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SME SECTOR, A CRUCIAL AREA OF THE CORPORATE COMPETITIVENESS MEASUREMENT

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Abstract
We meet the concept of competitiveness more and more, however there is no agreement on at what level this concept can be interpreted. The majority of the competitiveness researchers reckon it as a microeconomic category i.e. a thing which can be interpreted to corporate level as well as product level. The importance of SME sector's competitiveness is increasingly emphasized within the corporate competitiveness but, in practice, such models are still not created which would specialize in measuring the competitiveness of small and medium-sized enterprises. The corporate competitiveness is generally examined by means of criteria formed on the basis of the same competitiveness definition, not to highlight the specifics of SMEs, thus the results of analyzes has a good chance to be inaccurate. Therefore, the aim of this monograph is to compile a possible analytical framework taking the peculiar conditions of the small and medium-sized enterprises into consideration.

1   Significance and peculiarities of SME sector

Structure of the Hungarian economy is dual: in addition to a small number of big enterprises being export-oriented typically, there is a large number of small and medium-sized enterprises (SMEs) playing a major role in operation of the local economic life preferably. Act XXXIV of 2004 on Small and Medium-sized Enterprises and the Support Provided to Such Enterprises contains the conceptual definitions regarding the sector. According to the act, those enterprises are qualified as SMEs where the number of employees is not more than 249 heads, the net sales revenues is below an amount of HUF being equal to EUR 50 million or the balance sheet total does not exceed an amount of HUF being equal to EUR 43 million. Furthermore, there is an important condition that the direct or indirect state or municipal share shall not exceed 25% severally or jointly. Within the category of SME, that enterprise is qualified as a small enterprise where the total number of employees is not more than 50 heads and the annual net sales revenues or the balance sheet total is below an amount of HUF being equal to EUR 10 million. And, that enterprise is qualified as a micro enterprise where the annual net sales revenues or the balance sheet total is below an amount of HUF being equal to EUR 2 million [16].

It is important to highlight that the statistical classification of organizations is performed based on the number of employees only. One of its reasons is that other criteria (the maximum of net sales revenues and balance sheet total, criteria of independence) changed during the years which could make the temporal comparison more difficult. The following table (*Table 1*) shows the number and distribution of enterprises by size categories.

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Table 1. Number and distribution by size categories in 2013 and 2014

Size	Number of enterprises (th.)		Distribution (%)	
	December 2013	December 2014	December 2014	December 2014
Micro	1651,4	1667,7	97,82	97,89
Small	31,2	30,6	1,85	1,80
Medium	4,7	4,5	0,28	0,26
Big	0,88	0,87	0,05	0,05
Total	1688,18	1703,67	100,00	100,00

Source: Own edition, based on [17]

According to the Hungarian Central Statistical Office's data of December 2014, the number of registered economic organizations exceeds 1 million 703 thousand which is 15 thousand more as it was a year ago. 99.95% of the registered economic organizations belong to the SME sector and 97.89% of enterprises belonging to the SME sector is micro-enterprise. Their burden will supposedly grow further since the annual growth affecting the number of organizations primarily arises from the increase in number of independent entrepreneurs.

The sectoral structure of enterprises employing not more than 249 heads and the bigger ones are significantly different. While the latter mainly perform industrial activities, the small and medium-sized enterprises decisively operate in service providing areas. Just over one fifth of them performs commercial or car-repairing activities, 17% of them performs professional, scientific or technical activities. In addition, role of the industry as well as building industry was also prominent, 17% of the organizations belonged to these sectors in total. In addition to the above, more than 30 thousand SMEs operated in administrative and service supporting, communicational as well as accommodation-provider and catering trade areas [19].

Data from 2012 are available regarding the management features of SMEs. In this year, the small and medium-sized enterprises jointly reached net sales revenues of HUF 44 634 billion in Hungary which is 58% of the amount realized by the total enterprise sector. The micro-enterprises realized only 36% of the sales revenues even though their rate exceeds 95% within the sector. The medium-sized enterprises representing 0.7% of SMEs had a similar proportion of the net sales revenues and the share of small enterprises with 10-49 employees amounting to 4.1%.The enterprises observed have produced a gross value added of HUF 14 311 billion. With regard to the gross value added, role of the largest employers is decisive. In 2012, 45% of the amount was produced by those big corporations with 250 heads which represent only 0.1% of the enterprises. The small and medium-sized enterprises generated a gross value added of HUF 7897 billion which is almost the same amount in nominal value as it was a year ago. The organizations employing not more than 249 heads have employed almost 2 million employees in total which was 73% of headcount of the corporate sector. As a result of their numerical dominance, role of the micro-enterprises employing not more than 9 heads is the most prominent, namely these enterprises have ensured earning opportunities for more than half of the number of persons employed by the SMEs. The economic weight of SME sector is extremely significant; it plays a more and more important role in the country's income generation, in the operation of foreign capital, in the investments under realization as well as, from a social aspect, in the job creation and employment. SWOT analysis made for the National Development Plan has exactly marked the large number of SMEs as one of our strengths but it has highlighted their low productivity and competitiveness among the weaknesses [18].

2 Conceptual approach of corporate competitiveness

Nowadays, we can meet the expression 'competitiveness' more and more. It is construed very differently by various people, more and more definitions are created, whether they are about the competitiveness of national economies, regions, companies or individuals like employees. So,

there is no agreement on at what level the competitiveness can be interpreted "until now, the science has not defined the competitiveness unequivocally yet" [14].

The competitiveness and its scientific research can be dated to the beginning of 1980s, the competitiveness was initially examined specifically at a national economic level only. Following that, treatises concerning the competitiveness of regions, companies and products have been published as well. Krugman is credited with the appearance of competitiveness-concept regarding the companies; by his opinion, the concept of competitiveness exists only in case of companies [8]. Namely, the competitiveness-concept creates a notion that the countries compete with each other like the companies. If a corporation does not stand the competition or cannot pay then it will quit the business and will be liquidated but none of the countries can give up the economic activities [10].

In the 1990s, the management science approach of competitiveness became conspicuous, "they do not deduce the concept of competitiveness from one of the basic economic trends but they strive to elaborate and construe the definition by generalizing the characteristics of the observable economic processes and corporate strategies" [11]. Since this period, more and more competitiveness definition have been created in the domestic specialized literature, frequently cited authors are for instance Ádám Török, Ferenc Kozma, Gyula Horváth, Imre Lengyel or József Botos. However, there is a definition which can be reckoned as the most wide-spread and the most accepted. According to the determination elaborated based on experiences of the competitiveness assessments performed by the Competitiveness Research Centre, "the corporate competitiveness is the ability of a company which can permanently proffer the consumers such products and services, by complying with the norms of the social responsibility, that the customers are prepared to pay for, rather than for products (services) of the competitors, under conditions ensuring profit for the corporation. Condition of this competitiveness is that the company should be able to sense the changes in the environment and within the company and should be able to adjust to these changes by fulfilling the market competition criteria" [3].

Overall, it can be said that the majority of the competitiveness researchers increasingly reckon the competitiveness as a microeconomic category i.e. a thing which can primarily be interpreted to corporate level as well as product level. Ádám Török casts doubt on the definability of competitiveness-concept outright; he believes that "this concept cannot directly and unequivocally be deduced from either of the basic paradigms of economy i.e. it cannot actually be defined theoretically" [15]. If the concept of competitiveness has actually no place in the economics sciences but it is admitted in the management sciences then the question arises as to whether the conclusion can be deduced that we have to interpret the competitiveness at a corporate level and its national economic significance is actually negligible.

3 Measurement of corporate competitiveness

In order to say whether the mentioned economic operators are competitive or not, we have to be able to measure their competitiveness. However, there are not uniformly accepted methodologies, "there is no such a uniform economic model which unequivocally describes the components of competitiveness" [14]. Diversity of the methods measuring the competitiveness arises from that the subjectivity is present in a large measure, different conceptions are reflected thus the methods measuring the competitiveness differ as well.

The SME sector is a crucial area of the corporate competitiveness measurement. However, the importance of the sector's competitiveness is increasingly emphasized in the specialized literature but, in practice, such models are still not created which would specialize in measuring the competitiveness of small and medium-sized enterprises. The corporate competitiveness is generally examined by means of criteria formed on the basis of the same competitiveness definition, not to highlight the specifics of SMEs. Therefore, the aim of this monograph is to compile a possible analytical framework taking the peculiar conditions of the small and medium-sized enterprises into consideration.

3.1 A possible analysis framework, the peculiarities of SME sector

The competitiveness of corporations can be analyzed, on the one hand, from the side of results and, on the other hand, from the side of influencing factors. The results can unequivocally be linked to the corporation i.e. it is micro-level but the influencing factors can derive from the micro and macro environment of the enterprise as well.

So, a part of the factors influencing the corporate competitiveness derives from the external environment of the corporation. Numerous models presenting macro-level factors can be found in the specialized literature, Philip Kotler is credited with the most wide-spread one. Kotler calls these influencing factors as outside forces and effects which cannot be influenced by a corporation and the accommodation to them is a necessary condition for the successful operation of a company [6]. Table 2 shows these macro-level factors and the most important related elements in summary.

Table 2. The macro-environmental factors and their elements

Social factors	*Demographic, cultural*
Technological factors	R & D, innovation, infocommunicational development
Economic factors	GDP, GNP, inflation, unemployment, investment
Natural factors	Sustainability, eco-technology
Political and legal factors	Economic policy, legal background

Source: Own edition, based on [7]

Most of the factors in the table cannot be influenced by the companies, the only way is the accommodation. However, there are such factors which the activity of corporations react upon. R & D, the innovation, GDP and the employment situation are all factors which can be influenced by the corporate sector.

Porter's diamond model contains the most respected grouping of the micro-environmental elements influencing the corporate competitiveness. The model presents the possible sources of competitive advantages for corporations, industries, clusters such as the factor endowment, demand relations, related and supplier industries as well as the corporate structure and competition [12]. Beside the diamond model, Porter created a model describing the forces dominating in the industry competition, according to which the threat of new entrants and substitute products as well as the bargaining power of suppliers and customers have the biggest effect on the competition in the industry. These two models can be integrated on the basis of the logic according to which the competitive position of a company is formed as a resultant of the intensity and competitive advantage of competition. The competitive forces have an effect on the competitive advantages which can be utilized by the corporations.

And, considering the internal factors of the corporate competitiveness, it becomes more and more evident that new type competitive advantages increasingly determine the competitiveness of corporations beside the classical competitive advantages such as the lower expenses, lower price, better quality and the effective marketing. These new type advantages are for example the concentration of capital, technological developmental trends, skilled labour force, powerful relations of clientele, unique organizational structure models and processes.

Numerous competitiveness researchers think that, beside the international huge corporations, the companies of SME sector are the ones that possess such competitiveness sources which are sustainable in the long term and can be copied with difficulty. They emphasize more and more that the competitiveness of the small and medium-sized enterprises is crucial from the point of view of the regions' and national economies' competitiveness. Of course, these two sectors are completely different so the criteria of competitiveness should be different as well. The sources of competitiveness of the micro, small and medium-sized companies may be the following during an operative time period: accommodation to the customer demands as fully as possible, creating reasonable prices, utilizing the advantages of group work; and during an strategic time period, sensitivity for the environmental impulses and the ability to respond without any delay, enhancement of the professional skills and preservation of the flexibility [4]. On the contrary, the

following things mean the competitiveness criteria of the international huge corporations: during an operative time period, the adequacy of difference between returns and expenses which is weighted by risk and the utilization of the local possibilities of result increasing; and during a strategic time period, keeping abreast of the global technical progress, financial stability, appropriate international market share as well as utilization of opportunities arising from the local competitive advantages. So, it is obvious that the competitiveness of these two sectors cannot be measured based on the same criteria, competitiveness system of index numbers.

The starting point of working out a new system measuring the corporate competitiveness is the identification of corporate competitiveness and its key factors. The corporate competitiveness cannot suitably be measured without defining what we mean by the corporate competitiveness and what key factors the definition can be split into. By splitting the key factors into elements, we obtain such smaller units which can be measured by index numbers. The competitiveness can be concentrated to one number by means of the scales assigned to index numbers and by weighting.

The definition determined by the already-mentioned Competitiveness Research Centre can mean the basis of SME sector's competitiveness measurement but not by itself, without additions and modifications. Though, one of the EU's most important targets is to make the operation of small and medium-sized enterprises international but, in this corporate circle, the deciding factor is to withstand the competition in domestic markets, with domestic operators, in numerous cases. Their competitiveness primarily manifests itself that in what extent they are able to utilize the flexibility and adaptability arising from the organizational size. By means of it, in what extent they can contribute to the improvement of the employment situation and competitiveness of the region, country which serve as a place of their operation, beyond the improvement of their market position and reaching the appropriate profit for their owners.

The macro-level factors influencing the corporate competitiveness have also an effect on the companies of SME sector thus the factor grouping presented before means a proper basis for examining their competitiveness, the only exception can be certain elements of the macroeconomic, legal, economic policy environment such as accounting and taxing specifics, economic policy actions for developing the SME sector. The effect of these factors on the competitiveness is to be emphasized separately in case of the SME sector.

The micro-level analysing framework is also an appropriate starting point. But it is necessary to integrate, in some form, the possible ways of the competitiveness analyses, Porter's models as well as the system of competitiveness index concept of Attila Chikán in order to perform the SME competitiveness examination as fully as possible. One of the possible ways of integration is shown by Table 3. This unified and transparent system includes every modes of approach, main factor groups which can be applied during the competitiveness analysis of SME sector.

Table 3. Integration of the competitiveness factors of SME sector

Influencing factors			Results
From macro environment		*From micro environment*	*Profitability*
Input conditions	*Relating issues*	*Operability*	*Market performance*
Natural conditions Human resource Capital sources Infrastructure conditions	Quality and bargaining power of suppliers Presence of supporters	Productivity Cost efficiency Prices Product quality Production quality Terms of delivery Quality of services	Domestic market share and revenue Export market share and revenue
Demand conditions	Competition	Ability to change	Other results
Amount of demand Consumer demands Bargaining power of customers	Strength of the struggle for inputs and customers Threat of new entrants and	Market relations Qualification of employees Capacity of management R & D, innovation	Changes of employment R & D expenditures Measure of fund raising

Clustering	substitute products		

Source: Own edition, based on [12]; [2]

3.2 Standardization as an analysis method being applicable for data of SMEs

The analysis of competitiveness of corporations can be performed according to many approaches. In addition to the presented analysis framework, in my opinion, the most important things are the financial and accounting data regarding the corporations' management, profitability, efficiency and the index numbers being calculable from the above.

Most of these indices can interpreted at a corporate level and for group of companies as well. The following table (*Table 4*) summarizes the indicators which are mostly applied in practice.

Table 4. Indices which can be used for analysing the management of enterprises

Property situation	Financial situation	Profitability	Efficiency
Rate of fixed assets Rate of current assets Fixed assets coverage ratio Capital strength Indebtedness Growth of equity Capital intensity	Indebtedness Short-term liquidity Liquidity quick ratio Prompt liquidity Rate of outstanding debt Debt service coverage	Profitability as a proportion of sales revenues Return on Equity (ROE) Profitability as a proportion of living labour Return on Investment (ROI) Profitability as a proportion of resources	Efficiency of living labour Efficiency of tangible assets Capital intensity Wage efficiency Capital efficiency Equity per enterprise Result per enterprise Inventory efficiency

Source: Own edition, based on [1]; and [13]

Range of the above-mentioned indicators can be enlarged, in addition, an indicator can be decomposed to factors influencing the formation and indeed, new indicators can be created from them.

In order to draw proper inferences by means of analysing the indicators describing the management of corporations, the method of standardization may be required in many cases. The method can be applied for most of the indicators in Table 4.

Aim of the standardization is to explore the reasons of temporal changes or spatial deviation of complex intensity ratios. It always separates two reasons: the effect of change of part ratios and the effect of change in structure [5]. Standardization is a data analysis method applied relatively rarely but, by means of it, interesting coherences can be exposed during the analysis of indicators. Let's consider, for example, a possible problem being applicable for a macro-level analysis which is arising in line the equity indicator per enterprise; this problem is illustrated by Table 5. Data of the table apply to 2000-2001; recent data are not available regarding the distribution of equity by size categories.

Table 5. Analysis of equity per enterprise

Size	Number of enterprises (thousand)		Equity (HUF billion)		Equity per enterprise (HUF million per enterprise)		Changing of equity per enterprise 2000=100%
	2000	2001	2000	2001	2000	2001	
Micro	117,7	149,6	1992	2264,5	16,9	15,1	89,3
Small	20,5	21,5	1559,8	1786,6	76,1	82,9	108,9
Medium	4,8	4,7	1859,2	2201,5	391,3	472,5	120,7
Big	1	0,9	6126,2	6030,2	6188,1	6576	106,3
Total	144	176,7	11537,2	12282,8	80,1	69,5	86,8

Source: Own editing based on [9]

Based on the table, it can be seen well that the value of equity per enterprise decreased by 13.2% in total from 2000 to 2001. One might ask the question how it is possible since the value of equity per enterprise has increased in case of every size category, except the micro-enterprises where there was a decline with a smaller extent (10.7%). I am going to apply the method of standardization for resolving this seeming contradiction.

At the first step, we determine the standard average for interpreting the part effect. We reckon the number of enterprises in 2001 and the values of equity in 2000 as standard. We get the standard average as a quotient of the cumulated value of the products of multiplication and the total number of enterprises (2001); its value is HUF 66 million per enterprise. The part effect can be interpreted as a quotient of the equity average per enterprise (2001) and the standard average (2001) which is 105.3% in a percent form. Namely, the value of equity per enterprise has increased by 5.3% on average in the size categories. However, development of the indicator is affected by another factor: change in the structure of corporation by sizes.

Quotient of the standard average (2001) and the equity average per enterprise (2000) interprets the effect resulting from the change in structure, the percent value of which is 82.4%.

So, the number of enterprises has been shifted toward the micro-enterprises possessing the smallest equity per enterprise and this fact has reduced the value of indicator regarding every enterprise by 17.6%. There is a growth of 5.3% against a decline of 17.6%; the decline of 13.3% regarding the whole of enterprises has emerged as a resultant of these two effects.

4 Summary, applicability of framework

Applicability of the framework largely depends on the object of competitiveness analysis. In case of analysing the competitiveness of a specific corporation, every components of the presented system can unequivocally be analysed. If the object of analysis is a group of companies, for example a regional cluster, sector or SMEs then it is required to consider more things in case of analysing the particular factor groups. There are such factors, especially among the impact factors and results, which can primarily be interpreted to a given corporation, some aggregate or general values can be applied for a group of companies. The sectors, regional clusters can be handled as a unified system with regard to every components of the system but it is not necessarily true in case of SMEs. By analysing the competitiveness of sector according to any ways of approach, there may be a significant difference in relation to the size categories thus the competitiveness analyses can always be performed broken down by size categories. Furthermore, applicability of the outlined framework largely depends on the success of operationalizing the system and those indicators which can be created in relation to the available data and information, can be connected to the competitiveness factors, can be measured or can be compared ordinally at least.

The financial and accounting data regarding the corporations' management, profitability, efficiency and the index numbers being calculable can be applied well during the examinations of

competitiveness of SMEs. However, the analysis of data also takes a lot of care, the presented standardization was a good example for it. Proper inferences cannot always be drawn from the result being unequivocal at first sight; it is often required to perform more detailed analyses.

Therefore, aim of the treatise is to compile a possible analysis framework taking the peculiar abilities of the small and medium-sized enterprises into consideration as well as to present the applicability of a standardizing statistical analysis method which can be applied for data of SMEs.

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