

The Influence of the Cost Management System on the Business Indicators of SMEs

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Abstract: Companies require a Cost Management System adapted to their individual needs, to efficiently fulfill their goals. Unfortunately, due to their economic and technological shortcomings, SMEs are less likely than large enterprises to install those systems, causing them to focus on enhancing their output and overlook the need for CMS deployment. However, the importance of SMEs particularly in rising economies necessitates research tools and techniques to ensure their optimal development. The goal of this study is to evaluate the extent to which CMS is used by SMEs in emerging economies, such as India, and to define the impact of CMS on company KPIs such as sustained economic growth, profitability, sales, and profit margins. Contingency and correlation tables were used to evaluate a sample of Indian companies. The findings revealed that the cost management system has a positive and significant impact on the business indicators of sustained growth, profitability, and sales growth of SMEs.

Keywords: Sustained growth, Cost management system, SMEs, correlation analysis, Profit margins.

1. INTRODUCTION

Accounting has been established as a science endowed with techniques and procedures aimed at the identification, measurement, valuation, and disclosure of the different transactions with economic and social impact on the financial structure of an organization, which allows these financial organizations to cement the decision-making process based on quantitative and qualitative reports that show the financial situation of the company in a given period and the changes that this scenario may experience, the results of the operations carried out in a given operational period and the effects that these generate on the equity structure.

Costing systems are sets of methods and techniques used by organizations to assign to products or services the costs related to them and derive from choices around the assumptions for selecting the costing objects, the resources recognized as part of the costs of these objects, the nature of the data used, the mechanisms of cost ascertainment and the control mechanisms (Ahmad et al. 2022; Ali et al. 2022).

The behavior of costs before the variations in the volume of activity affects the ability of some choices to offer reliable information, conditioning the accountant to consider the information needs when building a costing system.

In this sense, the cost management system emerges as an institutional tool that, by means of quantitative and qualitative instruments, aims at capturing, recording, evaluating, analyzing, and transmitting financial and non-financial information, with the essential purpose of cementing the decision-making process, with respect to the achievement of corporate objectives and the creation of strategies that help the organization to be sustainable and competitive in the market, through the generation of added value in all the processes that integrate it (Mishra et al. 2022).

Regarding what cost management system represents in the context that circumscribes the operations carried out by business organizations, various authors have outlined their assertions according to their particular approach; however, they all agree that it is established as a means by which the administrative bodies cement the management process of companies.

Erfan et al. (2022) conceptualize cost systems as a corporate process through which different administrative and accounting guidelines are established, aimed at identifying and char-

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acterizing the information considered necessary and relevant for setting the cost of processes, products, and services.

The importance of companies is based on the economic effect they can have on a country's economy, including Small and Medium Enterprises (SMEs). Considering the low participation rate of large companies in general, it is important to observe and understand what happens with SMEs, which, although small, are major contributors to job creation and gross domestic product (Ali et al. 2022).

In India, according to a collaborative bulletin (Ministry of Micro, Small & Medium Enterprises, 2020), there are a total of 4,048,543 micro, small and medium-sized enterprises. According to their size, the ones that participate the most are micro-companies (97.6%), followed by SMEs (2.4%). These companies are generally characterized by a lack of economic, technical, and financial resources to face their competition, urgently requiring tools such as cost management systems that provide them with information so that they can make decisions such as setting the price of a product, or eliminate products that do not generate value to the company. For this, they must acquire knowledge that allows them to analyze which are the benefits of the existing CMS and the importance of implementing the one that provides them with the relevant and necessary information to lead them to strategic decisions of profitability, growth, and competitiveness (Ahmad et al. 2022).

In the operation of the company, many factors influence the organization's ability to sustain itself in the market, become competitive and a leader in the sector and market in which it operates, and one of these key factors is costs. According to Porter (2010), a company must focus on three strategies to obtain competitive advantage: cost leadership, product differentiation, and customer focus. Considering that the first strategy is fundamental to achieving sustainable advantage. Successful Indian companies that have incorporated cost leadership into their strategies are Big Bazaar, Tata Steel, Arvind Mills, Sundaram Fasteners, Kaveri Seed, TCS, Asian Paints, Cipla, Eveready Ind, ACC, Kothari Petro, Relaxo Footwear, Havells India, Kokuyo Camlin, and Tata Coffee. All of these companies are large corporations listed on the Indian Stock Market. Questions such as: what happens with smaller companies; do they have the same opportunities as large companies; are they prepared to face competition; can they adopt cost systems that are appropriate to their needs; are their cost management systems efficient or deficient; and are they able to adopt cost systems that are appropriate to their needs.

In general, a cost system provides information to the organization so that it can evaluate the performance of its business. Therefore, an adequate CMS for the organization can impact the growth of the organization, profit, sales, and profit margins, among other indicators. Therefore, this research has two objectives. The first is to assess the extent to which SMEs in emerging economies, such as India, use the CMS to understand the importance that this group gives to it. The second is to look at how the CMS affects business indicators in Indian SMEs, such as the growth of the company, profit, sales, and profit margins (Mishra et al. 2022).

2. THEORETICAL FRAMEWORK

2.1. Cost Management Systems

The Cost Management System can be defined as a tool that provides relevant information for the proper management of a company, achieving its business objectives. According to Rounaghi, Jarrar, & Dana (2021), CMS is the result of the evolution of cost accounting, which in turn evolved from financial accounting. While Kader and Jaufer, (2022) define without distinguishing between cost accounting and management accounting, stating that it is "a part of business economics, a science that is part of the sciences of collective behavior (sociology), individual behavior (psychology) and interaction between individuals and groups (social psychology), it must base its reasoning, laws, and generalizations on economic science, and model, as far as possible, through the mathematical apparatus, bearing in mind that its results and conclusions cannot be considered valid generalizations a priori to be applied to all kinds of companies".

On the other hand, Chen (2022) mentions that the cost management accounting system should provide cost, sales volume, and profit reports in a timely manner.

Regardless of the definitions and discussions found in the literature, companies require a cost management system adequate to their needs that provides them with information that leads managers to make decisions. The information is expected to support cost optimization to be competitive (Yue and Guo, 2022; Golden and Zheng, 2022).

2.2. Small and Medium-Sized Companies

The economy of each country depends to a large extent on small and medium-sized companies; unfortunately, the death of SMEs is a worldwide problem. India is no exception as there is a very high rate of disappearance according to data provided by the Ministry of Micro, Small & Medium Enterprises, 2020 (Ministry of MSME). By 2020, 75% of the companies that start their business close their business in the second year of operation, due to their lack of productivity, objectives, planning, and poor finances (Malek and Gundalya, 2021).

In terms of categorization, SMEs are classified by size, sector, number of workers, and range of annual sales amount (Table 1).

Another classification provided by the Ministry of Micro, Small & Medium Enterprises, 2020 (Ministry of MSME), is about the age of the company. It is categorized into recently created from 0 to 2 years; young from 3 to 5 years; adult from 6 to 10 years; and more than 10 years older companies.

2.3. Cost Management System and Small and Medium-Sized Companies

It is important to consider that large companies are very clear about the importance of implementing a CMS that suits their needs since they can obtain benefits such as product cost orientation, negotiation process (Lukić, 2022); or abandonment of traditional costs (Fredrick, Akintona, & Blessing, 2022). In addition, the changes they make are made in the awareness that their CMS helps them to optimize their costs

Table 1. Classification of SMEs.

Size	Sector	Number of Workers	Annual Sales Amount (Million Rupees)	Combined Maximum Ceiling*
Small	Trade	11 to 30	4.01 up to 100	93
	Industry and Service	11 to 50	4.01 up to 100	95
Medium	Trade	31 to 100	100.01-250	235
	Service	51 to 100	100.01- 250	235
	Industry	51 to 250	100.01- 250	250

*(Number of workers X 10%) + (Annual Sales X 90%).

Source: Ministry of Micro, Small & Medium Enterprises, 2020.

for proper decision-making (Mota, Oliveira, Taise, & Junior, 2022).

Therefore, they reduce waste reflected in higher profitability, inventory control, and increased profitability (Efendi, 2021). They also provide information to determine their results (Burova, Grishunin, Suloeva, & Stepanchuk, 2021). This leads to understanding the great benefits they represent to obtain a competitive advantage (Kajal, Sikder, Ashamoni, & Panhwar, 2021).

However, SMEs attach greater importance to the production process, without considering the information and benefits that a cost management system can provide. They face problems such as erroneous pricing, inefficiency in production, and incorrect quotations to customers (Rounaghi, Jarrar, & Dana, 2021). On the other hand, Duçi (2021) indicates that the pressure of competition that SMEs are experiencing has led them to adopt cost management systems and even sophisticated CMS (Kusumastuti, Matin, & Rochanah, 2021) to achieve higher performance.

From another point of view, Verma, Shome, & Patel (2021) reveal that in India "it is common to continue using traditional cost systems, motivating little interest in evaluating the convenience of adopting other management systems". This is due to financial and legal barriers (Tkachenko, Potyshniak, & Poliakova, 2021) and an understanding of new cost management systems. As well as the lack of cost specialists within the company (Lysenko, & Fediai, 2021). In this sense Swiderski, & Rolek, (2021), mentions that it is also costly to implement and requires trained personnel to adopt it, being also the lack of interest of the SME entrepreneur another barrier to its implementation.

2.4. Benefits of the use of CMS in Business Indicators

One of the main objectives of companies is to achieve sustained growth, understanding growth as the company's ability to adapt to the market, promote new products, diversify, and expand its business (Adamova, 2021).

According to Tang, (2021), the benefits that SMEs can have by adopting a Cost Management System are to obtain relevant and timely information for decision-making; have greater accuracy in cost and product price information; reduce costs and time; obtain small inventory levels; as well as to obtain correct information about customer profitability. It also makes improvements in cost drivers and behavior; cost control; performance measures; personnel management; cus-

tomers deliveries; and accuracy of product profitability information.

Then, Kaplan and Norton (2009), point out that growth should be part of the company's strategies, in relation to the Cost Management System, this is useful for the company to achieve sustained business growth. It is clear that, according to the benefits of information analysis through CMS, companies can achieve their growth objectives. This leads to the following hypothesis:

H1. *The Cost Management System positively and significantly influences the sustained growth of the SME.*

Profitability is another very important aspect for companies since it represents the ability to survive and the correct management of costs (Erasmus, 2021). It benefits from the adoption of a CMS (Shabani, Berisha, & Hajdari, 2021), appropriate to the company. The study by Tang (2021), indicates that one of the main benefits for SMEs is that they obtain more information, which allows them to obtain higher profitability of the product. The profitability index is seen as a measure of business growth. Establishing the following hypothesis:

H2. *The Cost Management System positively and significantly influences the profitability of the SME.*

Another benefit for the SME is its growth in sales. In this sense, the study by Biadacz (2021), on changes in management control systems in SMEs, indicates that the information emanating from its system is important to determine its sales points. While Chatzipetrou, & Moschidis, (2018), indicate that sales growth sustains the company. The following hypothesis is put forward:

H3. *The Cost Management System has a positive and significant influence on the SME's sales growth.*

Regarding the gross and net profit margin, SMEs are aware that if they manage their costs correctly, they will generate profits; on the other hand, profitability is measured through indicators such as gross margin, operating margin, net margin, rate of return on net profits (Dimitrantzou, Psomas, & Vouzas, 2020), among other indexes. On the other hand, Kumar, Maiti, & Gunasekaran (2018) state that cost reduction is when profits are maximized, therefore cost management creates value for the company, improves profit margins and market penetration, and proposes the following hypotheses:

H4. The Cost Management System positively and significantly influences the gross profit margin of the SME.

H5. The Cost Management System positively and significantly influences the net profit margin of the SME.

3. METHOD AND MEANS

3.1. Benefits of the use of CMS in Business Indicators

The design of this research corresponds to descriptive and correlational analysis, using contingency tables. The study was conducted among owners, directors, or managers of small and medium-sized companies in India, as shown in Table 2.

Table 2. Technical Research Data.

Universe	Owners, Directors, or Managers of Small and Medium-Sized Companies
Geographical scope	India
Sample size	617 SMEs
Sample design	Stratified, mailed
Statistical techniques	Descriptive analysis
Statistical program	SPSS version 21.0

Source: own elaboration.

3.2. Variables and Indicators

Table 3 shows the two variables studied in this research, first the cost accounting system and second the business indicators, as well as the characteristics of the company. It is worth mentioning that to make it clear to the respondents what a Cost Management System is, the system itself was defined in the questionnaire. This is a tool that provides information for the user to use in making appropriate decisions so that the company benefits from its profitability and therefore obtains sustained business growth.

Table 3. Variables and Indicators.

Variables	Indicators
Cost management system	Little use
	Medium usage
	Always use it
Business measures	Sustained economic growth
	Profit
	Sales
	Annual gross profit margin
	Annual net profit margin
Characteristics of the company	
Company size	Small
	Medium
Sector	Manufacturing

	Construction
	Trade
	Services
Age of the company	Recently created
	Young
	Adult
	Older

Source: own elaboration.

3.3. Population, Sample, and Instrument

The population data were 1464 small and medium-sized companies, obtained from the Ministry of Micro, Small & Medium Enterprises (Ministry of MSME, 2020), excluding companies in the government sector and those companies that did not have any means of contact such as email, telephone, or home address. Obtaining a sample of 617 small and medium-sized companies geographically located in India, with a sampling error of 3% and a confidence level of 95%, as shown below.

$$n = \frac{N * Z^2 * p * (1 - p)}{(N - 1) * e^2 + Z^2 * p * (1 - p)}$$

Where:

N= Size of the population

n= Sample size

Z= confidence level

p= Proportion expected to be found

e = error

n= sample

N = 1464 Sample size n=617

p= 0.50

Z = 1.96

e = 0.03

The instrument for this communication consists of 2 blocks, the first contains general aspects of the company, and the second consists of 5 questionnaires. Table 4 shows the participation of the companies according to the characteristics of the sample. That is, recently created, young companies, adult companies, or older companies. It can be seen that 70.5% are small companies and 29.5% are medium-sized. Regarding the business sector, manufacturing SMEs are the ones that participated the most in this study (55.3%). By age, adult companies (26.9%) and older companies (57.2%) are the ones that participated the most in this study.

Table 4. Participation by Stratum According to the Characteristics of the Sample.

Company Age	Sector	SME		Total
		Small	Medium	
Recently created	Manufacturing	1.5%	0.0%	1.5%
	Construction	0.8%	0.0%	0.8%

	Trade	0.2%	0.0%	0.2%
	Services	0.6%	0.2%	0.8%
	Total	3.1%	0.2%	3.2%
Young companies	Manufacturing	6.3%	1.3%	7.6%
	Construction	1.5%	0.2%	1.6%
	Trade	1.1%	0.0%	1.1%
	Services	1.5%	0.8%	2.3%
	Total	10.4%	2.3%	12.6%
Adult companies	Manufacturing	10.2%	5.5%	15.7%
	Construction	1.8%	1.3%	3.1%
	Trade	2.8%	0.6%	3.4%
	Services	3.6%	1.1%	4.7%
	Total	18.3%	8.6%	26.9%
Older companies	Manufacturing	20.9%	9.6%	30.5%
	Construction	4.2%	1.5%	5.7%
	Trade	7.1%	3.7%	10.9%
	Services	6.5%	3.7%	10.2%
	Total	38.7%	18.5%	57.2%
Total	Manufacturing	38.9%	16.4%	55.3%
	Construction	8.3%	2.9%	11.2%
	Trade	11.2%	4.4%	15.6%
	Services	12.2%	5.8%	18.0%
	Total	70.5%	29.5%	100.0%

Source: own elaboration.

3.4. Reliability of the Instrument

Using Cronbach's Alpha and based on Berkman and Reise (2012), to measure the homogeneity of the instrument, it was observed that it presents a weak reliability of 0.674. However, Nunally (1978) indicates that satisfactory reliability depends on how the measure is used, so in the early stages of the research, a reliability value between 0.600 and 0.500 may be sufficient.

4. RESULTS AND DISCUSSION

When choosing a cost management system, one must consider the set of difficulties that occur in its implementation process. These factors are obstacles that often lead organizations to give up the implementation of the system or to underuse it after its implementation.

Research and scientific contributions in the area of the effectiveness of the cost management system as an optimal business strategy have shown a remarkable increase in the last decades. This fact is due to the growing interest of the scientific community in this type of research practice, to face the increasingly demanding and complex decisions in the proper

process of cost management of a company that aims to be competitive in today's world.

Mishra et al. (2022) state that the rise of the cost management system as a management tool is a consequence of the dynamics imposed by the industrial revolution, an economic, cultural, and social phenomenon characterized by the massification of operations carried out by organizations as a result of the use of steam engines and the internationalization of commercial relations. These situations brought to light the need for companies to use procedures and institutional processes aimed at the identification, measurement, valuation, and control of mandatory and indispensable expenditures for the development of the activities carried out by them.

The results obtained were analyzed according to the variables of this study. Starting with the five SME business indicators, Table 5 shows the means and standard deviation of the five elements that make up the business indicator. It is noticeable that the perspective of the owners, directors, or managers participating in this research is very contrasting. It is observed that the directors of the SMEs agree that their companies are more profitable ($\bar{X} = 4.12$) and that they enjoy sustained growth ($\bar{X} = 4.19$). They also almost agree that their annual sales are growing ($\bar{X} = 3.52$), but are indifferent to their gross profit margin ($\bar{X} = 3.12$) and net profit margin ($\bar{X} = 3.13$). The results reflect the level of disagreement among the participants in terms of the deviation obtained in the descriptive analysis.

Table 5. Means of the SMEs' Performance Variable.

Item	N	Mean	Standard Deviation
Sales growth	617	3.52	0.913
Gross profit margin	617	3.12	1.074
Net profit margin	617	3.13	1.071
More profitable	617	4.12	0.936
Sustained growth	617	4.19	0.937
N valid (according to list)	617		

Source: own elaboration.

On the other hand, analyzing the second variable that observes the importance given by the SMEs to using or not using a Cost Management System, it is observed by size stratum that 17.2% of the small companies and 7.7% of the medium-sized companies make little use of their CMS (Table 6). It is noteworthy that in both sizes it is important to use the company's CMS since most of them indicate that they always use it.

Table 6. Use of the Cost Management System by Company Size.

Company Size	Little use of the CMS	Average Use of the CMS	Always Use the CMS
Small	17.2%	26.9%	55.9%
Medium	7.7%	19.8%	72.5%

Source: own elaboration.

As for the business sector, 32.1% of manufacturing SMEs mentioned always using their cost management system, followed by service companies (12.5%), with 8.8% of manufacturing companies making little use of the CMS. Globally, 60.8% of SMEs always use it, followed by medium use of the CMS (24.8%), with 14.4% making little use of the Cost Management System (see Table 7).

Table 7. Use of the Cost Management System by Sector.

Sector	Little use of the CMS	Average use of the CMS	Always use the CMS	Total
Manufacturing	8.8%	14.4%	32.1%	55.3%
Construction	1.3%	2.8%	7.1%	11.2%
Trade	2.4%	4.1%	9.1%	15.6%
Services	1.9%	3.6%	12.5%	18.0%
Total	14.4%	24.8%	60.8%	100.0%

Source: own elaboration.

Given the level of mortality among SMEs in India, the age of the company was considered an important characteristic in this research. Analyzing the recently created companies, it can be seen that their response is very divided because the same percentage (30%) say that they make little use of the CMS and always use it. While the other old companies, more than 50% say that they always use their CMS (Table 8). This indicates that as companies develop, their use increases and may be related to a need to use their CMS for decision-making.

Table 8. The age of the SME and the use of the Cost Management System.

Age of the Company	Cost Management System		
	Little Use of the CMS	Average Use of the CMS	Always Use the CMS
Recently created	30.0%	40.0%	30.0%
Young companies	15.4%	29.5%	55.1%
Adult companies	12.7%	25.9%	61.4%
Older companies	14.2%	22.4%	63.5%

Source: own elaboration.

Table 9. Correlation between the Cost Management System Implemented by the SMEs and the Elements that Make up the Business Performance.

	1	2	3	4	5	6
Cost Management System (1)	1					
Sustained growth (2)	.237**	1				
More profitable (3)	.345**	.654**	1			
Sales growth (4)	.138**	.188**	.215**	1		

Gross profit margin (5)	0.056	0.07	0.067	.475**	1	
Net profit margin (6)	0.068	0.077	0.078	.431**	.889**	1

** The correlation is significant at the 0.01 level (bilateral).

Source: own preparation.

Subsequently, a correlation analysis was carried out between the variables that integrate the business performance with the Cost Management System. It was observed that the interviewees perceive a positive and significant correlation at a level of $p < 0.01$ with the sustained growth of the SMEs ($r = 0.237$), the fact that the SME is more profitable ($r = 0.345$) and with the growth in sales ($r = 0.138$). Analyzing the other indicators, Table 9 shows that the sustained growth of the company is positively and significantly correlated at $p < 0.01$ with being more profitable ($r = 0.654$) and with sales growth ($r = 0.188$). The gross profit margin is positively and significantly related only to sales growth ($r = 0.475$), while the net profit margin is significantly and positively related to sales growth ($r = 0.431$) and gross profit ($r = 0.889$).

5. CONCLUSION

The importance of implementing a CMS system in SMEs allowed this research work to achieve two objectives: the first was to assess the extent to which SMEs in emerging economies, such as India, use the CMS, and the second was to look at how the CMS affects business indicators in Indian SMEs, such as the growth of the company, profit, sales, and profit margins. The results indicate that as companies develop, they see the need to use a CMS. It is noteworthy that the level of Indian SMEs is mostly at the level of always using their cost management system to make decisions, a situation that can help them feel more secure in the market where they operate and achieve a competitive advantage.

The results show the importance given by the participants of this study to the use of Cost Management Systems. Thus, from their perception, hypotheses H1, H2, and H3 are accepted, since the CMS has a positive and significant influence on their indicators of sustained growth, profitability, and sales growth of the SME, while "H4" is rejected.

The Cost Management System positively and significantly influences the profit margins of the SME, i.e. the respondents do not perceive that their CMS influences the variables "gross profit margin" and "net profit margin". This research contributes to the knowledge about the importance of using a Cost Management System for small and medium-sized companies, and the benefits it can have, especially in the sustained growth of the company, the increase in its profitability, and the growth in sales. It also contributes to the knowledge of governments to establish public policies in support of SMEs, because to the extent that companies adopt a CMS appropriate to their needs, they can have sustained growth, and this will contribute to the improvement of the country's economy.

The limitations of this study are the number of indicators analyzed, as well as establishing the specific CMS that leads SMEs to achieve their objectives. In future research, it is recommended to expand the analysis of the cost management

