

**MANAGEMENT TOOLS WORLDWIDE COMPARED TO OLOMOUC REGION,
UTILIZATION AND TRENDS IN INDUSTRIAL COMPANIES**

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Abstract

The aim of the paper is to analyze and describe recent application of management tools in the enterprises worldwide including their utilization and trends in timeline compared to industrial companies in Olomouc region, Czech Republic. The main data source for presented paper is the research performed by Bain & Company, Inc. (BC) which concentrates on surveying of management tools in companies worldwide since the year 1993, while primary research was performed by authors in companies that produces and customizes metal parts for automotive and aerospace industry. The motivation behind this paper is based on effort to make students and academics in management focus on most recent and powerful management tools to boost successful business. The latest survey of BC has more than 14,700 respondents from more than 70 countries in North America, Europe, Asia, Africa, the Middle East and Latin America, and is probably the most comprehensive systematic long-term study in the world. The management tools in the top ten list vary in time, but four of them remain since 1993 (however some of them temporarily disappeared): Benchmarking, Customer satisfaction, Total quality management and Vision and mission statement.

Keywords: Management tools, industrial companies, trends

1. INTRODUCTION

The relevance of the topic is illustrated by publication and citation numbers of Web of Science. For the keywords “management” AND “tools” in the title, 8,201 publications with 59,321 citations without self-citations and h-index 90 were found on 27th January 2020. The annual number of citations has exceeded 7,000 in the past years. One of the biggest organizations engaging in management tools utilization in enterprises is Bain & Company (BC).

BC advises clients on strategy, operations, technology, organization, private equity and mergers and acquisitions. They develop practical, customized insights that clients act on and transfer skills that make change stick. Founded in 1973, BC has 55 offices in 36 countries, and their deep expertise and client roster cross every industry and economic sector [1].

1.1. Research of the current state of knowledge

Every company focuses on maximization of efficiency and sustainability. However, these two terms are often difficult to quantify and formulate. There are different approaches to support these goals. One of the areas that can positively affect the functioning of the company are management tools [2].

Literature searches often focus on the relationship between strategic planning and the real performance of a firm, but only few studies describe the usefulness of applying management tools [3,4,5].

Existing studies have shown that the proper use of management tools and techniques positively affect organizational performance (Iseri Say a kol., 2006; Al-Khadash & Feridun, 2006; Indiatsy a kol., 2014). The performance and quality of the work is being perceived as more effective and beneficial. Together with work instructions and guidelines, employees appreciate the tools that help with processes maintenance and improvements [6].

Management tools are one of the basic elements for managing the company's performance. More and more, it is important to collect the right data for the necessary analyzes so that the right decisions can be made. An appropriate set of tools plays a crucial role in the whole cycle of the company and it is very important for the natural and sustainable development of the organization [7,8].

Dynamic development and often increased competition force companies to constantly improve all processes to maintain competitiveness in today's market. This is done by simple and quick-to-apply tools, as well as complex and complicated tools requiring special software or IT equipment. The combination of both variants creates a comprehensive set of management tools that serve to increase performance in the company and often allows you to find innovative solutions [9,10,11].

The basis of every company is a vision and a plan. A common cause of failure is the application of inappropriate tools or their incorrect use [12,13]. For this reason, companies also need to focus on training in management tools, whether they are employees working on internal process or sales specialist or buyers who build and maintain relationships with customers or suppliers [14,15].

The trend and probably a key area of using management tools is digitization. It allows you to combine all the needs in one place with the application of the necessary tools and visualizations to satisfy all the parts of the company [16].

1.2. Theoretical background – Management Tools

Academics define an immense number of management methods, tools, techniques or indicators that were developed to help the companies achieve the highest efficiency and the best performance. Many of this method are difficult to establish, some of them could bring the company very tangible outputs, some have less-tangible outcomes. Contemporary companies are employing more management methods, but they appear to be finding them less effective [1, 4]. Here follows the list of top ten popular management tools:

- Strategic Planning,
- Customer Relationship Management (CRM),
- Benchmarking,
- Advanced Analytics (Big Data Analytics),
- Supply Chain Management,
- Change Management Programs,
- Total Quality Management (TQM),
- Digital Transformation,
- Mission and Vision Statements.

2. THE METHODOLOGY OF THE PAPER

Goal of the paper has been set to analyze and describe recent application of management tools in the enterprises worldwide including their utilization and trends in timeline (2006 to 2019). Comparison to primary

data from industrial companies in Olomouc region of Czech Republic (2019) is also presented. Three research questions were formulated:

- 1) Are the most popular management tools varying in time?
- 2) Do exist some management tools which are stable in the top ten group for decades?
- 3) Are there similar results in utilization of management tools worldwide and in industrial companies in the Czech Republic?

The secondary data obtained by BC and primary data collected by MBCO students were used for evaluation of research questions. Linear regression including equations and coefficients of reliability were calculated.

2.1. Data Collection

The primary data were collected in year 2019 in the Olomouc region of the Czech Republic. Totally were collected 123 questionnaires, but 7 were rejected due to incompleteness. The structure of primary sample was following:

- Legal status: 49 % limited liability companies, 31 % self-employed and 20 % joint stock companies.
- Size regarding the number of employees: 33 % micro (0 to 10), 35 % small (11 to 50), 19 % medium (51 to 250) and 13 % big (more than 250) companies.
- The industrial enterprises were established since 1950 to 2013 year.

Since 1993, BC has surveyed executives around the world about the management tools they use and how effectively those tools have performed. The objective is to provide managers with information they need to identify and integrate tools that will improve business performance results, and to understand how global executives view their strategic challenges and priorities. They focus on 25 tools, honing the list each year. To be included in their survey, a tool needs to be relevant to senior management, topical and measurable. By tracking the tools companies are using, under what circumstances and how satisfied managers are with the results, they have helped them make better choices in selecting, implementing and integrating the tools to improve their performance. With this, their 16th (in 2017) survey, they now have more than 14,700 respondents from more than 70 countries in North America, Europe, Asia, Africa, the Middle East and Latin America, and they can systematically trace the effectiveness of management tools over the years. As part of their survey, they also ask executives for their opinions on a range of important business issues. As a result, they can track and report on changing management priorities [1].

3. RESULTS OF THE SURVEY

Chapter present most important findings of management tools application in the world and Olomouc Region of the Czech Republic. Results are characterized by **Table 1** and **Figure 1** (world) including linear regression and trends and **Figure 2** (Industrial Companies in Olomouc region) – Pareto chart.

3.1. Application of Management Tools in the World and its Trends

Table 1 characterizes top ten of utilized management tools in the world companies in years 2006, 2010, 2012, 2014 and 2019.

There is well visible that some management tools lose their popularity (Business Process Reengineering, Scenario and Contingency Planning, Knowledge Management) while some gain popularity (Advanced Analytics, SCM, TQM, Digital Transformation) while still others stay in the top ten ladders for long period of time (Strategic Planning, CRM, Benchmarking, Mission and Vision Statement).

Table 1 Management Tools utilization in the world companies (own processing)

Place	2006	2010	2012	2014	2019
1	Strategic Planning	Benchmarking	Strategic Planning	CRM	Strategic Planning
2	CRM	Strategic Planning	CRM	Benchmarking	CRM
3	Customer Segmentation	Mission and Vision Statements	Employee Engagement Surveys	Employee Engagement Surveys	Benchmarking
4	Benchmarking	CRM	Benchmarking	Strategic Planning	Advanced Analytics
5	Mission and Vision Statements	Outsourcing	Balanced Scorecard	Outsourcing	Supply Chain Management
6	Core Competencies	Balanced Scorecard	Core Competencies	Balanced Scorecard	Customer Satisfaction
7	Outsourcing	Change Management	Outsourcing	Mission and Vision Statements	Change Management
8	Business Process Reengineering	Core Competencies	Change Management	Supply Chain Management	TQM
9	Scenario and Contingency Planning	Strategic Alliances	Supply Chain Management	Change Management	Digital Transformation
10	Knowledge Management	Customer Segmentation	Mission and Vision Statements	Customer Segmentation	Mission and Vision Statements

Figure 1 underlines findings from **Table 1** with more illustrative way including linear trend lines with their equations and coefficients of reliability. X axe represents timeline, Y axe represents ranking of the management tool. Directions of linear trends characterize if popularity of the management tool increase (negative value), decrease (positive value) and how much (absolute value). Most promising are Supply Chain Management (-0,8158), CRM (-0,0843) and Benchmarking (-0,061) whose popularity grows in time. Most falling in popularity are Mission and Vision Statement (0,5087) and Strategic Planning (0,0698). Most stable is Change Management (0,0093). There is necessary to mention, that linear trend is calculated only if at least three time-values are present.

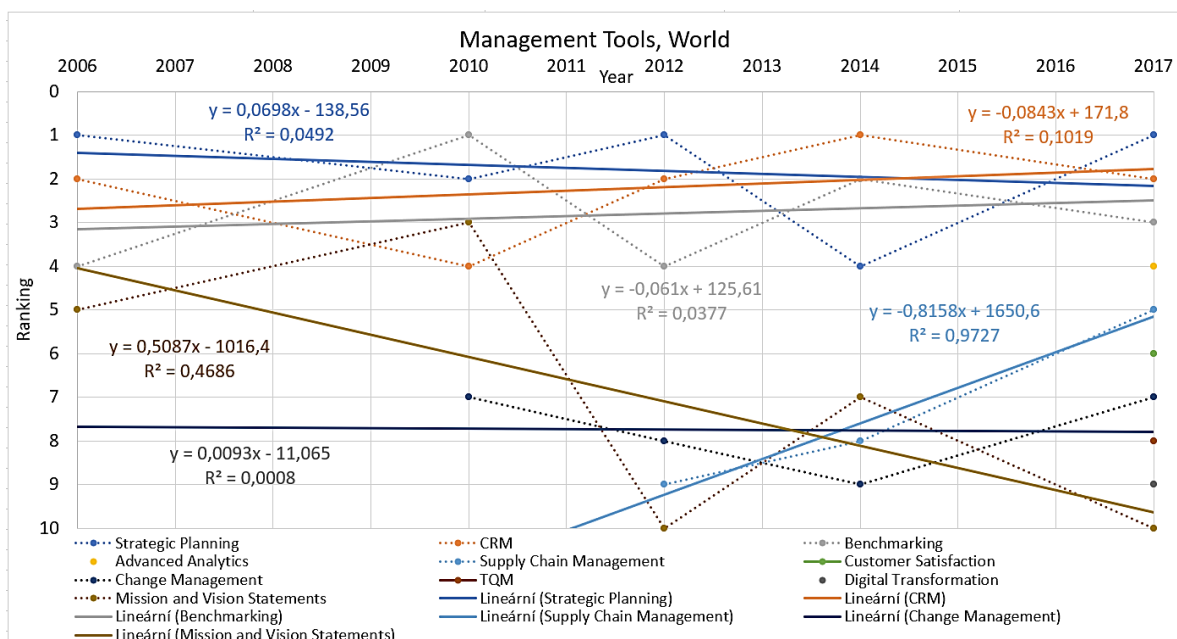


Figure 1 Management Tools in the World (own processing)

3.2. Application of Management Tools in the Industrial Companies in the Czech Republic, Olomouc region

Following **Figure 2** illustrates popularity of management tools in surveyed industrial companies group in Olomouc region of the Czech Republic in the year 2019. Utilization of 24 management tools were evaluated. Overall knowledge of management tools is very small. Only three management tools (strategic document, SWOT analysis and SMART principles) are recognized by more than 20 % of surveyed enterprises and seven (+ EVA indicator, Total Quality Management, Key Performance Indicators and Management by Objectives) over 10 % of enterprises.

64 % of surveyed enterprises have prepared detailed or concise written strategic document (business plan). SWOT analysis recognized by 48 % of enterprises is long-term best-known strategic analytic technique and SMART principles (24 %) are related to setting of goals. Economic Value-Added indicator observe 14 % of enterprises and for Total Quality struggles also 14 % of enterprises. KPI and MBI are closely interconnected and are aimed by 12 % resp 10 % of enterprises.

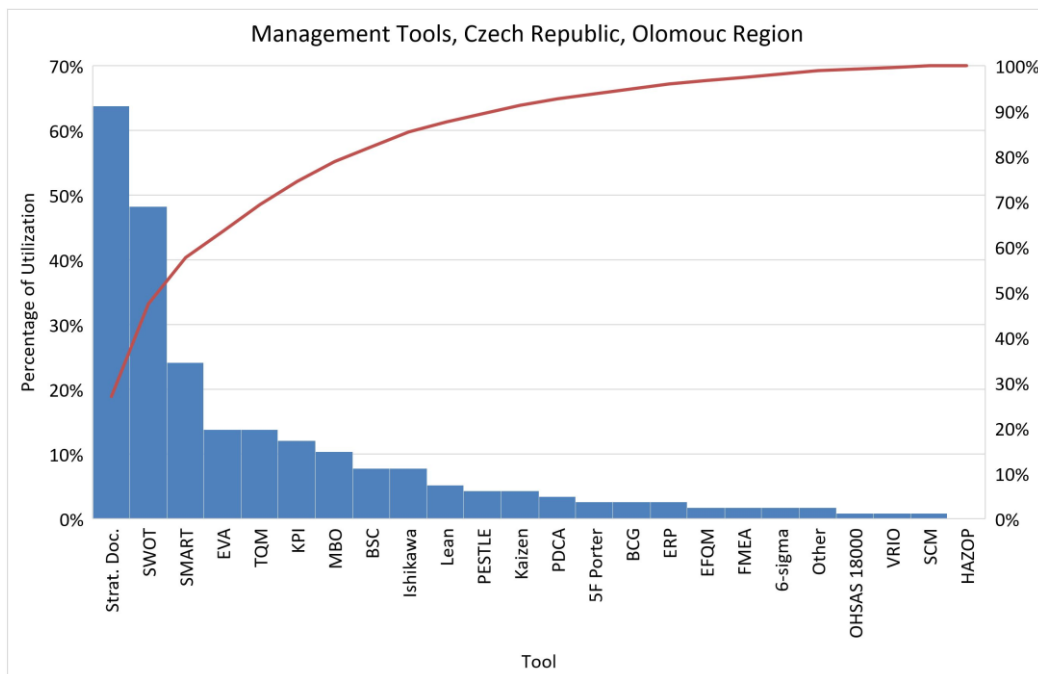


Figure 2 Management Tools in the Industrial Companies in the Czech Republic, Olomouc region, year 2019 (own processing)

4. DISCUSSION AND CONCLUSION

We can say that the goal of the paper to analyze and describe recent application of management tools in the enterprises worldwide including their utilization and trend in timeline and compare it to situation in industrial companies in Olomouc region of the Czech Republic was fulfilled. The research questions were answered:

- 1) Management tools in the top ten ladders are varying in time. Three management tools are in top ten 2019 new, three management tools from top ten 2006 disappeared till the 2010 and more three disappeared till 2019.
- 2) Four management tools however are stable in the top ten group for all 11 years.
- 3) There are some similar results in application of management tools worldwide and in the Czech Republic related to two tools: Strategic planning, resp. strategic document as well as TQM are among the most popular worldwide and in the industrial companies in Olomouc region too.

The research goals were fulfilled with the data of primary research and BC. Most important added value of the paper is comparison of utilization of management tools in world and Olomouc region conditions and accentuation which management tools have increasing or decreasing tendency in time and which are most stable. The overall world winner of management tool stability is Mission and Vision Statement which endures since 1993 however its trend in popularity is weakening. World and regional star is Strategic Document/ Planning. Both tools are closely interconnected.

The sample and data of BC research are comprehensive reliable and huge. In other hand the Olomouc region sample is focused mainly on micro and small industrial enterprises. Future research could be aimed more to bigger industrial companies in the whole Czech Republic.

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