



Doctoral School in Business Administration

SUMMARY OF THESES

for

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Value Creation of Knowledge-intensive Companies

„Ph.D. dissertation”

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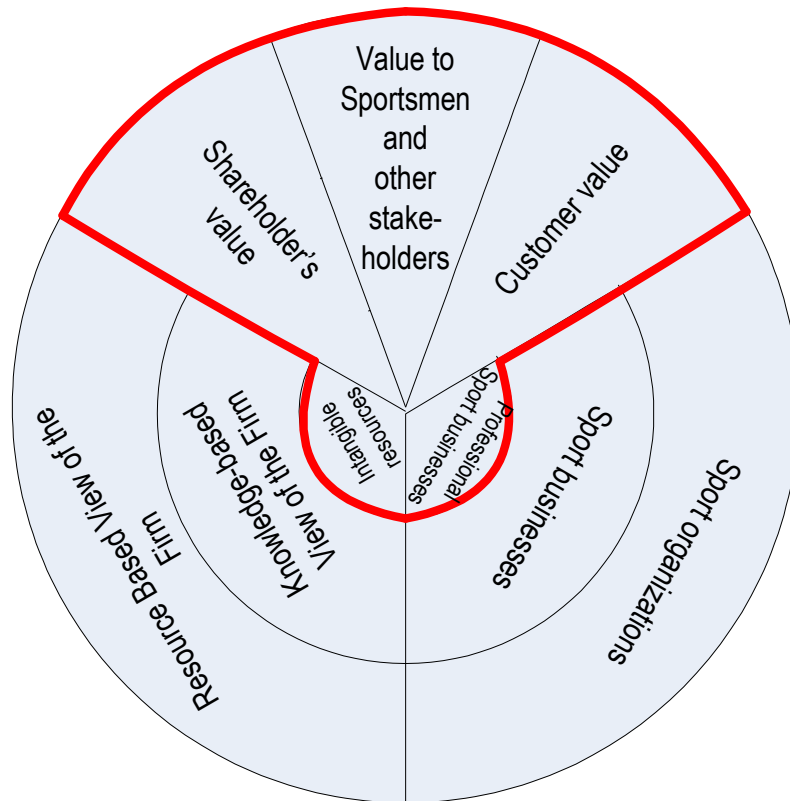
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I. Background of research and justification of the topic

Knowledge-intensive companies and especially professional sport businesses are in the focus of my dissertation. The knowledge-intensive economy raised the attention of the formerly neglected resources, like relationship capital resources, organizational capital resources and human capital resources, which will be called together as intangible resources in my thesis. I examine the value creation process of professional sport businesses, the different kinds of value created by them to their stakeholders and the resources from which the value was created.

The theoretical concepts of my dissertation can be seen in figure 1. The focus of the thesis is the shape marked with darker color. Basically I have three theoretical foundations, the view of the firm, the value in focus, and the activity: sport.

1. Figure: Theoretical concepts of the thesis Source: Own source



My theoretical approach comes from the resource based view of the firm, but I will use its further developed version the knowledge based view with a strong emphasis on the intangible

resources. About the value in focus, there are several papers aiming only shareholders value, there are also several research initiatives about the equal importance of customer and shareholder value but in my approach I will also focus on sportsmen and other relevant stakeholders, which will be called stakeholder value (the value created to all of the relevant stakeholders). In relationship with the activity from sport organizations I will narrow to sport businesses and especially professional sport businesses.

In the mentioned theoretical fields several research initiatives was done, however I do not know any in their combination. My research is unique on the grounds of the integration of the mentioned fields and the examination of the all-inclusive business data from professional Hungarian sport businesses. My research explores the value creation features of professional Hungarian sport businesses and from my results several new research initiatives can be launched.

II. Methodologies

My research is basically quantitative, primer and explorative, which is based on executive interviews and analysis of sporting and business data. In the first phase of the research I examined the sporting and business data of some typical Hungarian sport businesses, than based on their conclusions I organized executive interviews from different levels of sport businesses. The aims of the executive interviews were the validation of the mentioned analysis and the early questionnaire. I have conducted interview with sportsman Gergely Harsányi, with sport business leader Zsolt Kontra, with ex strategic board member Milenko Gudic and with sport federation's chief secretary Dr. Tamás Sterbenz. The executive interviews were supporting the value creation logic and the relationships of sporting and business data, however they rejected the early questionnaire.

For the examination of the business data I organized financial data from the research population's financial statements (balance sheet, income statements and from the notes to the financial statements)¹ and some other operating data from the web- and facebook pages of these sport businesses. The sporting data was organized from the sport federation's databases.

The population of the research consist professional Hungarian sport businesses in spectacle team sports. In Hungary spectacle team sports are football, basketball (women and men), handball (women and men), ice hockey and waterpolo (women and men). From the research I had to exclude waterpolo as from the 20 women and men teams there are only 2 sport businesses and 2 are newly founded, all the others are associations without obligatory financial statements. According to this the population of the research consist 65 sport businesses from the first division in sport fields of football, women and men basketball, women and men handball and ice hockey. Their sporting data comes from their performance in the first division in the given sports in season 2006/07, 2007/08, 2008/09, 2009/10 and 2010/11. And the business data were available for the year 2007, 2008, 2009 and 2010. The population of the research in these four business years represents 322 cases in the broad sense (sporting data of all clubs in the given seasons) and 202 in the narrow sense (financial data of the sport businesses involved in the first division in any season of any business years). In the research *I examine the whole population.*

¹ In Hungary the financial statements of all businesses are published under the sub-webpage of Ministry of Public Administration and Justice. <http://e-beszamolo.kim.gov.hu/kereses-Default.aspx>

The following research questions and hypotheses were addressed in the research:

1. What are the economic features of professional Hungarian sport businesses?
 - H1: Professional Hungarian sport businesses are homogeneous according to their most important business data.
 - H2: The long-term profitability of professional Hungarian sport businesses is possible.
 - H3: Professional Hungarian sport businesses create significant intangible value.

2. Is there significant correlation between sporting success and economic success of professional Hungarian sport businesses?
 - H4: There is strong, significant correlation between sport success and economic success of professional Hungarian sport businesses.
 - H5: There is strong, significant correlation between player's value and sport success of professional Hungarian sport businesses.
 - H6: There is no relationship between sport success and subsidized revenues of professional Hungarian sport businesses.
 - H7: There is strong, significant correlation between sport success and the total and unusual revenues and the material and personnel costs of professional Hungarian sport businesses.

3. Who are the relevant stakeholders of professional Hungarian sport businesses?

4. What are the characteristics of the value creation process of professional Hungarian sport businesses?

5. What kind of resources is deployed by professional Hungarian sport businesses?

III. Empirical results

The results of my research will be introduced in the order of the research questions and hypotheses.

- The *first research question* was about the economic features of professional Hungarian sport businesses and consisted three hypotheses. The first hypothesis stated that the **professional Hungarian sport businesses are homogeneous according to their most important business data**. I operationalized the most important business data as the total assets, the retained earnings, the net income, the total revenues, and the material and personnel expenses. **The first hypothesis was proven** by the examination, as from the hierarchical clustering with the between-group linkage method from the 202 cases 197 was valid and 177 was included in the first cluster and the remaining 20 cases got into 8 mini clusters.

- From the beginning of 2000's there is a debate in the Hungarian sport business literature whether it is possible to operate profitably for professional Hungarian sport businesses or not. Although I accept that in the beginning of 2000's it was not possible to operate profitably, according to my **second hypothesis** in the research period **the long-term profitability of professional Hungarian sport businesses is possible**. The long-term profitability criterion was operationalized with the net future value in 2010 of the net incomes of sport businesses. From the 65 professional Hungarian sport businesses 27 had positive net future value of its net incomes so the **hypothesis was proven**.

- According to the **third hypothesis professional Hungarian sport businesses create significant intangible value**. In the theoretical part of my dissertation I defined intangible value as those implicitly expected or even unexpected values which are created without being part of the contract nor physically manifested. The persistent operation with losses of the sport businesses proves the existence of intangible value. There are stakeholders, usually the sponsor companies, local governments, suppliers, sportsmen or the government (with the National Tax Bureau) to whom the sport businesses create enough value above the contract to sustain the liquidity and operation of the sport businesses against their losses. If the value would be tangible it would be realized in total or unusual revenue, these intangible values are not realized however in revenues, but in current liabilities, which would never be renewed in market conditions. Although I could not precisely define the **magnitude of the intangible**

value, but in 2010 it could even be 5 billion HUF. Furthermore there was also example of huge materialization of intangible value as one sport business realized 2 billion HUF in unusual revenues by the forgiveness of its loans and interests. Therefore the third **hypothesis was proven.**

- The *second research question was about the relationships between sporting success and economic success of professional Hungarian sport businesses* with four hypotheses. Before the hypotheses I examined the correlations of sporting success in time. I found that the sporting successes are in significant, strong or medium correlation with the previous years and the next years sporting successes and as we are increasing the time gap the strength of correlation is weakening. It does not mean however that sporting success is determining next years sporting success, it's only message is that the factors of sporting success is not shifting easily in the short-run.

- According to **the fourth hypothesis there is strong, significant correlation between sport success and economic success of professional Hungarian sport businesses.** The sporting success was measured with the final position in the first division in the given season and the economic success was measured with the net income and also tested with the operating income. The **fourth hypothesis was falsified** as there was no connection between the sporting success and the economic success. With the falsification of the fourth hypothesis I could come to the conclusion that *the sporting success is far more important in the professional Hungarian sport businesses than the economic success and the market is not valuing the sporting success in tangible terms to the amounts of its creation costs.*

- According to the **fifth hypothesis there is strong, significant correlation between player's value and sport success of professional Hungarian sport businesses.** I operationalized the value of players with the value of immaterial assets as its value contains only players' value in almost all cases in professional Hungarian sport businesses. According to the correlation measures **the fifth hypothesis was also falsified** as there was no significant correlation between the sporting success and the value of immaterial assets. This result is not so bad however as there are some sport businesses who are not valuing their players and those who are valuing are using two different methods (market value and contract value). Presumably the connection is failed because of these restrictions although even with these restrictions medium correlation was expected.

- According to the **sixth hypothesis there is no relation between sport success and subsidized revenues of professional Hungarian sport businesses**. The subsidized revenues were counted with other revenues and extraordinary revenues as these are the revenue categories where professional Hungarian sport businesses are realizing subsidies. According to the correlations **the hypothesis was proven**, there is no relation between sport success and subsidized revenues, which means *the subsidies are independent from sporting success and are given solely for survival*.

- According to the **seventh hypothesis there is strong, significant correlation between sport success and the total revenues and the material and personnel costs of professional Hungarian sport businesses**. In the background of the hypothesis lie the assumptions that from better sporting results sport businesses can realize more revenues and to obtain better sporting results sport businesses should have higher costs. The total revenues are the sum of sales revenues, other revenues and extraordinary revenues as professional Hungarian sport businesses realize significant proportion of their revenues as other and extraordinary revenues. And material and personnel costs were also counted together as these are the cost categories where professional Hungarian sport businesses are paying their staff (i.e. it is widely applied that sportsmen have also marketing contracts as suppliers and coaches are also employed often as suppliers). **With the correlation measure I could neither falsify nor prove the hypothesis as there was significant, strong correlation between the revenues and the costs, which were blurring their correlation with the sporting success** (and partial correlations were not showing any significant relationships).

As there was no connection between the sporting and the economic performance of professional Hungarian sport businesses I examined the underlying factors with the research model's following research questions.

- *In the third research question I examined the relevant stakeholders of professional Hungarian sport businesses*. According to my operationalization the stakeholder is relevant if it becomes visible in the financial statements of the business either as it creates value or provides revenue or finances the professional Hungarian sport business. From the notes to the financial statements I created a revenue distribution and a liabilities distribution and the executive interviews provided also useful information. According to these documents I found the following stakeholders relevant in professional Hungarian sport businesses:

- **Sportsmen, players** (as immaterial assets and their value is the major part of the owners equity, “they” conduct 8% of the revenues from the player’s market, and they also provide around 8% of the current liabilities)
- **Owners and shareholders** (they provided the owners equity, they also provide current liabilities and unusual revenues)
- **Sponsors and advertisers** (they provide around 10% of the revenues, they also provide current liabilities and unusual revenues)
- **Media** (they provide around 7% of the revenues)
- **Local governments** (providing most part of the other revenues)
- **Sport federations** (providing normative subsidies, regulating the operation of sport businesses)
- **Government** (“providing” current liabilities with unpaid taxes, sport budget of ministry)
- **Managers and other employees** (although they perform managing and supporting roles they stay usually hidden)

It is astonishing however that season ticket and other **ticket revenues** are providing **only 2%** of the revenues and the **merchandise revenues** are **less than 0.5%** of the combined revenues, which means that the **consumer market’s local consumer segment and the merchandise market is also failing**. The real problem behind these is that the consumer market should pull the other markets of the professional sport businesses and although those are still working, but it is certainly not sustainable.

- *In the fourth research question I examined the characteristics of the value creation process of professional Hungarian sport businesses.* To address the research question I examined the empirical part’s value networks features of the professional Hungarian sport businesses. Based on that research I found that **nowadays’ practice** of the sport businesses **does not support value network operations** with any business or other data. The first signs of value network operations can be seen however on MKB Veszprém KC and Videoton, DVTK, Újpest and DVSC seems to be in the introduction phase, but all of them should also consciously develop to realize the advantages of value networks.

It is very interesting however that in the **internal stakeholders** we can see **value network solutions**, as sport businesses provide mediator services for their internal stakeholders, but not

to the consumers, rather to the politics of local government or other companies. *In this case the value network logic of Stabell-Fjeldstad works in the opposite way*, the less to resort the service the more it is worth and standardization set back the flexible individual relationships. There is also codified evidence for value networks in the level of sport federation.

The fifth research question of the dissertation examined the resources deployed by professional Hungarian sport businesses according to the extended balance sheet based on Sveiby's work.

- From **tangible resources** the net plant and property are the most common category, but there were 23 cases when the sport businesses did not even have net plant and property (mostly basketball businesses). There were also huge deviation in the value of net plant and property as most of the professional Hungarian sport businesses do not own their facilities, but it is provided by the local government or by a sport association for token payment. Immaterial assets were found in 91 cases and their first mode was 15 million HUF with a 41 million HUF median. It is striking that the value of immaterial assets are much larger than the value of net plant and property. Sport businesses do not use long-term investments and frequency and value of inventory is also quiet low. Cash and equivalents and receivables are the majority of the current assets. We can easily identify the knowledge-intensive features of the sport businesses as they operate with marginal inventory, low or medium net plant and property and bases their value creation mainly on immaterial assets.

- In the professional sport businesses major part of the **intangible resources** could be measured as well. The value of the players accounted in the immaterial assets is the major part of the human capital resources. Although not valued players, coaches, managers and other employees are also part of the human capital resource I could not estimate their value. Based on this part of the research I could state that the **human capital resources deployed** by the professional Hungarian sport businesses **worth more than 4.5 billion HUF in 2010**.

- Major part of the **relationship capital resources** could also be measured. As the professional Hungarian sport businesses are provided with facilities by local government or sport associations for token payment I could estimate their relationship capital resources worth around 3 billion HUF from this source. The most well known elements of the relationship capital resources are however the trademarks, brand names and the image of the

sport club, which are widely used by professional Hungarian sport businesses even though I could not get any valuation for them. These businesses also deploy consumer database, communities, off- and on-line media presence, which valuation is also missing. From the advertisements, commercials and other media revenues professional Hungarian sport businesses are even selling a part of their relationship capital resources. The political and sport-political relationships of internal stakeholders are also important unmeasured parts of the relationship capital resources. Based on the research I could state that the **relationship resources deployed** by professional Hungarian sport businesses are **worth at least 3 billion HUF**.

- In the case of **organization capital resources** however I encountered some serious problems. **I could not find any objective proof of the deployment** of organizational capital resources by the professional Hungarian sport businesses. It is very sad as these resources catalyze other resources, provide synergy and enhances efficiency.

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