrisman (2008) also indicate that initially qualitative costs derived from the attitude towards succession are quantitatively reflected in the financial situation of the firm as time goes by and organizational life is extended.

The family business, from senior management down to the lowest operative levels, represents the necessary resources for the input elements that might be transformed by research, development and application of a subsystem. The final result is to develop the family protocol that, together with external media, allows the final benefit of the generational transition.

The media are basically represented by the external environment that surrounds the organization and are essentially composed of the elements of supply and demand that prevail in the field, which in turn are directly affected by the macro-economic environment and its indicators of juncture, which are not under the administrator's control. This environment can only be anticipated through opportune access to adequate information, and it cannot be fore seen at which exact moment it will affect the entity or modify the model.

For example, in today's economic crisis, all companies are affected, regardless of their activity. This is not the consequence of any particular decision-making.

Planning for succession is an activity that involves the senior management team and is a serious commitment for those participating in the process (Harveston, Davis and Lyden, 1997). According to Barbeito, Guillén, Martínez and Domínguez (2004) despite of the geographical area where the company is located, if there is not an appropriate succession planning, this will be a cause for the firm to extinct when elements such as the death of the founder come up.

The conceptual model considers the identification and analysis of the characteristics of the successor in terms of both personal traits (Chrisman, Chua and Sharma, 1998) and extent of involvement with the firm (Sharma and Irving, 2005) and uses these as the determining factors when selecting a suitable candidate. The selection of a relative (Royer, Simons, Boyd and Rafferty, 2008) or a professional administrator (Chittoor and Das, 2007) will depend on the particular analysis and profile of the possible successors, where the greatest challenge will be to choose a non-relative successor, when it is necessary to realize that no member of the family is concerned or capable enough to lead the whole organization towards the goals and aims of the company (Royer et. al, 2008; Shu-hui and Shing-yang, 2007).

Elaborating and capturing in a document the process of planning and selecting the successor is something that should be the output variable in the model, having integrated the family protocol as a consequence of combining and applying resources of the family company and the evolution of the input variables. A suitable strategic plan includes the policy of elaborating the family protocol and the plan of succession, as suggested by Lozano (2000).

One of the benefits organizations ought to accomplish is to become more proactive than reactive at the time of defining their future, allowing them to access the financial benefits reflected in productivity and profitability, and giving them a greater long-term financial yield in relation to the average in the field as well as a greater discernment of external menaces, a greater understanding of competitors' strategies and lesser resistance to change (David, 2003). However, the most important contribution of this paper is to assist companies by giving them a procedure to accomplish generational transition.

It must be always remembered that the process of succession is not a one-time event, since a successful transition will establish the basis for repetition until the third generation. Undoubtedly succession is one of the most difficult challenges for family businesses (Álvarez, 2002; Jaffe and Lane, 2004; Lambrecht, 2005; Lee, 2006).

## **Conclusions**

With the results obtained through the questionnaires and interviews, it was possible to identify the main characteristics of the population under study regarding the dimensions of power, experience and culture of the founding associates and the perception the children of the owners with respect to the succession process. These elements provide the indications required for this kind of firm to carry out a successful generational transition, which may have an impact on the economic development of the region.

### *Limitations of the study*

Our access to information was restricted by the rivalry between competitors in a very closed market where obtaining the right to perform public or private construction depends on how secret they keep the technical, financial and legal proposals that they present to their clients, whether private companies or government organisations.

### *Implications for theory and practice*

The results presented here reflect a greater number of questions about other courses worth pursuing, such as follow-up of the process of generational transition and the economic impact reflected by this particular sector, controlled by a small number of families, in the region. The study might also be replicated in other states in the republic where this sector is important for the country's economic growth, thus allowing us to determine how to offer management tools that allow companies to endure and remain part of the economy of Mexico by contributing to family businesses' generational transition. The succession process is not a one-

time event, since a successful transition will set the basis for it to occur again into a third generation, which is without doubt one of the hardest challenges for any family business (Alvarez, 2002; Jaffe and Lane, 2004; Lee, 2006).

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