Knowledge of small Brazilian companies on operations management tools

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Abstract
This study featured small Brazilian companies about the knowledge of operations management tools that help in improving the production process of these organizations. There was the knowledge of managers regarding production management tools and business characteristics correlated with the knowledge of managers about these tools.

Keywords: Small companies, Brazilian companies, Operations management tools.

Introduction
This research appeared on the following question: what degree of knowledge of the small Brazilian businessmen about operations management tools? Was taken as the main assumption in this question that business owners have poorly qualified knowledge about these tools. The objective was to characterize the small Brazilian companies about the knowledge of operations management tools that help in improving the administrative process for these organizations. We applied a questionnaire survey of 800 small business owners from the five regions of the country type. Through the results, we arrive at the conclusion as to what the Likert scale, it was evident that most of the interviewed companies (55% on average) does not use the tools of operations described in this study, either because they do not know such tools or simply because they have no need for their use in their business.

The current scenario of small Brazilian companies
The current economic climate is marked by competitiveness between organizations. The relentless pursuit of profit leads to large corporations - with their lush technological infrastructure and its highly trained staff - to increase profitability in its industry and then increase its market share in this sector, suppressing, therefore, small companies.

The period of import substitution, through the emergence of the phenomenon of globalization, attempts to stabilize the Brazilian economy and trade liberalization has meant that large corporations were pressured to adopt the international standards of competitiveness, reducing costs to ensure global standard competition (Souza et al. 2007).

This caused many small businesses to raise their difficulties to compete with these big corporations. Thus, many who wish to open their own business as a way to earn a living, began to run into problems such as the lack of technical and scientific knowledge, the
operation of the planning and implementation of management tools and the lack of proposed aid to these organizations (Ribeiro 2011).

According to the Brazilian Institute of Geography and Statistics - Ibge (2011) and Annual Social Information - Rais (2011), small businesses match most Brazilian companies and employ the majority of the population, yet they account for a small share of GDP and nearly half of them do not pass the first years of life. As Borges et al. (2012), the high mortality rate of businesses is a problem that undermines economic growth. There is a susceptibility to the closure of businesses, especially in the early years of existence.

In this sense, one of the main factors contributing to the high mortality of these organizations is the lack of knowledge about operations management tools. The current literature on the subject points out that this fact is because the managers of these organizations, largely lack the scientific knowledge about these tools (Ribeiro 2011, Santos 2012, Santos et al. 2011, Tachizawa and Pozo 2007). They manage only with the empirical knowledge, or common sense, that they call "practical". Combine this practice to the theory can be a way these organizations achieve survival.

Methodology
In research question we chose a more positivist strand which values quantitative aspects (Kuhn 1997). As Vergara (2006), the methodology can be categorized as to the purposes and on the means. As for the purpose, the research can be descriptive and explanatory, applied and/or intervention. As for media, research can be classified as documentary, bibliographic and/or participant.

The population for this study is composed by Brazilian small enterprises are characterized by having a lower or equal to R$ 3,600,000 (approximately 1,800,000 dollars) gross annual income. They amount to about 5,786,696 business establishments, according to Ibge (2011).

Regarding the sample, it was random stratified where “n” calculated was 664 small businesses at a confidence level of 99% and a sampling error of 5%. The “n” observed, for example the amount of small enterprises who answered the questionnaire proposed was 800, thus reducing a little more sampling error, although it has not reached a sampling error of 3%, which would require a sample of 1.843questionários. Thus it is noteworthy that the absolute majority of research in the area of Social Sciences uses the sampling error of 5%.

According to Ibge (2011), through its management of research, stratification of small Brazilian enterprises has the following format: 1.3% in the northern region, 14.3% in the Northeast, 55.5% in southeast, 22.4% in the south and 6.5% in the Midwest. Thus, the sample is very close to the percentages of these percentages for each region, proceeding just rounding them.

To obtain these samples as close to these percentages, the researcher was counting the questionnaires answered by geopolitical region of the country. As you could be the desired percentage, going to disregard or not count most of the responses coming from that region. This procedure allowed the stratification of the sample.

To collect information regarding the diagnosis of the degree of knowledge of small entrepreneurs, a structured questionnaire using gradual tracks in identification of the respondent and the firm (such as age groups, marital status, length of business and geographic region was used business location) and a Likert type scale which is related to the knowledge of small entrepreneurs on operations management tools, where the researcher was able to deduce the main difficulties encountered by respondents in the administrative process for these organizations and the level of skilled knowledge operations management tools of small enterprises. The scale had the following configuration: a) Strongly agree; b) Agree in parts; c) Neither agree nor disagree; d) disagree in parts; e) Strongly disagree.
The questionnaire was filed in Google Docs (Internet tool that provides free filing of a questionnaire), and sent to the Sebraes of all states of the federation, secretaries of finance, development and farm all the states and capitals of the country, departments management, economics and accounting in various Brazilian federal universities with a disclosure requirement for small entrepreneurs. Furthermore, the researcher sent the questionnaire to your bank emails of small business owners across the country.

The pretest of the instrument was performed with some businessmen database researcher who agreed to contribute to the development and structuring of it. Data collection occurred from November 2011 to March 2012. Initially the researcher personally visited some offices Sebraes, Sesi and Sesc and some departments of farm some municipalities in the North and Northeast of Brazil to promote research and seek cooperation in sending the same link of the instrument and the awareness of entrepreneurs to reply the questionnaire.

The data relating to the questionnaire were analyzed with the help of Spss (Statistical Package for Social Science). Through breeding techniques could be identified as the organizational structure and the type of manager that applies more or less applies operations management tools, as well as which ones that have better financial results. Also, was provided at the end of the analysis of the results, a set of operations management tools found in the literature of administrative sciences for the best management of these small enterprises.

The selection methodology and exemplification of management tools was made compatible with the defined objectives and design management as a scientific and technical process of applying scientific knowledge to seek survival and/or growth of small enterprises.

Results and discussion

In questioning the managers of the companies if the current physical space in the company was sufficient for all the activities he wanted to accomplish, it was noted that in relation to this premise: 46.18% strongly agreed, 24.41% disagreed completely, 11.18% neither agreed nor disagreed, 11.18% agreed shares, 6.76% disagreed in parts, and 0.29% no opinion.

The premise: know the correct time and the correct amount of supplies to be purchased per month by my company not to miss or leftover goods, it was found among the managers who: 52.94% strongly agreed, 14.12% agreed parts, 13.24% disagreed completely, or 12.06% agreed nor disagreed, 7.06% disagreed in parts, and 0.58% prefer not to answer.

As for the statement: Before performing the tasks of my business I make a plan of action to indicate who will do something when going to do, where to go, how much will be spent and how it is performed, it was noted between managers which: 47.94% strongly agreed, 24.41% disagreed totally, 12.94% agreed in parts, 8.53% or agreed nor disagreed, 5.09% disagreed in parts, and 0.89% prefer not respond.

As to assert that he knew the cause of all the problems of the company, for example, the root of the problems, managers: 62.35% fully agreed; 12.94% totally disagreed; 12.35% agreed parties; 7.94% neither agreed nor disagreed, 3.24% disagreed in parts, and 1.18% prefer not to answer.

When the managers said that among the numerous tasks they had to perform day-to-day we knew distinguish those with greater severity, urgency and relevance, which are realized: 57.65% strongly agreed, 21.76% disagreed utterly: 7.94% parties agreed, 7.06% neither agreed nor disagreed, 3.24% prefer not to answer, and 2.35% disagreed in part.

With respect to knowing exactly towns or places that the company should sell its products in order to obtain higher gains, it was found that managers: 43.82% strongly agreed, 27.94% disagreed completely, or 11.47% agreed nor disagreed, 10.29% agreed in parts; 6.18% disagreed in parts, and 0.30% prefer not to answer.

Forward to the following assertion: if the company wants to open a new branch or a new point of sale, I'll know where in higher return, it was noted that managers: 50.59%
strongly agreed, 24.41% disagreed completely; 11.76 % agreed in parts; 8.53% neither agreed nor disagreed, 4.18% disagreed in parts, and 0.53% prefer not to answer.

How to know all the costs (as storage, insurance, tax, depreciation, freight, etc.) that the company could have if he wanted to deliver the product to the customer, it was perceived that managers face this assertion: 49.71% agreed totally, totally 23.82% disagreed, 10.59% agreed parties; 10.59% neither agreed nor disagreed, 5.00% disagreed in parts, and 0.29% prefer not to answer.

Regarding the knowledge of the time the company takes to deliver a product to the customer, it was found that managers: 59.71% strongly agreed, 16.47% disagreed completely, 9.41% agreed in parts; 8.53% neither agreed nor disagreed, 6.18% disagreed in parts, and 1.17% prefer not to answer.

How to know the quantity of products that have been returned because they are damaged, faulty or delays, it was perceived among the managers who: 45.59% strongly agreed, 27.94% disagreed completely; parties agreed to 9.71%, 9.41% neither agreed nor disagreed, 6.18% disagreed in parts, and 1.17% prefer not to answer.

How to know the amount of requests that were made by customers who were satisfied, fulfilled within or without errors in the collection, it was noted, among managers who: 58.53% strongly agreed, 17.65% disagreed completely; 10.29% agreed in parts; 9.41% neither agreed nor disagreed, 2.94% disagreed in parts, and 1.18% prefer not to answer.

Forward the claim to know the value (in dollars) of stock in the company that had the day of the survey, it was found among the managers who: 51.76% strongly agreed, 20.00% strongly disagreed, 14.71% neither agreed nor disagreed, 6.76% disagreed parts; parties agreed to 6.47%, and 0.30% prefer not to answer.

Conclusion
Regarding affirmative scale of knowledge, the answer choice that had the highest incidence was the “strongly disagree” (55% on average), may show that the majority of managers interviewed small enterprises does not use the operations management tools. Is because they do not know such tools or have no need for their use in their companies.

Thus, it is suggested that further studies be carried out in different segments as small Brazilian companies to identify the needs of operations management tools according to the peculiarities of each type of company. Furthermore, it is suggested that the organs of support and encouragement can stimulate the use of such tools to enable economic and financial growth of these organizations and therefore their survival in the highly globalized market in which they live.

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