

# Management tools: a study on its application in micro and small enterprises

## Herramientas de gestión: un estudio sobre su aplicación en micro y pequeñas empresas

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### Abstract

The purpose of this article is to present the level of knowledge, application and interest of managers of Micro and Small Enterprises (MSEs) located in the central region of the city of Anápolis/GO under three management tools: 5S Program, Balanced Scorecard (BSC) and Benchmarking. The research approach was quantitative, of a descriptive nature, analyzed by descriptive statistics. 70 questionnaires were applied, answered by the managers of the MSEs. The results showed that most managers of MSEs do not use these management tools, under study, either due to lack of knowledge or lack of interest. The majority of customers of MSEs are private individual consumers, as they are micro companies in commerce and services, not requiring professionalization from their managers, having only 1/3 of managers with higher education, thus justifying the lack of knowledge of the management tools addressed. Only 4% of MSE managers use the tools, and even so, 51.4% of these MSEs are over 5 years old, that is, practically equal to the Brazilian average which, according to SEBRAE (2011), is 51.8%.

**key words:** Micro and Small Enterprises (MSEs); 5S Program; Balanced Scorecard (BSC); benchmarking

### Resumen

El objetivo de este artículo es presentar el nivel de conocimiento, aplicación e interés de los gerentes de las Micro y Pequeñas Empresas (MPE) instaladas en la región central de la Ciudad de Anápolis / GO en tres herramientas de gestión: Programa 5S, Balanced Scorecard (BSC) y Benchmarking. El enfoque de investigación fue cuantitativo, de naturaleza descriptiva, analizado por estadística descriptiva. Se aplicaron 70 cuestionarios y fueron respondidos por los gerentes de las MPE. Los resultados mostraron que la mayoría de los gerentes de las MPEs no utilizan estas herramientas de gestión, en estudio, ya sea por falta de conocimiento o falta de interés. La mayoría de las MPE tienen como principal cliente al consumidor individual, ya que son microempresas en el comercio y los servicios, que no requieren la profesionalización de sus gerentes, con solo 1/3 de los gerentes con educación superior, lo que justifica la falta de conocimiento de herramientas de gestión abordadas. Solo el 4% de los gerentes de MPE usan las herramientas y, aun así, el 51.4% de estas MPEs tienen más de 5 años, es decir, prácticamente igual al promedio brasileño, que, según SEBRAE (2011), es 51,8%.

**Palabras clave:** Micro y Pequeñas Empresas (MyPEs); Programa 5S; Balanced Scorecard (BSC); benchmarking

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## 1. Introduction

Micro and Small Enterprises (MSEs) represent 98% of formal companies in Brazil, 67% of job occupations, 28% of gross revenue from the formal sector and 20% of gross domestic product. They operate in commerce (56%), services (30%) and industry (14%). Organizations with up to 49 workers in commerce and services and up to 99 workers in industry are classified as MSEs (SEBRAE, 2012).

SEBRAE data (2011) confirm that 58% of MSEs close their doors early, due to ineffective business management, based on the managers' lack of knowledge about the important management tools, and consequently, the lack of use of them in the management of their organizations.

Companies compete in markets that are constantly changing, which requires timely information and control of their business to adapt their operations to the new market conditions. Thus, decision making cannot be based only on the intuition or experience of the manager. It is necessary to use management tools to assist in the administration of the enterprise (Santos et al., 2016). In MSEs, the absence of managerial instruments in administrative practices is evident, with the use of experience, intuition and improvisation in decision-making by managers being frequent (Lacerda, 2006).

According to Ribeiro (2009), the main difficulties present in the management of MSEs are: operationalization of planning and lack of financial assistance, in addition to the managerial incompetence demonstrated by its managers, causing the extinction of several MSEs, even during its first years of existence (RODRIGUES et al., 2014). Managerial incompetence comes largely from the lack of application of management tools in conducting business (Borges et al., 2012). The absence or little use of these tools is justified by the low level of training of their managers and by management practices based on common sense or empirical knowledge and not on scientific and technical principles (Ribeiro, 2009).

Properly used management tools help companies to radically improve their performance (Rigby, 2001). It would mean that organizations using the right tools are more likely to succeed.

The adoption and introduction of management tools in the management of MSEs positively favor the conduct of business and decision making considered crucial for the survival of organizations. Such tools represent a useful theoretical and practical framework for MSE managers as they significantly contribute to the maintenance, sustainability and growth of these organizations (RODRIGUES, 2012); (Rodrigues, 2014).

Given the importance that MSEs represent for Brazil, the federal and state government has been promoting public policies to support the development and strengthening of these small enterprises. One of these policies is the financing of research and extension projects aimed at MSEs by the Research Support Fund of the State of Goiás (FAPEG).

This article presents an excerpt from a study involving three partner institutions: Federal University of Goiás (UFG), Federal Institute of Goiás/Anápolis (IFG) and the University Center of Anápolis. One of the objectives of the project is to know the profile and the management mode of the MSEs installed in the central region of the City of Anápolis/GO.

The choice of the research field is justified by the fact that the city includes two of the institutions responsible for the project, thus concentrating the project's activities at IFG/Anápolis. The field research privileged elements, such as organizational environment and needs of MSEs. In this article the results regarding the profile of companies and managers will be presented. Furthermore, about their knowledge, use and interest in using management tools: 5S Program, Balanced Scorecard (BSC) and Benchmarking.

The choice of these three tools, among the several existing ones that help in the management of a business, was influenced by the recent studies by Ribeiro (2009), Borges et al. (2012), Rodrigues et al. (2014), Menezes & Silva (2015), Silva & Junior (2015), Wagner et al. (2015) that when analyzing the application and use of these tools in organizations, concluded that their adoption provides gains in the performance of the enterprise, including the MSEs. Such tools have been highlighted in current studies published in magazines, congresses, symposia. However, to date, no studies involving MSEs based in central Anápolis have been found, with emphasis on the three tools referred to above. Thus, this study has an original character and it is necessary to understand the managerial scenario of these businesses, regarding the three specific tools, already mentioned here.

Authors such as Anholon & Zoqui (2003), Moreno & Carvalho (2007), Cavalcanti (2016) highlight the importance of introducing these three tools in MSEs and the benefits gained. The 5S Program is focused on quality, based on the principles of use, organization, cleanliness, health and self-discipline, whereas the Balanced Scorecard tool is focuses on strategic planning through performance measurement, defining goals and strategies to be achieved. Finally, Benchmarking that can help the company to define the best method to apply quality programs and strategic planning, mirroring already consolidated organizations, thus perfecting its own objectives.

According to Rodrigues et al. (2014) the adoption of management tools, represent a competitive advantage for organizations.

Thus, the present study was guided by the following research question: - what is the level of knowledge, application and interest of the management tools (5S Program, Balanced Scorecard/BSC, Benchmarking) by managers of MSEs located in the central region of the City of Anápolis/GO?

This study aims to identify the characteristics of companies, such as: activity time, business composition, size of the company and main customers, also the profile of its managers, analyzing the occupation, gender, age group and educational level. In addition, we investigate the knowledge, the level of application and interest of the managers of the MSEs located in the central region of the City of Anápolis/GO, focusing on the following management tools: 5S Program, BSC and Benchmarking.

Based on the above, this article is organized into 5 sections. Section 2 presents the theoretical framework that underlies the analyzes. Section 3 presents the methods used in the research. Section 4 presents the results and discussions. Finally, section 5 presents the final considerations obtained in this research.

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## 2. Literature Review

There are several management tools that can be adopted by MSE managers, they are: strategic planning, benchmarking, downsizing, outsourcing, 5S program, BSC, market research, quality management, business budget, marketing plan, physical arrangement, performance indicators, performance compensation, environmental management, cash flow management, customer research, customer relationship management, occupational health and safety management, logistics integration and market segmentation.

In this section, a brief introduction is made about the management tools addressed in this research that are: 5S Program, Balanced Scorecard/BSC, Benchmarking.

### 2.1. 5S Program

According to Tikale & Hadge (2015), 5S is a technique used to establish and maintain the quality environment in an organization, and was developed by Osada in the early 1980s. It is considered a strategy that produces results through a systematic approach to planning and organizing activities.

According to the aforementioned authors, 5S is a philosophy originating in Japan and has branched out into other countries. 5S is an acronym for the following Japanese term: SEIRI (sorting and disposing of unnecessary items). It deals with the classification of all tools, materials and other equipment in the work environment. SEITON (everything is in order, it provides a place for everything). It identifies workers' needs. Tools, materials and other equipment must be organized systematically for quick access and movement. SEISO (cleaning, removal of residues and dust). Need to clean and tidy the workplace. Cleaning should be a daily activity. Each tool and equipment must be restored after use. SEIKETSU (consistency and standardization of the work environment with unique rules of organization and storage together with cleanliness). Everyone must know their responsibility. SHITSUKE (realization of the set of rules above in order). Maintaining common standards continuously.

In applying 5S in a company, the following gains are obtained: it improves safety and ergonomics, promotes flow, reduces demand and unplanned downtime, increases quality, encourages visual control, improves teamwork, increases productivity, eliminates distractions, reduces inventory and space, exposes problems, infuses discipline to follow a work pattern, improves self-management (Abrantes, 2007).

## 2.2. BSC

BSC stands for, "Balanced Scorecards". It was developed by Kaplan and Norton in 1992, due to the need to capture all the complexity of the organization's performance. This tool has been used widely and increasingly in organizations, contributing to the composition and visualization of performance measures that reflect the company's business strategy (Kaplan, 2012).

The BSC summarizes performance indicators in four aspects in a single document: financial, customers, internal processes and learning, and growth (Filgueiras, Barros & Gomes, 2009). For La Chance (2006), the BSC brings a consistent image of performance against the company's objectives. If these aspects are thought and considered in an integrated way, they can provide a balanced view of the current and the future situation of organizational performance. Thus, managers will have more confidence in decision making. A BSC accessible to all allows: transparency in the organization, understanding of business drivers, motivation to strive for a higher level of performance (La Chance, 2006).

The BSC as a compass, can guide future organizational goals, providing each employee with guidance for day-to-day decisions, improving the performance of the entire organization. For Werlang et al. (2013) there is still a lack of studies that can prove the direct relationship between the use of BSC and the success of MSEs, but it is clear that the application of BSC generates competitive gains in them.

In a survey of 100 Brazilian companies, it was identified that 5% of the operational level comprises the company's strategy and 85% of managers spend less than 1 hour per month discussing tactics (Bernstorff et al., 2003). These results show the importance of applying the BSC in MSEs.

## 2.3. Benchmarking

Benchmarking can be regarded as a continuous process of comparing products, services and business practices between the strongest competitors or companies recognized as leaders. According to Jacob & Chase (2012), this management tool is an approach for the continuous improvement of the quality of products and/or services.

The benefits of benchmarking, according to Jagadeesh (2003) include: Improvement in total quality, cost reduction, facilitation in change processes; it perfects the organizational level to the best possible, catalyzes learning processes, tests goals, expands the perspective of the organization, stimulates new ideas, starts a culture in search of new ideas.

Benchmarking is capable of providing an organization with information that will serve as a reference in its search for quality. It is a technique that must be used frequently by managers, as it applies perfectly to any type of organization, and its essence is to explore and convert the results of the investigative process into entrepreneurial actions (Araújo, 2009).

### 3. Materials and method

The research approach used in this study was quantitative, of a descriptive nature, analyzed by descriptive statistics. According to Ayres (2007) descriptive statistics aims to summarize the data collected, categorizing and organizing, thus making it easier to understand the variables studied.

Data collection was done through the application of standardized questionnaires, consisting of open and closed questions. Visits to companies were carried out in December/2014 and January/2015. To calculate the sample size, we used the stratified probability sampling method with a 90% confidence interval.

The selection of companies followed the following criteria: companies belonging to different sectors of the economy (industry, commerce and services); in addition to being classified as Micro or Small Business, according to the methodology by SEBRAE (2012).

The data collection instrument, questionnaire, was structured to identify the profile of the companies, specifically in terms of: uptime, legal form, company size, main customers. Also questions to design the interviewee's profile, such as: gender, position held in the company, age group and education level. Finally, questions about the use, knowledge and interest in using management tools: 5S program, BSC and benchmarking.

### 4. Results and discussions

After data collection, based on the theoretical framework, the analyzes and discussions presented in the following sections were carried out.

#### 4.1. Profile of surveyed MSEs

Table 1 shows four elements pointed out by SEBRAE (2011) to define the profile of MSEs in a given sector, which are: uptime, main customers, company size and business composition. This table shows the profile of MSEs in the central region of Anápolis.

**Table 1**  
Profile of MSEs in the central region of Anápolis/GO

	Research terms	Results
Uptime	Up to 1 year	17.1%
	More than 1 year up to 5 years	31.4%
	Over 5 years up to 9 years	11.4%
	Over 9 years up to 13 years	11.4%
	Above 13 years	28.6%
Main customers	Physical person	84.3%
	Micro and small businesses	14.3%
	Medium and large companies	1.4%
Company size	Commerce and Services: Micro (up to 9 employees)	77.1%
	Commerce and Services: Small (10 to 49 employees)	14.3%

	Research terms	Results
	Industry: Micro (with up to 19 employees)	4.3%
	Industry: Small: from 20 to 99 employees	2.9%
Business composition	Limited society (Ltda.)	50.0%
	Individual micro entrepreneur (up to 1 employee)	21.4%
	Individual liability company Ltda.	20.0%
	Civil society (S/C) (service providers)	4.3%
	Other	2.9%
	Collective Name Corporation	0.0%

It is important to comment on Table 1, that 51.4% of the companies have been in operation for more than 5 years. Of this percentage 28.6% have been operating in the market for over 13 years.

In comparison with national data, according to SEBRAE (2006), for every 100 companies created in Brazil, 73 survive the first 2 years of existence, normally when companies pass this stage they are able to establish themselves in the market, because the longer the company operates, the more it will know about its business, its competitors and its customers, thus being able to prepare and increase their competitiveness.

It should be noted that half of the companies are limited liability companies. In a relationship with the national market. According to Ribeiro (2009), the legal form private limited company is predominant in Brazil and is characterized by being made up of at least two partners who can operate in industry, commerce and services. This legal form allows the partners to exercise an economic activity, to be responsible for the sharing of profits in a simple and limited way to the company's partners. In addition, it may also have some economic advantages, such as working in Simplified Tax system (Simples Nacional) – regime that favors, simplifies and differentiates the taxation of its participants, several options for access to credit and formal smoothness for relationships with suppliers and corporate clients.

More than 2/3 of the companies operate in commerce and services with up to 9 employees. In Brazil, about 80% of MSEs operate in commerce and services (SEBRAE, 2003). In Anápolis-GO the percentage is 77%, a number very close to 80%, this can be justified by the lower complexity of the business, lower technical and advanced knowledge requirement to open, without the need for a higher education level, use of cheap labor and without qualification.

More than 50% of companies have as main customers the individual. A survey by SEBRAE, conducted in the state of Paraná in 2009, showed that MSEs do not need much investment in innovation, capital and structure to serve individuals. This low investment ratio is one of the characteristics of MSEs, thus showing that their main customers are individuals.

## 4.2. Profile of managers

The profile of the managers interviewed has the following characteristic features, shown in Table 2.

**Table 2**  
Profile of managers

	Research terms	Results
Occupation	Owner, Main Shareholder, General Manager.	55.7%
	Managing Partner, General Manager.	10.0%
	Store Manager, Non-Partner Manager.	32.9%

	Research terms	Results
Gender	Male	62.9%
	Female	37.1%
Age range	18 to 28 years	31.4%
	29 to 39 years	34.3%
	40 to 49 years	28.6%
	Above 50 years	5.7%
Education level	Incomplete elementary school	0.0%
	Complete primary education	7.1%
	Incomplete high school	10.0%
	Complete high school	40.0%
	Incomplete higher school	14.3%
	Graduated.	28.6%

It can be seen in Table 2 that the majority are male, aged between 29 and 39 years old and only having completed high school. The manager's education level is one of the variables that influence the success of an MSE.

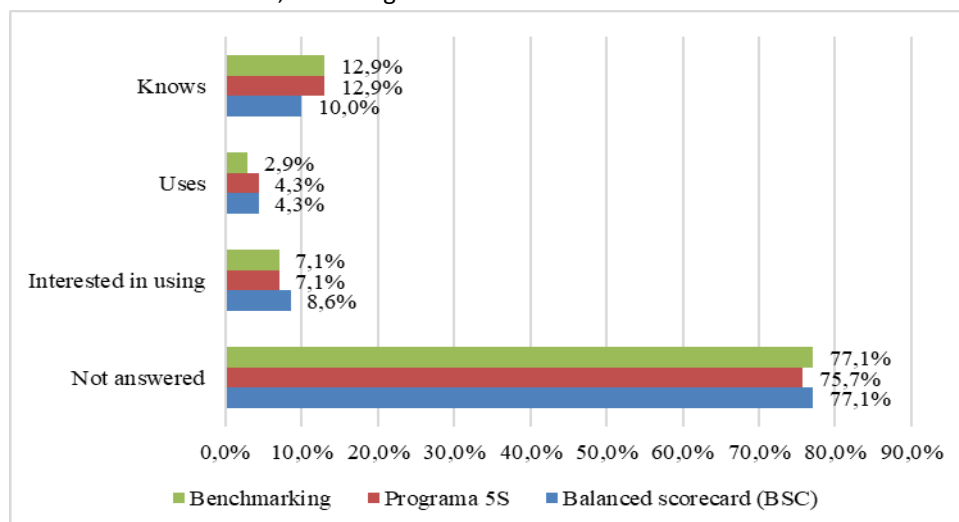
However, what is perceived is that the managers of the organizations studied, despite having a low level of education, are succeeding in business. Proof of this is 51% of MSEs, who have been in the market for over 5 years, as shown in Table 1.

Regarding occupation, gender and age group, the results expressed in the survey are similar to those in other regions of the country, shown by a national survey by SEBRAE (2015).

### 4.3. Management tools: 5S Program, BSC and Benchmarking

Figure 1 reveals that the majority of respondents (76%) did not know how to answer, demonstrating their lack of knowledge about 5S. Coincidentally, the percentage of managers who use the BSC is the same as those who use the 5S Program. It appears that only 4% of respondents use the BSC in their MSEs. Another tool, with little use in the studied MSEs, is the benchmarking, as only 3% of respondents use this tool in business management. It is noticed that the minority, 4% of the interviewees, uses the 5S program in the management of their companies.

**Figure 1**  
Use, knowledge and interest in the three tools



The biggest challenge for the implementation of management tools is to obtain the collaboration of workers in the implementation and maintenance of the program, as the focus is on discipline and organization of the work environment. This can only be achieved if there is involvement of workers. Abrantes (2007, p. 36) explains that the “program only does not consolidate when it is poorly implemented, this is because some companies understand that the process alone will solve all problems, not investing in the development of people”. This author also states that the costs resulting from the implementation of the program should be counted as an investment, since the return is net and certain. The expenses involve consulting, training of workers, immediate action plans, photographs, filming, copies, among others.

The results showed that 96% of the interviewees do not use the BSC. Kaplan (2012) states that this tool provides clear objectives, which in turn creates a greater degree of training for lower levels of management and employees, encouraging them to do their job differently and better to boost the organization's overall performance. The lack of knowledge and the low use of this tool can be justified by the level of training of managers of MSEs.

According to this research, interviewees may not know the term, but when using their techniques, somehow observe the best practices of their competitors and market leaders and, consequently, manage to decrease the time and resources in their processes. Thus, without knowing, they can achieve one of the goals of Benchmarking.

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## 5. Conclusions

In general, the results showed that a minority of managers use the management tools addressed and even companies that have a relative financial balance do not seek to know and/or apply these tools. According to Rigby (2001), its use is important to increase performance in five crucial areas: Financial, adding value to the customer, improving long-term performance, competitive positions in the market, organizational integration.

As the majority of MSEs have as their main customer the individual consumer, because they are micro companies in commerce and services, there is no requirement of the absolute need for professionalization of their managers, since technical assistance is basic, with approximately 1/3 of managers with higher education, thus justifying the low knowledge of the management tools addressed.

Theoretical support shows that the three tools are important for the competitiveness and success of companies, however in the survey the data show that only 4% of the managers of the MSEs use the tools and even so 51.4% of these MSEs have more than 5 years of existence, that is, practically equal to the Brazilian average, which according to SEBRAE (2011) is 51.8%.

It was found that more than half the managers of the studied MSEs still manage to keep the business running, even without knowledge and mastery of important management tools to guarantee quality, competitiveness and growth. However, if these same managers used these tools, the survival rate of their businesses could be higher than the current.

The research achieved its objectives by being able to measure the knowledge of the managers of the MSEs of Anápolis on management tools and whether they use these tools in their organizations. However, it was only a step taken, and more research is needed to help MSEs to be more competitive in the current market.

## Note

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