



CULTURE OF COMPETITIVENESS IN THE NEW GLOBAL CONTEXT

José Sánchez Gutiérrez
(coord.)

Juan Antonio Vargas Barraza
Juan Mejía Trejo
Elsa Georgina González Uribe
Guillermo Vázquez Ávila
Juan Gaytán Cortés
(subcoord.)



Red Internacional de Investigadores
en Competitividad

Culture of Competitiveness in the New Global Context

JOSÉ SÁNCHEZ GUTIÉRREZ
(*Coordinador*)

JUAN ANTONIO VARGAS-BARRAZA
JUAN MEJÍA-TREJO
ELSA GEORGINA GONZÁLEZ URIBE
GUILLERMO VÁZQUEZ-ÁVILA
JUAN GAYTÁN-CORTÉS
(*Subcoordinadores*)



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Financial performance in the sector of manufacturing SMEs¹ in the metropolitan area of Guadalajara

Juan Gaytan-Cortes²

Antonio de Jesus Vizcaino²

Juan Antonio Vargas-Barraza²

Abstract

The purpose of this research consisted in determining the mathematical relationship of internal control and investment with the financial performance in the manufacturing SMEs of the metropolitan area of Guadalajara. The collected information is analyzed; the mathematical relationship is identified; the results are interpreted and finally some proposals to support the operational activity of the SMEs competitiveness in the manufacturing sector are offered. The financial performance was the dependent variable and by means of the Spss software version 20.0, the mathematical relationship exercised by investment and internal control – as independent factors – was determined. The mathematical model and the empirical study factors were used in researches that are mentioned in the theoretical frame.

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1. SMEs = Small and Medium-Sized Enterprises (*Pequeñas y Medianas Industrias*, in Spanish, or PyME).
 2. Depto. Mercadotecnia y Negocios Internacionales-Universidad de Guadalajara (CUCEA), México.

Key Words: *financial performance, investment, internal control and manufacturing SMEs.*

Introduction

The studies on financial performance at the manufacturing SMEs of the metropolitan area of Guadalajara are fundamental. The lack of a robust model that explains the relationship between investment and internal control on financial performance within the Mexican organizations, and particularly on the SMEs of the manufacturing sector, justify this research.

This research determines the mathematical relationship of two factors that influence the financial performance and the entrepreneurial competitiveness in two aspects: investment and internal control.

In order to achieve the fulfillment of the goals, we resort to employing documentary and field research techniques, as well as a descriptive, co relational, qualitative, quantitative and inductive/deductive researching method; the statistical analysis is carried out through the Spss software, Version 20.0, for social sciences, thus providing the necessary bases to approve or to reject the formulated hypothesis. The research conclusions present direct, concrete and logical solutions.

Approach to the problem

Manufacturing industries are formed by economic units that are mainly dedicated to the mechanical, physical o chemical transformation of materials or substances, in order to obtain new products.

Mexico increased its exportations of the electronic and automotive manufacturing industries thanks to the NAFTA, leaving behind those of the agricultural and manufacturing industries. As a consequence, the levels of employment fell and those industries were closed, in part due to the lack of economical support and counseling.

Worldwide, micro, small and medium-sized enterprises represent the segment of economy that provides the greater number of economic units and employed personnel; therefore, those companies are invested of a great importance and there is a need to strengthen their performance, because they fundamentally influence the global behavior of national

economies; in the year 2009 there were 5,144,056 enterprises in Mexico. Out of them, 99.8% were micro, small and medium-sized enterprises, which were involved in the economical activities in the following way: 47.1% offering services, 26% trading, 18% in the manufacturing industries, and the rest of the activities were the remaining 8.9%, they included 78.5% of the employed personnel. (Ministry of Economy, 2011).

Large companies increasingly focus their investment decisions on including advanced technology and on intensive general capital; they are able of growing, of updating and of exporting without having to increase their number of workers in an equivalent way (Lozano, Cisneros, Niebla, 2009).

In our current globalized world, the tendency towards the industrial manufacturing development is every time more frequent, thus becoming a characteristic of the post-modern human being, seeking for their own satisfaction over social and economic interests.

It is like this, that arises the need to know in which way internal control and investments are related to the financial performance of the SMEs, and as a consequence, the need to know what their relationship to competitiveness of manufacturing companies is.

Understanding the manufacturing companies' financial demands, knowing and identifying the mathematical relationship of the independent variables over the financial performance; in this research we consider independent variables: investment and internal control.

Investment is represented through the purchasing or net acquisition of active assets, or through the collection of actives that the company has historically accumulated.

The internal control system includes the plan of the organization, as well as all the methods and measurements that are adopted within an enterprise with the objective of:

- Protecting actives
- Verifying the accuracy and reliability of accounting data and of information management
- Promoting operational efficiency
- Complying with the prescribed policies and with federal and state regulations

In order to collect information on internal control, mixed techniques of information collection will be used – for instance content analysis and analysis of data base information.

Theoretical Framework

Mexico has experienced a structural change due to the implementation of economic reforms and to the signature of trading agreements since 1980, with the objective of supporting entrepreneurial and competitive development in our country.

The North American Free Trade Agreement (NAFTA) and globalization have offered the opportunity to innovate and to purchase new technology, for starters, thus offering at some point the chance to change some business models, and at some other time they have forced the generation of proprietary technology and innovation.

Productivity and competitiveness in the companies are not only related to great enterprises – in Mexico, the SMEs are a fundamental base of the economic development. The SMEs are involved in the globalization of markets. Their updating must take place in a faster manner, with support and counseling through training and systems. They need to update their management and production by using technologies that may help them compete in the future, and they need as well to include systems that can improve their functions in order to become more productive. Their functions could be affected by the lack of new technology for managerial information and for the production process, hence being in danger of becoming less competitive in terms of prices and costs. This can cause the loss of competitiveness of their employees in the market. (Aguilera-Enríquez, González-Adame, & Rodríguez-Camacho, 2011).

Modernization and the use of new technologies is fundamental for the SMEs to thrive in Mexico. Financial economic support for this kind of enterprises is scarce as well; therefore it must be managed in an optimized and justified way.

We can appreciate some variables when addressing some of the topics dealing with the competitiveness of companies when facing their peers. Such variables direct our attention towards the aspects of the business that must be taken care of – those aspects that point out the standards that we must take into consideration when comparing our companies to others in different sectors they belong to the companies, the economic condition and affect the competitiveness of the company.

Both, businesses and their strategies – including people, their consumption preferences, and competitive advantage points – are rapidly and unexpectedly arising, turning this one into a completely uncertain globalized market. Therefore, one of the key strategies to be followed is

organizational awareness in order to face the needs and changes inherent to the whole process of becoming competitive.

In this way, the factors that have to do with competitiveness can be grouped, mainly those factors that take place outside the company, without leaving behind internal factors, of course. Referring to the capacity of a company to achieve goals in comparison to other accomplished companies in the same sector, would represent the competitive level of such company.

The results that may be achieved by companies during the process of competitive rivalry depend on three factors;

1. Macroeconomic factors.
2. Sectional or industrial factors.
3. Internal factors.

Macroeconomic factors

These are all of the factors outside the internal environment of the company, which are linked to national economy and to the general economic and social situation of the place where the company is established. The situation of international competing markets is also included.

Sectional or industrial factors

It refers to the divisions or sections to which a company belongs. It is important to know them, because the company's success or failure is a consequence of what each market has to offer, taking into consideration that only the most competitive companies will prevail in the sector.

Investment is also influenced by the kind of sector and by the way in which the market is structured, as well as by internal competition. Porter (1990,) mentioned that the capacity that companies have to earn greater rates of return of investment than the cost of capital as an average will depend on the intensity of the existing competition in their sector. He mentions as well that those sectors in which there is a high rivalry among enterprises, as they are subject to an elevated threat by the entrance of new competitors, facing powerful and demanding customers and whose products or services have a high number of substitutes in other industries – as an average – offer low opportunities to get benefits. (Acosta, 2007).

Internal factors

A sustained competitive advantage can be created by using the resources, abilities and capacities owned and used by the company, in order to determine its competing strategy in the sector in which it operates.

Internal factors are a key point to achieve competitiveness in the sector, and particularly in the financial area a vision beyond just making money must be kept. Instead of that, we must solve sets of problems that will lead the company to successfully achieving competitiveness and development. In the long term this will give the company more than what was expected in the short term. That is the reason why in this research two aspects are addressed in regards to the financial competitiveness topic: investment and internal control.

Investment

Investment can be represented by the purchase or net acquisition of new actives, or by actives that were physically donated or invested by the shareholders.

Alfredo M. Bobillo, J. A. Rodriguez Sanz and F. Tejerina Gaite (2006), mention that those enterprises that are characterized by their intensity of capital, tangible actives and unitary labor costs, present a high level of importance and they show a positive sign in the profitability equation. Since this is the main objective when making the decision of investing, it will depend on how the managers evaluate the qualitative aspects. (John, 2009).

Investing is strongly connected to profitability – money is invested and spent in the hope of generating profits. Forecasting is achieved by supporting decisions on indexes that can provide more safety. Investing is of great importance to any entrepreneur, that is the reason why they must be constantly learning about the evolution of their internal and external environments.

Direct foreign investment has an impact on the formation of capital in a direct way. As investment increases, the GDP increases as well. It also increases in an indirect way due to supplementary domestic investments. (Ronderos, 2010).

Investment money is that part of the production that is not assigned for immediate use, but it is assigned to the production of new consumption goods. The objective of the investment is to keep and to increase the

production of consumption goods. To this end, it is necessary to replace the merchandise of capital that is used during the production process, in addition to increasing such merchandise.

Danielson and Scott (2007) suggest that an excessive investment could take place when companies do not have a concentration of the property and when they manage in a deficient way the structures of control. This provides sufficient reason to consider carrying out additional research with the objective of clarifying such relationship.

It would all be much easier if the companies had a less restricted access to credit markets in order to obtain the monetary amount required for their investment.

Internal control

The internal control system includes the plan of the organization, as well as all of the coordinated methods and measurements that are adopted in a company with the objective of: protecting actives, verifying the accuracy and reliability of accounting data and of management of information of another kind, promoting operational efficiency and complying with the prescribed policies and with federal and state regulations

Romero and Croes (2008), say that internal control must exist for the banks to be able to correctly perform their operations, because it provides the reliability of the top levels of management to know how efficiently their processes are being executed. In that way they can detect those practices that affect their company's capital, in addition to the fact that they are necessary in any organization in which decisions must be made. Internal control is also necessary to eliminate the opportunist behavior of area managers inside the organization. (Baiman, 1980).

All of the objectives the company may desire can be easily achieved with the help of an internal control system. With the help of such tool, both the investors and the creditors can realize if they have any deficiency in the follow up of their investments in their internal controls; therefore, many credit companies stay away from the organization, because their financial statements would prove to be of a low quality. Keeping an internal control system is extremely important in order to control the company's actives and to see clearly when taking a look at the financial systems.

At the SMEs it is basic to keep a financial standard in order to become a competitive company, providing strength to the short and long

term planning, decreasing the uncertainty in the investment and facilitating the internal control for small companies.

Internal control can tell us that a company has better planning and a better structure, and that such company is able to decrease its costs. It means a company that is financially competitive. Just as this factor, there are more that help us understand a company's competitiveness and financial situation.

Financially speaking, another important factor in competitiveness is related to prices and costs – so long as the prices being offered are lower than those offered by other competing companies. About sale prices, we can observe the influence on the costs of factors, which are connected to the working force, raw materials, etc. They lead as well to the reduction of financial cost, and in a close connection, the growth of productivity and the development of new power sources, less dependant on traditional sources.

Another aspect related to the companies' competitive success is internationalization – being able to get into new markets, and to keep on competing in a global market. Additionally, the financial capacity in which a SME can be perceived is crucial, since it may or may not keep these new businesses depending on the correct functionability of its financial strategy.

Developing a learning of foreign markets can be created as a consequence of the competitive success offered by exporting to different places.

Being able of exporting is an indicator of the existence of a competitive success. Hence, we consider that the most competitive enterprises are those that can stand the competitive intensity of these markets. First of all, it shows that in addition to leaving the barriers of differences between those places behind, and also that their needs can be adapted, and in second place it has the capacity – both in form and financially – to be able to do it.

However, in order to become a competitive generator in a market, we must be able to implement the extension of our own companies. Gambling on growth is a fundamental part of the process towards success, including scenes open to change, willing to be innovative without leaving aside the idea of keeping an internal financial balance, and taking advantage of the environment that markets can throw at us depending on the location where they are.

Starting a business environment with a local intention – and of course, international – along with the proper strategies, means that the

company's adaptability increases to become more competitive and flexible, in order to enter such environment with an advantage over other companies, and to be able to cover new markets, thus being able to cut back on costs and risks. Profitability and growth are nothing but the result of the application of all of these actions.

It is fundamental to create a series of values for the company. This will help because it will place the company over its competitors, and it will allow the company to become more competitive and to prosper in its environment, giving it more chances to outlast and to become successful.

Financial performance (Profitability)

The companies' environment, which is characterized by an increasing competitiveness and globalization, makes it difficult for the companies to survive (Sellers y Mas, 2007.) This forces the companies, every time in a more intense manner, to measure the results obtained as a consequence of their activities in determined periods of time, in a way to operate in an organized manner and in the search of complying with several different organizational goals.

Financial performance is represented by profitability, however, defining profitability is a matter that arises discussions and debates between those who study the subject, specially in the financial, accounting and economy areas, specially because of the temporary focus each one of them has, and because they are so different from one another (Vause, 2009). The term profitability may mean different things and it may be formed by different aspects for those different groups of interests within the company – for investors, creditors, clients, competitors, managers, employees, business analysts and investment analysts, etc. each one of them may take a look at it from a different perspective, and depending on their position in the company, of the hierarchy and the department where they work within the organizational structure (Idem,) so trying to provide only one definition of the term profitability would be both complex and excluding.

It is the benefit of an organization in a determined period of time, and it is the result obtained from subtracting the costs of an organization out of its total incomes (Duca, 1997;) when there is a surplus as a result of such relationship and the incomes are greater than the expenditures, then it is said that the company is profitable, because there is a profit;

when the result is negative, then it is said that the company is not profitable and it generates losses (Vause, 2009.)

Profitability can be defined in several different ways by the company, depending on particular aspects: its line of work, the sector in which it operates, the kind of products or services it provides, the relationships among which it is intended to measure, among others; in general terms, profitability is how advantageous are the results of a specific area of the company, or the results of the whole company; it can be referred to as well as the difference between the capital shown at the beginning of the exercise of some balance of financial statement in comparison to the end of a determined period (Vause, 2009).

Ways in which profitability can be measured. The starting point for your analysis and assessment could be the yearly operational report, since it includes data on the activity and results of the company, and it allows the relationship between the incomes and the expenditures (Idem) which generates profit when the entrepreneurial performance is healthy. It can be represented using the following equation: Profit = Total Incomes – Total expenditures.

To Duca (1997) profitability can be measured by subtracting the total amount of expenditures of a company from the total amount of its incomes, by explaining that incomes or sales are integrated by the product prices and by the quantity of products being sold. On the other hand, the expenditures include nominal fixed prices at real prices adjusted along the time because of the inflation, such as working force costs – hourly compensations times the total number of working hours-time; variable costs not related to the work force, which are real variable costs per out flowing unit, prices along the time and real outflow; the capital's depreciation and the payment of interests to debt creditors; all of the aforementioned elements become the total costs of the company – the expenses related to working costs are considered as a constant proportion, because working hours are generally stable, although this is not a rule.

Incomes are the total amount of sales minus taxes (or similar deductions) over those sales; and costs means all of those expenses that are necessary for the performance of the company's activities, emphasizing that profits or benefits are not the same as profitability, although it is related to the earned profits. Profitability can be measured by using ratios that combine – in many cases – profits with at least another figure of the result statement, of the general balance or of some other part of the annual report (Vause, 2009).

The company and those who are interested in measuring its performance by means of its profitability or by means of any other financial result, generally establish relationships between business indicators, considered ratios, defined as relationships based on components that are commonly used to measure the companies profitability, and they must at least combine the benefits with one or several figures of the income statements (Idem.) There is a variety of ratios, and they are used according to particular calculation needs, since the establishment of relationships can be possible in some companies, but not in others. Therefore, profitability ratio calculation may be adequate but distinctive. Profitability ratios show in which way is the company's management is being carried out regarding its sales, actives, and profits, and they show the company's adaptability to its surrounding (Universidad Autónoma de Madrid, 2011); some ratios that are commonly used to measure entrepreneurial profitability according to Vause (2009) and UAM (2011) are as follows:

- Ratio of net margin or income profitability = $(\text{profit}/\text{total sales}) \times (100)$
- Ratio of gross profit margin
 $\% \text{ of gross profit margin} = 100 \times (\text{gross profit}/\text{incomes through sales})$
- Ratio of the margin of profit operation
 $\% \text{ of the margin of operation} = 100 \times (\text{margin of operation}/\text{incomes through sales})$
- Ratio of the margin of profit
 $\% \text{ of the margin of profit before taxes or deductions} = 100 \times (\text{profit before taxes or deductions}/\text{incomes through sales})$
- Ratio of earnings per share
 $= \text{profit after taxes or deductions}/\text{number of issued shares in circulation}$
- Ratio of Return of Actives ROA (Economic Profitability)
 $\% \text{ of return rate of the active} = 100 \times (\text{profit}/\text{actives})$
 $\% \text{ of return rate on capital} = 100 \times (\text{profit}/\text{capital})$
- Ratio of Return on Equity ROE (Financial Profitability)
 $= \text{Net result}/\text{effect of financial leverage}$

Profitability ratios have been used to measure and to evaluate the financial and entrepreneurial performance (Mok 2007; Sellers and Mas, 2007) because by means of these relationships we can get radiographies that show the economic performance of the company. It is important to emphasize that when using ratios to measure the results of a company,

the economic structure of such company – which is conditioned to the sector's economy – is generally overseen. This makes it difficult to perform comparisons across sectors (*intersectorial*), although it is not impossible to make them.

Research Question

Which is the mathematical relationship between internal control and investment regarding the financial performance of manufacturing companies in the metropolitan area of Guadalajara?

General objective

Determining the existing mathematical relationship between internal control and investment regarding the financial performance of manufacturing companies in the metropolitan area of Guadalajara

Hypothesis

- Ha. Internal control has a positive mathematical relationship with financial performance, represented by the profitability of the manufacturing companies in the metropolitan area of Guadalajara.
- Hb. Investment has a positive mathematical relationship with financial performance, represented by the profitability of the manufacturing companies in the metropolitan area of Guadalajara.

Methodology

In the documentary research, according to the classification of Münch & Angeles (2009), primary sources with no direct physical relationship to the event – that constitutes the object of this study – were used. However, such sources are related to such event through some intermediate process (Ortiz & García, 2006)

, and the required information is obtained by researching and downloading articles from data bases such as EBSCO, PROQUEST and DI-AINET.

In the field research, a representative statistical sample of the manufacturing SMEs of the metropolitan area of Guadalajara was determined, thus defining the number of surveys to be applied within the universe of the manufacturing SMEs.

The survey that was applied as a specific technique of the field research according to Cervo and Bervian, (1998), has as a goal to orderly collect and record the data related to our study object. 29 students applied surveys at the 383 manufacturing SMEs. Those companies are located in the metropolitan area of Guadalajara, Tlaquepaque and Zapopan.

The survey was written in the form of a questionnaire, in order to collect information related to investment and internal control that, in this research, are considered as independent variables.

The questionnaire was prepared using a scale called Likert Scale, also known as a method of summary evaluations. It is a psychometric scale that is widely used for research purposes, mainly in social sciences. When answering a question from a questionnaire prepared with the Likert technique, the level in which a person agrees or disagrees with a statement is specified (an element, an item, a question.) The scale is called like that after Likert, who published a report to described its use in 1932. (Münch & Angeles, 2009).

The questionnaire is supported on the contributions given in regards to the knowledge about finances, and on the different contributions regarding the SMEs competitiveness.

The research was conducted from July 16 to 22 of year 2012, by visiting 418 out of 30,370 manufacturing SMEs located in the metropolitan area, according to the information provided by INEGI (I.N., Classification of the Enterprises, 2009) about the metropolitan area of Guadalajara (Tlaquepaque, Tonalá, Zapopan, Guadalajara.) This number of surveys provides a significant comfort in the range taking into consideration that the calculation of the aforementioned sample indicated that 379 were to be conducted.

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

$$n = \frac{1.96^2 \times (30370) \times (.50) \times (.50)}{(0.05)^2 (30370 - 1) + 1.96^2 \times (.50) \times (.50)} = 379 \text{ surveys}$$

n= the sample to be found

Z= 95% standard error

N= size of the universe

p= probability that it happens

q= probability that it does not happen

i= 5% error margin

The applied co relational study responded to the formulated research questions. Assessing the existing relationship between internal control and investment in regards to the financial performance, through the electronic program Spss Version 20.0. The main purpose was to know how can a concept or variable behave, knowing the behavior of other related variables: this means to try to predict the approximate value that a group of individuals or phenomena in a variable will have, from the value of the related variables.

The correlation may be positive or negative. If it is positive, it means that subjects with high values in one variable will tend to show high values in the other variable. If it is negative, it means that a subject with high values in one variable will tend to show low values in the other variable. If there is no co relation between the variables, that will mean that they vary without following a systematic pattern with each other. (Hernandez, 2007).

Analysis Of The Results

Independent variables in an experiment are called (factors), and the level of intensity of a factor is referred to as level of the factor. In the calculations that were carried out, the depending variable is represented by the financial performance, and the independent variables were investment and internal control.

In a distribution of frequencies, only one variable at a time is described. A crossed tabulation simultaneously describes two or more variables. A crossed tabulation is the combination of the distribution of frequencies of two or more variables in only one table, and it helps us understand the way in which a variable is related with another one. The categories of a variable are crossed with the categories of another or other variables. Therefore, the distribution of frequencies of a variable is sub-divided according to the categories of the other variables. (Malhotra, 2008).

Cronbach's Alfa

It is the average of all the possible coefficients of divisions by half, resulting from the different ways of dividing the questions of the scale. This coefficient varies from 0 to 1, and a value lower than 0.6 usually means a non-satisfactory reliability of internal consistency. An important property of the alfa coefficient is that its value tends to increase as the number of questions in the scale increases. Therefore, the alfa coefficient may result artificially and inadequately inflated due to the inclusion of several redundant questions to the scale. (Malhotra, 2008).

The reliability of the database, which was created using the results of the survey, was tested with the help of the Spss-Version 20.0 software. Cronbach's alfa test was applied to measure its reliability, taking into consideration the averages of the coefficients. The results are as follows:

Table 1
Reliability Statistics

<i>Cronbach's Alfa</i>	<i>No. of elements</i>
.844	18

Source: Data provided by the Spss-Version 20.0 software, using data from the survey.

Table 2
Summary of Data Processing

		<i>N</i>	<i>%</i>
Cases	Valid	418	100.0
	Exclueda	0	.0
	Total	418	100.0

a. Elimination by list based on all of the procedure's variables.

Source: Data provided by the Spss-Version 20.0 software, using data from the survey.

The index that is shown in table No. 1 tells us about the reliability in the test of the scales, and Cronbach's Alfa supports it – over 0.7.

Calculation of ANOVA

The Analysis of Variance (ANOVA) is a collection of statistic models and of their related procedures. In it, the variance is partitioned into certain components corresponding to different explanatory variables.

The ANOVA consists of analyzing the variation that there is in a set of answers, and of assigning portions of such variation to each set of variables. The reasoning behind it is that the response variables change as a consequence of the variation in a set of variables.

The objective of the analysis of variance is to locate the important independent variables and to determine how they affect the response. (Wackerly, Mendenhall III, & Richard, 2002).

Table 3
Educational Background of the Managers

		<i>Frequency</i>	<i>Percentage</i>	<i>Valid percentage</i>	<i>Cumulated percentage</i>
Valid	Elementary School	30	7.2	7.2	7.2
	Junior High	56	13.4	13.4	20.6
	High School	66	15.8	15.8	36.4
	Technical Training	247	59.1	59.1	95.5
	BA degree	18	4.3	4.3	99.8
	Master's degree	1	.2	.2	100.0
	Total	418	100.0	100.0	

Source: Data provided by the Spss-Version 20.0 software, using data from the survey.

Table No. 3 shows that people with educational backgrounds that are mostly in the levels of Junior High, High School and Technical Trainings occupy the managerial positions within the SMEs of the manufacturing sector of the metropolitan area of Guadalajara.

Table 4
Employees

		Frequency	Percentage	Valid percentage	Cumulated percentage
Valid	Up to 9 employees	193	46.2	46.2	46.2
	10 - 19 employees	83	19.9	19.9	66.0
	20 - 29 employees	48	11.5	11.5	77.5
	30 - 39 employees	26	6.2	6.2	83.7
	40 - 49 employees	21	5.0	5.0	88.8
	50 - 59 employees	11	2.6	2.6	91.4
	60 + employees	36	8.6	8.6	100.0
	Total	418	100.0	100.0	

Source: Data provided by the Spss-Version 20.0 software, using data from the survey.

Table No. 4 shows that SMEs that employ up to 10 employees are predominant.

Table 5
Control of Society or Family

		Frequency	Percentage	Valid percentage	Cumulated percentage
Valid	Society	194	46.4	46.4	46.4
	Family	224	53.6	53.6	100.0
	Total	418	100.0	100.0	

Source: Data provided by the Spss-Version 20.0 software, using data from the survey.

Table No. 5 shows that family companies are predominant among the SMEs in the manufacturing industry in the metropolitan area of Guadalajara.

Table No.6 shows the results of the estimates of the model that was previously explained. In it, the relationships among the six measurements of internal control and financial performance are examined (variable calculated in a combined way along with the six financial items of the survey.)

Table 6
Internal Control – Financial Performance Coefficients^a

<i>Model</i>	<i>Non-Standardized Coefficients</i>		<i>Typified Coefficients</i>	<i>T</i>	<i>Next</i>	<i>Co linearity Statistics</i>	
	<i>B</i>	<i>Typ. Error</i>	<i>Beta</i>			<i>Tolerance</i>	<i>IFV</i>
1 (Constant)	2.273	.106		21.362	.000		
IC2	.180	.032	.283	5.558	.000***	.776	1.289
IC6	.119	.032	.190	3.745	.000***	.776	1.289

a. Depending Variable: FINANCIAL_PERFORMANCE R Adjusted Square = 0.163
(*): $p < 0,1$; (**): $p < 0,05$; (***): $p < 0,01$ IFV: Inflation Factor of the Variance
Source: Data provided by the Spss-Version 20.0 software, using data from the survey.

The postulate enunciated in Hypothesis Ha. Internal control has a positive mathematical relationship with financial performance, represented by the profitability of the manufacturing companies of the metropolitan area of Guadalajara. They are partially accepted, taking into consideration that in the results of the applied correlation, only two out of six items that were considered in the survey show significance and a positive relationship.

The items that relate in a positive way to the financial performance are:
IC2 Establishment of Cost Accounting
IC6 Production Costs at our Company are low

The positive relationship shows that profitability increases as internal control increases at the manufacturing companies of the metropolitan area of Guadalajara. The result shows that the establishment of cost accounting will increase profitability; it emphasizes as well the importance of reducing the costs of the products.

Table 7
Investments-Financial Performance Coefficients^a

Model		Non-Standardized Coefficients		Typified Coefficients	T	Next	Co linearity Statistics	
		B	Typ. Error	Beta				B
1	(Constant)	2.639	.128		20.633	.000		
	FA2	.059	.029	.100	2.005	.046**	.918	1.090
	FA3	.061	.029	.107	2.087	.037**	.871	1.148
	FA5	.058	.030	.099	1.956	.051**	.903	1.107

Depending Variable: FINANCIAL_PERFORMANCE R Adjusted = 0.040

(*): $p < 0,1$; (**): $p < 0,05$; (***): $p < 0,01$ IFV: Inflation Factor of the Variance

Source: Data provided by the Spss-Version 20.0 software, using data from the survey.

The postulate enunciated in hypothesis Hb. Investment has a positive mathematical relationship with the financial performance presented by the profitability of the manufacturing companies of the metropolitan area of Guadalajara. It is partially accepted, taking into consideration that the results from the applied correlation show that only three out of the six items that are being considered in the survey show significance and a positive relationship.

The items that are related in a positive way with financial performance are:

FA2 The company has taken over – or expects to merge with – other enterprises in the same line of business

FA3 The increase in the demand has caused a need to purchase more machines

FA5 The machinery used for the production is specialized and different to other ones in the sector

The positive relationship shows us that profitability increases as investment increases at the manufacturing companies of the metropolitan area of Guadalajara. The result shows that profitability will be increased by the merger or acquisition of new enterprises or by the purchase of new machinery, taking into consideration that such machinery is specialized and different from the one used at other manufacturing companies in the metropolitan area of Guadalajara.

Conclusions

The manufacturing SMEs located in the metropolitan area of Guadalajara can be affected by several factors. However, financially speaking, there is a major relationship between the internal and external problems, because they must be connected. If we address the subject of internal control, we can say that:

A greater internal control through cost accounting is positively related to financial performance or to an increase in profitability, and the reduction of production costs is one of the main alternatives of the companies to surpass their competitors in the process of generation of profitability and of increasing their financial performance.

The increase of their financial performance or profitability is also seen as a growth that takes place with resources of their own, for example, by purchasing machinery, through a merger or acquisition of another company in the same line of business, always keeping in mind and taking into consideration how specialized the machinery employed in the creation of their products is.

We conclude that the financial performance of the manufacturing SMEs of the metropolitan area is closely related to internal control and to investment, taking into consideration the importance expressed by growth in the survey that was applied.

Costs are a fundamental part of the financial results, as well as their reduction in internal control – trying arduously to cut back on costs is a must, as well as keeping or installing a system to control the budget, and cost accounting. Clearly that affects the competitiveness of manufacturing SMEs.

Competitiveness in relationship to internal control, financially speaking, shows there are some points to take care of, mainly in maintenance, cost control and their corresponding planning systems, a system to control the budget and correct cost accounting.

Limitations of the study

It is suggested that, when carrying out another study related to this subject, the companies are delimited in sub-sectors. Also, it is suggested for a future research, to identify the significance of the items through structural equations. It is worth mentioning that when we determined the size

of the sample for this research, we did not take into consideration micro and large-sized enterprises.

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Competitiveness is a key issue in the globalization of enterprises, to understand how it can be improved is basic nowadays. New disciplines are used for companies to increase the competitiveness. Education, innovation and the value creation are some aspects that may enhance it, so indentifying them could help the companies to improve their performance.

To develop an entrepreneurial vision is also an advantage that favors competitiveness, having found which the key strategic profiles may facilitate the crucial continuity of the enterprise, helping to accomplish strategic objectives in some areas such as increasing sales and productivity. Using a model that identifies leadership possibly will encourage the innovation generation and the value creation.

