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INTANGIBLES AS FUTURE VALUE CREATORS: THE CASE OF THE HOTEL INDUSTRY

Mateja Jerman
Slavka Kavcic
Bogdan Kavcic
University of Primorska, Slovenia
University of Ljubljana, Slovenia
Faculty of Commercial and Business Sciences, Slovenia[1]

Abstract: The paper aims to provide evidence about the significance of intangibles in the hotel industry. The research investigates their importance for Croatian, Slovenian and Austrian hotel industry in the period 2004–2008. The results prove that despite their growing significance, accentuated by recent research, there is no presence of major growth related to intangible assets in the hotel industry. More detailed analysis further demonstrates that the hotel industry does not operate with a major share of intangibles in comparison with the largest domestic companies. Additional results point to the fact that larger companies possess a greater extent of intangibles in comparison with smaller companies. Therefore further research approaches could analyze the reasons that lead to these results and possible solutions that could stimulate the awareness of intangibles as a source of competitive advantages.

Key words: hotel industry, intangible assets, financial accounts, comparative analysis.

INTRODUCTION

Based on the evidence provided by recent research (Eskildsen et al. 2003, Lev and Daum 2004), intangible assets are becoming more and more important in today's business environment. Furthermore, case studies and analysis have provided evidence that intangible assets are the fundamental source of competitive advantages for firms in most industries (Garcia-Ayuso 2003).

The characteristics of the economy changed from the industrial one to today's more service and information oriented. Consequently in the last decades the composition of assets has changed. Accounting changes in recent years have increasingly recognized the importance of intangibles, such as intellectual capital and

[1] **Mateja Jerman**, MSc, Teaching Assistant, University of Primorska, Faculty of Management, Koper, Slovenia, **Slavka Kavcic**, PhD, Full Professor, University of Ljubljana, Faculty of Economics, Ljubljana, Slovenia, **Bogdan Kavcic**, PhD, Full Professor, Faculty of Commercial and Business Sciences, Celje, Slovenia.

goodwill (Dunse et al. 2004). Recent research emphasises the importance of intellectual capital also for the hotel industry (Nemec 2002, Engstroem 2003, Krambia-Kapardis and Thomas 2006). Furthermore, a strong impact of intellectual capital (as a whole) on the financial results of touristic enterprises was discovered by Nemec (2008).

The paper investigates the importance of intangible assets for the Croatian, Slovenian and Austrian hotel industry in the period 2004–2008. In accordance with the fact that a major part of intellectual capital of a company can not be recognized in the balance sheet (a major part of these elements can be recognized just in cases of mergers and acquisitions), the research investigates the importance of intangibles that meet the criterion for their recognition in the financial accounts of selected hotels. In accordance with the rising phenomenon of intangible assets the following hypothesis was formed:

$H_1 =$ Intangible assets constitute an increasingly important asset for the hotel industry.

The paper additionally compares the results of the hotel industry with the largest domestic companies (250 largest companies) in selected countries. The aim of the paper is to ascertain if intangibles really do constitute a more important basis of value creation for hotels in comparison with other industries. The hotel industry has unique characteristics. The importance of employees as one of the most important elements of intellectual capital for the hotel industry was already emphasised by many researches (Jones and Lockwood 1998). To that end we can presume that hotels actually employ a greater proportion of intangibles in comparison with the largest domestic companies. The sample of the largest companies was selected due to their more frequent mergers and acquisition activity, which leads to a larger extent of recognized intangible assets (by the acquirer) in comparison with smaller companies. The comparison with larger companies is to that end more reasonable, instead of a sample that would include also smaller companies. The comparative analysis will disclose if hotels, due to their characteristics, really do possess a major share of intangibles in comparison with the largest companies from different industries. Consecutively we assumed the following hypotheses:

$H_2 =$ The hotel industry employs a greater proportion of intangibles in comparison with the largest domestic companies.

As larger companies have more numerous opportunities to perform mergers and acquisitions (they are more exposed to external growth in comparison with smaller companies) and consequently to recognize more numerous intangibles, the analysis furthermore examines if larger companies possess a greater extent of intangibles; i.e. if the size of a company really influences the share of intangibles that a company possesses.

$H_3 =$ Larger companies have a greater proportion of intangibles in comparison with smaller companies.

The paper is structured as follows. After the introduction the literature review is presented. In the second part the data collection and research methodology is explained. The results of the analysis and the discussion follow in the third part. Finally the major conclusions are presented.

1. LITERATURE REVIEW

In the current literature we can find an abundance of definitions as to what intangible assets are, but there is still no general accepted definition that could be adopted internationally (Kristandl and Bontis 2007). IFRS define intangible assets as identifiable non-monetary assets without physical substance (IAS 38.8), while Lev and Daum (2004) define intangibles as capabilities and "potential" for future growth and income.

Recent researches frequently deal with the concept of intellectual capital (Chaharbagi and Cripps 2006). This concept captures a broader aspect of intangibles that a company deals with. The generally used determination of intellectual capital includes: human, structural and customer-relationship capital. Unfortunately, there is still no generally accepted dividing line between the elements of intellectual capital and intangible assets.

The analysis of Nemec Rudez and Mihalic (2007) demonstrated a significant impact of intellectual capital on the financial performance of Slovene hotels. The value of intangibles not only provides useful information for external stakeholders, but is also according to the research of Roubi (2004), an indispensable source of information for internal users, especially in cases of hotel investments.

In accordance with the analysis of Nemec Rudez and Mihalic (2007), the part of intellectual capital in Slovenian hotel enterprises that has the strongest direct impact on their financial results is related with the end-customer relationship. Their analysis additionally demonstrates that the intellectual capital should be improved with major investments in human capital and information technology. Empirical researches confirm also a possible future convergence between human capital and sustainability reports (Pedrini 2007). Human capital, with particular emphasis on human resource management (HRM), is essential for the financial success of the hotel industry, although studies have shown that HRM practice was often correlated with the size of the hotel (Worsfold 1999). Positively related to business performance was also a corporate culture which emphasizes innovations (Gray et al. 2000).

Despite the fact that intangibles affect the firm's value, there are still many problems related to the existing accounting practice with particular emphasis on external reporting (Roslender 2004). The traditional accounts still face many problems concerning their initial recognition and subsequent measurement. The accounting system will have to be upgraded to assure appropriate information for users of financial accounts (Kavcic et al. 2005, Kavcic and Ivankovic 2006). Decision-making information must be adjusted to business decisions which for hotel organizations have a very special nature and differ to those in other business organizations (Ivankovic

2005). Undoubtedly it is going to be a future challenge for existing accounting practice also in the hotel industry (Kavcic and Mihelcic 2006).

2. DATA COLLECTION AND RESEARCH METHODOLOGY

The analysis investigates the importance of intangibles for Croatian, Slovene and Austrian hotels. The data were selected on the basis of Classification of Economic Activities in the European Community (NACE) H 55.100–Hotels and similar establishments. Croatia was selected as a sample of a pre-accession country to the European Union. It was compared with Slovenia as a post-transition economy and Austria as a traditional market economy.

The collected data were selected on the basis of data provided from the database Amadeus (for Croatian and Austrian companies) and iBon (for Slovene companies). Slovenian data were collected for the whole hotel industry, while large samples of Croatian and Austrian hotels data were also collected. The selected data were collected for the period 2004–2008. The data collected for the purposes of the analysis are presented in table 1.

Table 1: Number of hotels and similar establishments included in the analysis (compared with the total number of companies in this industry)

Country/Year	2004	2005	2006	2007	2008
Croatia	245/406	270/457	294/509	298/564	290/666
Slovenia	196/196	203/203	217/217	251/251	274/274
Austria	444/1171	866/1171	984/1171	970/1171	275/1171

Note: the total number of companies that form part of the Croatian and Austrian hotel industry is provided by the database Amadeus

The means of the share of intangibles in the structure of intangibles were calculated as an arithmetic mean. The share of intangibles was calculated as follows:

$$\text{Intangible}_{\text{share}} = \frac{VI_t}{VA_t} * 100 \text{ ; where}$$

VI_t = Value of intangibles at time t,
VA_t = Value of total assets at time t.

Furthermore, possible differences between the shares of intangibles in hotels between selected countries were calculated. To that end the analysis of variance was performed. For this purpose two hypotheses were formed:

$H_0 =$ There is no difference in the means, and
$H_1 =$ The means are not equal.

For testing the second hypothesis, the independent t-test was carried out. The independent t-test was used to test a difference between two independent groups on the means of a continuous variable. The t-test was used to test the differences between groups of companies. For the purposes of testing the differences between groups of selected companies on the means of the share of intangibles, two hypotheses were formed:

$H_0 =$ The means of the two groups are not significantly different, and

$H_1 =$ The means of the two groups are significantly different.

For the comparison between hotels and the largest domestic companies, data of 250 largest companies in each of the selected countries were collected. All selected data were collected from the database Amadeus. Due to the very small sample of data that could be collected for the year 2008, testing of the second hypothesis was performed for the period 2004–2007.

The current literature indicates that the number of employees is the most relevant parameter to define the size of a company. The largest domestic companies were selected on the basis of their number of employees. In accordance with the fact that the share of intangibles was not provided by the whole sample of companies, the number of actually collected data was the following:

Table 2: Number of selected data for the 250 largest companies

Country/Year	2004	2005	2006	2007
Croatia	212/250	227/250	233/250	236/250
Slovenia	220/250	233/250	239/250	246/250
Austria	98/250	186/250	219/250	207/250

To test the third hypothesis; i.e. if larger companies possess a greater extent of intangibles (if the size of a company influences the share of intangibles) the linear regression was performed. For this purpose two hypotheses were formed:

$H_0 = \beta = 0$

$H_1 = \beta > 0$

The analysis of the hotel industry and the largest domestic companies was carried out separately, for both groups of companies.

3. RESULTS AND DISCUSSION

On the basis of selected data the average shares of intangibles for the hotel industry are as follows in table 3. The results are surprising, as the current literature accentuates their rising importance. In the period 2004–2008 their importance did not grow significantly, but even diminished (the case of Croatia and Slovenia). In Austria an increase was notable, but just for 0.85 percentage points. Despite the fact that more and more researches expose intangibles as increasingly important value creators, they do not constitute an important asset in the case of the Croatian, Slovene and Austrian hotel industry. The maximum share of intangibles reached 3.79 % in Slovenia in 2004. The highest average share was present in Austria where it reached just 3.11%. On the other hand the smallest average share was present in Croatia, where it attained a poor 2.35%.

Table 3: The share of intangible assets for the hotel sector in the period 2004 – 2008 (in %)

Country/Year	2004	2005	2006	2007	2008	Average
Croatia	2.22	2.31	2.53	2.51	2.16	2.35
Slovenia	3.79	3.42	3.1	2.45	2.46	3.04
Austria	2.43	3.73	3.24	2.85	3.28	3.11

On the basis of our results we can reject the first hypothesis and can conclude that intangibles do not constitute increasingly important assets for the hotel industry. Their share in financial accounts is negligible.

A more detailed analysis demonstrates that shares of intangibles between countries do not statistically differentiate (sig. > 0.05). For this purpose, the One-way ANOVA test was performed. The results are presented in table 4. On the basis of the results we can not reject the null hypothesis, so we can not affirm that the shares of intangibles between countries differ. All three selected hotel sectors have a negligible value of intangibles.

Table 4: Results of the One-way ANOVA

	Sum of squares	df	Mean square	F	Sig.
	Between groups	19735,061	2		
	Within groups	8063779,357	842		
share2004	Total	8083514,417	844	1.03	0.357
	Between groups	17845,092	2		
	Within groups	8176024,375	1300		
share2005	Total	8193869,467	1302	1.419	0.242
	Between groups	14118,972	2		
	Within groups	8183299,465	1475		
share2006	Total	8197418,436	1477	1.272	0.28
	Between groups	10161,275	2		
	Within groups	8174791,464	1497		
share2007	Total	8184952,739	1499	0.93	0.395
	Between groups	12430,473	2		
	Within groups	8106767,68	830		
share2008	Total	8119198,153	832	0.636	0.529

3.1. Comparative analysis of the share of intangibles between hotels and the largest domestic companies

The analysis additionally compares the importance of intangibles between hotel companies and the largest domestic companies. We presumed that the hotel industry employs a greater extent of intangibles in comparison with the largest domestic companies. For this purpose the shares of intangibles were the subject of comparison with the 250 largest companies that did report the share of intangibles.

Firstly the share of intangibles of the largest companies was calculated. A brief look the table 5 shows that their average shares are lower in comparison with the hotel industry, but big differences are not evident. The share of intangibles did not evidence a major change in the period 2004–2007, for the largest companies. Their constant growth for the analyzed period was evident only in the case of Slovenia. In the case of Austria the share did grow in the first three years, while in 2007 it evidenced a minor decrease. In the case of Croatia a constant decrease was present over the whole period. The higher average share of intangibles was present in Austria, followed by Slovenia and Croatia.

Table 5: The share of intangibles for the largest companies in the period 2004 – 2007 (in %)

Country/Year	2004	2005	2006	2007	Average
Croatia	1.90	1.71	1.55	1.55	1.68
Slovenia	1.74	1.89	1.90	2.35	1.97
Austria	2.40	3.15	3.33	3.14	3.00

A more detailed analysis was made with the independent sample t-test used to test the differences between hotel companies and the largest national companies. Additionally tested were also the differences between the largest companies of the selected countries.

The results of the independent t-test prove that there are no significant differences in the share of intangibles between hotel enterprises and the largest national companies in the selected countries. In accordance with the results we can reject the second hypothesis, as we did not demonstrate a statistical difference in the share of intangibles between these two groups of companies. We can not conclude that hotels operate with a higher share of intangibles in comparison with the largest domestic companies.

The t-test for equality of means was additionally performed also for the comparison between large companies that operate in different economies, to test if significant differences exist between them. The comparison between Croatia and Austria demonstrates that differences are present in years 2006 and 2007. The largest Austrian companies did employ a greater extent of intangibles in comparison with the Croatian ones. On the other hand differences between Slovenia and Austria were not ascertained.

Table 6: Results of the t-test for equality of means

	Sig. (2-tailed)	Croatia	Slovenia	Austria
2004	Croatia	.690	*.745*	*.561*
	Slovenia	X	.079	*.242*
	Austria	X	X	.974
2005	Croatia	.425	*.712*	*.053*
	Slovenia	x	.145	*.059*
	Austria	x	X	.434
2006	Croatia	.183	*.433*	*.025*
	Slovenia	x	.163	*.055*
	Austria	x	X	.926
2007	Croatia	.183	*.116*	*.028*
	Slovenia	x	.889	*.231*
	Austria	x	X	.752

Sig. (2-tailed)-differences between hotels and the largest national companies
Sig. (2-tailed)-comparison of the largest companies between countries

3.2. Do larger companies really employ a greater proportion of intangibles?

Finally, the results of the linear regression performed for the hotel sector as a whole (Croatia, Slovenia and Austria) demonstrate that we can reject the null hypothesis (sig. < 0.05) and confirm that the regression coefficient is greater than zero ($\beta > 0$). Larger hotels have actually a greater proportion of intangibles in comparison with smaller ones. The size of a company influences the state of intangibles. Despite the fact that the regression coefficient is greater than zero, the determination coefficient ($R^2 = 0.005$) demonstrates that the size of a company has a minimal influence on the state of intangibles. The results prove that there are many other factors that influence the state of intangibles.

A similar situation is present also in the case of the largest companies (analysis was performed for the Croatian, Slovenian and Austrian largest companies as a whole). The regression coefficient is greater than zero ($\beta > 0$). In the case of the largest companies the coefficient of determination is $R^2 = 0.045$ and demonstrates once again that many other factors have an influence on the state of intangibles, beside the size of a company.

The findings demonstrate that we can confirm the third hypothesis; i.e. larger companies do have a greater proportion of intangibles in comparison with smaller ones. An obvious question that arises at this point is: how come that smaller companies (the majority of selected hotels are small or medium-size enterprises) do not employ a major proportion of intangibles? The reason that could lead to these results might be related to non-recognized elements of intellectual capital. Smaller companies mostly do not grow externally and to that end the possibilities of recognizing more numerous intangibles are limited. Irrespective of the limitations the state of intangibles might be really insignificant for the hotel industry. These speculations are worth examining in the future.

For the hotel industry the human resources and customer satisfaction are of vital importance, but there is no information on this concern in traditional financial accounts. Unless we provide useful information about the hotel's value creator, we will not be able to manage them efficiently. On this matter many efforts have already been made to assure reliable information for users of financial accounts. Many companies have already composed the statement of intellectual capital, but unfortunately these are still voluntary disclosures, which are not yet a good practice in the hotel industry.

CONCLUSION

The analysis proves that intangibles do not constitute an important asset for the hotel industry. Furthermore, a further analysis provides evidence that hotels do not possess a major share of intangibles in comparison with the largest domestic companies. Instead of an expected major growth, a minor decrease was notable in the period 2004–2008 for the Croatian and Slovenian hotel industry. On the other hand Austrian hotels registered a growth, but still the extent of intangibles in the structure of total assets did not change significantly.

The results of the linear regression furthermore demonstrate that larger companies do really employ a greater proportion of intangibles, although the size of a company has just a minimal influence on the state of intangibles. Future research should provide evidence about factors that moreover affect the state of intangibles as increasingly important value creators.

We believe that the principal problem that leads to these results is the current accounting approach that allows the recognition just of a smaller part of intangibles. In accordance with the fact that more and more researches emphasise the importance of intellectual capital for the financial performance of companies, we are undoubtedly facing a gap between intangibles that can be recognized in financial accounts and the integrity of intellectual capital that represents a brother aspect of intangibles. Current accounting practice will have to accept a more dynamic accounting approach that will provide more information about the state of intellectual capital as a whole and not only the value of intangible factors that meet the criteria for their recognition. Only the acceptance of a more dynamic accounting approach will provide evidence about the effect of intangibles on the financial performance of today's enterprises. A further step forward could be made by disclosing non-monetary measures that could provide more reliable information about the future growth potential of hotel companies. This will be undoubtedly a challenge for the future accounting practice for hotel enterprises.

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