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Intellectual capital in the Slovenian hotel industry before and after entry into the EU

Abstract
The intellectual capital in the Slovenian hotel industry has been improved in the past few years what is extremely desirable and necessary since today the Slovenian hotel industry is facing increased competition in the enlarged European single market. The paper presents an empirical analysis of the development of intellectual capital in the hotel industry in Slovenia between 2003 and 2006. In this period of time Slovenia entered the European Union (EU). The results show progress of intellectual capital and reveal some problems that the Slovenian hotel industry is still facing in the field of intellectual capital. The development of human and structural capital has seen progress; meanwhile development of customer capital has not been evidenced. More exactly, employee competence, employee innovativeness, business processes, information technology and distribution channels were further developed in the given period of time. Development of other parts or sub-components of intellectual capital has been neglected or they simply have not reached a higher level of development. Attitude to work, company culture and distribution channels are the least developed parts of intellectual capital in the Slovenian hotel industry in 2006. At the end of the paper some recommendations for managers in the Slovenian hotel industry regarding intellectual capital are given.

Keywords: hotel industry; human capital; customer capital; Slovenia

Introduction
In the era of the new economy, intellectual capital is the primary source of production (Stewart, 1999, p. xxiii). No industry has escaped its touch, even the traditional industries such the tourism industry. Intellectual capital has important impact on the market value, increasing returns and market competitiveness (Nemec Rudež, 2004). Increasing difference between market and book value of firms in the last fifteen years is reflecting the increasing role of intellectual capital in the economy (Edvinsson, Malone, 1997; Hope, Fraser, 1997; Roos, Roos & Dragonetti, 2000). The nature of competitive advantage has shifted from physical to intangible intellectual capital (Edvinsson, 2002, p. 21). It is a dynamic category which should be constantly developed and further
integrated in a firm’s competitive advantage. Additionally, intellectual capital has negligible marginal costs (Lev, 2001, pp. 22-23) what in turn causes increasing returns.

The following study aims to investigate the development of intellectual capital in the three-year period, that is between 2003 and 2006, in the Slovenian hotel industry and, consequently, it researches the impacts of the EU entry in the field of the hotel industry. Thus, changes in this period of time have reflected the adaptation of the Slovenian hotel industry to the European single market.

The entry of Slovenia into the EU has meant new opportunities and threats for the Slovenian hotel industry, induced by the European single market and the competitive conditions. The success of the hotel industry in Slovenia depends on the ability to adapt to the changed business environment which in turn depends on the knowledge and intellectual capital that the hotel industry has. Increased competition in the single European market substantially influences the competition in the hotel industry and as such fosters development of intellectual capital as a competitiveness tool. The study on intellectual capital in the Slovenian hotel industry in 2006 was carried out to confirm the importance of the EU entry for the Slovenian hotel industry.

Intellectual capital is knowledge that can be converted into profit (Harrison & Sullivan, 2000, p. 34). Similarly, Stewart (1999, p. xx) defines intellectual capital as intellectual material that can be put to create wealth. There are synonyms used in the literature for the term intellectual capital. They are intangibles or intangible assets (Sveiby, 1997), intangible resources (Haanes & Lowendahl, 1997), core competences (Hamel & Prahalad, 1990) and knowledge assets (Lev, 2001).

Comprehensive literature has been written on intellectual capital in the last fifteen years. It included above all high-tech industries, while the tourism industry in general has lagged behind. There has been some progress in its introduction in the tourism industry just in the few last years (Bouncken, 2002; Cho & Leung, 2002; Gronau, 2002; Hattendorf, 2002; Kahle, 2002; Nemec, 2002; Pechlaner, Abfalter & Raich, 2002; Pupovac, Zelenika & Ogorevc, 2002; Vujic, 2002; Vukovic, 2002; Engstroem, Westnes & Westnes, 2003). Kahle (2002) argues that the tourism industry has all the necessary features to be characterized as a »new economy« industry. Bounchen (2002) additionally stressed the role that knowledge plays as a main source for quality improvements and competitive advantages in hotels, urging them to implement knowledge management. Hatterndorf (2002) applied a knowledge management tool in the airline industry. Further, Gronau (2002) applied knowledge management systems in the area of hospitality in tourism. Pechlaner, Abfalter and Raich (2002) examined the role of knowledge networks in cross-border destination management systems in the Alps.

The Calgarian model of tourism competitiveness (Ritchie & Crouch, 1993) and the De Keyser-Vanhove model of tourism competitiveness (De Keyser & Vanhove, 1994) had already stressed the importance of intangible factors for competitiveness in the tourism industry although they do not speak about intellectual capital. Tangible assets (like hotels, restaurants, play grounds etc.) will always define competitiveness in the tourism industry because of its specific operations, but the role of intangible assets in the tourism industry is already prevailing.

Mihalič & Dmitrović (2000) demonstrated that non-price resources are relatively more important as price resources for hotel managers in Slovenia. Additionally, Mihalič &
Konečnik (2000, p. 546) found that price competence in Slovenia is less important for hotel companies than for the economy on average. Both studies state that managers in hotels in Slovenia are aware of the importance of the new non-price or intangible competition and that they agree that the advantage of intangible resources will become even more important after the entry of Slovenia into the EU.

Measurement of intellectual capital, as a topic of special concern, has emerged in the tourism industry, too (Brown & McDonnell, 1995; Huckenstein & Duboff, 1999; Denton & White, 2000; Doran, 2002; Pak, 2003). It is based especially on the Balanced Scorecard measurement method (Kaplan & Norton, 2000).

Intellectual capital is ordinarily classified into three basic components (Saint-Onge, 1996; Sveiby, 1997; Bontis, 1998; Stewart, 1999). They are human, structural and customer capital. Human capital is represented by «the capabilities of the individuals required to provide solutions to customers», structural capital is «the capabilities of the organization to meet market needs» and, finally, customer capital is defined as «the depth (penetration), width (coverage), attachment (loyalty) and profitability of customers» (Saint-Onge, 1996). Engstroem et al. (2003) found significant relationships among components of intellectual capital in the Norwegian hotel industry; meanwhile Nemec Rudež (2004) found significant relationships among them in the Slovenian hotel industry.

Further, Nemec Rudež (2004) has already investigated the development of intellectual capital in the Slovenian hotel industry in 2003, that is before the entry of Slovenia into the EU. A survey among 36 managers of the hotel companies in Slovenia was carried out. Human, structural and customer capital were divided into sub-components. The model of intellectual capital components and sub-components was developed for that purpose. The sub-components identified for human capital were: a) employee competence, b) employee attitude to work and c) employee innovativeness for human capital. For structural capital these were: a) management philosophy, b) culture, c) business processes and d) information technology for structural capital. Finally, customer capital sub-components were: a) customer satisfaction and loyalty, b) image and brand and c) distribution channels for customer capital. Neutral weighting was used for the calculation of human, structural and customer capital. It was found that — on a seven step Likert-type scale — human capital got a mean grade of 4.60, structural capital got a mean value of 4.98 and customer capital got a mean value of 4.82. It was found that human capital had to be developed better. Further, the same study found that Slovenian hotel companies had engaged their company strategies in the field of intellectual capital as well as having clearly defined goals that they wanted to achieve in the field of intellectual capital. Furthermore, managers in the Slovenian hotel industry stated that they had been successfully reducing barriers they had confronted in the field of intellectual capital. According to these findings of the study, it can be concluded that there has been notable development of intellectual capital in the following years, that is after 2003, in the Slovenian hotel industry.

It is crucial for the Slovenian tourism industry to follow strategic documents which concern the development of intellectual capital. Already the Slovenian tourism strategy 2001-2006 (Kovač, 2002) has defined intellectual capital policy as one of the five fundamental development policies of Slovenian tourism. Furthermore, the tourism policy for the year 2006 (Hribar, 2006, pp. 18-19) set the goal to increase the role of knowledge in the Slovenian tourism industry and states that intellectual capital development is critical for the improvement of competitive advantage.
Slovenia had 2.4 million tourists in 2005, of which 1.6 million were international. There were 7.6 million overnights realized in Slovenia in 2005, of which 4.4 million nights were realized by international visitors. The number of tourists and overnights as a whole is increasing permanently, but the number of domestic tourists as well as their overnights is decreasing since 2000. The reason is probably in their higher purchasing power and more competitive foreign destinations. Tourism Satellite Accounts (Sirše, Vidjen, Kalin & Černič, 2004) found that hotels and similar establishments in 2000 represented 13.27% of domestic tourism consumption and 20.1% of international inbound tourism. Furthermore, the Tourism Satellite Accounts found that international inbound tourism accounted for 69.3% of total tourism consumption; meanwhile domestic tourism contributed just 30.7% to the total tourism consumption in 2000.

Slovenia entered the EU in May 2004, a year after the research on intellectual capital in the Slovenian hotel industry was made for the first time. There were many changes in the Slovenian economy since then. Membership of Slovenia in the EU has increased competitive conditions for the Slovenian hotel industry. The image of Slovenia which is important for the inbound tourism has increased after its entry into the EU. Slovenian tourism has access to new EU programs such as infrastructure development, technology, training and others through structural funds. Borders among EU members are continuing to dismantle, which in turn facilitates border procedures and transport policy. Trans-border co-operation inside the EU has proved to be enhanced, too (Vodeb, 2005). The common tourism market, defined by the Single European Act in 1992 as »an area without internal frontiers in which the free movement of goods, persons, services and capital is ensured in accordance with the provisions of the treaty«, fosters competition of the hotel industry in the EU. Further harmonization of competition rules, such as customer protection and quality standards, will probably even more strengthen the competitive environment.

Therefore, the building-up of an intellectual capital-based hotel industry in Slovenia, supported by a tourism policy, is essential for the competitiveness of the Slovenian hotel industry in the EU. Sufficient investment in intellectual capital is a prerequisite of bolstering competition in the hotel industry. The competitive environment in the EU requires the study of dynamics and development of intellectual capital to examine if the hotel industry in Slovenia is in line with the strengthening competition in the single European market.

The Slovenian hotel industry operates in the oligopoly structure, represented by few large companies. Additionally, there is a lack of small hotels that represents the weakness of the Slovenian hotel industry. Stronger competition in the EU will probably change the market structure of the Slovenian hotel industry by fostering the formation of small hotels and, thus, making Slovenian hotel industry more flexible.

RESEARCH QUESTION AND METHOD
Based on findings of the previous research on intellectual capital in the Slovenian hotel industry stated above (Nemec Rudež, 2004), a study was repeated in 2006. The purpose of the current study is to examine if any change has happened in the field of intellectual capital in the two years after the entry of Slovenia into the EU, respectively in three years from the previous study. Thus, the main research question is whether the human, structural and customer capital have been further developed in the Slovenian hotel industry after the entry of Slovenia into the EU. The confirmation of the proposed research question would also confirm that the management of intellectual capital, researched in 2003 in the Slovenian hotel industry, has been managed appropriately.
The survey, which was already developed and tested for the study in 2003 (Nemec Rudež, 2004), was used. The questionnaire consisted of three sections. It included statements based on a seven step Likert-type scale. The scale ranged from 1 »strongly disagree« to 7 »strongly agree«. The first section was regarding human capital and consisted of three parts: employee competence, employee attitude to work and employee innovativeness. The second section of the questionnaire gathered information regarding structural capital. It included four parts: management philosophy, culture, business processes and information technology. The third part included statements about customer capital and consisted of three parts. They were: customer satisfaction and loyalty, image and brand and distribution channels.

Data were coded, computed and analyzed using SPSS for Windows. The value of the sub-components was calculated using a neutral weighting of their statements. Similarly, the value of human, structural and customer capital were calculated using neutral weightings of their sub-components. Means and standard deviations were carried out. Furthermore, a dependent t-test were calculated on the mean scores of each intellectual capital component in 2003 and in 2006 and on the mean scores of each intellectual capital sub-components in 2003 and in 2006 to examine if significant differences exist between the level of their development in that period.

There were 36 hotel firms participating in the survey in 2003 and in 2006. The surveys were sent by mail to Slovenian hotel companies with at least 10 employees. Respondents were hotel managers. There was a 52.2% response rate in 2003 and a 50.7% response rate in 2006. There were 31% of small, 47% of medium-sized and 22% of large hotel companies included in the survey in 2003; meanwhile there were 27% of small, 46% of medium-sized and 27% of large hotel companies included in the survey in 2006. Most of them took part in both studies. Both surveys also dealt with small samples because of the smallness of the Slovenian hotel market.

RESULTS

Respondents gave to each component of intellectual capital – human, structural and customer capital – grade higher than 5.00 out of 7.00 in 2006 while there were ranging from 4.60 to 4.98 in 2003. The results are presented in Table 1. There is a general agreement among managers that the components of intellectual capital are somewhat developed in the Slovenian hotel industry. The t-test results showed that there is a significant difference in the level of development of human and structural capital between 2003 and 2006 while there is not a significant difference in the level of development of customer capital in the same period. The interpretation of the results was done at a 5% level of significance.

<table>
<thead>
<tr>
<th>Intellectual capital components</th>
<th>Mean 2003</th>
<th>Mean 2006</th>
<th>Paired differences Mean</th>
<th>Paired differences Stand. dev.</th>
<th>t-value</th>
<th>Level of sign. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human capital</td>
<td>4.60</td>
<td>5.06</td>
<td>-0.45</td>
<td>1.02</td>
<td>-2.668</td>
<td>0.011</td>
</tr>
<tr>
<td>Structural capital</td>
<td>4.98</td>
<td>5.42</td>
<td>-0.44</td>
<td>1.14</td>
<td>-2.325</td>
<td>0.026</td>
</tr>
<tr>
<td>Customer capital</td>
<td>4.82</td>
<td>5.10</td>
<td>-0.28</td>
<td>1.29</td>
<td>-1.303</td>
<td>0.201</td>
</tr>
</tbody>
</table>
Further analysis regarding the development of intellectual capital between 2003 and 2006 in the Slovenian hotel industry showed that there does not exist a significant difference in the level of development of every intellectual capital sub-component. T-test results for intellectual capital sub-components are reported in Table 2. However, employee competence and employee innovativeness as parts of human capital, business processes and information technology as parts of structural capital and distribution channels as a part of customer capital have been further developed between 2003 and 2006. Employee competence and employee innovativeness on one hand and business processes and information technology on the other hand have had a considerable positive impact on human and structural capital to rise the level of their development as a whole in that period.

Table 2
DEVELOPMENT OF INTELLECTUAL CAPITAL SUB-COMPONENTS
IN THE SLOVENIAN HOTEL INDUSTRY IN 2003 AND 2006

<table>
<thead>
<tr>
<th>Intellectual capital sub-components</th>
<th>Mean 2003</th>
<th>Mean 2006</th>
<th>Paired differences Mean</th>
<th>Paired differences Stand. dev.</th>
<th>t-value</th>
<th>Level of sign. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee competence</td>
<td>4.60</td>
<td>4.98</td>
<td>-0.38</td>
<td>1.01</td>
<td>-2.245</td>
<td>0.031</td>
</tr>
<tr>
<td>Attitude to work</td>
<td>5.18</td>
<td>5.10</td>
<td>0.09</td>
<td>1.20</td>
<td>0.426</td>
<td>0.673</td>
</tr>
<tr>
<td>Employee innovativeness</td>
<td>4.57</td>
<td>5.10</td>
<td>-0.52</td>
<td>1.30</td>
<td>-2.411</td>
<td>0.021</td>
</tr>
<tr>
<td>Management philosophy</td>
<td>5.23</td>
<td>5.63</td>
<td>-0.40</td>
<td>0.20</td>
<td>-1.971</td>
<td>0.057</td>
</tr>
<tr>
<td>Culture</td>
<td>5.04</td>
<td>4.87</td>
<td>0.17</td>
<td>0.22</td>
<td>0.779</td>
<td>0.441</td>
</tr>
<tr>
<td>Business processes</td>
<td>5.01</td>
<td>6.00</td>
<td>-0.99</td>
<td>0.40</td>
<td>-2.467</td>
<td>0.019</td>
</tr>
<tr>
<td>Information technology</td>
<td>4.63</td>
<td>5.19</td>
<td>-0.56</td>
<td>0.26</td>
<td>-2.164</td>
<td>0.037</td>
</tr>
<tr>
<td>Customer satisfaction and loyalty</td>
<td>5.43</td>
<td>5.40</td>
<td>0.03</td>
<td>1.40</td>
<td>0.142</td>
<td>0.888</td>
</tr>
<tr>
<td>Brand and image</td>
<td>5.34</td>
<td>5.37</td>
<td>-0.03</td>
<td>1.45</td>
<td>-0.113</td>
<td>0.910</td>
</tr>
<tr>
<td>Distribution channels</td>
<td>3.70</td>
<td>4.55</td>
<td>0.84</td>
<td>1.80</td>
<td>-2.803</td>
<td>0.008</td>
</tr>
</tbody>
</table>

According to the aforementioned findings, there has not been noted further development of those sub-components of intellectual capital in the given period of time, which had had assigned an average value higher than 5.00 already in 2003. On the contrary, there has been a development of sub-components which had an average value of under 5.00 in 2003. The exception is the sub-component of business processes which has even risen in its average value from 5.01 to 6.00 in 2006. The lowest average value still has the sub-component of distribution channels. It has reached the average grade of only 4.55 out of 7.00 in 2006.

Results only partly confirm the research question on the development of intellectual capital in the Slovenian hotel industry between 2003 and 2006. There are some areas of intellectual capital that have been neglected in recent years in the Slovenian hotel industry.

Discussion and conclusion

This paper sheds some light on the changes that the Slovenian hotel industry has been confronting after Slovenia entered into the EU. There is a very competitive market in the hotel industry in the EU. The Slovenian hotel industry has to be on the alert because it is competing on the European market for its tourists, revenue and profit. Slovenia could gain or lose from global tourism competitiveness since there are changing tastes of tourists, who are more informed and harder to satisfy.
In the last survey it was found that some sub-components of intellectual capital which still have had an assigned average value lower than 5.00 out of 7.00 by managers of the Slovenian hotel companies. They are the attitude to work of the human capital, culture of structural capital and distribution channels of customer capital. They are distributed quite evenly across different components of intellectual capital. Additionally, attitude to work and the culture of the company are even more critical sub-components because the level of their development stagnated in the given period. As Amidon (2002) already stated, creation or development of culture where knowledge is valued and shared effectively is one of the most difficult challenges faced in practice. There is a vital challenge to managers to encourage the development of a culture that ensures the quality of tourism products. Kotler, Bowen and Makens (1999, p. 321) argue that the culture of the company directs the behavior of its employees and includes their values and beliefs. According to this, it is understandable that there has not been any progress in the development of attitude to work in the given period, since there has not been any progress in the culture of the company either. Furthermore, development of distribution channels is essential because of the Internet and its opportunities to the hotel companies. Some progress has been done, but there is a great need to develop it further since competition, a global market place, electronic distribution techniques and a perishable product have increased the importance of distribution in the tourism industry (Kotler et al., 1999, p. 451).

The study findings indicate that intellectual capital had a marked improvement in the field of intellectual capital in general in the Slovenian hotel industry between 2003 and 2006. It is in accordance with the study of Mihalič & Dmitrovič (2000) that intangible resources or intellectual capital will be even more important in the Slovenian hotel industry after entry into the EU. The Slovenian hotel companies have prepared themselves for the competitiveness in the EU although additional progress of intellectual capital is needed.

Customer satisfaction and the loyalty sub-component as well as the brand and image sub-component have not be developed in the given period of time at all. They should be reinforced because the hotel industry in Slovenia should not rely for too long on the development of customer satisfaction and the loyalty sub-component and the brand and image sub-component that were reached already in 2003. Thus, the Slovenian hotel industry should put its efforts to raise customer satisfaction and retention rates and enhance its image and brand through marketing. Development of distribution channels has not yet reached a satisfactory level.

It can be concluded that stagnation of intellectual capital is partly present in the hotel industry in Slovenia. There have been notable changes in the last three years that will hopefully continue to expand through intellectual capital as a whole. There are some recommendations for managers of the Slovenian hotel industry that can be given. Firstly, Slovenian hotel companies should put greater effort and investment in raising the level of development of distribution channels or networks, and to boost company culture and employee attitude to work. Employees should be aware of the value of their contribution to intellectual capital. In this manner they could help to create a better attitude to work and culture in the company. Secondly, once a year, surveys on intellectual capital are proposed to be undertaken in each Slovenian hotel company to inform managers, owners and others about the development and dynamics of intellectual capital. So far, the research we have conducted provides just a general picture of intellectual capital in the Slovenian hotel companies.
The results of the study can be used as data in further research on the development of intellectual capital within the environment of the European free market. It is planned to repeat the research in three years time to measure the progress that the Slovenian hotel industry has made in the field of intellectual capital in the European single market.

References


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