Analysis Of Differences Between Financial Management In Family And Non-Family SMEs Of The Yucatecán Textile Industry

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ABSTRACT

This paper’s objective is to analyze the main differences between financial management in family and non-family small and medium enterprises (SMEs) in the textile industry. It considers variables such as sales growth and implementation of management control systems (MCS) as strategic and sustainable factors of business competitiveness. In this regard, the paper uses agency theory (Fama, 1980), which identifies that family enterprises have fewer agency costs because ownership and management are held by family members, and contingency theory, which is based on the study of MCS and their related performance (Otley, 1980; Tiessen and Waterhouse, 1983; Chenhall, 2003). The results show that family SMEs have lower sales growth than non-family SMEs and that there is no direct relationship between the implementation of MCS and performance.

Keywords: Growth; SMEs; Textile Industry; MCS

INTRODUCTION

Family businesses in most countries of the world represent the main driver of economies (Klein, 2000; Astrachan and Shanker, 2003; Morck and Nakamura, 2003; Amat, 2004; Lee, 2004). In emerging economies like Mexico, family-owned small and medium enterprises (SMEs) form the majority of businesses and therefore play an important role, although they face a number of structural problems that impede development such as staff retention and business competitiveness. However, family SMEs have certain competitive advantages. For example, they are more consumer-oriented, more focused on quality, and more active within communities than their non-family equivalents (Ibrahim et al., 2008). Consequently, in recent years there has been growing interest in studying them.

Aldrich and Cliff (2003) argue that, to some degree, every business is like a family and every family is like a business. The characteristics that distinguish family businesses lie in the peculiarities related to ownership, control, and management (Maseda et al., 2009) and the stability and longevity that enable them to face economic adversities. Naldi et al. (2007) comment that in family businesses, owners and managers are the same individuals or represent the same family owners. Lopez and Sanchez (2007) state that an owner and a manager tend to be the same person, thereby reducing costs because the agency relationship is removed. This situation creates a number of advantages that non-family businesses do not have. According to Esparza et al. (2010), when more than 50% of business capital is owned by a family or household, managerial or director positions are occupied by at least one representative of the family who aims to spend his or her working life in the business. It is also believed that 30-35 years after the founding of a family business, a generational shift occurs, with 30% of such businesses surviving alongside the second generation and only 13% alongside the third (Ward, 2001).

According to Ruelas (2008), cited in Esparza et al. (2010), over 95% of companies in Latin America are SMEs. Belaustegui (2010) supports this by saying that nine out of ten SMEs are family-owned and adds that these businesses usually have shorter lives than non-family SMEs. Nonetheless, as Macias (2003) states, SMEs are the main generator of jobs and the best distributor of income between people and between regions.
One of the fundamental components of business is financial management, which is responsible for the collection and allocation of resources necessary for the development of business operations in the short- and long-term. For SMEs, better use and coordination of financial management tools enables businesses to achieve greater development and superior results in terms of investment and access to various funding sources (Burk and Lehnman, 2004). For conceptual and operational purposes, financial management is defined as a business process that begins with the formulation of an organizational strategy and includes the design of objectives, the selection of strategies and policies, and the implementation of actions and control mechanisms related to investment decisions and financing in the short- and long-term (Suarez, 2003; Brealey and Myers, 2005). Good financial management also requires knowledge of variables such as sales growth, the use of accounting and financial information, the application of management control systems (MCS), and an emphasis on performance (Castan, 2005).

The aim of this paper is to analyze the main differences between financial management in family and non-family SMEs in the textile industry in the state of Yucatán, considering variables such as sales growth, the use of accounting and financial information, and the implementation of MCS as strategic and sustainable factors for business competitiveness. To develop this work, an empirical cross-sectional study using a sample of 24 family and non-family SMEs from the Yucatán textile industry will be made.

This research is organized as follows. The literature review section explores the arguments regarding the concepts of textile industry, financial management, growth, and MCS. Subsequently, the methodology is applied, whereby the variables are correlated to identify the importance of competitiveness in SMEs in the textile industry in the state of Yucatán, Mexico. Finally, the research results, the scope, and the limitations are presented.

LITERATURE REVIEW

The international division of labor, particularly in the textile industry, has led to the growing importance of international trade; thus, exports are an engine of national growth and development, especially in developing countries. The export strategy of such countries functions as a mechanism of economic development, mainly because of low wages, which implies low production costs. Currently, this mechanism is not sufficient by itself to achieve economic growth, let alone to attain competitiveness in world trade. It is therefore necessary to develop a strategy to support those sectors that generate greater added value, allowing them to specialize. This strategy makes such sectors competitive in the global market, allows them to take advantage of opportunities of access, and accelerates the worldwide expansion of distribution networks (Aguilar, 2005).

Today in Mexico, the advancement of the textile industry depends on the application of technology and the continuous improvement of inputs. New types of artificial fiber (which make comfortable clothing) have modified the design of equipment and machinery for bulk products and for high fashion items (Secretaria de Economia, 2011) and have also improved production for exports. In this context, what have been the factors that have allowed the Mexican textile industry to enter the global market?

The competitiveness of family businesses in the Mexican textile industry has been based on low wages and low production costs. Poor financial management has also played a part, although this does not reflect an increase in competitiveness, but rather a temporary mechanism of competitiveness. However, if new technologies are not incorporated into the production process, there will not be an increase in industry competitiveness in the context of globalization (Secretaria de Economia, 2011).

The apparel industry is a national strategic sector because of the important contribution it makes to the economy. For example, textile production represents 5% of manufacturing GDP, with a contribution of more than Mex $76,465 million, and 1% of national GDP (INEGI, 2012). It is the seventh largest economic activity in the country with exports of Mex $5,107 million, representing 2% of total manufacturing exports (Administración General de Aduanas, 2012; INEGI, 2012). The industry is the fifth largest provider of textiles to the U.S. (Office of Textiles and Apparel, 2012) with a trade balance surplus of more than Mex $3,000 million (Administración General de Aduanas, 2012).
The arrival in Yucatán of textile factories is linked to transnational corporations motivated by the signing of the North American Free Trade Agreement (NAFTA). The "benefits" offered by the state of Yucatán are based on geographical location and cheap labor (Alonzo, 2011).

Financial Management

Schumpeter (1990) recognizes that in order to grow a company requires good financial management, and Machado (1999) says that successful corporate governance requires an effective accounting system and financial information. The growth of family businesses is mainly affected by the objectives, business goals, and management practices pursued by the owners and by the different results generated as a result of development. This approach is based on agency theory, which suggests that non-family managers pursue different personal goals to those held by the owners of a company because the former base profitability on growth targets (Fama, 1980).

In the UK, Cromie et al. (2001) noted that there is a conflict between business efficiency and the interest of families in a company, resulting in a decline in growth. Family businesses prefer to keep control of a company even if this adversely affects growth (Gallo et al., 2004), and Garcia (2008) says that in Mexico there are no facilities to assist the growth of small businesses. In Mexico, Esparza et al. (2010), in a study of SMEs in the tourism sector, failed to find relevant dissimilarities between the growth of family and non-family firms.

The performance of family businesses can also be affected through the implementation and use of MCS. These systems play an important role because they can become priority tools that managers use to plan, budget, analyze, measure, and evaluate in order to ensure effective decision-making (Davila and Foster, 2005; Duhan, 2007). Widener (2007) mentions that the primary purpose of MCS is to act as performance measures and MCS that work together are intended to provide useful information for planning, evaluating, and making decisions. Davila and Foster (2005) mention that MCS are a management tool that allows businesses to plan, budget, analyze, measure, and evaluate accounting and financial information. Abdel and Luther (2008) remark that MCS help management make the best use of the system capacity of an organization through planning, supervising, making decisions, creating value, and increasing information. When discussing MCS and performance, Davila (2000) makes a positive connection between innovation and company performance. Bisbe and Otley (2004), referring to a sample of Spanish companies, comment that the greater the use of MCS, the greater the effect of innovation on the performance of SMEs.

METHODOLOGY AND DATA

Based on data provided by the National Chamber of the Apparel Industry (the Yucatán delegation), the sample population for the research consists of 26 SME companies in the Yucatán textile sector with a minimum of 11 and maximum of 250 employees. SME size is set to the stratification criteria of companies published in the Diario Oficial de la Federación, dated June 30, 2009. The formula used to obtain the sample size is based on estimating the interval proportion of the finite population. Therefore, with a probability of \( p = q = 0.50 \) and a population of 26 companies at a confidence level of 95% and a sampling error of 5%, the selection was made through a random process to arrive at a sample size of 24 respondents.

Taking into account the type of phenomenon under investigation, a quantitative, correlational, cross-sectional approach is used rather than experimental. A statistical analysis is performed using the Mann-Whitney U test and the Kolmogorov-Smirnov goodness-of-fit test. A test for corroborating data taken from the Monte Carlo method is applied for hypothesis 1 (H1).

The relationship between the variables - Hypothesis 2 (H2) - is reviewed by the correlation coefficients of Kendall's tau-b and Pearson's r, taking into account their cumulative ordinal nature.

The goodness-of-fit test is measured by the multiple correlation coefficient R, which varies between 0 and 1, while the coefficient of determination is R2, which expresses the proportion of variance in the explained dependent variable (Kazmier, 1998).
In a situation where the normality assumption is fulfilled - Hypothesis 3 (H3) - t tests accompanied by the Monte Carlo method are applied to further corroborate the results.

The Monte Carlo method is a simulation process that calculates probabilities related to random samples obtained from available information about quantities. From the simulation results, it is possible to perform statistical tests in the event that parametric assumptions and non-parametric statistics are not obtained. Such tests are called exact tests and their use, as with those of the Monte Carlo method, is an alternative that generates more general results than traditional statistical methods. Nevertheless, they are useful in research work.

To obtain data and determine the existence of cause and effect between the studied phenomena, a survey is used (Hernandez et al., 2006; Díaz de Rada, 2007). The selected measuring instrument is a structured questionnaire comprising two sets of 10 questions addressed directly to company managers. Requests for participation in the survey were made by phone calls and emails, resulting in a total of 24 respondents, of which all 24 were valid. Fieldwork was conducted during March and April 2013 in two textile cities in the state of Yucatán.

For the purpose of this paper, the dependent variable is the family business and the independent variable is sales growth. A family business is one where more than 50% of the capital is owned by a family or household, managerial or director positions are occupied by at least one representative of the family, and there is business continuity (Esparza et al., 2010). Growth is measured according to annual company sales through an interval scale. This latter variable is used in the research of authors such as López and Sánchez (2007) and Esparza et al. (2010).

The surveyed firms comprise 14 sole proprietorships, representing 58.3%, and 10 legal entities, representing 41.7%.

ANALYSIS OF RESULTS

According to the hypothesis-based research, the results are as follows:

(H1): Family SMEs in the Yucatán textile industry have lower sales growth than non-family equivalents.

With regard to H1, there were significant differences in the levels of sales growth between family and non-family businesses (p-value = 0.051 in the Mann-Whitney U test, p-value = 0.040 in the Monte Carlo exact test) as shown in Table 1. According to the observed mean values, the level of sales growth in non-family firms is higher, corroborating the research hypothesis (see Table 1).

| Table 1: Mann-Whitney U And Monte Carlo Exact Tests For Sales Growth Of Family And Non-Family SMEs |
|-----------------------------------------------|-----------------------------------------------|
| Sales Growth                                  |                                               |
| Mann-Whitney U                                | 4.500                                         |
| W de Wilcoxon                                  | 257.500                                       |
| Z                                             | -1.949                                        |
| Sig. asintot (bilateral)                      | .051                                          |
| Sig. exact [2*(Sig. unilateral)]               | .065 (a)                                      |
| Sig. Monte Carlo (bilateral)                  | .040 (b)                                      |
| Confidence interval of 95%                    |                                               |
| Lower limit                                   | .036                                          |
| Upper limit                                   | .044                                          |
| Sig. Monte Carlo (unilateral)                 | .040 (b)                                      |
| Confidence interval of 95%                    |                                               |
| Lower limit                                   | .036                                          |
| Upper limit                                   | .044                                          |

Notes:
a) Not corrected for ties.
b) Based on 10,000 sample tables with starting seed 1573343031.
Source: Authors’ calculations based on survey data (2012).

(H2): There is a positive relationship between the use of accounting and financial reporting within family SMEs in the Yucatán textile industry and performance.
With regard to H2, it can be said that there is a positive direct relationship between the use of accounting and financial reporting within family SMEs in the Yucatán textile industry and performance. There is a value of 0.748 (p-value obtained = 0.000) for the correlation coefficient of Kendall's tau-b and 0.853 for Pearson's r correlation coefficient (p-value = 0.000) (see Table 2).

**Table 2**: The Use Of Pearson’s R Correlation Coefficient And Kendall’s Tau-B To Determine The Relationship Between Accounting And Financial Information Within Family SMEs And Performance

<table>
<thead>
<tr>
<th>Correlations</th>
<th>Job Accounting And Financial Information</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job Accounting And Financial Information</td>
<td>Pearson correlation: 1</td>
<td>0.853 (**)</td>
</tr>
<tr>
<td></td>
<td>Sig. (bilateral): 0</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>N: 22</td>
<td>22</td>
</tr>
<tr>
<td>Performance</td>
<td>Pearson correlation: 0.853 (**)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (Bilateral): 0</td>
<td>22</td>
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<td></td>
<td>N: 22</td>
<td>22</td>
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</tbody>
</table>

Notes: **Correlation is significant at a level of 0.01 (bilateral).

Source: Authors’ calculations based on survey data (2012)

(H3): Family SMEs in the Yucatán textile industry tend to implement fewer MCS than non-family SMEs.

With regard to H3, the fulfillment of the assumption of normality for the variables studied was confirmed. As shown in Table 3, the results of t tests for applied independent samples do not indicate significant differences in amplitude (p-value = 0.559), chance (p-value = 0.388), aggregation (p-value = 0.332), and integration (p-value = 0.334) of MCS for family and non-family SMEs that use them, even in relation to the global results that have been registered in these collected aspects (p-value = 0.784) (see Table 3).

**Table 3**: t test For Equality Of Means For Different Aspects Of The Implementation Of MCS In Family And Non-Family SMEs Independent Samples Test

<table>
<thead>
<tr>
<th>Independent Samples Test</th>
<th>t test For Equality Of Means</th>
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<tbody>
<tr>
<td>Amplitude</td>
<td>Equal variances were assumed</td>
</tr>
<tr>
<td></td>
<td>No equal variances assumed</td>
</tr>
<tr>
<td>Opportunity</td>
<td>Equal variances were assumed</td>
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<td></td>
<td>No equal variances assumed</td>
</tr>
<tr>
<td>Aggregation</td>
<td>Equal variances were assumed</td>
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<td></td>
<td>No equal variances assumed</td>
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<tr>
<td>Integration</td>
<td>Equal variances were assumed</td>
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<td>No equal variances assumed</td>
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<td>p19acum</td>
<td>Equal variances were assumed</td>
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<td></td>
<td>No equal variances assumed</td>
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Source: Authors’ calculations based on survey data (2012).
CONCLUSIONS

Family SMEs in the Yucatán textile industry have been operational for 10 years and are under the direction and ownership of the first family generation; thus, it is important to find mechanisms to enable the same people to continue in the long-term and avoid becoming, as Ward (2001) mentions, part of the 70% who do not survive the first generational change.

The legal status of SMEs in the Yucatán textile industry is mostly that of sole proprietorships. This could be related to tax because sole proprietorships have simpler tax obligations than corporations. Further, authors such as Naldi et al. (2007) suggest that in a sole proprietorship, the person who is listed as the owner also makes administrative and operational business decisions.

Sales within family SMEs have remained constant while non-family SMEs have achieved sales growth. This is in line with agency theory, which suggests that non-family managers pursue different personal goals to those held by the owners of a company; in other words, non-family managers base profitability on growth targets (Fama, 1980). This agrees with results obtained by authors such as Cromie et al. (2001) and Gallo et al. (2004). The zero growth in sales within family SMEs matches the complete lack of new jobs, a situation that was observed in the results. Thus, a vicious circle occurs whereby lower revenues resulting from unemployment and low wages mean that the majority of the population spends less. This leads to lower demand, lowering the chances of generating new jobs through an expansion of production. Lower labor demand means higher unemployment and a worsening of living conditions and also leaves job creation in the hands of big business.

According to the results obtained with regard to MCS, there is no understanding of how to apply effective and efficient decision-making tools such as balance sheets, income statements, cash flow statements, bank reconciliations, budgets, cash flow forecasts, and analyses of indicators and breakeven industry trends. The failure to use such tools can lead to problems of short-term financial planning such as (1) lack of cash, (2) excess investment accounts receivable, (3) excessive investment in inventories, and (4) shortcomings in negotiations on short-term financing. In the long term, the problems can include (1) unproductive or obsolete investment, (2) amortization of debt commitments beyond the financial capacity of the company, and (3) inappropriate equity for business development. As a result of such constraints, employers are unable to provide relevant company information, causing difficulties for regional studies and the creation of useful economic databases.

Our study is unique because its results have important practical implications. Family and non-family SMEs in the Yucatán textile industry are not conducting financial management effectively and efficiently. There is room for improvement and an opportunity to increase the value of the companies, improve their competitiveness, and help ensure their survival. A more competitive textile sector will lead to economic improvement in the region, sustainable human development, and social, economic, and environmental integration that involves creating economic value in a way that also creates value for society.

However, it is important to emphasize the aforementioned difficulty in obtaining appropriate company, regional, and economic data for research. It is therefore suggested that future research related to this sector could focus on specific topics such as funding, debt, and profitability, all of which could be linked to competitiveness and family management.

In Mexico, there are few studies on these topics. Further, such research should consider using quantitative and qualitative approaches and control systems.

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