BUSINESS PROCESS ORIENTATION CONSTRUCT ANALYSIS - SLOVENIA AND CROATIA

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Abstract
Because of the increasing business pressures companies must be adaptable and flexible in order to withstand them. Inadequate business processes and low level of business process orientation, that in its core accentuates business processes as opposed to business functions and focuses on process performance and customer satisfaction, hinder the ability to adapt to changing environment. It has been shown in previous studies that the companies which have reached a higher business process maturity level consistently outperform those at the lower levels. The aim of this paper is to provide a basic understanding of business process orientation concept and business process maturity model. Besides that, the paper presents the comparison of the state and the progress of business process orientation in Slovenia and Croatia that has been captured with a study conducted in fall of 2005. Based on the results some practical implications and guidelines for managers are given.

Keywords: business process orientation, business process maturity model, Croatia, Slovenia, comparative analysis

Introduction
In the early 1990s, a new approach to organization design, and consequently organizational change, began to attract attention from academia and business: The concept of business processes and business process orientation (Davenport, 1993). Based on the idea of considering organizations in terms of customer-focused and value-creating sets of activities - business processes, new process paradigm provides clearer understanding of business. According to the process view, business processes represent a core of the functioning of an organization because the company primarily consists of processes, not products or services. In other words, managing a business means managing its processes (McCormack and Johnson, 2001).
The importance and power of adopting a process viewpoint points directly to the weaknesses of the functional organization in terms of coordination and transparency across functional areas (Laguna and Marklund, 2005). Because of this inefficiency of the traditional approach, the business process orientation emerged with its purpose of creating an efficient organization. It clarifies obstacles and activities that are unnecessary and represents a tool for future changes and improvements (Häggström and Oscarsson, 2001).

Despite their importance, the business processes have been neglected for a long time in managerial studies mainly due to the fact departments in companies are structured in a functional or product oriented way (Vanhaverbeke and Torremans, 1998). Most of the literature on business process orientation has been in the popular press and lacks research or an empirical focus (McCormack, 1999; Seltsikas, 2001; Aysar and Johnson, 2003). Based on the original study of business process orientation by K. McCormack and C. W. Johnson (2001), a joint empirical research by Faculty of Economics in Ljubljana and Zagreb was carried out in Slovenia and Croatia. The aim was to investigate understanding of the process view and process maturity levels of Slovenian and Croatian companies, test the impact of process orientation maturity level on organizational performance for both countries separately and compare the results.

In the paper the state of the business process orientation is examined in both countries separately and compared. The paper consists of four sections. The first section describes the theoretical frame of reference, which aims to provide a basic understanding of business process orientation and business process maturity model. In the second section used methodology and sample description are presented. In the third section the concept of business process orientation is studied on three levels. At the aggregate level, business process orientation is examined by the business process maturity level of Slovenian and Croatian companies. The second level comparison looks at the individual dimensions (process view, process jobs, process management and measurement systems) and scrutinizes the similarities and differences between the two countries. The detailed level of analysis using the independent samples t-test emphasizes the most obvious differences and explains the background of these differences. In the last section the implications of our findings from research are discussed, as well as the limitations of the research and provision of some future research proposals.

**Business process orientation and business process maturity model**

In their quest for success, companies should adopt the principles of the process paradigm. “Focus on processes” could mean many things, such as process view, process approach, process orientation, process management, managing processes, process measurement, process modeling and process improvement to mention a few (Isaksson, 2004). Although empirical evidence is lacking, several models have emerged during the last few years that have been presented as the high performance, process-oriented organization needed in today and tomorrow’s world. Deming, Porter, Davenport, Short, Hammer, Byrne, Imai, Drucker, Rummler-Brache and Melan have all defined what they view as the new model of the organization. This “new way of thinking” or “viewing” your organization has been generally described as business process orientation or BPO (McCormack and Johnson, 2001). According to Deming, an organization that views the company as a collection of processes that must be understood, stabilized and improved, has the BPO. Hammer defines the BPO as
organization’s focus on the collection of cross-functional activities (processes) that takes one or more kinds of input and creates an output that is of value to the customer (Hammer, 1990), while Rummler and Brache define that organizations with the BPO are based upon process-oriented structures, measures, rewards and resource allocation (Rummler and Brache, 1995). Finally, Davenport describes a process orientation as involving elements of structure, focus, measurement, ownership and customers (Davenport, 1993). Although definitions of the business process orientation vary, we adopt the McCormack’s and Johnson’s (2001) definition of process orientation: An organization that, in all its thinking, emphasizes process as opposed to hierarchies with a special emphasis on outcomes and customer satisfaction.

Business process orientation is not a synonym for a process organization structure. It represents the understanding of the business flow, and it is the first step toward process-based organizational structure. On the other hand it can be viewed as a broader term than the process organization, because an organization can reach a certain degree of BPO maturity without formally being organized horizontally. Although production-oriented companies have been using a process-view on manufacturing for a considerable amount of time (e.g. the assembly line is an example for process optimization in a production-oriented organization), it is therefore important to point out, that process orientation in the way it is expressed in the managerial literature does not mean to apply manufacturing principles on administrative work, despite the fact that this view is not uncommon among managers and scholars (Kai, 1999).

Adopting a process view of the organization is a key aspect of process orientation, i.e. describing those aspects of a process that are relevant to controlling and coordinating the execution of its tasks (Georgakopoulos et al. 1995, in Lindfors, 2003). Although the organizational structure type isn’t in the focus of this study, it would be interesting to investigate the connectedness of the business process maturity level with the type of organizational structure.

Most organizations that have made an attempt at moving toward process orientation agree that it does indeed provide numerous benefits, including cost savings through a more efficient execution of work, improved customer focus, better integration across the organization, etc. McCormack and Johnson (2001) conducted an empirical study to explore the relationship between BPO and enhanced business performance. The research results showed that BPO is critical in reducing conflict and encouraging greater connectedness within an organization, while improving business performance. The more business process oriented an organization, the better it performs both from an overall perspective as well as from the perspective of the employees.

The road map to the successful transition on the process-based organization is based on the concept of process maturity. The maturity concept provides a useful framework for guiding process improvement work because: (1) it provides the basis for comparing processes, (2) it recognizes the progression of characteristics needed to build good processes, and (3) it recognizes the need to apply different improvement strategies as processes gain increased maturity (Gardner, 2004).

In the current business environment, there is no scarcity of process maturity models. Brett Champlin has identified around 150 such models (Spanyi, 2004). One of the best known ‘maturity’ models is the Capability Maturity Model of CMM developed by the Software Engineering Institute (SEI). The model, created in 1987, has become a worldwide standard for
software development processes and is now embedded within many government and industry organizations. On the basis of the CMM model, many other models emerged like Maull-Tranfield-Maull’s project maturity model, The Rummler-Brache Group Process Maturity Model, maturity models developed by Stalk and Balk, by Harmon, by Rentzhog, by Gardner and the BPO maturity model (Rummler and Brache, 1995; McCormack, 1999; McCormack and Johnson, 2001; Enström, 2002; Harmon, 2003; Maull, Tranfield and Maul, 2003; Gardner, R. A., 2004; Isaksson, 2004). For the purpose of this research the BPO maturity model was readjusted from K. McCormack and C. W. Johnson (2001). The original model was developed based on the concepts of process maturity, BPO, and the Capability Maturity Model developed by the Software Engineering Institute at Carnegie Mellon University (Lockamy III and McCormack, 2004). The BPO construct describes a four-step pathway for systematically advancing business processes along the maturity continuum (Ad Hoc, Defined, Linked, and Integrated level). Each step builds on the work of the previous steps to apply improvement strategies that are appropriate to the current maturity level. It is important to note that trying to skip maturity levels is counter-productive, since each level builds a foundation from which to achieve the subsequent level. An organization must evolve through these levels to establish a culture of process excellence. Recently, the model has been expanded with one more level, The Extended level, which is oriented toward creating the supply chain network (Lockamy III and McCormack, 2004), but it won’t be introduced in this research.

At the aggregate level, business process orientation is examined by the BPO maturity level of Slovenian and Croatian companies. The following definitions for the stages that an organization goes through when becoming business process oriented are provided below and in figure 1.

- **Ad Hoc**: The processes are unstructured and ill defined. Process measures are not in place and the jobs and organizational structures are based upon the traditional functions, not horizontal processes.
- **Defined**: The basic processes are defined and documented and are available in flow charts. Changes to these processes must now go through a formal procedure. Jobs and organizational structures include a process aspect, but remain basically functional. Representatives from function (sales, manufacturing, etc.) meet regularly to coordinate with each other, but only as representatives of their traditional functions.
- **Linked**: The breakthrough level. Managers employ process management with strategic intent and results. Broad process jobs and structures are put in place outside of traditional functions.
- **Integrated**: The company, its vendors and suppliers, take cooperation to the process level. Organizational structures and jobs are based on processes, and traditional functions begin to be equal or sometimes subordinate to process. Process measures and management systems are deeply imbedded in the organization. (McCormack and Johnson, 2001; McCormack, 2003).
The second level of analysis looks at the individual dimensions of the BPO construct (process view, process jobs, process management and measurement). Process view measurement variable consists of 5 items, first 4 are the original items from the BPO maturity model developed by K. McCormack and C. W. Johnson, and the fifth is added by our research group. Process jobs measurement variable remained in the original form with 3 items, and finally, Process Management and Measurement Systems measurement variable, which consists of two added items, so at the end it counts 7 items. The addition of three items was based on our previous research in the area of process modeling and process informatization; see for example Bosilj-Vukšić et al. (2002).

In table 1 operationalization of BPO construct is presented, using previously discussed 3 measurement variables and 15 measurement items. Each of them was measured on a five-point Likert scale (with 1 = completely disagree, to 5 = completely agree).
Table 1. Operationalization of the BPO construct

<table>
<thead>
<tr>
<th>Measurement variable</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROCV1</td>
<td>The average employee views the business as a series of linked processes.</td>
</tr>
<tr>
<td>PROCV2</td>
<td>Process terms such as input, output, process, and process owners are used in conversation in the organization.</td>
</tr>
<tr>
<td>PROCV3</td>
<td>Processes within the organization are defined and documented using inputs and outputs to and from our customers.</td>
</tr>
<tr>
<td>PROCV4</td>
<td>The business processes are sufficiently defined so that most people in the organization know how they work.</td>
</tr>
<tr>
<td>PROCV5</td>
<td>Implementation of information technology is based on the processes, not on functions.</td>
</tr>
<tr>
<td>PROCJ1</td>
<td>Jobs are usually multidimensional and not just simple tasks.</td>
</tr>
<tr>
<td>PROCJ2</td>
<td>Jobs include frequent problem solving.</td>
</tr>
<tr>
<td>PROCJ3</td>
<td>People are constantly learning new things on the job.</td>
</tr>
<tr>
<td>MMPROC1</td>
<td>Process performance is measured in the organization.</td>
</tr>
<tr>
<td>MMPROC2</td>
<td>Process measurements are defined.</td>
</tr>
<tr>
<td>MMPROC3</td>
<td>Resources are allocated based on process.</td>
</tr>
<tr>
<td>MMPROC4</td>
<td>Specific process performance goals are in place.</td>
</tr>
<tr>
<td>MMPROC5</td>
<td>Process outcomes are measured.</td>
</tr>
<tr>
<td>MMPROC6</td>
<td>It has been established an on-line control of information quality in processes.</td>
</tr>
<tr>
<td>MMPROC7</td>
<td>Information flow through process is continuous and efficient.</td>
</tr>
</tbody>
</table>

Sources: McCormack (1999); McCormack and Johnson (2001)

The BPO construct can be a useful tool to determine an organization’s current position on the journey of becoming business process oriented. Understanding exactly where efforts should be focused and having a tool to measure progress should be valuable to companies involved in building business process orientation. (McCormack, 2003).

Sample description and data gathering

In the research cross-cultural dimension was introduced. During September and October 2005 questionnaires were distributed to Slovenian and Croatian companies with more than 50 employees. The main source of data about Slovenian companies was The Business Directory of Slovenia (IPIS). The questionnaire was sent to all 1237 companies of equal size across industries. In Croatia, data was gathered from the database of The Institute for Business Intelligence and the questionnaire was sent randomly to the half of the population, which counts for 1750 companies. In both countries, the questionnaire was addressed to the CEOs or the chairpersons of the companies who were instructed to fill out the questionnaire themselves or give it to a competent person within the organization.
In Slovenian case, 203 completed questionnaires were returned (which accounts for 16.5% response rate) while in Croatia 202 completed questionnaires were returned to the research group (which accounts for 11.5% response rate). The sample of examined companies in Slovenia was almost identical to Croatian sample in absolute terms speaking, but relatively, according to the number of companies which fulfill conditions, the Croatian sample was smaller.

Received questionnaires from both countries allow us to compare the results and to implicitly test the impact of various country-based factors on the organizational learning phenomena. Slovenian and Croatian methodologies were compared and analyzed according to four factors: the proportion of samples in the population, the criteria for selection of the companies (the number of employees and companies’ revenues), the distribution of companies according to the industry type and the hierarchical position of the respondents.

The size of the company can be determined on several bases (according to number of employees, revenue size, market share, etc.). The selected companies were analyzed according to the number of employees’ criterion. About two thirds of the selected Slovenian and Croatian companies had between 50-250 employees, around 16% between 250-499 employees, and around 12% of the selected companies exceeded the number of 500 employees. According to the company's revenues in 2004, there is a slight difference between Slovenian and Croatian companies. Slovenian companies from the sample had higher annual revenues in 2004 than Croatian counterparts.

Slovenian and Croatian samples differ mostly in the third criterion: the percentage of the companies according to the industry type. Business entities have been classified into different industry types according to the European Classification of Economic Activities NACE Rev 1, which is obligatory for all EU member-states. The percentage of the companies is almost the same for some industry types, while the difference is the most considerable in the Manufacturing. The frequencies and the percentages of companies in regard to their industry type are shown in table 2.

Table 2. The examined companies according to the industry type

<table>
<thead>
<tr>
<th>Industry type</th>
<th>Croatia Frequency</th>
<th>Croatia Percentage</th>
<th>Slovenia Frequency</th>
<th>Slovenia Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Agriculture, hunting and forestry</td>
<td>5</td>
<td>2.5%</td>
<td>5</td>
<td>2.5%</td>
</tr>
<tr>
<td>B Fishing</td>
<td>0</td>
<td>0%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>C Mining and quarrying</td>
<td>3</td>
<td>1.5%</td>
<td>2</td>
<td>1.0%</td>
</tr>
<tr>
<td>D Manufacturing</td>
<td>64</td>
<td>31.7%</td>
<td>95</td>
<td>46.8%</td>
</tr>
<tr>
<td>E Electricity, gas and water supply</td>
<td>10</td>
<td>5.0%</td>
<td>3</td>
<td>1.5%</td>
</tr>
<tr>
<td>F Construction</td>
<td>32</td>
<td>15.8%</td>
<td>21</td>
<td>10.3%</td>
</tr>
<tr>
<td>G Wholesale and retail trade</td>
<td>27</td>
<td>13.4%</td>
<td>21</td>
<td>10.3%</td>
</tr>
<tr>
<td>H Hotels and restaurants</td>
<td>13</td>
<td>6.4%</td>
<td>7</td>
<td>3.4%</td>
</tr>
<tr>
<td>I Transport, storage and communication</td>
<td>11</td>
<td>5.4%</td>
<td>13</td>
<td>6.4%</td>
</tr>
<tr>
<td>J Financial intermediation</td>
<td>6</td>
<td>3.0%</td>
<td>7</td>
<td>3.4%</td>
</tr>
<tr>
<td>K Real estate, renting and business activities</td>
<td>0</td>
<td>0%</td>
<td>2</td>
<td>1.0%</td>
</tr>
<tr>
<td>O Other community, social and personal service activities</td>
<td>26</td>
<td>12.4%</td>
<td>20</td>
<td>9.9%</td>
</tr>
<tr>
<td>Not given</td>
<td>5</td>
<td>2.5%</td>
<td>7</td>
<td>3.4%</td>
</tr>
</tbody>
</table>

In Croatia, the questionnaire was filled mostly by people from the middle management level (directors of functional departments), although the top management members were also significantly represented. In Slovenia, top and middle management were equally represented.
within the sample. For the better understanding of the sample, data considering independent characteristics of the companies and respondents are summarized in the table 3.

**Table 3. The independent characteristics of the examined companies and respondents**

<table>
<thead>
<tr>
<th>Independent characteristics of the companies</th>
<th>Croatia</th>
<th>Slovenia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of employees</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50-249</td>
<td>71.3%</td>
<td>72.4%</td>
</tr>
<tr>
<td>250-499</td>
<td>16.3%</td>
<td>16.1%</td>
</tr>
<tr>
<td>500+</td>
<td>11.8%</td>
<td>11.5%</td>
</tr>
<tr>
<td>Not given</td>
<td>0.5%</td>
<td>-</td>
</tr>
<tr>
<td>Annual revenue in 2004 (mil. €)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under 7</td>
<td>50.0%</td>
<td>37.4%</td>
</tr>
<tr>
<td>7-27</td>
<td>33.7%</td>
<td>42.8%</td>
</tr>
<tr>
<td>More than 27</td>
<td>14.4%</td>
<td>19.8%</td>
</tr>
<tr>
<td>Not given</td>
<td>2.0%</td>
<td>7.9%</td>
</tr>
<tr>
<td>Hierarchical position of the respondents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Top management</td>
<td>22.4%</td>
<td>31.5%</td>
</tr>
<tr>
<td>Middle management</td>
<td>55.7%</td>
<td>31.5%</td>
</tr>
<tr>
<td>Lower management and operational level</td>
<td>13.0%</td>
<td>12.8%</td>
</tr>
<tr>
<td>Not given</td>
<td>8.9%</td>
<td>24.2%</td>
</tr>
</tbody>
</table>

The results of the analysis show that the examined Slovenian and Croatian companies could be compared because they were very similar according to other three criteria, and the companies’ industry type could not have the important influence on further research results. The questionnaires used in both countries were the same. Both facts allow us to proceed with data analysis in order to find answer to our research question.

**Data analysis**

The data gathered from the two samples was analyzed using descriptive statistics and the independent samples t-test. Using these methods the differences and similarities of the studied countries were reveled and are shown below.

Firstly, the compound measure of the BPO construct was analyzed. Examining this value the overall state of business process orientation for both countries is presented. Based on the two samples the compound measure of the BPO is 3.63 for Slovenia and 3.47 for Croatia. Both values fall in the middle of the second and the third business process orientation maturity level that is between the defined and the linked level. Even though the values do not differ greatly, the difference was found to be statistically significant (t(403)=2.893, p<0.005). This means that Slovenian companies are slightly more process-oriented than Croatian counterparts, which was expected considering the geopolitical situation of Croatia in the past decade. Consequently, the Croatian companies have started the transformation process with a time gap in respect to Slovenian companies.
To find the underlying reasons for the differences in the attained maturity level, the individual answers need to be scrutinized. The descriptive statistics of individual responses are shown in table 4. Looking at the individual construct items some important conclusions can be draw. Firstly, companies from Slovenia and Croatia have rated item PROCV3 the highest, which shows that their processes are defined and documented which is in fact one of the most important aspects of process orientation and could be coined as a stepping stone for a process orientation. However, based on our previous research (Dimovski et al. 2005) where it was shown that many companies are documenting their processes as a part of ISO 9000:2000 quality standard requirements the high value of PROCV3 element needs to be considered carefully. ISO quality certificate process documentation standards do not suffice for the true understanding of the way organization operates and cannot be used in renovation efforts. Furthermore, our experience in the field work confirms that Slovenian and Croatian managers understand process documentation and process modeling to broadly and therefore loosely claim that their processes are documented.

The answer with the lowest scores supports the statement above. Respondents in both samples rated item PROCV2 the lowest. Process terms such as input, output, process and process owner are not used widely in studied organizations. This shows that employees do not perceive their organizations as process oriented. Clearly it is not enough for processes to be defined and documented “on paper”, but they must actually be implemented and work must progress as defined in process models. For that to happen employees need to adopt the process way of thinking and become familiar with the processes in which they participate. For now this is not the case as the respondents in both countries rated item PROCV1 well below average, saying that their employees do not see the business as a series of linked processes.

The fact that the process paradigm is still subordinate to functional one is further substantiated with the low scores of items MMPROC7 (the information flow through processes is not seamless) and MMPROC3 (resource allocation is predominantly based on functional units and not on processes).

On the other hand many practices have been put into work advancing the companies on the process orientation maturity model. In both countries, there are many companies that have process outcomes (MMPROC5) and process performance (MMPROC1) measurement systems in place enabling them to monitor the efficiency and effectiveness of the processes and with that information making the improvements efforts possible. It is also worth to note that information systems development is frequently based on business processes which can probably be attributed to fact that ERP solutions are gaining their importance and are being implemented more and more often. Of course, solely the implementation of an ERP system does not make an organization a process oriented.

By looking at the standard deviation of individual items we can see where there is a consensus about a certain aspect of business process orientation. The statement that jobs include frequent problem solving (PROCJ2) was the item that had the least variation, both in Slovenia and Croatia. On the other hand most variability, considering Slovenia, was observed in item PROCV2, which means that in some companies process terms are widely used and in other quite sparsely. In Croatia, the most fluctuated item was MMPROC7.
Table 4. BPO construct - Descriptive statistics

<table>
<thead>
<tr>
<th></th>
<th>Slovenia Mean</th>
<th>Slovenia Std. Deviation</th>
<th>Croatia Mean</th>
<th>Croatia Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROCV1</td>
<td>3.45</td>
<td>0.852</td>
<td>3.42</td>
<td>0.884</td>
</tr>
<tr>
<td>PROCV2</td>
<td><strong>3.15</strong></td>
<td><strong>1.157</strong></td>
<td><strong>2.87</strong></td>
<td>1.052</td>
</tr>
<tr>
<td>PROCV3</td>
<td><strong>3.82</strong></td>
<td>0.918</td>
<td><strong>3.75</strong></td>
<td>0.887</td>
</tr>
<tr>
<td>PROCV4</td>
<td>3.72</td>
<td>0.774</td>
<td>3.72</td>
<td>0.781</td>
</tr>
<tr>
<td>PROCV5</td>
<td>3.62</td>
<td>0.839</td>
<td>3.57</td>
<td>0.868</td>
</tr>
<tr>
<td>PROCJ1</td>
<td>3.77</td>
<td>0.896</td>
<td>3.24</td>
<td>0.869</td>
</tr>
<tr>
<td>PROCJ2</td>
<td>3.69</td>
<td><strong>0.735</strong></td>
<td>3.55</td>
<td><strong>0.752</strong></td>
</tr>
<tr>
<td>PROCJ3</td>
<td>3.79</td>
<td>0.783</td>
<td>3.71</td>
<td>0.816</td>
</tr>
<tr>
<td>MMPROC1</td>
<td>3.79</td>
<td>0.926</td>
<td>3.60</td>
<td>0.988</td>
</tr>
<tr>
<td>MMPROC2</td>
<td>3.61</td>
<td>0.911</td>
<td>3.43</td>
<td>0.966</td>
</tr>
<tr>
<td>MMPROC3</td>
<td>3.53</td>
<td>0.769</td>
<td>3.65</td>
<td>0.778</td>
</tr>
<tr>
<td>MMPROC4</td>
<td>3.66</td>
<td>0.846</td>
<td>3.48</td>
<td>1.023</td>
</tr>
<tr>
<td>MMPROC5</td>
<td>3.80</td>
<td>0.833</td>
<td>3.74</td>
<td>0.895</td>
</tr>
<tr>
<td>MMPROC6</td>
<td>3.64</td>
<td>0.873</td>
<td>2.94</td>
<td>1.118</td>
</tr>
<tr>
<td>MMPROC7</td>
<td>3.42</td>
<td>0.886</td>
<td>3.34</td>
<td><strong>1.136</strong></td>
</tr>
</tbody>
</table>

In Table 5 the results of the independent samples t-test, and the differences between the two studied countries, are presented. The items in bold are those where the differences are statistically significant. The difference is most obvious at item MMPROC6 (t(403)=7,003, p<0.000). This means that Slovenian companies give much more emphasis to the quality of process data and have monitoring and control systems in place to assure it, while in Croatia, it presents one of the lowest rated items. In other words, process data quality currently is not of big importance in Croatia.

Significant differences were also noted at PROCJ1 item (t(403)=6,041, p<0.000). Jobs are more frequently multidimensional and not just simple tasks in Slovenia then in Croatia. This is important aspect of process orientation whereby employees need to be equipped with wide arsenal of knowledge and skills in order to participate in different areas of a process.

Finally, the biggest difference was found at an item that, to our belief, plays the most important role in changing the mindsets of employees and is a major catalyst for advancements in BPO maturity, item PROCV2 (t(403)=2,560, p<0,011). Although the basic process paradigm terminology is more frequently used in Slovenian companies, both countries still have a lot of work to do in aforementioned areas.

Another interesting observation to note is that three additional items (MMPROC1, MMPROC2, MMPROC4), which revealed statistically significant differences, are from the process management and measurement systems dimension. Obviously Slovenian companies have made more progress in that area, stepping one step further on the process orientation path. As it was previously explained companies cannot reach the integrated level of maturity solely by focusing on the process view and process jobs dimensions alone.
### Table 5. Independent samples t-test results

<table>
<thead>
<tr>
<th>Item</th>
<th>Equal variances assumed</th>
<th>Levine’s Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>F</td>
<td>Sig.</td>
</tr>
<tr>
<td>PROCV1</td>
<td>yes</td>
<td>0.454</td>
<td>0.501</td>
</tr>
<tr>
<td>PROCV2</td>
<td>yes</td>
<td>3.419</td>
<td>0.065</td>
</tr>
<tr>
<td>PROCV3</td>
<td>yes</td>
<td>0.028</td>
<td>0.867</td>
</tr>
<tr>
<td>PROCV4</td>
<td>yes</td>
<td>0.138</td>
<td>0.710</td>
</tr>
<tr>
<td>PROCV5</td>
<td>yes</td>
<td>0.030</td>
<td>0.863</td>
</tr>
<tr>
<td>PROCJ1</td>
<td>yes</td>
<td>0.205</td>
<td>0.651</td>
</tr>
<tr>
<td>PROCJ2</td>
<td>yes</td>
<td>0.512</td>
<td>0.474</td>
</tr>
<tr>
<td>PROCJ3</td>
<td>yes</td>
<td>1.218</td>
<td>0.270</td>
</tr>
<tr>
<td>MMPROC1</td>
<td>no</td>
<td>4.339</td>
<td>0.038</td>
</tr>
<tr>
<td>MMPROC2</td>
<td>yes</td>
<td>1.575</td>
<td>0.210</td>
</tr>
<tr>
<td>MMPROC3</td>
<td>yes</td>
<td>0.184</td>
<td>0.669</td>
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<tr>
<td>MMPROC4</td>
<td>no</td>
<td>5.828</td>
<td>0.016</td>
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<td>MMPROC5</td>
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<td>0.642</td>
<td>0.423</td>
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<tr>
<td>MMPROC6</td>
<td>yes</td>
<td>2.721</td>
<td>0.100</td>
</tr>
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<td>MMPROC7</td>
<td>no</td>
<td>4.641</td>
<td>0.032</td>
</tr>
</tbody>
</table>

### Discussion and conclusion

Data analysis revealed some important aspects of business process orientation in Slovenia and Croatia. It showed that Slovenian companies have reached slightly higher maturity level than Croatian companies, which was not surprising considering Croatian contemporary history. Though statistically significant, the difference is not large and the general state of the BPO in both countries is promising. Still, a lot is left to change and improve in order to transform the companies into process-oriented ones.

Results of the study revealed that managers (respondents) are aware of the importance of business processes, their impact on overall performance. Therefore, they make sure that processes in their organizations are clearly defined and documented. Unfortunately, the awareness and documentation on paper of organization’s processes is not enough to be a process-based organization. Today there are a lot of companies that calls them process-oriented but according to the definition they are not (Angstrom and Oscarson, 2001). Many other practices need to be put in place before an organization is truly organized by processes.

One of the most crucial areas is a change of the mindsets of employees, the paradigm shifts from functional to process paradigm. This paradigm change is something in which the Slovenian and Croatian companies are most deficient. Especially in Croatia, the process terminology is not widely used. This finding should serve as a guideline for managers striving to reach higher levels of maturity. They should elucidate and communicate the basic principles of process orientation to all levels of employees and should not withhold this important concept inside the boundaries of top management.

The difference in the compound measure of the BPO for Slovenia and Croatia arises from the process jobs and process management and measurement systems dimensions. At each of the two dimensions Slovenian companies have implemented more of process oriented practices enabling them to reach higher maturity level. In Croatia, more effort needs to be focused on defining and measuring process performance, setting specific process performance goals and
monitoring the quality of process data. Additionally, the employees should be more empowered and given wider authority to tackle the multidimensional tasks pertaining to a process.

Though the data analysis and results presented have revealed important information about the state of business process orientation in Slovenia and Croatia, as well as a comparison of the progress, the study is not without limitations. The scores for some answers seem somewhat overrated which implies that either respondents misunderstood the question or are not familiar with the subject matter in general. In the future the questionnaire needs to be revised and refined in order to capture some of the aspects of BPO more accurately. More generally the usage of Likert scales and self completing questionnaires inevitably creates a degree of subjectiveness that cannot be omitted and must therefore be acknowledged. To some extent the problem is overcome with the sample size which was the case in our study.

While a lot has been covered in this paper, much more still needs to be done. Future work includes: testing the impact of BPO on organizational performance; reevaluating the validity of the measurement instrument and fine tuning it; expanding the study geographically, preferably in at least one developed and one developing country so we can see if there is a link between the developmental stage of national economy and the level of business process orientation.

The new process view of organizations has not yet been fully realized. Many companies have integrated their core processes, combining related activities and cutting out ones that don't add value, but only a few have fundamentally changed the way they manage their organizations. The power in most companies still resides in vertical units (Hammer and Stanton, 1999).

References:


