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Examination of the strategic change in the Hungarian furniture industry

Thesis of Doctoral (PhD) Dissertation

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1. Ambitions and hypothesis

The fundamental task of the doctoral dissertation 'Examination of the strategic change in the Hungarian furniture industry' was to examine the periodical changes of the strategic decision of the Hungarian furniture businesses in order to assure a sort of help to make strategic decisions in the future.

The problem which finally drove to write the basic hypothesis came to the surface at the very beginning of searching theoretical background and starting secondary research. The base of this problem is that the Hungarian furniture industry according to the size of enterprises operating in it is very heterogenic while the methods, also standards and proceedings analysing and supporting the efficiency of corporate strategies were mainly worked out for big companies.

> But according to hypothesis **H1 it is possible to create an analysing frame (strategic space), within irrespectively from the size of companies, strategic efficiency of all of the businesses in a given industry can be determined and compared with each other.**

Thinking further hypothesis H1 another research question was arisen. If it is possible to measure strategic efficiency of all businesses in one industry with similar tools then there is a typical model of business strategy suitable for many companies on the base of this research? So are there groups of companies which can be handled together from a strategic point of view (strategic clusters) which always exist without reference to the external environment.

> **According to hypothesis H2 in the Hungarian furniture industry there are groups of companies which can be handled together from a strategic point of view (strategic clusters), which are always existing without reference to the external environment.**

From hypothesis H2 the next research question was driven. If irrespectively from the distinct periods of time from a strategic point of view there are groups of companies which can be handled together, is it possible to see this similar strategic view in the economic indicators of these companies?

According to hypothesis H3 on the basis of theoretical background and analysis, it is assumable that in the Hungarian furniture industry from the point of economic indicators, a variance can be measured comparing strategic clusters. The synchronous effects of strategic decisions of companies can be made visible with the help of their economic indicators.
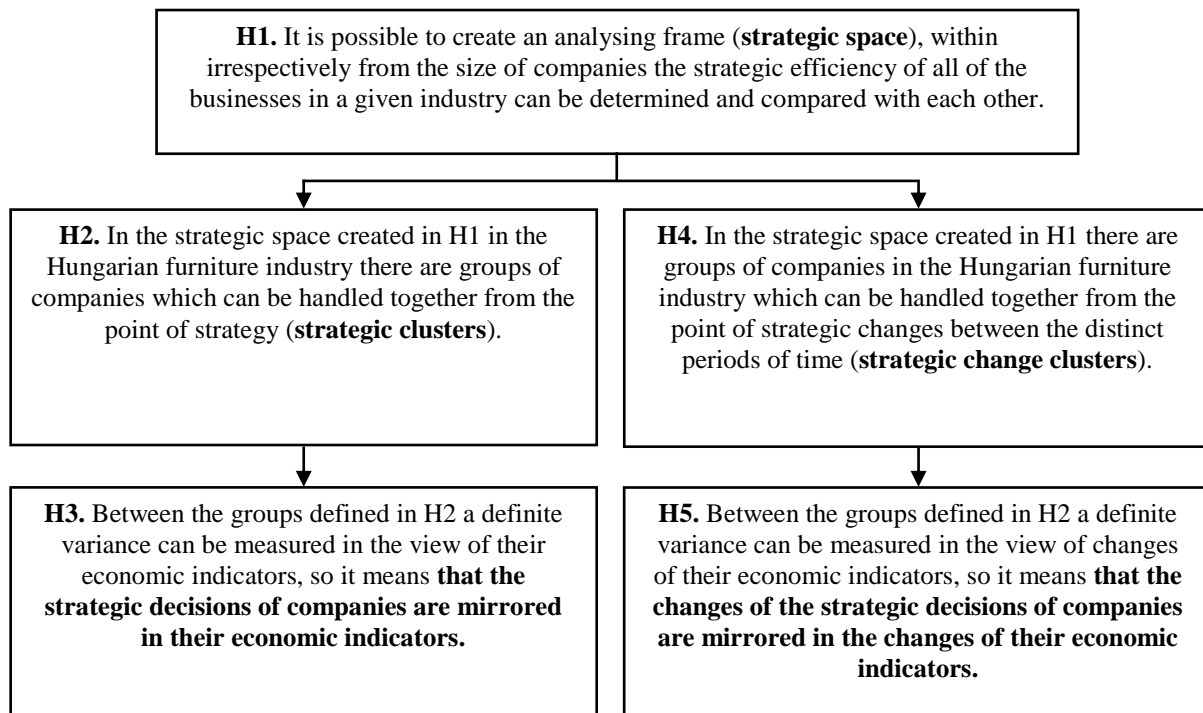
Deriving from hypothesis H1 and parallel with hypothesis H2 another research question can be suggested. If there are strategic groups irrespectively from distinct periods of time from the point of strategy, so how these businesses are behaving between these periods when they have to adapt to environmental changes, which also means that they have to change their strategies (or in other cases sometimes they need strategic permanency).

According to hypothesis H4 from the point of strategic change between the distinct periods formed by a strategic point of view, there are groups of companies which can be handled together (strategic clusters) in the Hungarian furniture industry. It means that there are typical models (moving together - synkinesia) in the behaviour of companies depending on the response of companies to the changes of business environment.

The following research question derives from hypothesis H4. If there are groups which can be handled together from the point of strategic changes between periods of time (distinct ones from the point of strategy), is this similar strategic views unequivocally demonstrable in the changes of the companies' economic indicators?

According to hypothesis H3 on the basis of theoretical background and analysis it is assumable that in the Hungarian furniture industry there are measurable differences between strategic change clusters due to the changes of their economic indicators. The changing directions of the strategic decisions of companies can be mirrored through the changes of their economic indicators.

The logical connection between the hypotheses is introduced in the Figure 1.

H1. It is possible to create an analysing frame (**strategic space**), within irrespectively from the size of companies the strategic efficiency of all of the businesses in a given industry can be determined and compared with each other.	

H2. In the strategic space created in H1 in the Hungarian furniture industry there are groups of companies which can be handled together from the point of strategy (**strategic clusters**).	**H4.** In the strategic space created in H1 there are groups of companies in the Hungarian furniture industry which can be handled together from the point of strategic changes between the distinct periods of time (**strategic change clusters**).
H3. Between the groups defined in H2 a definite variance can be measured in the view of their economic indicators, so it means **that the strategic decisions of companies are mirrored in their economic indicators.**	**H5.** Between the groups defined in H2 a definite variance can be measured in the view of changes of their economic indicators, so it means **that the changes of the strategic decisions of companies are mirrored in the changes of their economic indicators.**

Figure 1. The logical synthesis of the research hypotheses

Source: edited by the author

2. The content, method and justification of the research

The dissertation according to the content, method and justification can be divided into two distinct parts: the research of theoretical background and secondary research; and the primary research.

The strategy and its examination are basically determined by the environment in which companies carry out their duties, so in the chapter (Chapter 2) working with theoretical background, the environment of the Hungarian furniture industry was examined. The author overviewed the connected experiences of the most well-known Hungarian researchers and also collected from the view of strategy significant status changes which could be statistically measured. Finally, he summarized the environmental background to which companies has to adapt.

Therefore, as it was mentioned when introducing hypotheses, the furniture industry is especially heterogenic from the point of company size and the methods examining the efficiency of corporate strategies were mainly worked out on the base of big companies. So it was necessary to examine the theoretical background of the possibility to measure the strategic efficiency of all companies in this industry (Chapter 3). In this reason the author tried to clear the definition of 'strategy' first. After that he gave a wide overview of definition explanations written by the past and present most influential experts. On the base of their thoughts the author defined strategy on his own way and built up the dissertation on that definition. Former trends make it easier to understand the definition created by him.

As a logical continuance, the author introduced the theoretical background of measuring options of factors which have to be examined to analyse strategic change (Chapter 4). After that he chose from the several opinions which are often contradictive the ones drive the dissertation and used them to work out the methods of thesis.

The theoretical and secondary research was finished and **strategic space was worked out, in which the strategic changes of companies in the furniture industry can be examined.**

After clearing the options of measurement the primary research was planned (Chapter 5) with the aim of examining the strategic behaviour of enterprises operating in the furniture industry to reach their corporate purposes in the strategically very different periods of time. They use relevant alternatives from the past strategic decisions as a guide in similar future situations. On its behalf **the author examined 450 operating businesses in the furniture industry from 2006 to 2013, in the period of 8 years**. He has also placed them in the strategic space defined by the theoretical and secondary research. The examined time from the point of strategy can be divided into three parts which were treated separately. From 2006 to 2008 there was a huge increasing in income before the crisis; in the years from 2008 to 2010 there was a huge decline and between 2010 and 2013 a stagnation or a slight increase.

While choosing a significant number of examples, the author also aimed representativeness, that the compound of companies could fit as much as possible to the chosen multitude and to the summarized data of operating furniture enterprises in the Informative Database of Central Statistical Office (KSH) from the view of standard industrial predicamental system of

functions (TEÁOR), of geographical situation of businesses and of the average number of employees.

The placed companies were grouped by K-middle cluster-analysis by the author. Then he counted and analysed economic indicators based on wide range of professional literature and he was searching for the similarities and differences between these clusters with statistical methods on the base of the above mentioned indicators (Chapter 6). Because data were not suitable neither for conditions of normality nor for conditions of variation homogenity, the author had to carry out the so called non-parametric tests (from the range of statistical methods). In this research the **Kruskal-Wallis and Mann-Whitney tests** seemed to be applicable.

The author also examined the similarities and differences between the clusters from the point of sectors of the industry, geographical situation and average number of employees. The existence of the connection was examined with χ^2**-test** and the strength of connection with the **Cramer association factor.**

After examining the strategic decisions of the three distinct - from the point of strategy - static terms, in the primary research he dealt with the groups which can be handled together from the view of strategic change between these terms. The research from the point of economic and statistical methods was driven as it was explained above.

3. Results of the research

The results of research can be divided into theoretical and secondary, and primary research results.

The most significant result of the secondary research was **the development of an own strategy-theory based on the restrictive factors of uncertainty, limited rationality and opportunism. This strategy-theory enables researchers to measure the efficiency of strategy by determining the goals of the company.**
According to this, companies exist because owners established them by risking their possessions to increase their own properties. However owners (mainly) are not alone in the

company, so the other internal stakeholders' (managers, employees) individual interest can be met at least on a level where every actor could feel worthy to keep the institutional status quo. The corporate behaviour formed as a result of bargain is the strategy, which is based on internal stakeholders and the interactions between them. If these connections are stable then the purpose defined as corporate purpose and it is some sort of weighted average of the internal stakeholders' goals. This corporate purpose is straight and it is accepted by all participants. This stable base is able to hold all the strains of the organisation, as the base of a house carries the weight of all the mechanical construction (Figure 2). This base must be very strong and hard, because the organisation carries serious strains. These strains are based on the imperfection of decisions made to reach corporate purpose because uncertainty, limited rationality and the opportunism do not let it to be perfect.
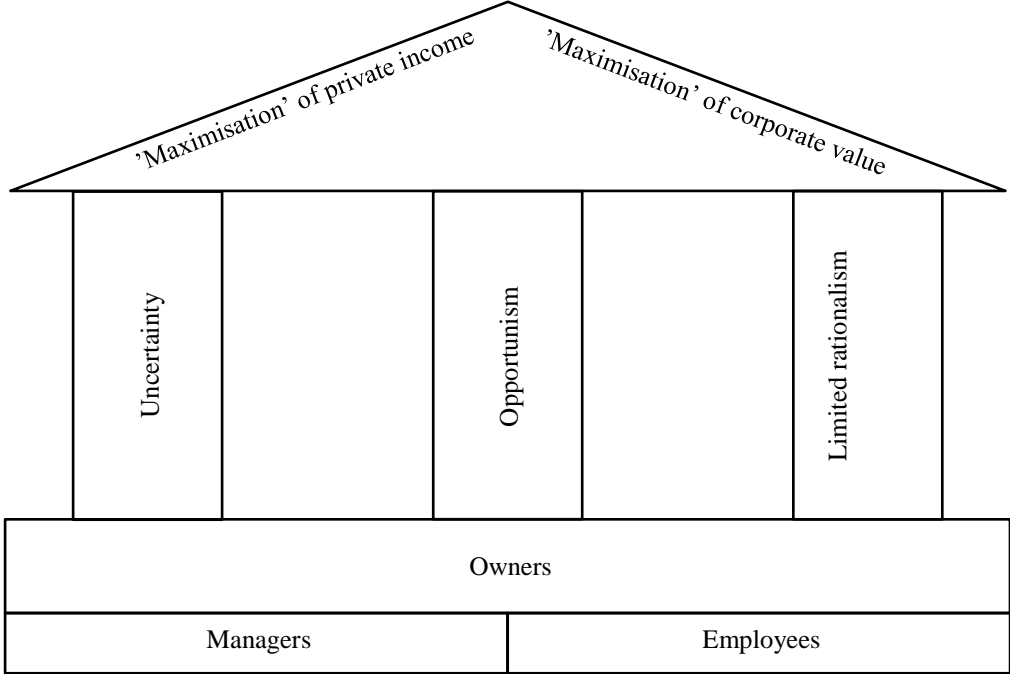
Figure 2. The 'house' of corporate strategy
Source: edited by the author

It is impossible to get completely known the business environment which contains several components. It means that perfect strategic plans working on a long term cannot be created. Strategic planning is important but it is not possible to take statements valid on a long run, because the planned strategy can be very far from the realized one. Because of limited rationality it is not possible to solve every complicated problem precisely, with no expenses or/and immediately. So the internal stakeholders of the company act 'intendedly as it thought

to be rational' – they try to reach the best possible solution inside of their known limits. Opportunism is the most significant, central limiting factor, because against the first two factors the members of the organisation can and are eager to do something. The members put their own interest onto the first place, because it is a very strong motivation. Internal stakeholders do something against it only virtually, except of some extreme cases. These columns are loading the base of the house simultaneously and hold the roof of the house. The roof symbolizes the company's goal. The goal is double and to reach both of them in the same time is impossible. This double goal is the maximization of possibly personal income produced by the company and the maximization of the value of the company.

The strategy is the behaviour of companies which is the sum of the behaviour of its internal stakeholders. It means that every company has strategy which can be defined subsequently according to their activities. The activities are shown in the personal income produced by the company next to the limiting factors affecting internal stakeholders and in the maximisation of the value of the company. These are measurable.

The possibilities of measurement are multiple. When analysing an industry in whole the number of these possibilities is very low. The indicators measuring the personal income and also the value of the company have to measure strategic change and it means that this indicator cannot take into account any factors which cannot be planned long-term. On the other hand it is important to measure and compare all members of this industry with this indicator. On this way companies with different size, different structure of owners and with different background have to be measured on the same way and with the same method. Thirdly it is vital to base this measurement on numbers from accounting and not on numbers derived from the numbers from accounting, so it could be easy to count it in the case of many unknown businesses.

From the examined professional references the author was brought to the conclusion that the base of the measurement can be the operating profit (ÜE), which does not include the results of the extraordinary and financial performance, but the interest was not deducted. If this is supplemented by the depreciation (ÉCS) and personnel expenses (TK$_{élő}$), which are the two other branches of personal income of small entrepreneurs, then we got a clean value (in the space defined by the research) which has to be maximized and which does not contain the extraordinary and financial items, but contains interest. This value is actually the yield of soft

and hard producing processes. To make it easy to distinguish it was named by the author as Operating Added Value: $\ddot{u}HOE = \ddot{U}E + TK_{\acute{e}l\ddot{o}} + \acute{E}CS$. This is the income that all companies would like to maximise irrespectively from the size of company, besides the optimization of the components (defining the ratio):

- the view of capital interested 'ownership' urges the growth of operating profit,
- the view of self-employed 'small business mentality' urges the cost of living labour and
- based on long-term the view of 'manager approach' urges the growth of sources of depreciation.

These views are 'fighting with each other' in conformity with environmental challenges even if the owner and the manager is the same person or they are different ones.

As a foundation – even if it is used on a casual base – capital cannot be defined, so total capital can be replaced with revenues and with all revenue connected to the production (operating value – the sum of the net revenue of sales, the activated own yield and the other revenue, üH). Therefore in strategic level the most precise measuring indicator of profitability is Operating Value Added: $H\% = \dfrac{\ddot{u}HO\acute{E}}{\ddot{u}H} * 100$.
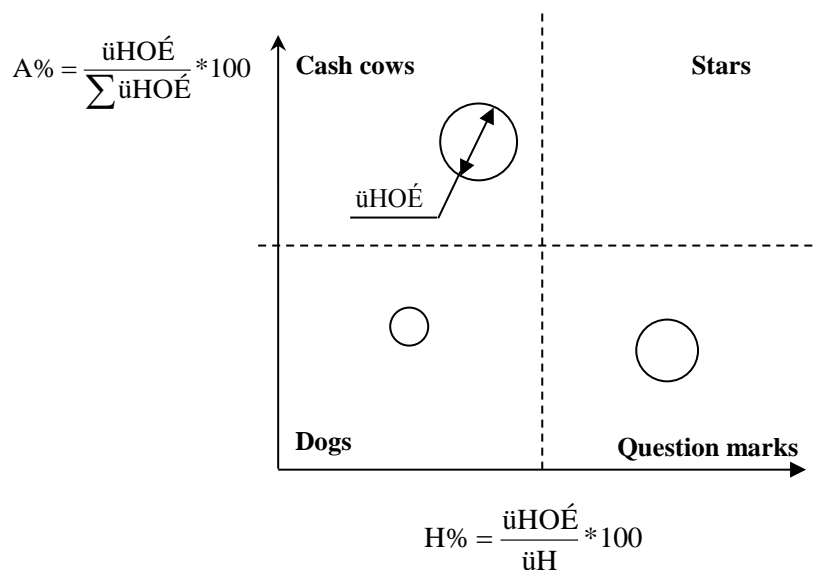
Because of the above-mentioned conditions it is not possible to value the company with the usual methods. However, the common denominator of the evaluation process is the fact that the value of the company, from the financial point of view, is resulting in cash income in different times. The purpose of the owner and also the manager of the company is to maximize this income. This income could be increased against competitors, because consumer claims can only be satisfied by companies dealing with similar activities. The company which 'cleaves off' the biggest possible part from the industry total income, realizes the highest cash income in a given period of time will be able to grow (to increase its value). In line with this logic, the value of the company can stand upon its market share. There are several types of market-share concepts, from them as a follow-up of the above-mentioned logic line, the contribution to the industry total income – which is the quotient of the company produced income and the industry total income- is the income we mentioned above as Operating Value Added: $A\% = \dfrac{\ddot{u}HO\acute{E}}{\sum \ddot{u}HO\acute{E}} * 100$.

To summarize the income produced by the company and is able to personalize (operating performance related operating value added – H%) and the market value (the

contribution to the total income of the industry – A%) are the defined strategic indicators which determine the strategic space in which irrespectively from the size of companies the efficiency of all the businesses of furniture industry can be defined and compared.

If we put A% on axis y and H% on axis x and in this space we represent businesses with circles, and the calibre of the circle shows the Operating Value Added, we got a strategic matrix logically similar to BCG matrix (Figure 3).

$$A\% = \frac{\text{üHOÉ}}{\sum \text{üHOÉ}} * 100$$

Cash cows

Stars

üHOÉ

Dogs

Question marks

$$H\% = \frac{\text{üHOÉ}}{\text{üH}} * 100$$

Figure 3. The strategic space defined by the research

Source: edited by the author

By primary research it was proven, that there are five groups of companies in the Hungarian furniture industry which can be handled together on a strategic base (strategic clusters, left side of Figure 4). These clusters are always represented without reference to the external environment (term). These groups respond differently to the current challenges of the current environment and these reactions can be defined by the economic indicators worked out in the dissertation and based on a wide theoretical background. These reactions also serve as models for other companies.

Between the three strategically distinct static terms (2006-2008; 2008-2010; 2010-2013), from the point of strategic change there are five groups in which companies can be handled together (strategic change clusters, right side of Figure 4), by which typical patterns can be

defined (moving together – synkinesis) in the behaviour of companies hanging on their reaction for the change of the company environment. It was also proved that these synkinesias cannot be defined by the economic indicators developed in the thesis and based on a broad literature base.
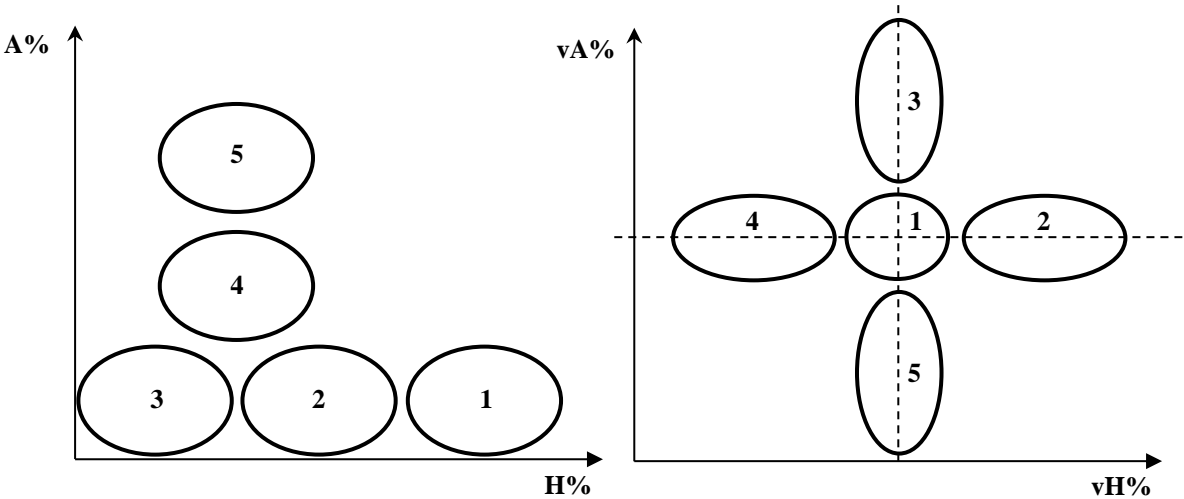
Figure 4: The arrangement of strategic clusters and change clusters

Source: edited by the author

3.1 New scientific results

The author recommends the following statements to be accepted as new scientific results.

One of the significant results of the research that it provides a relevant, general – from the classics to the most modern literature – summary of the theoretical approaches of corporate strategy. After that it **tries to define the base of a strategic theoretical model** by synthetizing international and national literature. This model can provide opportunity to examine the hard factors of strategic efficiency.

The thesis goes beyond this and **introduces a strategic space which is able to numerically measure the strategic efficiency of companies in the same industry and able to compare them** on the base of broad theoretical research of measurement possibilities of the defined double corporate goal – the possibly personal income produced by the company and the value of the company.

10

It can be mentioned as a significant result, that in the case of furniture companies placed in the strategic space defined in the research, it was proved, that **in the Hungarian furniture industry there are always existing groups of companies which independently from the external environment can always be handled together.**

It was also concluded that there is always a measurable variance between these strategic clusters according to their economic indicators; **the strategic decisions of companies are unequivocally shown in their economic indicators.**

Finally the verification of existing strategic change clusters is also a significant result of the thesis. In the Hungarian furniture industry between the strategically distinct periods from the point of groups of companies handled together, **typical models can be recognised (synkinesias) in the behaviour of companies depending on the reaction of companies for the change of the environment (of the company)**.

4. Conclusions and recommendations

On the base of theoretical, secondary and primary research the following conclusions can be derived:

> **T1. It is possible to create an analysing frame – strategic space defined by indicators A% and H% - which makes it possible to define the strategic efficiency of companies in the same industry and compare them to each other.**

In the primary research 450 Hungarian furniture companies were placed in this strategic space on the base of accounting and economic data followed and counted through 8 years (2006-2013). The author grouped them with the help of cluster analysis and adapting statistical analysis made the following conclusions.

T2. In the Hungarian furniture industry there are groups of companies which strategically can be examined together (strategic clusters) and which are always existing independently from external environment.

By the economic and statistical analysis of economic indicators counted for strategic clusters formed by the examined companies the following was also proved:

T3. In the Hungarian furniture industry there is a variance between strategic clusters in the view of their measurable economic indicators and the strategic decisions of companies are mirrored by their economic indicators.

The conclusions connected to the strategic clusters can be summarized as the followings (left side of Figure 4):

1. The mainly micro- and small-sized enterprises in group (**1**) take only a small part from the production of the industrial total income, but they do it very effectively. On the reason of the crisis the companies significantly decreased the rate of personnel expenses and depreciation to realise as much as corporate income as possible to prove an accordingly steady situation in hard times. After the crisis the income-compound was realised more or less as it was before the crisis while decreasing developments (the further decreasing of depreciation). So it means that they have been following a conservative strategy. The economic indicators strengthened this statement and it can be said the companies of this group tried consciously to stand against conditions created by the environment. Although the elbow-row of these companies is small in accordance with their size and importance, the efficiency of their income production ensure them a suitable puffer. This puffer enable them to reach their most important goal, the increase of the present personal income by the using all possibilities (even by sacrificing future) in the fight for survival.

2. The micro- and small-sized enterprises in group (**2**) take also only a small part from the production of the industrial total income, but they do it more effectively than the average level. The companies survived the crisis and the following consolidation without changing the compound of their income which is a significant record in itself. The behaviour of companies in this group follows a strategy which takes the future more into account than the companies in the first group according to their economic

12

indicators. Instead of maximising immediately income-production they are concentrating on maximising the possible income in the future. Their small size and the low amount of produced (and reusable) income limit their options – they work for the future, do not burn their bridges, but their possibilities are limited.

3. Mainly micro- and small-sized enterprises in group (**3**) take also only a small part from the production of the industrial total income, moreover they do it very ineffectively. These companies had negative balance-sheet even before the crisis in the highly successful period of time and they were mainly interested in taking out as high as personal income as it was possible. This rate did not change significantly even in the period of crisis, while in the term of consolidation they had realised a positive balance. The companies of this group show the worst indicators, with several extreme numbers from which an ad-hoc leadership can be revealed. These companies are flowing and they do not want to and sometimes also cannot do anything to better their production. Even if they would have as much elbow-row as required (See groups (1) and (2)).

4. Medium-sized enterprises giving the main stream of furniture industry are in group (**4**). They take their part from the production of industrial total income far more seriously than companies in the former groups, with low-medium efficiency. As the winners of the very successful term before the crisis they had significant operating profit. The crisis effected them seriously (even if companies from this group moved to group (5)), too, but according to the behaviour of former groups they reacted differently. These bigger companies can reach external sources more easily, so there was not an urgent need to 'stock' the produced income. It allowed them to develop human resource and fixed assets preparing for the expansion after the crisis. It is shown in the continuously increasing rate of depreciation and in the increase of personnel expenses in the period of the crisis and in becoming steady after the crisis. Their diagram is similar to the same diagram of companies in group (1) in the first period and to the diagram of companies in the groups (2) and (3) in the second period. Their strategic behaviour derived from the diagrams and their indicators also refer to some hybrids, too. These companies produced a huge amount of income with the adequate efficiency and when the environment forced them to act even harder, they were able to adapt. They had realised the goal of maximising their income on a short run can hamstring them to work in the future. Paying respect to this they were making steps to keep corporate stability and have a successful operation in long run.

5. The middle- and big –companies in group (**5**) have a significant role in producing the industrial total income and they do it with low-medium efficiency. The companies realising the highest industrial income, dealt with the examined term obviously as companies in group (4). There is a difference only because of the even highest rate of operating profit; commitment to the development of soft and hard producing processes is on the same level and direction as by group (4). The economic indicators of these companies also show a conscious, future-based strategy.

On the base of the primary research the followings can be settled.

T4. There are groups of companies in the Hungarian furniture industry which can be handled together from the point of strategic changes between the strategy-based-distinct-periods (strategic change clusters), so it is possible to identify typical models (synkinesias) in the behaviour of companies depending on the reaction of companies for environmental changes.

Finally it was proved on the base of the economical and statistical analysis of economic indicators counted for the strategic change clusters formed by the examined companies that

T5. In the case of these change clusters it was not possible to prove the obvious connection with economic indicators.

The consequences connected to the strategic change clusters are the followings (right side of Figure 4):

1. In group (**1**) there are companies which were not changing significantly either in the efficiency of operating value added (vH%) or in the contribution to total income (vA%). Their behaviour between the two examined periods was typified with permanency. After an extremely successful term which brought huge revenue increase (which was followed with significant developments of fixed assets), the industry was suffering from a big economic crisis but despite it the quantity of fixed assets by the companies of this group increased. It unequivocally alludes to the development ambitions of this group when making decisions to get over the crisis and saving personnel expenses. This situation is definitely a success when entering crisis but staying in the group which kept the same position through and after the crisis too

14

seems to be a failure. When the revenue was still slowly decreasing and the number of companies were decreasing too and also the operating performance related total income was falling because of the fall of all its components, so the strategy of developing fixed assets was not relevant anymore, the decrease of the number of employees was mainly responsible for the change.

2. In Group (**2**) there are companies which were stressing the increase of efficiency of producing personalized income (vH%), while they were not adding too much to the industry total income (vA%) (they were not growing), compare to the previous period. Despite of the crisis this group could increase the produced total income on a minimum level due to the increase of operating profit and depreciation (tkp. EBIDTA), while they were reducing the rate of personnel expenses. In the period of recovering from crisis the total income of the companies in this group was falling when the number of the group members was growing. The produced income was able to grow in this period which suspects a more and more efficient operation. The structure of income change meant the reduction of personnel expenses in this case too, although the rate of depreciation was also worsening. It means that the companies of this group put the stress on the maximisation of operating profit while reducing the symmetry of personnel expenses.

3. In group (**3**) there are mainly middle-sized and big companies which were stressing the increase of the industry total income contribution (vA%). In this group there are companies which were able to develop dynamically in spite of crisis. An attractive example of this that entering crisis they were able to increase their income significantly compared with the previous, very successful period; so also the unsuccessful companies could take 'a slice of the income-cake'. The produced amount of income increased significantly dues to the increase of personnel expenses and operating profit. The income of the members of the group formed by companies interested in increase decreased despite the expansion after the crisis (the number of members was doubled). They could however increase the profit by bettering all components in the same time. Compared with the previous period, they very less stressing the increase of human resources, but depreciation was doubled, which means that this cluster was investigating the produced profit in building up their future on the highest scale.

4. In group (**4**) there are companies, where the efficiency of producing profit (vH%) decreased significantly compared with the previous period, when there was not any

significant changes in total income contribution (vA%). It is not surprising that it can be said about change clusters entering crisis and about change clusters leaving crisis, that income increased minimally and also the amount of profit from it was low. It can be supposed that these companies have a well-operating market from where they get orders but due to some internal, technological or operational shortcomings they cannot transform orders to profit. This bad performance is proportional in the view of changes between periods, because the operating profit and personnel expenses were decreasing significantly and similarly, but depreciation became also less compared with the previous period. So without reference to periods by decreasing developments and saving on personnel expenses companies tried to compensate missing profit.

5. In the group (**5**) there are mainly middle-sized and big companies at which the total income contribution (vA%) decreased significantly compared with the previous period, the significance of company in the industry also decreased, and the from the point of the efficiency of operating value (vH%) there was not any significant changes in the companies' operation. No significant distinctions can be realised either by this group due to the changes between periods. The companies were characterized with huge fall of revenues and huge fall of profit. It means that they suffered from losing markets (not like companies in the previous group). The fall or decrease of operating profit in point of its compound – as by group (4) - was compensated with decreasing developments and with savings on personnel expenses.

Two main streams can be recommended to continue this research:

1. It was not succeeded to show an obvious connection between strategic performance and economic indicators what is based on non-measurable components of corporate strategic efficiency. So the research could be widened to soft, management fields that the range of strategic decisions typical for strategic clusters and strategic change clusters could be defined more punctually and more entirely and so the results of the research could be taken by company leaders to increase the practical use.

2. In this dissertation, the author did not research the market entry and market exit strategy of these corporations. So the research could be widened to this direction. The research could reveal what is the successful market entry strategy for the firms which should be followed, and why the leaving ones left the market in any reasons that are must be avoid.

5. Publications related to the dissertation's subject

KÁLLAY, Balázs – **KOLOSZÁR**, László (2014) *Az üzleti diagnosztika alapjai.* Sopron, NymE Kiadó, ISBN 978-963-334-149-0

KÁLLAY, Balázs (2012) Készletgazdálkodás. pp. 217-299. In: **JUHÁSZ**, Lajos (szerk.) (2012) *Vállalati erőforrás-gazdálkodás.* Sopron, NymE Kiadó, ISBN 978-963-334-057-8

KÁLLAY, Balázs (2014) A magyar bútoripar teljesítménye az EU csatlakozás óta eltelt időszakban. *Faipar*, 62:1 pp. 46-53. ISSN 2064-9231

KÁLLAY, Balázs (2012) Evolutionary and competence-based theories of the firm. *Journal of international studies*, 5:1 pp. 38-45. ISSN 2071-8330

KÁLLAY, Balázs (2012) Contract theory of the firm. *Economics & Sociology*, 5:1 pp. 39-50. ISSN 2071-789X

KÁLLAY, Balázs (2012) A vállalat elméleti megközelítése. *Gazdaság és társadalom*, 4:5 pp. 156-1850. ISSN 0865-7823

KÁLLAY, Balázs (2010) Research on the opinion of the consumer considering the image of the furniture in Hungary. *Economics & Sociology*, 3:1 pp. 104-114. ISSN 2071-789X

KÁLLAY, Balázs (2013) A vállalati stratégia elméleti háttere. pp. 819-835. In: **SZÉKELY**, Csaba (szerk.) (2013) *Felelős társadalom, fenntartható gazdaság: Nemzetközi tudományos konferencia a Magyar Tudomány Ünnepe alkalmából.* Sopron, 2013.11.13., ISBN 978-963-334-144-5

KÁLLAY, Balázs (2011) Analysis of achievement of inventory management in case of a commercial company. pp. 217-221. In: **MADGEROVA**, Raya – **NIKOLOV**, Chavdar – **GEORGIEV**, Georgi L. – **IVANOVA**, Ludmila – **TRIFONOVA**, Julieta – **TERZIYSKA**, Ilinka (szerk.) (2011) *Second International Conference for PhD Candidates: Economics, Management and Tourism.* Blagoevgrad, 2011.05.06-2011.05.08.

KÁLLAY, Balázs (2011) Készletgazdálkodás bizonytalan környezetben. p. CD. In: **ANDRÁSSY**, Adél (szerk.) (2011) *„Hitel, Világ, Stádium" Nemzetközi Tudományos Konferencia tanulmánykötete.* Sopron, 2010.11.03., ISBN 978-963-9883-73-4

KÁLLAY, Balázs (2009) Bútoripari termékek vevői nézőpontból. pp. 509-522. In: **SVÉHLIK**, Csaba (szerk.) (2009) *IV. KHEOPS Tudományos Konferencia: A tudomány felelőssége gazdasági válságban.* Mór, 2009.05.20., ISBN 978-963-87553-5-3

KÁLLAY, Balázs (2008) A fatermékekhez fűződő fogyasztói attitűdök vizsgálata. p. CD. In: **ANDRÁSSY**, Adél (szerk.) (2008) *Innováció, versenyképesség, felzárkózás: Konferencia a Magyar Tudomány Ünnepe alkalmából.* Sopron, 2008.11.04., ISBN 978-963-9883-25-3

KOLOSZÁR, László – **KÁLLAY**, Balázs (2013) Vállalati jövedelemkategóriák összefüggéseinek oktatási tapasztalatai. pp. 66-78. In: **SZÉKELY**, Csaba (szerk.) (2013) *Felelős társadalom, fenntartható gazdaság: Nemzetközi tudományos konferencia a Magyar Tudomány Ünnepe alkalmából.* Sopron, 2013.11.13., ISBN 978-963-334-144-5

PAKAINÉ KOVÁTS, Judit – **BEDNARIK**, Éva – **KÁLLAY**, Balázs – **PÉCHY**, László – **TAKÁTS**, Alexandra (2007) *Bútorvásárlók – Bútorvásárlás - Bútoreladás Magyarországon 2007-ben.* Sopron, NyME, FMK

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