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## ADAPTABILITY OF THE INTERNAL BUSINESS ENVIRONMENT OF SMALL AND MEDIUM-SIZED ENTERPRISES IN SLOVAKIA

***Abstract:** Companies that are exposed to an uncertain changing business environment must be able to adapt and change in order to achieve some compliance with the subject of business carried out and the objectives with the ambient conditions. Also these conditions can be a source of threats for small and medium-sized enterprises. In this context, we emphasize the adaptability of the enterprise. It is the active joining of resolving the conflict between the business entity and its environment. We follow signs of this joining through changes as a transition of stability on one level to a whole new level of stability, which can cause a change in the company's original strategy to a new strategy.*

***Keywords:** adaptability, awareness, flexibility, value chain, the response.*

**JEL:** M 21, M 29

### Introduction

Reflections on the future strategy are defined not only by knowledge of the business environment, but also by the attitude to it. Based on the degree of the external uncertainty of the internal ambitions the company might take the adaptation approach to quickly and flexibly respond to opportunities in existing markets nearly in real time. Companies of this type adopt, develop and improve the results of leading companies. [1]

Strategic success often depends on strategic adaptability, understanding that, in many cases, a new situation requires a new approach. Equally, we have seen that organizations are not always able to change. [2] Strategic adaptability lies somewhere in between strategic commitment and strategic opportunism. This means that the organization recognizes that things change, market evolve, products improve, new technologies appear, government policies change, and so the organizations needs to be able to read signals and trends from the market and change and adapt accordingly. [3] The likelihood that a firm can accomplish this is dictated to a large extent by the

industry in which it competes. For instance, hospitals have little choice but to invest in expensive operating assets like buildings and diagnostic equipment. [4]

(Proactive) strategic adaptation is, together with strategic issue management, an expansion of the issues addressed in strategic management. Adaptation recognizes the more dynamic aspects of strategic management, that is, as a process, since strategic adaptation is directed primarily at implementing strategic plans and adjusting the operating and administrative systems of the corporation according to the plans. [5]

More turbulent, competitive environments demand greater strategic adaptability, operational flexibility and service customization and these, in turn, are more effectively delivered by decentralized, performance – driven organizations. [6]

Strategic adaptability does not mean that an organization can do whatever seems like a good idea. It has to respond appropriately to the situation. As long as the organization responds appropriately, it can constantly adapt its methods without being inconsistent in its results. If the organization understands the changing situation better than its competitors, it can actually use the dynamics of competitive situations to control its opponents' behavior. [7]

Operating and strategic adaptability represented by real options can be achieved at various stages during the value chain, from switching the factor input mix among various suppliers and subcontracting practices to rapid product design (e.g., computer-aided design) and modularity in design, and to shifting production among various products rapidly and cost-efficiently in a flexible manufacturing system. [8]

Our examined group consisted of 136 small and medium-sized enterprises (of your choice) operating in the Slovak Republic. In the survey those companies were limited by the following criteria. A binding condition was the size of the company, which had to be small (up to 25 to 50 employees) and medium (up to 250 employees). The studied sample of companies we acquired with a questionnaire survey, conducted between January 2012 and December 2012. The questionnaire was answered face-to-face with a respondent, with even some multiple visits of the given company. As already mentioned above, the questionnaire was answered in specific businesses of our choice regardless of the legal form of the business and the industry in which it operates. The quality of the questionnaire increased the exposure of a small and medium-sized enterprise, which has been active in the European Economic Area. Examined sample of SMEs obtained through the questionnaire survey was then processed and evaluated in Excel by mathematical and statistical methods.

### **Adaptability of the Internal Environment of the Surveyed Sample. Survey Results**

Adaptability of the internal environment of the surveyed companies was evaluated on the basis on the amount and reliability of information in selected areas of business management. In a group of 136 small and medium-sized enterprises in the Slovak Republic, we investigated how much and how reliable information enterprises have at their disposal. All necessary and needed information constituted the amount for

100%, and a complete reliability matched a 100% certainty. Table 1 informs about this matter.

Table 1

**Examination of Quantity and Reliability of Information in Selected Areas of Corporate Management in the Research Sample of Companies**

Field of business management	Awareness of Information			
	Present (current year)		Future in 3-5 years	
	Amount	Reliability	Amount	Reliability
Volume and range of sale	85.59	89.41	69.41	70.44
Number and type of customers	83.97	88.09	73.82	73.53
Economy (profitability)	86.76	89.21	73.53	71.88
Technologies needed	82.79	84.56	69.71	72.06
Human resources	85.74	82.94	77.06	75.44
Financial resources	84.26	87.00	73.76	72.59
Volume and range of shopping	80.15	83.68	68.68	71.18
Position in the market	73.09	72.21	65.74	64.85
Average value	82.79	84.64	71.46	71.50

The range and reliability: 0% (min) – 10 – 20 – 30 – 40 – 50 – 60 – 70 – 80 – 90 – 100% (max)

**Source:** Own processing.

It is surprising that the average amount of information in the analyzed year 2012, in the set of 136 examined companies stood at 82.79%. The highest percentage in the corporate management was achieved by the human resources, which is positive, because this area affects other areas of corporate management and they depend on it. In monitoring of the average reliability of the information in the particular fields of business management the value was at 84.64%, which is also a positive contribution for the sample companies.

When considering this information in the future 3-5 years in these enterprises, the situation is interesting. Although, the average is only 11.33% lower in quantity and 13.14% lower in their reliability, we can clearly see that in the area of corporate management, small and medium enterprises will be able to adapt to the internal company environment. Some of them will have small problems in the field of corporate management, but they will try to eliminate it with certain actions at the corporate level.

Given the factual information in the sample of 136 Slovak SMEs, we surveyed also the fact from where their information on present and future came from. This information represented the formal power plants. Formal sources of information for the studied sample firms are presented in Table 2 Present information for future 3 to 5 years represent the proportion of the total supply sources of the information.

Table 2

**Formal Sources of Information of the Sample Companies**

Sources	Presence	Future in 3-5 years
State statistics	7.68 %	8.91 %
Statistics of interest groups and associations	4.24 %	5.50 %
Ordered information studies	6.18 %	6.91 %
Own systematic information sources (databases)	40.15 %	37.12 %
Individual information sources of managers	2.03 %	20.38 %
Individual information sources of professionals	15.29 %	12.94 %
Other	5.44 %	5.15 %
Together	100%	100%

**Source:** Own processing.

The results pointed to the fact that most of the information gained comes from its own systematic information sources (databases of companies). In the second place, the position is occupied by individual information sources of managers, and the third place is occupied by individual information sources of professionals in the researched period. Managerial information sources are necessary and important but we can neither neglect information from professionals. There is no doubt that companies are dependent on these information sources, but it is not easy to manage the companies without using information from the state statistics, statistics of interest groups, various ordered information studies, and from other information sources.

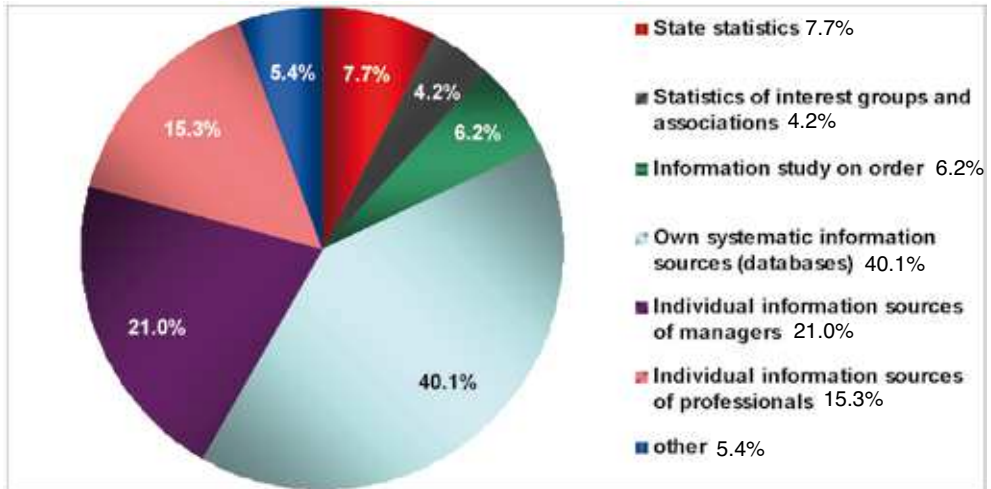
If companies are the owners of these information necessary for their management and will be able to use them in the right place at the right time, these companies will know how to adapt to changes. Many companies do not realize that these data are not a competitive advantage for them and that they could lead the company to its further development and growth.

This set of facts may express a competitive advantage of companies or on the basis of these information sources they can build one; they can change the business strategy and from the long-term view they can improve processes of strategic management.

Comparison of the obtained findings declares Figure 1, which expresses the proportion of particular resources in the presence in percent and Figure 2, which expresses the proportion of resources in the future of 3 to 5 years in percent of total sources of information.

Figure 1

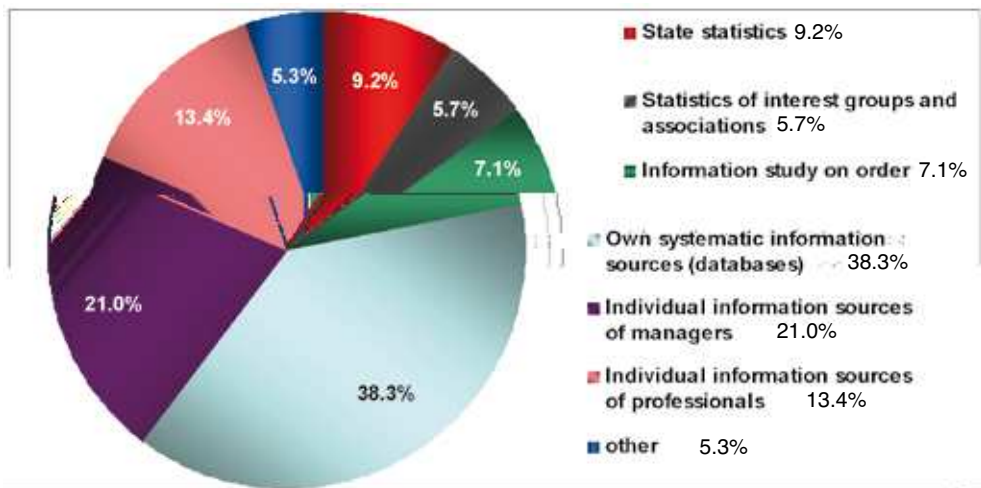
Share of individual resources in the presence expressed in % of total resources



Source: Own processing.

Figure 2

Share of individual resources in the future (3 to 5 years) expressed in % of total resources



Source: Own processing.

The evaluation of flexibility is related to the adaptability of the business environment of the examined sample of 136 Slovak companies, which is often associated with the ability of the companies to respond and adapt to changing and new situations. In the turbulent and dynamic business environment this flexibility depends

on the diversity of skills owned by managers at different levels of management and its speed. We examined the valuation of flexibility in the various stages of the value chain through primary and secondary activities and through tangible and intangible resources and capabilities by determining the degree of flexibility.

Tables 3 and 4 document the mater of facts based on the interpretation of the researched sample of small and medium-sized enterprises. To measure the degree of flexibility, we used the same scale of elasticity in Tables 3 to 6.<sup>1</sup>

Table 3

Primary activities	Degree of flexibility
Initial logistics	3.79
Production (operation)	3.85
Output logistics	3.79
Marketing and sales	4.21
Services	4.32
<b>Average value</b>	<b>3.99</b>

Table 4

Secondary activities	Degree of flexibility
Administration	4.21
Human resource management	4.32
Technological development	3.21
Acquisition	3.76
<b>Average value</b>	<b>3.88</b>

**Source:** Own processing.

As indicated in Table 3 in assessing the flexibility of the primary activities in the various stages of the value chain, the highest degree of flexibility was reached in services (4.32). This is the average elasticity, in which the valuated component can adapt quickly even to incremental changes. This level of flexibility was achieved in the researched companies also marketing and sales. Also input and output logistics came closer to the average elasticity, which had the same value (3.79). Only a slightly higher value of 3.85 was reached by production, which is also closer to the average flexibility. The average value of the degree of flexibility of primary activities oscillated at 3.99, which confirmed the average elasticity in the researched set of companies.

In the evaluation of secondary activities (as shown in Table 4) the highest level was achieved in human resource management (4.32), which attests the average elasticity. In a similar situation, the administration found itself with the value of the degree of elasticity of 4.21. The value of the degree of elasticity of 3.76 was assigned by acquisition, which means again the average flexibility. From the secondary activities only technological development with the value 3.21 came closer to little flexibility, in which the evaluation component is able to adjust only slowly to incremental changes. These changes were, however incremental.

For evaluating of the flexibility of tangible and intangible resources and capabilities we point out Tables 5 and 6.

<sup>1</sup> RANGE OF FLEXIBILITY: 1 – no flexibility, 2 – very low flexibility, 3 – low flexibility, 4 – average flexibility, 5 – high flexibility, 6 – very high flexibility.

Table 5

Source	Degree of flexibility
Land (location, infrastructure)	2.15
Buildings	2.32
Equipment and technology	3.47
Information technologies	4.03
Finance	3.74
Sales network	3.41
Managers	4.29
Other employees	3.97
Brand and reputation	3.44
Knowledge, experience, patents	3.56
<b>Average value</b>	<b>3.44</b>

Table 6

Ability	Degree of flexibility
Management system	3.74
Communication	4.47
Resource coordination	4.03
Corporate culture and social atmosphere	3.71
<b>Average value</b>	<b>3.99</b>

Source: Own processing.

In the evaluation of tangible and intangible resources and capabilities we used the same range of flexibility as in the case of primary and secondary activities in different stages of the value chain.

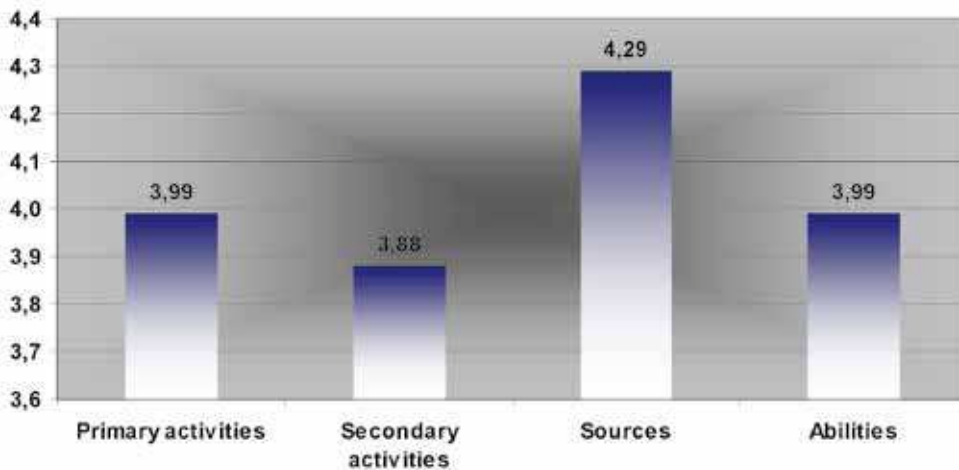
The highest degree of flexibility of the sources was recorded in managers (4.29). This managerial flexibility is reflected in the quantity, but above all, in the quality of the skills they possess. In the turbulent and dynamic business environment, these capabilities are an important component, because it is not only the use of a single ability of a manager, but it is a set of several abilities of a manager or managers. Capabilities are diverse and their utilization also depends on the speed of use. In addition to managers, who have achieved the highest average value of flexibility, almost the same average elasticity value was achieved in information technology (4.03), followed by other staff with the value 3.97, finance with the value 3.74. The average flexibility of knowledge, experience and patents reached 3.56. Low flexibility was reached sources such as equipment and technology with the value of 3.47, brand and reputation at the value of 3.44 and sales network with the value 3.41. A very low flexibility, in which the assessed component could adapt only to very slow external changes, was found in buildings with a degree of flexibility 2.32 and land and their location and relationship to the infrastructure with the degree of flexibility 2.15.

Owing to investigation possibilities we can clearly point out that in the researched sample of 136 small and medium-sized enterprises, communication, coordination of resources, system management, corporate culture, and social atmosphere came close to the degree of flexibility of 4 or just slightly above it, which shows an average flexibility.

Mean values indicate the average company in which the degree of flexibility of the primary activities was 3.99, of the secondary activities 3.88, which raises the average elasticity of such a company, which could be able to adapt just to slow incremental changes and the evaluation of the average capability of elasticity is 3.99, which shows the average elasticity. Figure 3 informs about these facts and it makes a comparison of the acquired knowledge through the analysis of researched businesses.

Figure 3

Comparison of the Knowledge of Average Flexibility at Different Stages of the Value Chain and by the Tangible and Intangible Resources and Capabilities



Source: Own processing.

In the context of the examination of internal environment adaptability of the researched companies and the assessment of the flexibility of primary and secondary activities in the different stages of the value chain flexibility and evaluation of the flexibility of the tangible and intangible resources and capabilities, it is necessary to examine the fact, what the speed of response to external changes in individual internal parameters is. We also draw attention to the wavelength of changes, i.e. the period, in which the change occurred. We have scaled the wavelength through the maximum time of real reactions (week, month, quarter-year, half-year, more than a year). We assigned weights for each time of the real response. The weights we multiplied with the number of companies for each in-house parameter. The weighted value expressed as the total number of enterprises was calculated as an aggregate of multiplied weights for each parameter. This sum was then divided by the total number of enterprises, where the researched sample consisted of 136 small and medium-sized enterprises in the Slovak Republic. This calculation was made on the basis of mathematical and statistical calculation using a formula weighted average (arithmetic mean), which characterises the statistical set in the case when



the maximum real response time of internal parameters has values which in this set characterise the given priority.

For the calculation of the weighted average we used the values, whose mean we have received on the basis of their adding and also multiplying by their weight.

The set of values  $X$  represented the given in-house parameters. For each in-house parameter there was determined the maximum time of real reaction through the weights  $W$ , which determined the speed of the given response to external changes. From the above facts, we conclude:

$$X = \{x_1, \dots, x_n\}, W = \{w_1, \dots, w_n\}.$$

The weighted average was calculated using the formula:

$$\bar{\chi} = \frac{\sum_{i=1}^n \omega_i \chi_i}{\sum_{i=1}^n \omega_i}$$

or

$$\bar{\chi} = \frac{\omega_1 \chi_1 + \omega_2 \chi_2 + \omega_3 \chi_3 + \dots + \omega_n \chi_n}{\omega_1 + \omega_2 + \omega_3 + \dots + \omega_n}$$

Also the speed of response to external changes highlighted the internal readiness of SMEs to the changing business environment. Research results pointed out the facts how the businesses are able to notice, evaluate and respond to external changes, and what ultimately affects their ability or inability to adapt to new external (European) trends. Table 7 informs us about this fact in the research sample of 136 companies.

Table 7

## Speed of Response to External Changes

In-house Parameter (X)	Maximal period of real response (W)							Weighted value expressed on the total number of companies ( $\bar{x}$ )
	Week $w_1 = 1$	Month $w_2 = 2$	Quarter $w_3 = 3$	½ year $w_4 = 4$	Year $w_5 = 5$	More than a year $w_6 = 6$	None $w_7 = 0$	
Change of production programme ( $x_1$ )	11	20	23	29	19	21	13	<b>3,36</b>
Change of sales territory ( $x_2$ )	12	23	23	30	27	16	5	<b>3,51</b>
Change in number of employees ( $x_3$ )	33	53	17	22	7	4	0	<b>2,48</b>
Change of employees' skills ( $x_4$ )	8	37	25	31	13	22	0	<b>3,51</b>
Product innovation ( $x_5$ )	9	24	25	43	12	9	14	<b>3,07</b>
Processes innovation (production, operation) ( $x_6$ )	7	16	36	27	31	11	8	<b>3,50</b>
Increasing production (operating) capacity ( $x_7$ )	14	18	31	23	19	27	4	<b>3,62</b>
Purchase of financial resources ( $x_8$ )	8	54	39	17	13	5	0	<b>2,91</b>
Other ( $x_9$ )	0	0	3	9	16	0	108	<b>0,92</b>

Source: Own calculations and processing.

The weighted average values expressed in the total number of companies listed in Table 7 indicate that the fastest time of real response was observed in the number of employees (one month to a quarter). The second fastest time of real reaction was observed in the purchase of financial resources (approximately every quarter). Also the change in production programme of companies landed in this position, and so did the changes in product innovation. In a half year changes occurred in the sales territories, and were also recorded in the skills of employees, in innovation processes in their production and operation. The slowest period of real response occurred in the in-house parameter increasing production (operating) capacity.

## Conclusion

Finally, we can also consider the facts that at the assessment of flexibility at the different stages of the value chain in primary and secondary activities and at the assessment of flexibility of tangible and intangible resources and capabilities, no flexibility has been documented in the study sample of 136 companies, which corresponds to the environment without changes.

Also extremely high flexibility has been reported, which can adapt to the rapid discontinuous change (sudden and deep), and yet predictable changes. Similar situations have been recorded by means of extra high flexibility, which can adapt to the big surprising unpredictable changes.

The results of the researched sample of companies characterise an average company.

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