

Top Executives on Competitiveness: Survey of Digitalization and Internationalization in Hungarian Companies

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Abstract: The "Future of Organisation and Leadership" research project, explored what leaders of companies, operating in Hungary, think about their future opportunities and challenges, and how their current competitiveness, can best be supported. The answers to our questionnaire survey, showed that the future companies will be highly digitalized. Therefore, we investigated how companies in Hungary approach the issue of digitalization and how it contributes to their competitiveness. Our results show that a number of factors are related to the future competitiveness and digitization of companies. Managers determine the functional and company-level strategic areas that a company engages in digitalization, and this demonstrates a clear pattern with other competitiveness factors. Examples include internationalization, strategic maturity or managerial competencies and knowledge boundaries. The results expose the barriers and the catalysts for the future success of companies in Hungary.

Keywords: competitiveness; Hungarian companies; internationalization; digitalization

1 Introduction

In the research presented in this study, we assessed the current state of Hungarian companies and their expectations for the future. The research team of the Institute of Strategy and Management of Corvinus University of Budapest has been investigating the present and future of the operation and management of companies in the framework of the "Future of Organisation and Leadership" research [1]. Company leaders answered questions such as: What do they think about the leader of the future, their organization, how do they think companies can adapt to changing expectations and environmental challenges? What practices are disappearing, what new knowledge will leaders need to manage the organization of the future and make strategic decisions? How the Hungary-based corporate sector relates to future expectations, what development trends it perceives, what it is doing to "keep up with the times" and maintain its competitiveness. To this end, we conducted a broad

and detailed survey of the managers of Hungary-based companies, focusing on several areas. A sample size of more than 300, provides a good analytical opportunity, from a research perspective. The aim of this article is to better understand the competitiveness of Hungarian companies in the context of digitalization and internationalization. In the present analysis, our aim was to explore the areas in which digitalization is present in organizations, and what impact it has on their operations, competitiveness and future prospects. We used control variables to identify the strengths and weaknesses of companies.

Based on the initial analyses, we discovered some interesting results, in line with the trends. It was already known that environmental factors play an important role in the formulation of corporate strategy and in management decisions. Another important aspect is the stage of development of the company, because it determines the problems and challenges. The perception of managers plays an important role in decisions, the attitude of the manager has an impact on the competitiveness of the company, the perceived business opportunities, the willingness to take risks and to innovate. Having one or more managers in a company also seems to be essential for digitalization, as shared decision-making involves a higher level of data analysis. Similarly, internationalization was a control variable: companies with an international presence tend to have a higher level of strategy and less of an ad hoc decision-making culture, which also favors long-term, data-driven decision-making and corporate digitalization.

The first stage of the evaluation of the results focused on variance, outliers, different patterns and their possible background. Examining the factors that fit the theoretical models yielded standard results without variance, so we started to look for areas that could still capture, characterize and explain the different ways in which companies operate and compete. By comparing the individual factors in a non-model-specific way, we expected to find homogeneous groups of firms that differed significantly from each other. The limitations inherent in exploratory analysis must of course be taken into account: the results presented here await even larger sample testing and more detailed statistical analysis.

2 Literature Review

2.1 The Innovation Aspect of Competitiveness

In the field of corporate competitiveness, there are many parallel approaches (industry, regional, product and product group, business line, etc.). The diversity of definitions has sometimes caused methodological problems [2], but has helped the rapid development of different theoretical concepts. In analyzing the results of the present research, a classical definition of competitiveness is taken as a starting

point: a firm is competitive if it "can consistently offer consumers products and services that they are more willing to pay for than those of competitors on terms that ensure a profit for the firm" [3]. In the present study, we examine the competitiveness of Hungarian companies, focusing on the challenges of digitalization on the one hand, and on the other hand, we analyze the future competitiveness opportunities of companies from the perspective of internationalization.

The role of strategy in the competitiveness of a company has come to the fore, in addition to the soft-hard and resource-capability factor divisions, because it is essentially the company's leader who determines the strategic goals, future plans and the alternatives to achieve them. The influence of the manager in the SME sector is more direct [4] than in a large company, for example, the assessment, perception and development of organisational capabilities is essentially up to him/her [5] [6]. The manager has the power to decide between different options, to determine the way of reacting in case of change and crisis, to allocate the necessary resources. This is the reason why we looked at the role and impact of the leader, mainly from the point of view of strategic decisions. Therefore, different revenue stages were analysed separately to explore the differences between them in terms of strategy, leadership and decision-making.

However, resources are limited for most SMEs, so the efficiency with which they are used by the decision-maker, and through them by the company, is not the same. Digitalisation can be one of the tools to help a company operate more efficiently and effectively. However, digitalisation is not an innovation in itself, it only becomes an innovation if it can be truly classified as an innovation. One of the most widely used innovation typologies is the classification of product, process, marketing and organisational innovation [7] [8]. Digitalisation can be seen in the enhancement of the user value of a product or service, in the product positioning, promotion and positioning strategy related to marketing innovation. Customer database analysis can increase corporate profitability in many innovation areas, as digitisation can provide decision makers with more accurate data and faster access to reports. Organisational innovation is defined primarily as new ways of interacting within and between organisations. Digitalisation can broaden the channels of communication, create new ways of interacting and sharing knowledge, and provide new structures for accessing information by organisational members. Process innovation also focuses on an organisational factor: increasing the efficiency of the internal organisation. Process innovation is often technological and digitalisation can also play a key role in the introduction of new channels, automation of warehousing, tracking, planning and control, and distribution management [9]. Several EU SME competitiveness studies have shown that the digitalisation of firms has become a critical factor in their competitiveness and is expected to further increase its role in firm performance in the near future [10] [11]. According to the WCC/IMD global research [12] and there is the wider environment, the level of digitalisation of society, so digitalisation has impact on all areas of business

operation and management. Therefore, in this study we analyse not especially the innovation, but the digitalisation of firms, focusing on the manager, with control variables such as internationalisation, turnover or the period of the company's establishment.

A recurring pillar of Hungarian competitiveness research is the ability to innovate, to properly assess, develop and exploit organisational knowledge, and to lead in these areas. These approaches also focus on different areas: efficiency [13], creativity [14] [15], the role of IT and controlling and data-driven strategy making [16] [17], and leadership [18] [19]. Innovation or internationalisation appears as a separate factor among the ten factors of the Small Firm Competitiveness Index [20] [21]. The innovativeness of companies has been examined in product, process, marketing and organisational dimensions, but other studies have also concluded that the innovation capacity of the Hungarian SME sector is extremely low [22] [23]. This is also true in relation to other competitiveness factors and in international comparisons [24]. It is regularly argued that the innovation barrier, of a firm, is a leading factor and for the firms that excel in internationalisation and networking, innovation and competitiveness is generally higher. [25] [26]

As shown by the pandemic, digitalisation was a key factor in companies' rapid and effective response to environmental challenges. These rapid responses required a fast decision-making mechanism and digital skill-set in the company. At the center of corporate digitalisation and decision-making, especially at SMEs, is primarily the manager. But business owners and managers usually see IT development as a costly and difficult-to-recover investment. The companies are more inclined to digitise when the business environment changes quickly and unexpectedly [14]. Researches have proved company performance and profits increase significantly when development is not done in isolation, but in an integrated way, covering the entire company. It all depends on the IT attitude and the decision of the leader, the (re)allocation of resources. According to a survey of Spanish SMEs a more costly, larger-scale but less integrated TQM system implementations were associated with lower levels of profitability [27]. Other research has found a relationship between company growth and the level of integration of ERP implementation. Analysing 352 Danish SMEs, the researchers concluded that the growth rate of young companies early in their life cycle is strongly dependent on the complexity of the ERP system and the level of integration [28]. SMEs often have less standardised processes and low levels of documentation, so IT developments help to improve the objectivity of corporate decision-making. With digitalisation, start-ups can support higher levels of knowledge sharing, manage more and more efficient information channels and operate in a flexible, data-driven way without having to go to the manager before every decision. Management involvement, engagement and support are therefore inevitable in early digitalisation processes [29] [30].

Innovation is the key driver of corporate competitiveness theories. Research has shown that many other factors, such as internationalization, decision-making mechanisms and strategy, can also be emphasized through the leader in corporate

competitiveness. Therefore, in this paper we focus on these factors in presenting the research findings.

2.2 Internationalization Aspect of Competitiveness

The survey did not define the concept of internationalisation, leaving it to respondents to interpret their company's presence in international markets. "Is your company present on international markets?", followed by four response options: "we are present on international markets; our long-term objectives to enter; medium-term objective to enter; and we do not plan to enter international markets". The concept of internationalisation is sufficiently broad and diversified to encompass virtually all the activities by which a company is involved in international processes. Furthermore, we have examined the issue of internationalisation by ownership background, which companies have a majority international ownership structure.

The internationalisation of companies, is a widely researched area in economics [31-34] [36] [43]. Thanks to globalisation, companies are increasingly more easily involved in international processes. Companies entering international markets are more competitive and open to innovation. Small businesses are also increasingly asserting themselves in the international market, and are rightly the focus of research attention: the study of managerial attitudes in Hungarian SMEs [37]; learning and development in small businesses [38]; the study of factors influencing the survival and growth of Hungarian start-ups [39]. The domestic market offers limited opportunities for growth. Innovation and dynamic growth objectives require international market access.

Theories initially took a macro perspective, and the focus on firm-level factors came to the fore only later [27] [40]. Initially, corporate research focused on large firms, with attention to smaller firms starting in the 1990s, when some researchers identified a firm-size-specific growth trend [41]. The classic theory of corporate internationalisation is described by the Uppsala model, where internationalisation is a step-by-step process of market engagement [31] [42-44]. The Born Global concept is that companies see the whole world as a potential market from the outset [45] and think in international terms from the outset in all their corporate activities. They internationalise quickly and generally successfully [46] and focus on developing the skills needed to achieve success internationally [47], becoming more competitive overall. Business competitiveness research looks at how companies can gain a sustainable competitive advantage and what factors influence their success and competitiveness. The pillars of competitiveness of (small) firms are internationalisation, technology, innovation capability [22], market orientation [48], opening to new markets, export orientation [49] and integration of international knowledge as competitive factors in market competition. There is a strong link between internationalisation and innovation: according to a Chinese study [50],

innovation has a negative impact on the survival rate of exporting firms when the firm is solely domestically owned and has poor profitability. For firms with international ownership and a stable profit margin, the effect of innovation was markedly positive. Other research has also demonstrated the positive impact of innovation on financial performance and highlighted the influence of internationalisation [51].

More competitive companies are more successful than their peers. Ónodi-Répáczki [30] investigated how leadership skills influence the success and efficiency of a company, looking at innovation. The competitiveness of a company is shown by a successful innovation-growth strategy, where the researchers defined success as bringing radical innovation to market [52]. Their research was also conducted among domestic CEOs and found that companies that do not innovate, but only stagnate, already show signs of crisis. Successfully bringing an innovation to market depends on sound technical knowledge, process improvement, the right networking capital and creativity and innovative ideas. Looking at the competitiveness of firms from a different perspective, we find that market orientation has the strongest impact on the competitiveness of medium and large firms, especially when the firm is present in several markets [38], with competitive orientation having the strongest impact on competitiveness among firms in Central and Eastern Europe and Western Europe. In the SME sector in Hungary, even in the case of larger turnover companies, the managerial attitude is pronounced, and the lack of management skills, which have the greatest influence on strategy, operations and process design, is the biggest obstacle to growth and development [53].

3 Methodology

The exploratory nature of the research goal determined the need to develop a complex research design that could respond to changes and unexpected results. Therefore, we based the research stages (research objective, conceptual framework, research question, methodology and validity) on Maxwell's model [54], as it allows for interaction between the elements and has a non-linear structure. The target group of the quantitative research was Hungary-based companies with 50 employees or more and a turnover of at least HUF 100 million. The sampling method was stratified random sampling with defined quotas: the number of employees and the county in which the firms were located. A random method was used to select the firms to be contacted by quota cell, following the distribution of the surveyed firms by turnover and activity. The survey was carried out in 2022, and 305 respondents were in the final database. To make the sample more closely match the quotas, statistical weighting was used. Of the sample, 53.5% are medium-sized enterprises (50-99 FTE), 29.7% are medium-large enterprises (100-249 FTE) and 16.8% are

large enterprises (250+ FTE), which is in line with the proportions found in the overall population.

The respondents were senior managers of the companies: 105 top executives (CEO, Managing Director, Chief Executive Officer), 65 executives subordinate to the top executive (CXO level) and 115 executives for strategic decisions participated. On average, the respondents had 25 years of work experience. The sample reflects the activity distribution of the whole population, with manufacturing accounting for a third of the domestic business sector. 34.9% of the enterprises are located in Budapest and 13.5% in Pest County, i.e. almost half of the sample is located in the Central Hungary region. 74.6% of the companies are majority Hungarian privately owned, 7.5% are majority Hungarian state or municipality owned and 17.9% are at least 50% foreign owned.

4 Results of Empirical Research

4.1 Factors Affecting the Competitiveness of the Hungarian Business Sector

The research focused on a deeper understanding of the competitiveness of Hungarian companies. Based on previous research, we focus our findings on the competitiveness-enhancing impact of digitalisation and evaluate our results in three aspects:

- (1) Company turnover
- (2) Internationalization
- (3) Leadership and decision-making

4.1.1 Results by Category of Company Turnover

In the first dimension, we examined the factors based on the turnover of the companies. We had not previously assumed better results for company size. Almost half of the companies have a turnover of over HUF 2.5 billion. 63% of these companies are classified as medium and medium-large sized enterprises and 37% as large enterprises. In the second category, which is interesting in many ways, there are 76% medium-large sized enterprises and 24% large enterprises.

Previous research [55] [56] suggests that business success is not always conducive to innovation, and that the openness of managers to innovation [30] shows a significant relationship with successful business innovation. Sometimes, firm owners are not necessarily motivated to make a risky, resource-intensive innovation

investment by stable business results, and they focus instead on secure operations that guarantee profits.

Table 1
Turnover categories

Turnover	What was the turnover of your company in 2021?	N=305	%
1	Between HUF 100 and 300 million	18	5.9%
2	Between HUF 301 and 700 million	45	14.8%
3	Between HUF 701 million and HUF 1.499 billion	51	16.7%
4	Between HUF 1.5 billion and HUF 2.5 billion	47	15.4%
5	Over HUF 2.5 billion	144	47.2%

Five turnover categories were identified in the questionnaire survey. The results were analysed along each category. The pattern is clear that companies in the second turnover category often operate differently from other companies.

Table 2
Turnover categories and strategy

Turnover category	STRAT-1	STRAT-2	STRAT-3	STRAT-4
1	16.7%	44.4%	33.3%	5.6%
2	31.1%	46.7%	15.6%	6.7%
3	15.7%	37.3%	41.2%	5.9%
4	19.1%	36.2%	40.4%	4.3%
5	32.6%	29.9%	32.6%	4.9%

STRAT-1: We have a business plan broken down from the strategy to the individual level and quantified and we regularly review the plan-fact variances. STRAT-2: Most colleagues know the long-term goals of the business. STRAT-3: Only a narrow group of people (e.g. middle managers, managers, or family members in the case of a family business) know the long-term objectives of the business. STRAT-4: The manager is aware of the long-term objectives of the company, but does not share them with the majority of employees.

The results show that technological changes, including the challenges of digitalisation, are more challenging for larger companies and have the least impact on companies in the second revenue category. Their differentiation can be explained by the fact that they are at different developmental stages, which presents them with very different types of challenges, but they do not yet have the organisational characteristics of classic larger companies (established management, organisational culture). Once past the initial growth stage, this second revenue category group is the least interested in exploring and experimenting with new opportunities. It is assumed that after the higher risk period of the start-up period, this is not the focus of strategic thinking. This group of companies typically emphasised meeting local market needs when the issue of internationalisation arose. Accordingly, they may be more focused on their existing practices and markets and less on new opportunities.

Companies in the second turnover category are extremely low on the following improvements: most of them do not plan to innovate in technology, digitize their existing processes, improve management skills, or set more detailed organizational goals at individual level in the next 1-3 years. Basically, they do not feel that their revenue growth depends on the digitalization of their decision processes, and they do not see that their decisions would be more accurate with higher levels of data analysis or at least that the time needed for the decision process would be reduced. The most active in these areas are companies in the lowest and highest turnover categories, which make turnover growth dependent on digitalization and skills development.

The results show that the second revenue category, together with domestic market orientation, represents a kind of resting state: the manager can feel successful with his previous strategy and the operation of the company, as it allowed the company to grow and reach the higher revenue level. There is a lack of motivation to change, to take risks and to be satisfied with the current situation. For companies reaching the additional turnover category, it is clear that growth involves continuous transformation, improvement and innovation. They focus more on internal improvements, digitalization, organizational inhibitors such as knowledge gaps or resistance to change. They are less likely to sit back and enjoy their successes, as they are at a different developmental stage and have sufficient data and previous experience, that growth is not an achieved resting state but a continuous task.

At different stages of the decision-making process, the companies in the research rely on data to different degrees. In smaller companies, the use of numerical analysis is typically used for the initial assessment of the situation, and the use of IT support for subsequent steps is not significant. The larger the turnover, the more important the use of data, in the overall decision-making process.

4.1.2 Results by Internationalization versus Domestic Market Focus

As we have seen in the literature review, internationalization is a factor in corporate success and competitiveness. For this reason, the survey asked whether the company in question is present on the international market, has long- or medium-term objectives or does not plan to enter the international market. The question of internationalization was used as a decomposition factor along several questions in order to identify common patterns between companies present on the international market and those focusing only on the domestic market.

Table 3
Internationalization

Is your company present in international markets?	N=305	%
We are present on international markets	157	51%
Our long-term objective is to enter the international market	45	15%
It is part of our medium-term objectives	22	7%
We do not plan to enter international markets	81	27%

Of the 305 companies in the sample, 51% of companies, are currently present in international markets, while nearly a quarter of the companies have no plans to enter international markets. Of the companies that do not plan to enter international markets, 21% cited a lack of resources and 12% a lack of expertise or experience. Among the free-word reasons given by companies not planning to enter the international market were: *"We have no such ambition; not compatible with the activity; local market is enough; serving local needs; serving Hungarian population, aiming to cover the domestic market; our service cannot do it"*. The reasons were clustered along three categories:

- (1) Domestic market aspirations, here by turnover category, smaller companies justified their exclusive domestic aspirations as local, while larger companies explained their exclusive domestic aspirations as Hungarian market coverage
- (2) Nature of the activity or service does not allow it
- (3) Lack of aspiration. The results also suggest that companies operating only in the domestic market do not continuously improve their strategy and are likely to engage in lower competitive intensity.

The aim of evaluating the results by internationalization was to find relevant differences, patterns and correlations between companies present in the international market and companies that (definitely) do not plan to internationalize. When looking at the dimensions of strategy and internationalization, we can see that there is a marked difference in strategic thinking between companies that are currently present in the international market and those that do not plan to enter the international market. Those that are present in the international market seek to maintain a competitive advantage through continuous new strategic initiatives, with more individual-level planning of strategy, compared to companies that are only active in the domestic market, where it is more typical that the company's management is aware of the company's strategy. Accordingly, information sharing is also asymmetric, with information in the hands of the CEO in the case of companies operating in the domestic market, and information flowing downwards in the case of companies operating in the international market.

Table 4
Innovation attitude

How much do you agree with the following statements about your organization? Our organization...	N=157	N=148
constantly seeks to achieve sustainable competitive advantages over the competitors through new strategic initiatives.	52%	38%
is excellent in efficiently executing and further improving business as usual.	50%	32%
is excellent in exploring and experimenting with completely new possibilities.	48%	30%

is able to adapt effectively even to significant and unexpected environmental challenges	40%	42%
gives priority to digital technologies, i.e., allocates resources to their application and development	39%	28%

The answers were scored from 1 to 5. Here the proportions who gave the maximum score of 5 are highlighted. N=157 who are present in the international market and N=148 who are not present in the international market.

Companies that are also present in the international market perceive the impact of technology, including digitalization, as stronger and pay more attention to the use of digital technologies, compared to domestic companies that perceive the impact of technological change as less of a challenge. The lack of specific expertise as an inhibiting factor is clearly linked to internationalization. Firms that are also present on the international market are likely to have the necessary specialized expertise, such as sales knowledge, and thus to perceive expertise as less relevant as a barrier. Conversely, companies operating in the domestic market may have a real and existing knowledge gap that hinders them from competing in the international market. Firms in the international market perform better in improving work process efficiency, identifying new practices and allocating resources accordingly.

In the case of internationalization, in addition to market orientation, we also examined the ownership structure of domestic firms and found weak but significant relationships in the following areas. A significantly higher proportion of Hungarian firms with majority foreign ownership (more than 50%) perceive that technological change and digitalization challenges have a major impact on their organization compared to Hungarian-owned firms. In their perception of their strengths, they described themselves as outstanding in digitizing their processes and improving their efficiency, and in exploring entirely new opportunities. Compared to their peers, they consider organizational innovation and the use of agile methodologies to be of paramount importance and prioritize digital projects. They also adapt their organizational structures, information flows and decision-making processes to this end: they are outstanding in their bottom-up approach to technological innovation, idea generation and implementation of innovative ideas. They place the greatest emphasis on making data from corporate information systems available to an ever-wider range of users. In contrast, among Hungarian or predominantly Hungarian-owned companies, it is typical that numerical analyses are only available to a narrow group of people, typically managers. They feel that the abundance of data slows down rather than supports decision-making processes, and that they often have to wait for more and more data to make decisions. Meanwhile, companies with an international ownership background are taking advantage of data analytics and can reduce the time needed for decision-making processes by analyzing data in detail.

The coexistence of internationalization with innovation was also striking in general. Companies already operating in the international market are much more likely to adopt the latest available technologies. By contrast, companies producing for the domestic market are less likely to be involved in the monitorization and introduction

of new technologies, and those interested in innovative solutions tend to favor technologies that are already proven, i.e., risk-free and tested. Controlling for turnover, it appears that companies in the highest turnover category are more inclined to adopt new technologies immediately, but buy off-the-shelf solutions and are less likely to experiment internally. The lower revenue categories have a higher rate of experimentation, but the sample is still dominated by firms that finance only proven and tested technologies, with a high rate of 80%. Larger firms are quicker to purchase mature technologies due to their capitalization, while smaller firms are more likely to correct their financial shortcomings through experimentation.

4.1.3 Results by Leadership and Decision-Making Process

We examined the information acquisition and flow capabilities of the firm, with a focus on the development of information systems and data quality. It is important to know who has access to data in the organization and whether the digitization of the decision-making process supports the delegation of decisions to a lower level. The role of data in the decision-making process and other characteristics of managerial decisions (intuition, role of emotions, etc.) were also important. Information and decisions were also a key issue in the management culture question group: avoidance, procrastination, goal orientation and communication were also examined. Based on these factors the database was analyzed with the focus of the leader. We looked at how digitization and innovation in systems that support the flow and sharing of information affect decision-making.

The overwhelming majority of respondents to the survey considered that the organization of the future is one that is technologically advanced, constantly evolving and innovative. This is related to the theoretical direction, which envisages flatter and networked organizations, as IT developments can eliminate the middle management level that essentially suppresses information transfer functions [57]. This loose, task-oriented organizational structure supports knowledge sharing within and between organizations, which also improves the competitiveness of companies. In the majority of responding companies (72.5%), data from enterprise information systems are only available to a limited number of people. And 80% of the companies in the sample believe that a management decision support system with sufficient quantity and quality of data is not necessary to involve lower management in decision making. Centralization-centralization has divided companies: 23.6% of respondents clearly reject the idea of delegating decisions to lower management levels. Only 9.2% of companies have concrete plans to decentralize in the next 1-3 years.

Schemas related to managers have also been highlighted in the mapping and evaluation of decision-making processes. In the majority Hungarian-owned companies, respondents said that managers tend to focus on failures, irregularities and exceptional deviations, and account for all mistakes. In their case, managers delay decisions, wait until things go wrong and problems have to become serious

before they can make a decision and take active action, or even delay a response to urgent issues. This pattern of behavior was negligible in half-owned or majority foreign-owned companies. A similar divergence was also found on the basis of turnover: the second turnover group mentioned above is less focused on failures, in their case managers are not looking for failures and outliers. Interestingly, the larger the company and the more sophisticated the data, the more likely managers are to avoid decisions. Data abundance can lead to both decentralization and higher managerial control. Some companies use data abundance to control, identify and hold to account for errors. For other companies, access to data at lower organizational levels means that decisions are made at the lowest level where the right information is already available. Digitalization can therefore play a very different role in the way companies operate, depending on the management style and organizational culture. Some firms exploit its potential to increase competitiveness, while others use it as a control function, which does not necessarily lead to more efficient operations. The variables of the study (turnover, internationalization, decision making) therefore clearly show management differences, which should be examined in more detail in the future.

Conclusions

The aim of this research for the companies of the future, is to understand what Hungarian business leaders think the company of the future will look like, in order to better understand what factors they consider important for future competitiveness. We were interested in what information they would associate with any future organization, what expectations they would have and by what factors they would describe it. In analyzing the responses, human, cultural and managerial aspects were emphasized over technological or strategic issues. We can therefore assume, that a people-centered approach is associated with the organization of the future.

Analyzing the most frequently mentioned keywords, we can see that the organization of the future will be at the forefront of technology, modern, constantly evolving, digitally mature, innovative and adaptable to the environment. In a rapidly evolving world, there is a growing emphasis on technological development, digitalization, which can be a key pillar of competitiveness, agility and business success.

The turnover categories also showed clear differences and co-movements, which warrant further and more detailed analysis. The pattern anticipated by the models has materialized for some factors: increasingly large companies have more sophisticated systems and routines. However, an unexpected feature was the different behavior of the group of firms in the second revenue category. We hypothesize that this is due to the fact that after the first growth phase, companies move into a "rest" phase and operations, which goes hand in hand with maintaining the status quo and stability, avoiding risks and thus pushing development, digitalization and process innovation to the background.

Internationalization is a key pillar of competitiveness [20], and 51% of the companies in the sample, are currently active in international markets, so identifying the pattern of internationalizing companies and those operating only in the domestic market was an important decomposition factor in the evaluation. The different characteristics of the companies, present on the international market, were clearly visible in the analyses. Companies present on the international market are more open to improvements, support innovation, have a more structured corporate strategy and thus, tend to be more competitive than companies only operating within the Hungarian market.

The perception and experience of the company's manager influences the decisions that determine the company's openness to innovation, development and strategy. The analysis of managerial perceptions will therefore be a priority in the next research phases. This is in line with recent theories [58] that consider the internal set of organizational characters to be more relevant for the future of the firm than external, environmental influences. It seems to be proven [30], that managerial skills and managerial attitudes have an impact on the company's ability to innovate, and thus on the company's strategy and competitiveness. In our sample, managerial attitudes and organizational characteristics and routines were found to be pronounced biasing factors in the information flow, data use and decision-making process. We could detect characteristics that had an impact on corporate digitalization and innovation. These included managerial control, corporate culture associated with error, attitude to risk and characteristics related to the decision process.

The authors aimed to provide a deeper understanding of the competitiveness of Hungarian companies, from the perspective of digitalization and internationalization. The authors' recommendation based on the results are the following:

1. The results show that technological changes, including the challenges of digitalization, are more challenging for larger companies and have the least impact on companies in the second revenue category. Their differentiation can be explained by the fact that they are at different developmental stages, which presents them with very different types of challenges, but they do not yet have the organizational characteristics of classic larger companies. The digitalization performance of companies operating in the domestic market, which are mostly Hungarian-owned, lags behind companies operating in the international market, which are mostly foreign-owned. To make companies more competitive in the future, we suggest to businesses to be more open to innovation and digitalization, to develop employees' skills and suggest management support and risk taking.
2. Companies that are also present in the international market perceive the impact of technology, including digitalization, as stronger and pay more attention to the use of digital technologies, compared to domestic companies that perceive the impact of technological change as less of a challenge. Companies that are

also present on the international market are likely to have the necessary specialized expertise, such as sales knowledge, and thus to perceive expertise as less relevant as a barrier. These companies perform better in improving work process efficiency, identifying new practices and allocating resources accordingly. It is worth exploring networking opportunities to increase the connectivity of companies that think only in terms of domestic markets. This would presumably increase the number and quality of routines learned, which, if incorporated into their own operations, could make domestic firms, which currently have a low level of innovation, more technologically advanced. We advise companies to look for international opportunities in their corporate strategy because internationalization plays a clear role in the development and digitalization of companies through information flows, organizational learning, decision-making processes and corporate culture.

3. The role of managers in the digitalization process was clear from the analysis of the research data. For the managers of companies lagging behind in innovation and digitalization, the role of environmental influences was stronger, their strategy was less formalized and the corporate strategy was less transparent to the members of the organization. Likewise, ownership structure was an important control variable: where there is a single owner, the company is more prone to information flow lock-in, as information is only available to a narrower layer of management, even with higher levels of digitization. In the case of multiple owners and common operational management, digitalization does not only perform a control function, but also plays a role in knowledge sharing and data-driven decision making. Achieving and maintaining a sustainable competitive advantage requires transparent information flows, proactive decision-making and delegation. Digitalization can become a key to the future success of a company if managers change their management style and decision-making mechanisms. To this end, it is necessary to explore in more detail and distinguish the relationship between innovation and firm performance, and to explore whether digitalization has a direct, moderating or mediating effect on competitiveness. This will give us further insights into how digitalization is affecting the professionalization of companies, through their management functions.

Acknowledgement

This survey was organized and supported by Corvinus University of Budapest, Institute of Strategy and Management. Thanks are due to all participants of Future of Organisation research group. Thanks to Prof. László Szerb for making the Small Business Competitiveness Index research database available for a complex analysis.

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