Key factors of organizational and management structures in the formation of competitive strategy

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Abstract. The state of organizational and management structures and the expected development in this issue is the subject of research, the outputs of which are presented in the article submitted. The research period covers 2016 - 2020; the test sample of enterprises (about 460 entities) includes all size categories and the manufacturing and service sectors. The research started in a period of strong economic growth and continues in the current period of economic downturn. Three research hypotheses were formulated. The first hypothesis concerning the existence of statistical dependence between the organizational and management structure of the enterprise and its size was confirmed. The remaining two hypotheses were rejected. Specifically, business managers did not identify the dominant departmental organizational structure as an instrument of profitability and sustainability. Similarly, the hypothesis that the enterprise managers did not consider Research and Development, Quality, and Investment departments as pro-growth tools were not confirmed, as the identified pro-growth tools are the Economic and Production departments and controlling. This result demonstrates the managers’ misunderstanding of the objectives, mission, and especially the function of an individual organizational unit in the corporate system. The conclusion of the paper presents the prediction for further development. Based on the obtained outcomes, a pro-growth organizational rule is defined. The main
objective of all new management tools must be to ensure the production and provision of services to ensure the maximum possible satisfaction of customer requirements and to maximize the achieved margin. As confirmed by the literary research, this process has already started in the European Union countries. Many companies are fully implementing these principles in their daily management and decision-making practices.

**Keywords:** business strategy, organizational and management structures, organizational culture and innovation, structure and rivalry, new organizational trends in business.

**JEL Classification:** L1, L22, L29

### 1. INTRODUCTION

Accelerated economic growth, market liberalization and the resulting globalization, or glocalization, reengineering in business processes, value-creating design of corporate portfolio and ever-increasing expectations regarding improving product or service quality are some of the characteristics of today's times. Further corporate sector and social growth are only possible if these factors are considered. In the increasingly competitive business environment, numerous limiting mechanisms can be identified, affecting corporate behaviour and management (Isaic, Smirna and Paun, 2019). The basic feature of today's market is growing supply, which means that supply often exceeds demand in many industries. As a result, businesses face strong competitive pressures in their daily operations (Pereira-Moliner et al., 2021). Businesses must adapt to the ongoing changes in the macro and meso environment, analyse them and implement them in their internal environment, including the organizational and management structure. The prerequisite is the creation of an appropriate organizational and management framework, an effective work management system and, above all, the provision of professional and effectively trained staff. Any company activity must target the client (Al Taweel, 2019). Organizations strive to meet the demands of their employees for self-realization and to maximize their creative potential. As a result, authority and responsibility are being shifted to lower levels of management, in-house units are being established, and informal teams are used more. Currently, there are efforts to minimise the number of management levels. Top management is focused on fulfilling the vision and mission of the company, on increasing the margin achieved and, more recently, as a result of the covid pandemic, on the permanent regulation and optimisation of company's transformation process in order to achieve the desired level of added value or margin. Enterprises are responding to this new requirement and business challenge by introducing flexible organizational structures. These adapt more efficiently to ever-changing situations and needs resulting from the ongoing change in the economic cycle, i.e., from the phase of economic growth to the phase of stagnation or recession (Strakova et al., 2018). Only the organizational structure that is appropriately and effectively chosen with respect to the current needs and requirements of the market serves as the basis for the competitiveness of the enterprise (Belas and Sopkova, 2016; Pártlová et al., 2020). If the organizational framework is set effectively, i.e., to reflect the current development in business environment, it can help enterprises to improve their efficiency and competitiveness (Kasych, 2019; Jenoui and Abouabdellah, 2018). At the same time, it also ensures the feedback loop between the enterprise and the buyer (Alves, Galina, and Dobelin, 2018), thus increasing the credibility and improving the image of the enterprise. An effective organizational structure is part of a quality motivational system of the enterprise, and has a positive effect on the work attitudes of employees, including the appropriate set of competencies and ties within the management system of the enterprise.
2. LITERATURE REVIEW

The literature shows that business strategy plays a major role in the development of a business and the successful growth and profitability of SMEs (Latifah et al., 2020; Wall, 2021; Gumusluoglu and Acur, 2016). Given that business strategy determines the long-term path and goals of companies, it may also help achieve competitive advantage in various ways (Wang et al., 2021; Lestari et al., 2020). Gaining competitive advantage in order to survive in an increasingly competitive market environment is always the main goal of theoretical research and practical strategy design, because competitive advantage is the key to a company’s success and business strategy represents a long-term plan to achieve competitive advantage by influencing the financial behaviour of a company (Strakova et al., 2020; Dobrovic et al., 2019). In addition, as business strategy determines the path to achieve competitive advantage, companies can change their financial behaviour to make better use of their advantages. Competitive advantage is thus likely to affect the relationship between business strategy and financial behaviour (Wang et al., 2021; Dvorsky et al., 2020; Rashid, Hamzah and Hassan, 2020).

The business race for market share requires companies to closely monitor performance indicators to assess whether processes and activities are being performed satisfactorily to such extent that they can be considered an advantage over competitors, which has a major impact on the profitability of businesses (Strakova et al., 2016; Da Silva and Borsato, 2017; Trzaska et al., 2022). The external environment, which is a dynamic system, is characterized by constant changes, and as part of this system, enterprises must always react promptly to these changes (Antamoshkina and Zinina, 2019; Belas et al., 2015). Therefore, enterprises that are only able to create a successful strategy cannot succeed; successful will be those that can adapt it to changes in a timely manner (Dzedzhula and Yepifanova, 2018). Sustainable business strategies are expected to create competitive advantage, build on customer value according to sustainability principles, while protecting the environment and improving human life by meeting different stakeholder expectations in line with the expected outcome (Aluchna, 2018, Seele and Gatti, 2017). In this regard, successful companies develop their social capital, particularly, by implementing tools for CSR development, due to understanding its links with competitiveness (Gallardo-Vázquez & Lizcano-Alvarez, 2020; Mishchuk et al., 2022; Vo et al., 2020). Business strategy should thus ensure building stakeholders’ capital through inclusiveness and fostering innovations even when addressing social or environmental aspects, as due to international competition, reduced pressure in regulation and trade barriers, rapid technological invention and innovation, and changing customer demands, environmental uncertainty may become a major concern for companies (Aluchna, 2018; Areal, McIntosh and Sheppy, 2016; Soltanizadeh, 2016; Edwards, 2021; Arieftiara, Utama and Wardhani, 2017).

Classical organizational structures have undergone a long evolution. They have achieved certain stability and transparency in the functioning of the company and created important prerequisites for strong discipline in the performance of tasks. However, these organizational structures are complex and difficult to control and are often not very flexible and adaptable. The present is full of turbulent changes and require the ability to cope with the constantly changing conditions. A company's organizational structure should be designed to create the best possible environment for achieving business goals; therefore, there is no universally applicable optimal organizational structure (Jakes, 2016). Current trends in organizational management include ensuring availability, flexibility, and the ability to adapt to changes that occur in the market, competitors, and the global environment. Such an environment enables information flow, teamwork and knowledge sharing, which facilitate innovation (Vanickova, 2020). In addition, the strongest motivation for creative behaviour is in dynamic and turbulent environments where companies are required to respond quickly and effectively to changes. Such an environment encourages experimenting and reduces risk aversion, thus enabling the search for innovation (Dvorsky et al., 2021; Stojcic, Hashi and Aralica, 2018).
The trend is to reduce organizational levels, as this direction allows for highly efficient and flexible management; moreover, a flexible and decentralized organizational culture seems to facilitate creative activities and the encourage emergence of innovation (Jakes, 2016).

In addition to the successful implementation of strategies, the existing literature provides sufficient support concerning the importance of product, organizational and process innovations in the non-financial and financial development of companies (Latifah et al., 2020; Zand and Rezaei, 2020; Belas et al., 2020a). Innovation is a key component of business strategy as it solves operational problems, designs new products and correlates with business policy (Belas et al., 2020b). The success of innovation depends on business processes such as customers, suppliers and external resources, and the ability to manage technology and human relationships well (Vanickova and Szczepanska-Woszczyna, 2020). This can be done through a strategic view of innovation. Therefore, the functions of effective innovation management are customers, suppliers, technology, organizational structure, innovation culture and innovation strategy (Koyluoglu and Dogan, 2021; Osman, Shariff and Lajin, 2016). The influence of business strategy on different types of innovation is thus extremely important as it will help SMEs to creatively solve business problems and outperform competitors (Wall, 2021; Filipova, Drozen and Kubanova, 2016). Innovation is one of the main sources of competitive advantage and is essential for company growth (Mura, 2020; Strakova, 2016). Rapid technological development combined with globalisation and rapid changes in customer demand indicate that a company's competitive advantage may only be temporary (Szlapka et al., 2017; Vochozka, Strakova and Vachal, 2015). Why some well-established companies do not respond to internal and external transformational pressures by adopting new technologies and business opportunities has puzzled innovation researchers for some time. A usual explanation is that well-established companies in an industry may be e.g. locked in the use of their existing resources, assets and capabilities, strategic commitments, value networks and business models (Onufrey and Bergek, 2021; Domanizova, Janickova and Milichovsky, 2021; Bidmon and Knab, 2018). Such a lock-in may result in an inability to recognize emerging threats or opportunities associated with new technologies and business models (Strakova et al., 2021; Domanizova, Milichovsky and Kuba, 2020). However, what may appear as reluctance, inability or resistance due to a lock-in may well be a deliberate - and justified - choice based on companies’ overall business and innovation strategies. Although this explanation does not often appear in the innovation literature, the strategic literature quite clear states that the decision to develop new technologies or diversification in new product markets is an integral part of a company's overall business strategy (Onufrey and Bergek, 2021; Holmes et al., 2018). In addition, business and innovation strategies need to be considered simultaneously, as strategic alignment is important to understand the value of innovation and achieve competitive advantage (Onufrey and Bergek, 2021; Arasti. Khaleghi and Noori, 2017; Khanagha et al., 2018).

The following research hypotheses were formulated:

Hypothesis 1 - The size of the enterprise is a decisive factor in establishing the organizational and management structure (OMS) in the enterprise.

Hypothesis 2 - The transition of companies to a departmental organizational and management structure creates the prerequisite for greater profitability of the company.

Hypothesis 3 - R&D and Quality departments play a decisive role in achieving profitability

3. METHODOLOGY

The creation of the database covers the years 2016-2020 and consists of more than 400 enterprises from the Czech Republic including various size categories and sectors of manufacturing and services. Within the statistical processing of the data, Pearson's chi-square test ($\chi^2$) (specified probability distribution) and
Cramer’s contingency coefficient ($V$) were used. Pearson’s chi-square test (determination of statistical dependence). Pearson’s chi-square test:

$$x^2 = \sum_{i=1}^{k} \frac{(x_i - Np_i)^2}{Np_i}$$

Where:
- $x^2$... chi-squared (compared with the critical value according to the tables)
- $x_i$ ... empirical frequency (actual)
- $Np_i$ ... theoretical frequency (expected)

Once the dependence was determined, the Cramer’s contingency coefficient ($V$) was calculated according to the equation:

$$V = \sqrt{\frac{x^2}{n \times (m - 1)}}$$

Where:
- $x^2$ ... chi-square
- $n$ ... number of respondents
- $m$ ... number of columns

The following values and their associated dependence indicate the significance of the Cramer’s contingency coefficient: the value of 0 to 0.1 indicates negligible dependence, the value of 0.1 to 0.3 indicates weak dependence, 0.3 to 0.7 indicates moderate dependence, and 0.7 to 1 indicates strong dependence. The resulting dataset was imported into the R programming language, which was used for statistical analyses using Pearson’s chi-square test and Cramer’s contingency coefficient. The findings will then be presented in the form of tables and graphs.

4. EMPIRICAL RESULTS AND DISCUSSION

The first step of the solution examined the link between the individual organizational and management structures and the enterprise’s size in respect to the developed hypotheses and utilising the source data.

The analysis was conducted using statistical techniques. The findings indicated that management and organizational structure are size-dependent ($P.value = 6.845E-11$, $a = 0.05$); hence, Hypothesis 1 was verified. The degree of statistical dependency is moderate ($V = 0.3624$).

Figure 1 illustrates the categorization of the distinct elements in terms of the management and organizational structures used in each size category of firm. In micro, small, and medium-sized firms, the departmental management structure clearly predominates. Departmental management structures are most prevalent among micro-enterprises, accounting for 24.22 % of all management structures. The mixed management structure is the most prevalent in major firms, accounting for 5.78 % of all management structures. Divisional management is the least often used management structure in the business dataset and has the largest percentage representation among medium-sized firms (2.89 %).
The relationship between the number of management levels and the size of the organisation was investigated using the results in Figure 1. The study revealed that the number of management levels is depending on the size of the firm \((P-value = 2.2E-16, \alpha = 0.05)\). Thus, hypothesis 1 was verified. This degree of statistical dependency is rather high \((V = 0.7234)\).

The categorization of management levels by business size category is shown in Figure 2. In micro and small businesses, one level of management is the most prevalent (16.96 %). Two levels of management are the most prevalent in small businesses (10.27 %), whereas three levels of management are prevalent in medium-sized businesses (11.38 %). In large organisations, four or more layers of management are often employed (8.04 %).
The last research topic for the first hypothesis was an examination of the relationship between management and organizational structure and the number of management levels in the business.

The statistical analysis reveals a moderate degree of connection between management and organizational structure and the number of management levels in the company ($P$-value = $1.742E-08$, $\alpha = 0.05$) with a medium degree of dependence ($V = 0.3244$).

On the basis of the above findings, it may be inferred that hypothesis 1 was completely verified.

The second field of study examined the link between organizational structure and the number of management levels, as well as the profitability of the business.

Figure 3 illustrates the distribution of individual organizational structures in respect to the appropriate management levels. Individual organizational structures vary in their representation at all management levels. The departmental management structure has the greatest representation at all management levels (one management level - 31.03 %, two management levels - 20.98 %, three management levels - 21.65 % and four or more management levels - 6.47 %). The divisional management structure is the least often used organizational structure at all levels of management (6.70 %), whereas the departmental management structure is the most frequently used (based on the study conducted) (80.13 %).
Figure 3. Percentage dependence of the number of management levels on the management and organizational structure of the enterprise

Source: Own

Figure 4 illustrates the study findings about the link between organizational structure, firm size, and profitability. Statistical analysis demonstrates that management and organizational structure are not reliant on the enterprise's profitability ($P\text{-value} = 0.5188, \alpha = 0.05$). There was no evidence of a link between management and organizational structure and the enterprise's profitability. Similarly, there was no correlation between business size and profitability ($P\text{-value} = 0.4584, \alpha = 0.05$). To provide an impartial appraisal of the outcomes acquired, it should be mentioned that between 2016 and 2020, firms achieved a high level of profitability (74.67%). This was true across all size groups, with the largest percentage of departmental management structures associated with profitability in small businesses (18%) and the lowest in large businesses (8%).
The last research area concerned the importance of individual departments for the profitability of the company. The input data is presented in table 1.

### Table 1

| Department/Structure | Profitable | Balanced | Loss-making | Total Sum |
|----------------------|------------|----------|-------------|-----------|
|                      | Micro      | Small    | Large       | Micro     | Small    | Large       | Micro     | Small    | Large       | Micro     | Small    | Large       | Micro     | Small    |
| Research and Development Department | 0.00% | 0.20% | 0.55% | 0.94% | 0.00% | 0.00% | 0.10% | 0.00% | 0.00% | 0.00% | 0.00% | 0.05% | 0.05% | 1.89% |
| Investment            | 0.30% | 0.35% | 0.70% | 1.29% | 0.10% | 0.00% | 0.10% | 0.10% | 0.05% | 0.00% | 0.10% | 0.00% | 0.00% | 3.04% |
| Controlling           | 0.05% | 0.35% | 1.14% | 1.94% | 0.00% | 0.20% | 0.55% | 0.25% | 0.05% | 0.00% | 0.15% | 0.04% | 4.72% |
| Quality Department    | 0.10% | 0.75% | 1.59% | 1.89% | 0.05% | 0.05% | 0.30% | 0.35% | 0.00% | 0.00% | 0.15% | 0.10% | 5.33% |
| Transport, logistics  | 0.25% | 1.34% | 1.99% | 2.19% | 0.25% | 0.20% | 0.70% | 0.20% | 0.10% | 0.05% | 0.20% | 0.10% | 7.57% |
| Marketing             | 1.23% | 1.44% | 1.74% | 2.09% | 0.15% | 0.30% | 0.40% | 0.15% | 0.05% | 0.05% | 0.10% | 0.00% | 7.70% |
| Technical, technologist | 0.50% | 1.34% | 2.38% | 2.53% | 0.20% | 0.20% | 0.70% | 0.30% | 0.00% | 0.00% | 0.20% | 0.15% | 8.50% |
| HR                   | 0.65% | 1.39% | 2.38% | 2.73% | 0.10% | 0.45% | 0.79% | 0.4% | 0.00% | 0.05% | 0.25% | 0.15% | 9.57% |
| Manufacturing         | 0.75% | 2.53% | 3.03% | 2.29% | 0.40% | 0.89% | 0.84% | 0.44% | 0.05% | 0.00% | 0.34% | 0.05% | 11.61% |
| Purchasing and supply | 1.14% | 2.18% | 2.58% | 2.53% | 0.70% | 0.78% | 0.75% | 0.40% | 0.00% | 0.10% | 0.40% | 0.15% | 11.72% |
| Business              | 1.84% | 2.78% | 3.18% | 2.78% | 0.83% | 0.70% | 0.65% | 0.25% | 0.10% | 0.05% | 0.44% | 0.00% | 13.60% |
| Economic             | 1.78% | 3.23% | 3.18% | 2.93% | 0.40% | 0.89% | 1.04% | 0.50% | 0.15% | 0.10% | 0.40% | 0.15% | 14.75% |
| In total             | 8.59% | 18.03% | 24.44% | 26.13% | 3.18% | 4.67% | 6.91% | 3.33% | 0.55% | 0.40% | 2.78% | 0.94% | 100.00% |

Source: Author
For the analysis, similar statistical methods as in the previous sections were used. The results are shown in Figure 5. In profitable enterprises, the highest importance was recorded in the case of economic, production and controlling departments, while the research and development, investment and quality departments show the lowest degree of importance. The results are contrary to the modern trends of business management. Also, the high share of profitable enterprises, i.e. the low motivation of top managers to innovate business processes, played a significant role here as well. In particular, the minimal share of R&D departments with representation of 1.89 % appears to be a warning sign for the future, which was confirmed at the beginning of 2021 by the onset of the Covid pandemic and the following economic recession. The third research hypothesis was not confirmed.

![Figure 5. Percentage relationship between departmental structure on firm size and firm profitability]

*Source: Own*

The main objective of all new management tools must be to ensure such production and services that satisfy customer requirements to the maximum extent possible (Diewert, Fox, 2017). In the scientific community, the umbrella term "decomposed forms" started to be used to integrate the emerging ways of management and decision-making in enterprises or the related processes (Lee, 2021; Yin et al., 2019). With the development and introduction of modern production, as well as information technologies and the development of the Internet, the dynamic potential of corporate decision-making processes grows as well (Lukač, Kostiuk, 2022; Žufan et al., 2020). In the EU countries, as documented by the research carried out, this process has already started.
5. CONCLUSION

From the perspective of the current development of the economy in the world and Europe, the issue of designing organizational and management structures of enterprises can be considered as one of the limitations in terms of enterprise sustainability and profitability. The topicality and need for a solution is fostered by the current and future state of economy and economics. The paper presents the state-of-the-art situation in the field of organizational and management structures in the period of pro-growth economy within the national and international economy. The formulated hypotheses consider the achieved level of knowledge and the prediction of future development with the expected economic downturn or recession. In summary, it can be concluded that these issues are generally not paid adequate attention to by businesses in periods of a strong economic growth; further research will consider the situation in periods of economic downturn or even recession. The proven dependence between the organizational and management structure of an enterprise and its size points to an urgent need, a call for the scientific research base to urgently design, test and implement modern forms of organizational and management structures in business practice. It is clear that process forms of management, teamwork, accelerating the digitization process and recommending new ones, such as network, multi-layered, virtual management and organizational structures, will be strengthened at the expense of departmental structures, especially for SMEs. This trend includes the activities of enterprises of all sizes intended to reduce the number of management levels in order to reduce the costs of company management and to improve the operational and flexible nature of management.

Despite the significant representation of departmental structures, they started to be replaced by functional units anchored in individual business processes. The gradual transition of the enterprise, especially larger ones, to process management was analysed in the research. This trend is based on top managers’ awareness of the irreplaceable importance of production and value-based business strategy determined by the achievement of margin or value added. What we are witnessing is just a change of the name of the unit without any fundamental changes being made concerning its function and objectives. This approach must be rejected in principle. This is possible even in the period of economic growth, in which the outcomes presented in the paper were obtained, and which is characterized by a small number of departmental units in large and medium-sized enterprises. This can also objectively explain the rejection of the second hypothesis, where the departmental organizational and management structure was not identified by business managers as a tool to achieve profitability and sustainability. It is necessary to consider their opinion (more than 60% of companies in the test group) about the insufficient transfer of new knowledge from the field of company management and strategy into the user practice as a true and objective statement of company managers.

In terms of the relevance of individual organizational units, the achieved results raise many questions, in particular a warning signal for the future. The assumption that R&D, Quality, Investment departments are not considered as pro-growth tools by business managers. If we eliminate some of the managers who show major professional deficiencies in the field of organization and management, then these departments are underestimated in most enterprises. The fact that in profitable enterprises, the economic, production and controlling departments show the largest percentage representation can be seen as a misunderstanding of the objectives, mission, and especially the function of each organizational unit in the enterprise system. Without the real application of flexible elements in the organizational structures of enterprises while improving the quality of individual business processes supported by an effective, pro-growth investment policy of the enterprise, it is impossible to talk about its economic sustainability. This statement can be considered as an outcome of the research presented in the paper.

From the perspective of an objective view of the article’s conclusions, it is important to note that the offered study reflects a period of great economic growth and a high level of corporate profitability.
Businesses or their managers were not constrained by inadequate financial, material, or human resources. The majority of senior executives established growth-promoting development plans, and the innovation and digitization processes were expedited. The move to process management based on value-added regulation was extensive. At the same time, in order to maintain objectivity, it shall be stated that the number of companies that have already reconsidered or are gradually reconsidering their structure so that they can better face new challenges caused by both the pandemic and the gradual onset of a downward trend in the development of the global or European economy is growing (Horak, Mlsova and Machova, 2021). Today, the situation is fundamentally different; many businesses are implementing components of crisis management, and inputs, especially of an energy-related type, are being severely restricted at the expense of modernising the enterprise architecture. Energy and raw material limitations, as well as personnel limitations, have already been significant at the time of writing this paper. The gradually intensifying process of digitization, automation, robotization create a real basis for designing completely new principles and rules in business management. To preserve the enterprise’s viability and sustainability, it is objectively true that elements of autocratic management style are being strengthened, the role of work teams is being bolstered, the overall organisation is being differentiated into individual budget units (IBU), the management apparatus is being streamlined, etc. This is a phase of transitional crises that necessitates exceptional types of organisations and management. These are necessary actions with a limited implementation period, according to the authors. The objective of the paper and such focused research is to define a new theoretical basis for generating new appropriate organizational and management corporate structures, especially reflecting the revolutionary changes in the competitive business environment.

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