

BUSINESS MANAGEMENT TOOLS AND FIRM PERFORMANCE

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ABSTRACT

If companies want to succeed and achieve sustainable competitive advantage, especially on the contemporary global market, they have to pay attention on competitors' behaviour and global best practice. The same requisite applies on trends in technology, product development, innovations, but also in adopting and mastering managerial practices. With the aim to investigate trends in organization of information system in firms, in this research, different instruments and systems of data gathering and analysis (with an idea to use it in decision making and business administration process), regardless of its source or purpose (i.e. communicating with stakeholders or designing organization), are referred to as business management tools.

We conducted a research regarding the practice of using business management tools in the Croatian firms. In this paper, we explore the preference of using globally popular management concepts, methods and techniques, in one word – tools, in organizing business and preparing information databases for evidence based decision-making. For identifying global popularity as well as for easier comparison of domestic and foreign business practices, the questionnaire included the tools that appear in Bain management practice surveys. The analysis of trends in the use of business management tools aimed to determine the situation in the Croatian business practices regarding appropriateness and integration of implemented tools, level of management awareness of current global trends and their attitude towards the prospective use of business management tools.

Research findings indicate that Croatian firms are late acquirers of worldwide prevailing solutions for managing businesses, which means that implementation of business management tools in Croatian companies is lagging behind the global trends. The results of analysis can be used for selection of business management tools, as well as for (re)thinking appropriateness and implications of specific tool implementation on the business performance of the firm.

Keywords: firm behaviour, management tools, organization information system, effectiveness, Croatia

INTRODUCTION

Organizational effectiveness is an abstract concept and is therefore difficult to measure. To measure it, organizations often try to define what actually effectiveness is to them, so they can define specific criteria for planning, measuring and improving desirable

effect and compare their performance to competitors` (i.e. customer satisfaction, market segment structure, etc.). Therefore, in contrast with efficiency, effectiveness may not be entirely objective, and may depend on the consensus of the parties involved. Because it is difficult to objectively assess it, effectiveness is estimated based on perception and expectation. There is no consensus about the definition of effectiveness, nor the criteria and rules that it sets, nor its universally applicable determinants, but it can be inferred that it is highly dependent on timely and accurate information.

ROLE OF MANAGEMENT TOOLS IN MANAGING FIRM'S PERFORMANCE

Information is key business success ingredient. Data is becoming more and more important in managing corporations, and collecting, analysing and managing data consisting of both business and public insights is becoming crucial in managing business. Investments in ICT are increasing with each business year, since finding appropriate set of management tools business entities can ground their decision making on has become important for organization`s sustainable development.

Big data era has come and companies need to be armed with sophisticated custom ICT solutions which meet their needs in order to be above the fold market share-wise [1]. Since the loads of information in globalized world are infinite, firm needs to design processes and patterns to help them systemize them and group them in useful managing enablers. In order to do so, they use management tools as described and elaborated routines or predefined protocols and procedures. Some of them are comprehensive and require complete organizational redesign, some of them require business process adjustments, and some are more conceptual in their nature. Some of frequently used management tools, at least according to our research, are described in the following paragraphs, in order to illustrate variations in their nature and scope.

Mission and Vision Statements define the company`s purpose, its aspirations regarding goals and values as well as its desired future. Benchmarking, as a management tool in context of this research, aims at improving performance by identifying and applying best demonstrated practices, especially to operations and sales. Companies compare products or processes performance, both externally with those of competitors and best-in-class companies, and internally with other operations that perform similar activities in their own firms, in search for performance boosters and innovative solutions [2].

Balanced Scorecard (BSC) is mostly used to align activities to the organization's vision statement. This however, requires a company to have in place its mission statement, strategic plan and vision, financial status, current structure and modus operandi of an organization, employee level of expertise and customer satisfaction level. By using BSC, companies subjugate themselves to finding the right activities to achieve their goals through specific metric measurement. These can be whatever a company needs them to be on its path to the vision statement, but these areas of activities fall under four factors: finance, internal business processes, learning and growth, and customer. Since it is company-specific, a small company will not have incentives to implement it, or if it does, it will not have the same areas as a medium sized or large company.

Customer relationship management (CRM) is yet another means to an end with increased production, efficiency and analysis [3]. Companies need CRM systems and strategies to get information about their customers, develop and improve business relationships with them, increasing customer retention rates, driving sales growth -

generally influencing customer journey by using data for marketing, sales and promotional activities [4][5][6][7]. CRM could include designing and adjusting various channels to reach a customer, such as company's website, phone number, live chat integrations, e-mail, social media and marketing materials.

Digital Transformation is generic name for tools aiming at integrating digital technologies into an organization's strategy and operations. They encompasses the entire organization while seeking for opportunities to merge the best of both digital and physical worlds [8][9]. Digital Transformation focuses on ways for upgrading customer experience value chain. It explores possibilities for relating physical and digital by implementing new technology that can bolster the base business and weave them into holistic systems concentrated on creating superior customer experiences [10][11].

Supply chain management means managing a network of affiliated business entities involved in the production of a final product or service [12]. Changes in business environment, such as globalization and the emerging of multinational companies, raise management awareness of the importance of improving supply chains effectiveness [13][14] and contribute to the development of network organizations and strategic alliance. For the purpose of achieving flexibility and cost reduction, companies are focusing on core competencies [7], emphasizing the role and importance of specialization. Activities that are not narrowly involved in the process or can be more efficiently performed by other entities are outsourced [15]. In such a value chain, each partner (specialized company) focuses on their expertise and optimization of its strategic (and operational) processes.

METHODOLOGY AND RESEARCH DESIGN

Analysis of use of the widely most popular management tools in Croatian business practise is conducted on a sample of mainly large companies (both private and public) from various industries listed on Zagreb Stock Exchange (ZSE). ZSE database consists mostly of large companies (classification according to the Central Bureau of Statistics) and the rationale for implementing management tools is in the complexity of the firm and its internal or external communication channels. However, it should be noted that on a world scale those companies are relatively small. The questionnaire was sent to all firms listed on the ZSE in order to avoid researcher bias. Unfortunately, the return was rather low so the sample consist of 39 firms in total. The paper explores the preference of using globally popular management concepts, methods and techniques – in one word – referring to as management tools. For identifying global popularity as well as for easier comparison of domestic and foreign business practices, the questionnaire included the tools that appear in well-known Bain's managerial practice surveys. In order not to disregard possible delay of local firms in adopting new methods, tools and concepts, the management tools listed in the last four consecutive Bain's survey reports were included in the questionnaire. The results of research conducted on companies listed on Croatian Stock Exchange are compared to those of Bain's worldwide management tools research [1].

The majority of companies in the sample are domestic owned companies. Also, the majority of respondents in the sample are providers of various services (including financial). There were only 25% of manufacturing firms in the sample. Companies in

question are in general profitable Croatian companies. Only four companies in the sample (n=26) reported a loss in previous year.

ANALYSIS AND RESULTS INTERPRETATION

Analysis show that companies in Croatia the most often use customer segmentation, so it is ranked first among all the offered management tools. It is used in 80% of companies in the sample, followed by benchmarking, which is currently also the most popular management tool globally. The benchmarking is sharing its position with the mission and vision statement.

It is interesting that in the top five most used tools in Croatian companies, three of them are focused on the management of customers (customer segmentation, customer relationship management and customer surveys), while strategic planning, which is for many years the world's most popular tool, is not in the first five in representation. Contrary to current international practice, outsourcing is ranked 13th, and BSC, which is currently fifth globally is only 10th place in Croatia, which confirms the orientation of Croatian companies towards short-term goals and operational level activities. The fact that 70% of companies in the sample (n = 23) use project management contributes to this conclusion.

The level of management responsible for making business decisions about the implementation and integration of tools is the top management in 76% of cases, and middle management in 24% of cases. This indicates a high level of centralization of decision making about resource allocation in Croatian companies, which is common in the global practice, especially in the times of crisis. Comparative analysis of international and Croatian preference in using the tools shows significant differences. Therefore, the causes of implementation of certain management tools in Croatian companies in the sample will be analysed in the following few paragraphs (Table 1).

Table 1 - Review of the main reasons for the management tools implementation in Croatian companies (rank)

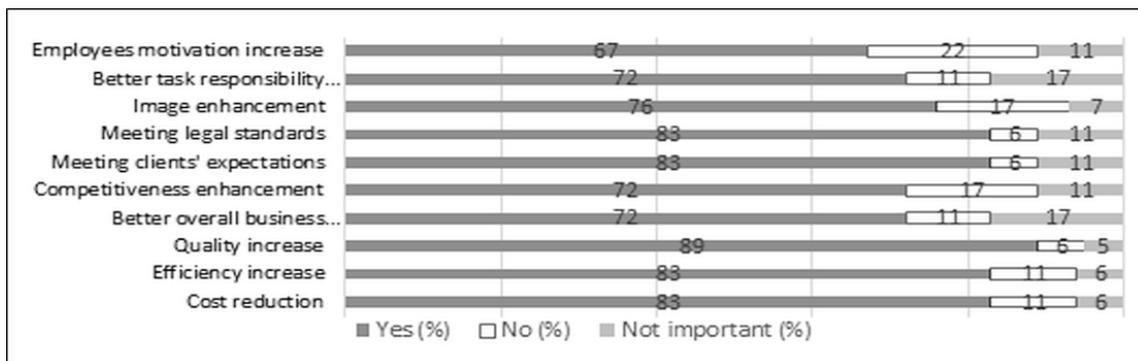
External consultant recommendation	1
Request of holding company after acquisition	2
The consequence of staff and / or members of the Board training	3
Synchronizing with a network of suppliers and customers	4
Tracking trends (do not fall behind the competition)	5
Reducing costs and increasing efficiency	5
Other	7

Source: authors

Results are indicating that the main reason for the implementation of a tool is a recommendation from external adviser while reasons such as reducing cost and increasing efficiency are at the bottom. This may signal the influence of negotiators personal preferences (in relation to business preferences) but it also may point to the conclusion that the tools in sample firms could have more popularizing or marketing

character, rather than they are the reflection of real needs. This could also be the consequence of a strong wave of foreign consultants who have flooded Croatian companies in last 15 years selling "foreign know-how", and a strong desire of domestic business elites for mapping global trends and successes.

The analysis also showed some inconsistency of data obtained through the survey: for example, while the second most often used tool in our sample firms is benchmarking, implementation of tools with the aim of monitoring trends and keeping up with competitors is ranked only on the penultimate place.



Source: authors

Figure 1 - Degree of expectations fulfilment

On the other hand, 89% of respondents said that the introduction of the tools fulfilled the expectations for increased quality, while the same percentage of respondents implemented tools to meet the legal regulations (Figure 1). The main reasons for respondents' satisfaction with the implemented tools were reducing costs, increasing efficiency and meeting customer requirements.

Implementation of tools in Croatian companies has reached a lower level of fulfilling managers expectations regarding changes to the competitive position, operating results (regardless of the realized cost savings and increased efficiency), and clearly assigning responsibility for tasks. The most critical factor in the satisfaction with using tools is the motivation of employees.

Survey data was analysed using statistical methods with the aim to identify the effect of implementation of tools on the company's success. The data were analysed through t-tests, bi-variant regression analysis and one-way ANOVA. The relationship between the number of used tools and efficiency of a firm measured by turnover per employee was analysed, although this analysis does not provide answer to a question whether increase of the number of tools increases the turnover per employee or the company decides to increase the number of tools due to increase in productivity (and consequently complexity of managing operations), as a measure of companies' growth. Conducted bi-variant regression analysis demonstrates a positive statistical correlation between the number of tools used and firm efficiency measured by turnover per employee. The

number of tools used explains 25.6% of the variance in turnover per employee results ($R = 0.5$, $F(1, 20) = 6.9$, $p < 0.05$). Consequently, an increase of one tool resulted in an increase in turnover per employee of about 10000 Euros in ($B = 78\,630$, $SE = 29\,919$, $p < 0.05$).

Table 2 - Relationship between the profit per employee and number of used MTA

Univariate Tests of Significance, Effect Sizes, and Powers for MTA (baza survey v.05)											
Sigma-restricted parameterization											
Effective hypothesis decomposition											
Effect	SS	Degr. of Freedom	MS	F	p	Partial eta-squared	Non-centrality	Observed power (alpha=0.05)			
Intercept	2066,442	1	2066,442	34,10396	0,000016	0,654537	34,10396	0,999805			
dobit_zap_svi	9,536	1	9,536	0,15738	0,696242	0,008668	0,15738	0,066347			
Error	1090,664	18	60,592								

Parameter Estimates (baza survey v.05)											
Sigma-restricted parameterization											
Effect	MTA Param.	MTA Std.Err	MTA t	MTA p	-95,00% Cnf.Lmt	+95,00% Cnf.Lmt	MTA Beta (β)	MTA St.Err.β	-95,00% Cnf.Lmt	+95,00% Cnf.Lmt	
Intercept	10,22482	1,750967	5,839960	0,000016	6,546383	13,90325					
dobit_zap_svi	0,00001	0,000013	0,396715	0,696242	-0,000023	0,00003	0,093100	0,234679	-0,399941	0,586142	

Test of SS Whole Model vs. SS Residual (baza survey v.05)											
Dependent Variable	Multiple R	Multiple R ²	Adjusted R ²	SS Model	df Model	MS Model	SS Residual	df Residual	MS Residual	F	p
MTA	0,093100	0,008668	-0,046406	9,536194	1	9,536194	1090,664	18	60,59243	0,157383	0,696242

Source: authors

Performance correlation analysis (Figure 2) measured by profit per employee in relationship with number of used tools confirmed the hypothesis from the previous analysis. It showed that the success is not in relation with the number of used tools but that the success depends on appropriate combination of tools ($R = 0.093$, $F(1, 18) = 0.157$, $p > 0.05$).

In the following text the battery of t-tests results is presented, aiming on describing the influence of specific management tool on business performance. First, we analysed whether the Croatian companies use strategic planning, as the world's most widely used tool till recession, are equally successful in the market and competitive positioning as companies which are not use strategic planning. It was found that there are no statistically significant differences regarding success in positioning on the market and achieving a competitive position between the companies that apply strategic planning and those that do not apply it. The only exception was the variable "Business decisions depend on the terms dictated by the major suppliers" where there was a statistically significant difference between those companies who used and those who did not use strategic planning. Companies that use strategic planning ($\bar{X} = 1.7$, $SD = 0.67$) have significantly lower dependence on the conditions imposed by suppliers ($t(19) = 2.29$, $p < 0.05$) than those that do not apply ($\bar{X} = 2.45$, $SD = 0.82$) strategic planning. The index of effect size shows that 48% of the variance of results related to decision making in terms dictated by vendors can be linked with the application of strategic planning. Furthermore, the analysis showed that the use of a balanced scorecard (BSC) has an effect on the company's position on the market. The group that uses the BSC and the group that does not use the BSC differ significantly in the perception of company's position as a market leader who is able to substantially affect the price level in the industry. Respondents in companies that use the BSC perceived their companies to a large extent as a market leader with the ability to influence prices ($t(1.19) = -2.5$, $p < 0.05$). Companies using BSC ($\bar{X} = 3.57$, $SD = 1.27$) considered themselves market

leaders to a greater extent than companies that did not use the BSC ($\bar{X} = 2.21$, $SD = 1.12$). The group that uses a supply chain management (SCM) and a group that does not use SCM also differ significantly in the perception of the company as a market leader who is able to substantially affect the price level in the industry. Respondents in companies that use SCM ($\bar{X} = 4.33$, $SD = 0.57$) perceived their company to a large extent as a market leaders with the ability to influence prices ($t(1.19) = -2.72$, $p < 0.05$) than those employees whose companies did not use SCM ($\bar{X} = 2.38$, $SD = 1.19$). Moreover, analysis showed that companies that use CRM and project management (PM) differ in relative efficiency measured in the turnover per employee. The degree of correlation between the use of PM ($F(1, 18) = 4.7$, $p < 0.05$) and CRM ($F(1, 18) = 5.56$, $p < 0.05$) and increased turnover per employee was noticeable; use of PM can explain 20.72% and use of CRM 23.61% of the variance changes in the increase of the turnover per employee.

CONCLUSIONS

Implementation of management tools is usually based on cost-benefit analysis. The tools ought to be designed to facilitate the processes of planning, organizing, managing, coordinating and control, rather than provide additional financial burden. The analysis showed that an increase in the number of implemented tools in proportion to company size positively affects the success of the company (measured by the increase in turnover per employee). That can be explained by a higher degree of awareness and a better quality of information resulting in better business decisions based on systematic monitoring and optimally structured communication channels.

Research has also confirmed that there is a trend in Croatia in introducing globally recognized management tools. However, the analysis also showed a lag of the Croatian business practices in the use of tools in comparison with current worldwide trends. While the most often used tools in the period of recession globally are those for the contraction of business and resource conservation (such as benchmarking, outsourcing and reengineering) among the top 5 tools in Croatia prevail the tools aimed at testing consumers opinion and customer relationship management. Such a practice can demonstrate the delay of consequences of the recession and the lack of the seriousness in the perception of the crisis in domestic business practices, or the lower impact of the crisis on the Croatian companies because of their weak relations with international markets. Furthermore, the analysis of tools level of expectations fulfilment detects, among other things, the effectiveness of the implemented tools on reducing costs and increasing efficiency. Accordingly, it can be concluded that Croatian companies have found key areas for organization development and resources preservation in keeping businesses in alignment with customer needs and wishes.

The perceived importance of strategic in relation to operational tools is relatively disturbing with only mission statement among the five most used tools in Croatian companies, while the world's most popular strategic tool, strategic planning, is used in

only 65% of companies in the sample. BSC is used in only 40% of companies in the sample even though the analysis shows that firms that have implemented it consider themselves the market leaders. Companies that use it also stand apart from others by acquiring technologies that are not easily available to all competitors.

Statistical analysis pointed to another phenomenon: companies in the sample that are using following operational tools, PM, CRM, and SCM are considered, at least, more innovative regarding implemented technology than most competitors. Moreover, companies using the PM and CRM have a significantly higher level of labour productivity (sales per employee) compared to other companies, which supports the thesis that globally frequently used management tools are not only the contemporary trend; adequate tools are affecting the increase in business process efficiency.

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