THESES FOR DOCTORAL THESIS (PHD)

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Investigating the link between managerial competences and a successful company

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1. BACKGROUND OF THE WORK, OBJECTIVES

1.1. Background of the research

During my undergraduate studies, I studied International Business Management at Oxford Brookes University. During my training I was introduced to management theories and read a lot of literature related to the qualities and skills that a successful manager should have. However, I never felt that any of the literature gave me a complete picture of how difficult it is to be an effective leader, how many external and internal factors influence success, and how different perspectives can be taken on how a leader can be considered successful.

After completing my bachelor's degree, I thought I would like to learn about the world economy from a political perspective, so that I would have a better basis for trying to understand the context. To this end, I applied and was accepted to the Political Economy of Europe course at The London School of Economics and Political Science. After completing the course, I felt that my deep interests were more in management than politics, and I thought that I would definitely like to return to this area when applying for my PhD. As a consequence of the fact that my undergraduate studies had left me with a gap in the broad study of managerial competences, the choice of my research topic was obvious. In my work, I meet a lot of leaders and this gave me a motivation to learn about and research the personality factors that lead to success and to being a 'good' leader. I have always been interested in what competencies and personality traits effective or 'successful' leaders have and whether this can make anyone an effective leader.

1.2 Aim and hypotheses of the research

The aim of my research is to examine leadership competences and successful companies. After reviewing the literature on the topic, I formulated the following objectives:

C_1 : In order to measure and categorise the performance of companies, I set out to define the definition of a successful company, which is important to provide a basis for companies to define their future goals with a specific focus, so that they can achieve greater growth and further development.

C_2 : In the case of successful companies, I have always been interested in the competences and personality traits of the managers and whether there is any correlation between them.

I was concerned about whether leaders have the same character, i.e. whether their competences and personality traits are the same in all cases, and whether this is a given for who can become a successful leader. An interesting point I found was whether employees see and judge the leader in the same way as he or she sees him or herself in their self-image. It also came up whether it is either genetically coded who can become a successful leader or whether it is possible from any starting point to build the self with perseverance, patience and continuous learning for a person who wants to become a leader. On this basis, I wanted to find an answer to the question of whether it is possible to define leadership competences and to create a basic competence and personality trait chart that can provide guidance.

C_3 : During my doctoral studies, the world has undergone an extraordinary transformation in the wake of the Covid-19 pandemic, which has brought about major changes in all aspects of our lives. The construction sector has seen hectic changes in prices, logistics, raw materials and finished products. This has left the managers of construction companies facing serious challenges and crisis management where their managerial competencies have emerged, so I felt it was imperative to examine this section.

In line with the objectives of the research, I formulated the following hypotheses:

H_1 : A successful company is not only defined by quantitative accounting results, but also by qualitative values.

H_2 : Managers and employees have different views on the perception of a successful company, with younger and/or lower paid employees having a less positive perception of the company and the manager.

H_3 : Managers' subjective perceptions of their own competences and personality traits do not match those of their colleagues.

H_4 : The competences and personality traits of managers in successful companies are similar or identical.

H_5 : A new definition of managerial competences can be formulated by modernising the definitions already defined in the literature and using data from primary and secondary data collection.

H_6 : The crisis situation caused by Covid-19 has challenged managers and affected their governance mechanisms, strategic and operational views, which have led to long-term changes.

For the sake of clarity, I have prepared a table (Table 1) which presents together the research objectives, the related hypotheses and the analytical methodology used in the research.

Table 1: Summary table of objectives, hypotheses and methods

Goals	Hypotheses	Methods
C_1: In order to measure and categorise the performance of companies, I set out to define a successful company.	H_1: A successful company can be defined not only by quantitative accounting results but also by qualitative values.	frequency study, empirical observation, correlation study
C_2: For successful companies, examine whether managers have the same competences and personality traits.	H_2: Managers and employees have different views on the perception of a successful company, with younger and/or lower paid employees having a less positive perception of the company and the manager.	cross-tabulation analysis, ANOVA analysis
	H_3: Managers' subjective perceptions of their own competences and personality traits do not match those of their colleagues.	frequency of testing, data and content analysis
	H_4: The competences and personality traits of managers in successful companies are similar or identical.	frequency of testing, data and content analysis
	H_5: A new definition of leadership competences can be formulated by modernising the definitions already defined in the literature, using data from primary and secondary data collection.	secondary research, empirical observations, content analysis
C_3: Has Covid-19 changed the perception and attitude of managers in any area?	H_6: The crisis situation caused by Covid-19 has challenged managers and affected their governance mechanisms, strategic and operational views, which have led to long-term changes.	frequency study, empirical observation, content analysis

Source: own editing (2022)

2. MATERIAL AND METHOD

2.1 Research methodology

The complexity of the research objectives under consideration requires the use of both quantitative and qualitative research methods. In the social sciences, it is a clear problem that it is not enough to know the methodology, but also to think in depth about its actual application, implementation and results processing, since an inadequate basis can lead to the complete failure of the research (ALIMO-METCALFE 2001, HANCKÉ 2009, AVOLIO et al. 1995, DENZIN-LINCOLN 1994, GORVIN et al. 2017). In my research, I want to analyse and explore the interrelationships and details in as complex a way as possible, and therefore I saw it as appropriate to use a research methodology that not only examines the issue and problem from a single perspective, but is also able to explore possible connections or contradictions in depth (CAMERON et al. 2006, FIRAT 2006, HORVATH-MITEV 2015).

The research process was structured as follows:
1.   Selecting and precisely defining the research problem
2.   Definition of analysis units and time frames
3.   Overview of previous research and results
4.   Formulating hypotheses
5.   Conceptualisation and definition of indicators
6.   Choice of research methodology
7.   Data collection
8.   Analysis and interpretation
9.   Conclusions, summary of results

A qualitative approach, also known as qualitative research, is typically an exploratory and analytical technique that does not aim for a high number of individuals (SÁNTHA 2009). Research is more adaptive and flexible than this approach, as it is possible to include or reduce new aspects in the process in order to extract the most relevant information. However, this does not mean that the whole methodology can be changed, rather it can be shaped to be more effective (HANCKÉ 2009). On the positive side, it makes the interview subject more insightful, but at the same time the reception and interpretation of the answers gives the possibility for subjective interpretation, which makes its validity questionable (LIGETI-HÉRA 2017). At this point, however, I would add that in the case of quantitative, it is equally problematic that the respondent may not have interpreted the question asked correctly, so that it is equally problematic for the outcome and reliability of the final result.

Quantitative methodology seeks to answer quantitative questions and has the advantage of allowing a larger number of items to be surveyed (BONCZ, 2015). It has the advantage of allowing a large number of people to answer standardised questions, even in a short period of time, thus allowing a more representative sample to be surveyed. Furthermore, data collection and comparison is more objective than

with quantitative. However, it has the disadvantage that it is not certain that the respondent understands the question correctly, so the answers may not fully reflect the reality (GORVIN et al. 2017). When responding to a questionnaire, subjects often ignore questions, which also leads to data loss. In addition, questionnaires have a tendency to be rigid, i.e. they only reflect the exact line of the researcher's questionnaire, thus inadvertently causing an indirect bias in the respondent (GORVIN et al. 2017).

2.2 Research phases

I divided the research into three major phases:

Phase 1 - Secondary data collection (literature review)
The research is based on primary and secondary data collection. The first phase of the thesis is based on secondary research, which involves the study of Hungarian and foreign literature, thus helping to narrow down the topic, define it more precisely and to establish the conditions for a definitive and well-defined hypothesis. The process includes the consultation of books, journals, case studies and publications available in electronic format, as well as consultations with experts.

Based on the information gathered from the literature and consultations, a primary definition of organisational effectiveness and managerial competences is provided, which provides the basis for the next phase of the research, which is the primary research. The definitions provide a starting point from which the research objective can be properly delineated.
The aim of the secondary data collection was to explore the main areas of the research topic in depth. In the first part, the development and evolution of the construction sector under study was discussed from a global perspective, followed by a historical presentation of the Hungarian sector. In the case of the Hungarian summary, only the last thirty years after the change of regime will be dealt with, as it is from this period that relevant conclusions and findings can be drawn in terms of the personalities of the managers, their competences and their managerial skills.
The second part of the literature review aims to identify the key concepts related to leadership from a research perspective, which includes previous definitions of leadership, a collection of leadership theories and theories, and a chronological treatment of leadership competencies.
The third topic deals with one of the most recent issues in the thesis, but one that has a significant impact on managerial competences: the impact of the Covid-19 pandemic.

Phase 2 - Primer Data Collection
The conclusions drawn from the literature are used to design the interview schedule and write the questions. In addition, the questionnaire for colleagues who have close working relationships with managers will be drawn up on the basis of the literature and the management questionnaire. To a large extent, the outcome of the research results will be determined by the managers' own subjective statements. In order to

maintain the objectivity of the paper, information will also be collected from employees, if the company allows it, as this would allow other perspectives on the leader's characteristics to be examined.

Questionnaires are also preferable for gauging employees' opinions because a higher proportion of information can be collected than through interviews. However, it should be taken into account that questionnaire results may not provide fully truthful information, as respondents may be afraid to express their opinions about their superiors (BONCZ, 2015). To promote credibility, the survey is conducted in complete anonymity. In some cases, personal observation may be used to ensure credibility and further improve objectivity. The aim is to gather the views of as many managers and their subordinates as possible for each size of company.

Phase 3 - Comparison of results from primary and secondary data collection
In the third phase of the research, the literature is compared with the empirical information gathered through the research and conclusions are drawn. Based on the results obtained, a final definition of organisational effectiveness and managerial competences will be made, which would allow to draw final conclusions on the relationship between managerial competences and organisational effectiveness and to answer the hypotheses questions.

The final part of the research would look at how the theoretical findings of the research could be most easily and effectively translated and applied in practice by managers, and how organisations could use and apply this knowledge in the recruitment process.

In addition to the research methodology presented here, I would like to mention that I have expanded my knowledge and gathered relevant information in a number of other ways, both directly and indirectly:

- I have studied not only the closely related literature on the subject, but also the domestic and international literature that offers a broader perspective, and have used the ideas that have been extracted
- reorganised the knowledge and skills acquired during my previous studies and integrated them into my research
- I have consulted a number of experts on the subject, from which I have drawn new conclusions and been able to further develop my research topic
- I constantly searched the internet for newer materials and articles, ensuring that the topic did not contain outdated literature and knowledge
- I have participated in several national and international conferences in order to benefit from the opinions and constructive criticism of other experts in the field and to improve my skills
- lecturing to undergraduate students on my subject, which allowed me to apply further interesting approaches from the discussions and insights that emerged during the lectures

3. RESULTS

Result 1: Examining the perception of a successful company in terms of quantitative and qualitative data

I have tabulated in descending order the most important success or success factors as perceived by respondents, with good working conditions being categorised as the most important, chosen by 85.19% of respondents. The second most frequently chosen element was the perception by others, i.e. recognition by customers and suppliers, with 74.07%. The third index chosen was profit growth with 72.22%. A continuously expanding product portfolio was given 51.85%, representing the fact that employees also measure progress through the extent to which the company is able to innovate and continuously improve. Furthermore, by expanding the product portfolio, the organisation gains greater sales opportunities, even entering new segments, which also increases the prestige of the company. In turn, for the fifth aspect, equal 44.44% was given to the increase in turnover and volume, which to some extent are related. A smaller but significant proportion of responses were given to growing customer base (38.89%) and continuous innovation and innovation (29.63%). It is noteworthy that while the continuously expanding product portfolio was ranked fourth, continuous improvement and innovation was only ranked seventh, even though product development and innovation is a fundamental and indispensable part of expanding the product portfolio, without which it would be impossible to expand. The three least important factors were customer satisfaction and the level of credit.

Overall, the five most dominant factors determining the perception of success were, according to the respondents, 60% qualitative and not quantifiable qualitative accounting data, suggesting that the perception of success is not only based on numbers.

Result 2: Colleagues' perception of a successful company and managers

For the demographics data, I also conducted an ANOVA analysis (Appendix 28), since the categorical variables of age range, salary range, number of years worked are at least three-valued categorical variables, and the answers to the question "How well do you feel your managerial skills are established?" are scale-type variables. In cases where we analyse by the categorical variable, we have ANOVA, so we create groups based on this and the categorical variable has at least three values. In each case, we are looking at whether or not there is a difference between the respective means of the scale between the groups. The null hypothesis says there is no difference, while the counter

hypothesis says there is. In other words, the null hypothesis says that the categorical variable does not affect the values of the scale type variable, it does not determine it, but in the case of the counter hypothesis it does. Here, we are really only interested in the sig (p-value), which is the p-value associated with the test. It should be understood that if Sig. < 0.05 for a given variable, then the null hypothesis is rejected, i.e. the means of the scale variable under test differ across groups of the categorical variable, i.e. the categorical variable is affected if Sig. $>= 0.05$, then the null hypothesis is accepted, i.e. the means of the categorical variables in the groups of the scale variable under consideration are the same, i.e. the categorical variable has no effect on it, it is not significantly affected by it. In this case, the means for all three groups can be considered identical, because Sig $= 0.486 > 0.05$, and $0.902 > 0.05$ and $0.368 > 0.05$. This means that in none of the cases does the categorical variable influence the value of the response "How well do you think the manager's professionalism is established?", i.e. the manager's perception of the manager is independent of the demographic data.

Result 3: Colleagues' perceptions differ from managers' self-perceptions of their competences and personality traits.

I also conducted an aggregate competency characteristics analysis, which compares the competencies that colleagues and managers rated as most dominant. The results clearly show that managers' and colleagues' perceptions of the most dominant attributes do not fully match, and that for the less dominant attributes, the spread is even greater. These results suggest that colleagues' and managers' perceptions of the dominant leadership competencies are not consistent.

Aspects of the study included an examination of the personality traits of leaders to assess whether the traits and characters of effective leaders are in full agreement or similar. The personality list was developed using personality trait pairs supported by the literature.

Colleagues and managers were asked to select the personality traits they considered most characteristic of the leader of the company, based on exactly the same table. To compare the results, I created a table in which I listed the personality traits in pairs in vertical rows below each other, while in the vertical columns next to each other I indicated the proportion of employees in each company who chose a particular personality trait. Then, for each firm, I have highlighted the percentage per personality trait that the manager chose for himself. This made it transparent for which companies the perception of the colleagues matched the perception of the leader towards him/herself.

Colleagues did not fully agree on the assessment of personality traits, as they did not choose 100% of the same traits for all companies. However, the higher

percentage of traits chosen by colleagues, when compared to the traits chosen by managers, shows that 88.19% of colleagues matched the personality traits of managers.

Result 4: The managers of successful companies have similar or identical competences and personality traits.

I compiled a list of leadership competences based on literature and informal professional discussions prior to the interviews. First, I examined the similarity of the competences of the managers, and compared the results one by one, so that a total of 45 combinations were analysed. In terms of comparability, I found that the competencies of all managers were generally 20% similar when compared with each other. Furthermore, a total of 17.77% had pairs with two identical competency tickets, and a total of 6.6% had three identical competency matches. Based on this, I found that the competency scores of the effective managers did not match, nor were there even significant similarities.

The traits of the leaders were also analysed in relation to each other. Based on the introverted and extroverted approach, the 22 personality traits were split into two sides, mapped to pairs. For objective analysis, the responses were quantified so that they could be compared with each other. For the 11 traits, a total of 12 combinations were possible by splitting them into two sides, of which 6 occurred among the respondents. An interesting coincidence is that of the 6 combinations, 3-3 are inverse variations of each other. The 10 respondents surveyed had 6 different character traits, so it can be concluded that successful leaders do not have the same personality traits, and that personality traits do not influence whether or not someone can become a successful leader.

Result 5: Defining leadership competences based on primary and secondary research

During the interview, I asked each manager to give their own definition of leadership competences, which could be compared with the definitions used in the professional literature and with the competences highlighted by their colleagues, thus providing a basis for a new definition, and I compared the results with the formulations already published in the literature.

The aim in creating the definition was to include only sound and supportable formulations extracted from the research (management interviews, colleague questionnaires and literature review). Based on these, I have defined the following:

Leadership competence is a complex set of skills and competences that determine organisational performance, and which include the following essential components: confidence, openness to new knowledge, appropriate attitude, decision-making and management skills, collaboration and communication skills, professional qualifications, effective resource management and responsibility for both financial and human resources.

Result 6: Examining the impact of Covid-19 on leadership attitudes

The research also aimed to analyse the changes in the new economic situation, as Covid-19 has posed significant challenges for managers in all sectors. The construction sector in Hungary was also significantly affected by the Covid-19 measures, but unlike many businesses, the government did not order a complete closure of manufacturers and distributors, even in a period of severe austerity. As a result of the measures and the hectic nature of demand, managers have been faced with the challenge of properly controlling inventories and managing human resources, thus having to adapt to an unpredictable environment.

During the interview, a number of questions about the pandemic were discussed and compared with the answers given by colleagues and emerging literature.

It can be said that in dealing with the crisis, managers have changed not only in terms of their strategic thinking, but also in terms of their personality traits, as they have become more people-centred, empathetic and flexible, according to their own accounts. So far, no one has investigated and categorised the consequences of the changes introduced in the Hungarian construction industry segment as a result of Covid-19 from the perspective of managers and employees, and examined the potential short- and long-term outcomes. The table shows transparently which of the most frequently applied measures and changes have had which impact. Remote working has allowed employees to work more flexibly, which in some cases may even lead to an increase in productivity, as it is possible that employees can perform better in an atmosphere where they feel comfortable, but the opposite is also true, as they may be distracted by factors in their own environment, such as their own relatives or children, so it is up to the individual to decide how productivity levels vary. At the same time, retaining the option of working remotely can increase employee satisfaction in the future, as it gives the company a greater sense of freedom and flexibility. This measure has led to an improvement in managers' attitudes towards flexibility and empathy.

Digitalisation brings opportunities for change in a number of areas, as on the one hand, many companies have seen significant changes that allow them to

reach a larger market segment and increase customer satisfaction by providing a higher level of service. And for employees, technological advances provide a simpler and easier way of working, while for managers, they provide greater and better control options.

In terms of inventory management, the changes introduced have given organisations the opportunity to carve out a larger share of the market segment from competing firms that could not manage the extreme circumstances of the crisis smoothly. Furthermore, the need to change and prepare to deal with unexpected situations in terms of material procurement provided managers with a competence development that they could generalise in a possible future crisis management. In the form of decision-making, managers' attitudes also changed, as they perceived decentralised choices made jointly with colleagues as more beneficial, and indirectly, this typically led to closer cooperation with colleagues and suppliers.

Frequent communication to ensure transparency from colleagues' perspectives helped to increase trust, security and acceptance, while managers' interaction with employees increased.

Various forms of support (payment for Covid-19 tests, free protective equipment, vitamin packs) increase loyalty, trust and a sense of security in both the short and long term.

The need to develop new and innovative services in many cases has pushed managers to change their way of thinking and their perspective, thus increasing their creativity and their drive for innovative ideas, which is also true for employees, as these innovations are often brainstormed. From the company's point of view, these innovations can help to innovate, modernise and increase market share.

4. CONCLUSIONS AND PROPOSALS

Hypothesis testing

To test my hypotheses from the secondary data collection, I conducted primary research and further secondary data collection. Following a detailed presentation of the results of the data collection, in this chapter of my doctoral dissertation I will examine the validity of my hypotheses, on the basis of which I will confirm or refute the findings.

Is it possible to categorise an efficient and effective company on the basis of qualitative values?

> H_1 : A successful company can be defined not only by quantitative accounting
> results but also by qualitative values.

In the international literature, a trend has already been observed, which shows that companies are no longer classified and categorised on the basis of quantitative, i.e. accounting criteria, to assess whether they are efficient and effective, but also on the basis of qualitative values.

To answer my hypothesis, I used the data collected through question B./2 of the questionnaire completed by my colleagues and the information obtained from questions 1 and 2 of the management questionnaire.

Based on the answers given by colleagues, three of the five factors categorised as most important are qualitative (good working conditions, recognition by customers/suppliers, a constantly expanding product portfolio). If the list is examined in tenth place, it can also be said that the three factors following the top five are also qualitative. This suggests that employees' perceptions of a company are much more likely to be based on qualitative characteristics than quantitative ones.

During the management interviews, half of the managers felt that only accounting data were mentioned, while the other half of managers - typically the managers of foreign-owned companies - also highlighted working conditions, customer and supplier recognition, innovation and a constantly expanding product range.

Based on this, it can be concluded that the successful company can no longer be evaluated solely on the basis of quantitative values, but also on the basis of qualitative indicators, thus the **hypothesis H_1 is confirmed**.

Can it be proven that younger or underpaid colleagues have a less positive view of the company and the manager?

> H_2 : Managers and employees have different views on the perception of a
> successful company, with younger and/or lower paid employees having a less
> positive perception of the company and the manager.

My perception at the start of the research was that colleagues who are paid less than the average and/or are young colleagues do not necessarily judge the company's performance and the manager on the basis of his or her real competences.

To investigate this question, I compared the demographic data from the colleagues' questionnaire with question B/8, which was designed to assess the manager's professionalism. I did this using ANOVA analysis, as demographic data can be interpreted as categorical variables, while responses to managerial professionalism are scale-type variables. In this case, I examined whether there was a difference between the respective means of the scale for each group. The analysis showed that the means were the same for all three groups, so that the categorical variables were not affected. On this basis, the **hypothesis H$_2$ was not confirmed.**

Do managers' perceptions of their own competences and personality traits differ from those of their colleagues?

> *H$_3$: Managers' subjective perceptions of their own competences and personality traits do not match those of their colleagues.*

One of my research objectives was to explore the competencies and personality traits of effective leaders. At the same time, I also wanted to find out whether leaders actually have a realistic view of themselves and how they are perceived by their colleagues.

From the colleagues' questionnaire, I used the results of questions B/5, B6 and questions 6 and 7 of the management questionnaire. I considered it important that these tables should be fully contrasted and evaluated as objectively as possible, as this is the only way to draw realistic conclusions. The questions were directed separately to examine leadership competencies and personality traits.

First, I analysed the data extracted from question B/5 of the colleagues' questionnaire and compared it with the answers given by the managers. This showed that there was a discrepancy between the perceptions of colleagues and the characters selected by managers, so I considered that a global comparison might be worth analysing the results.

For the second analysis, I ranked the answers given by colleagues in descending order of frequency of response. In the next step, I also created a frequency list from the responses given by the managers, which gave a percentage overview of which characteristics they perceived to be most dominant. I compared the results obtained, which showed that the managers' perceptions of competence did not match their colleagues' views.

The second analysis was on the personality traits of leaders, for which I developed a list from the literature and added some characteristics that I considered to be informative. Colleagues were asked to select from an identical list which personality traits they considered relevant to their leader. Based on the extracted data, I created a table that made the collected responses transparent and analysable. Based on this, it was found that colleagues disagreed when categorizing the personality traits of the leader, as a total of 13.63% of them chose the respective characters in full agreement, which clearly represents that colleagues are not uniform in their judgments of the

personality traits of the leader. I took the analysis further, however, and examined on a case-by-case basis whether, even in cases where colleagues did not fully agree on the personality trait, I analysed whether at least the higher chosen value was the same as the character chosen by the leader. The result showed that 88.19% of colleagues judged the leader well.

Summarizing the research results obtained for hypothesis H_4, it can be said that for the competence traits the perceptions did not match at all, while for the personality traits the colleagues' perceptions partially matched the managers' self-assessments, thus **I consider hypothesis H_3 partially confirmed**.

Are the personality and competence traits of managers of successful companies similar or identical?

> *H_4 : The competences and personality traits of managers in successful companies are similar or identical.*

Based on the previous topic, I was interested not only in how colleagues judge leaders, but also in whether the competencies and personality traits of effective leaders are the same and whether a model could be created based on this. For this study, I used the results of questions 6 and 7 of the leadership questionnaire. First, I examined the similarities of the competencies of the leaders, of which there are 45 combinations of the cases, and found that, in general, 20% of the competencies of all leaders matched the traits of all leaders. In total, there were 17.77% of pairs where two competency traits were the same and only 6.6% where three competency traits were the same. This indicates that the managers' competency scores do not match.

The next part of the analysis looked at the personality traits, in which the 22 introverted and extroverted traits were split into two columns. For objective analysis, the sum of the personality traits was quantified per page, allowing for 12 possible combinations. Of these combinations, 6 occurred among the respondents. An interesting correlation is that 3 out of 3 of the combinations that occurred were pairs. Out of the 10 managers interviewed, 6 different character maps were drawn, so this suggests that the managers do not share the same personality traits.

In summary, I did not find high or complete similarity for the managers, neither in terms of their competencies nor in terms of their personality traits, so **I reject hypothesis H_4** .

Is it possible to define leadership competence on the basis of secondary and primary research?

> *H_5 : A new definition of leadership competences can be formulated by modernising the definitions already defined in the literature, using data from primary and secondary data collection.*

The word competence itself is defined in many different ways, as it is present in many fields, not only in economics. It is almost impossible to find a definition of managerial competence in English and most of the available formulations use the

English definitions as a basis. Most of the English definitions are combinations of the following formulations: general knowledge, motivation, intrinsic personality traits, ability, skill, job function, outstanding/effective/excellent performance. This set of definitions uses very general formulations and does not provide any depth of definition of the leader. Furthermore, the use of the terms "outstanding" and "excellent" is questionable, as they are difficult to measure and capture, i.e. they contain significantly subjective elements. The core personality trait is also formulated in general terms, without specifying exactly which personality traits are meant. General knowledge is also a difficult concept to delimit, as each person has a different understanding of what is meant by "general knowledge". However, it is clear that key words recur in the formulations: abilities, skills, knowledge, behaviour and personality traits.

Based on these, my judgement was that the definition of leadership competence is not a complete whole, so I compared the conclusions drawn from the literature with the knowledge gathered during the primary research. I extracted from the colleagues' questionnaire which competency traits were considered most dominant in their perceptions of managers, and I also compared managers' responses and definitions of competency.

Based on these, I have created the following definition of leadership competences:

Leadership competence is a complex set of skills and competences that determine organisational performance and that include the following essential components: confidence, openness to new knowledge, appropriate attitude, decision-making and management skills, collaboration and communication skills, professional qualifications, effective resource management and responsibility for both financial and human resources.

On this basis, **I consider the hypothesis H$_5$ to be confirmed**.

Has Covid-19 had any impact on the leaders in any respect?

> *H$_6$: The crisis situation caused by Covid-19 has challenged managers and affected their governance mechanisms, strategic and operational views, which have led to long-term changes.*

The impact of the Covid-19 pandemic has been extraordinary, causing major changes in many areas, including economic life. In the construction sector in Hungary, the ongoing uncertainty, transport difficulties, shortages of raw materials and supplies, and human resource problems caused by the crisis have posed serious challenges for managers. On this basis, I considered it essential to investigate through primary research how this impact has shaped, or if it has shaped at all, managers.

Based on the information extracted from the colleagues' questionnaire and the data collected from the interviews with the managers, I have prepared a summary table presenting the measures put in place, the consequent management changes and the short and long term potential impact of these changes.

Comparing the table with the relatively recent international literature, it can be concluded that while the foreign literature includes measures that have been introduced and in many cases examines the short and long term effects of measures, no such comprehensive table has been produced.

The results collected (Table 2) confirm that Covid-19 not only affected economic life, but also the management mechanisms, strategic and operational views of managers, as well as their personality traits. Based on these findings, **I consider hypothesis H_6 to be confirmed.**

Table 2: Summary chart of hypothesis acceptance and rejection

Hypothesis	Result
H_1: A successful company can be defined not only by quantitative accounting results but also by qualitative values.	**verified**
H_2: Managers and employees have different views on the perception of a successful company, with younger and/or lower paid employees having a less positive perception of the company and the manager.	**refuted**
H_3: Managers' subjective perceptions of their own competences and personality traits do not match those of their colleagues.	**partially justified**
H_4: The competences and personality traits of managers in successful companies are similar or identical.	**refuted**
H_5: A new definition of leadership competences can be formulated by modernising the definitions already defined in the literature, using data from primary and secondary data collection.	**verified**
H_6: The crisis situation caused by Covid-19 has challenged managers and affected their governance mechanisms, strategic and operational views, which have led to long-term changes.	**verified**

Source: own work (2022)

5. NEW SCIENTIFIC RESULTS

In categorising corporate performance, analysing and modelling managerial competencies and personality traits, and investigating the impact of the Covid-19 pandemic on managerial attitudes, I have formulated the following new academic findings:

E$_1$. The studies carried out have shown that a successful company can be categorised as successful not only in terms of quantitative but also in terms of qualitative indicators. Previously, corporate performance was measured mainly in quantitative terms - mostly accounting data. In foreign literature, the importance of this different method of evaluation has been emphasised for more than a decade, but it is only moderately present in the Hungarian public consciousness. The study confirmed that the managers interviewed still focus primarily on quantitative data, while in Western companies there is a clear tendency towards a qualitative approach, which is not only perceived by managers but also confirmed by their colleagues.

E$_2$. Tests using ANOVA analysis demonstrated that there is no difference in demographics and perceptions of manager and firm success based on respondents' demographic background and salary range. My perception at the outset of this research was that the age and salary range of the employee may be a contributing factor in the perception of successful companies and managers.

E$_3$. In my research, I showed that the perceptions of managers did not match the perceptions of their colleagues, as there was no agreement at all on the competency traits, while there was only partial agreement on the personality traits. With regard to the managers' perceptions of competencies and personality traits, I examined whether the character identified by colleagues matched the self-image described by managers. Competences and personality traits were analysed separately. For competencies, I used frequency analysis to evaluate the data, which I also compared with the managers' responses. The results did not confirm a concordance, i.e. the perceptions of managers and colleagues on competences were different. When personality traits were compared, it was only partially confirmed that colleagues' perceptions were similar to the self-perception of the manager.

E$_4$. The managers of successful companies were found to have similar or identical competences and personality traits. Comparing the competency lists and analysing personality traits individually, it was found that there was no significant similarity for the successful managers in terms of either their competencies or personality traits. This suggests that personality traits should not limit who becomes a successful leader.

E$_5$. The word 'competence' itself is defined in a number of ways in the literature, while there are significantly fewer, but relatively different, definitions of managerial competence. In Hungarian, there is almost no detailed formulation of managerial competence, so I have formulated my own definition based on the literature already known and the primary and secondary data collected during the research:

Leadership competence is a complex set of skills and competences that determine organisational performance and that include the following essential components: confidence, openness to new knowledge, appropriate attitude, decision-making and management skills, collaboration and communication skills, professional qualifications, effective resource management and responsibility for both financial and human resources.

E₆. In examining the impact of the pandemic on managers' attitudes, I found that Covid-19 affected managers' governance mechanisms, strategic and operational views, which resulted in long-term changes. I explored the possible short and long term effects and mechanisms. The measures and changes introduced during Covid-19 have been shown to work and the table below (Table 3) includes the correlation between the measures introduced, the changes in managerial attitudes and the potential short and long term effects.

Table 3: Measures and changes introduced to address the crisis caused by Covid-19 and the short- and long-term effects of these measures

	MEASURES/CHANGES INTRODUCED	SHORT- AND LONG-TERM IMPACTS	CHANGES IN MANAGEMENT DECISION-MAKING MECHANISMS
1	**home office**	- increased employee satisfaction thanks to flexibility - change in productivity	- becoming more empathetic - Flexibility
2	**digitisation**	- modernisation - faster development for the company - greater sales potential - easier working - increase customer satisfaction	greater control potential
3	**inventory management**	- a more effective inventory management strategy - crisis situations	- closer cooperation with suppliers and colleagues - decentralised decision-making process - developing crisis management competence
4	**communications**	- leading to greater acceptance - increased confidence and sense of security	- increased interaction with colleagues - developing crisis management competence
5	**support (health and mental)**	- increased loyalty from employees and partners - increased confidence and sense of security among workers	becoming more empathetic
6	**innovative service solutions**	- increase the creativity of colleagues - increase market share - company renewal - modernisation	- focus on "out of the box" thinking - creativity

Source: own editing (2022)

6. PUBLICATIONS RELATED TO THE SUBJECT OF THE THESIS

Scientific article

TÉGLA, ZS. - **GULYÁS, D. K.** - HÁGEN, I. ZS. (2022) The possibilities of measuring sales activities in the processes of small and medium enterprises. In *Controller Info,* 2.

TÉGLA, ZS. - **GULYÁS, D. K.** - HÁGEN, I. ZS. (2022) Controlling and Logistics Objectives for Commercial Enterprises In: *Controller Info* 2 1-10. p.

GULYÁS, D. K.- HAGEN, I. ZS. (2022) Changes in Managerial Attitude Due to Covid-19 Network Intelligence Studies 10 (20) 95-100. p.

GULYÁS, D. K.- VAJNA ISTVANNE DR. TANGL, A. (2022) The Possibilities to Measure the Success of Companies SEA- Practical Application of Science 10 (29) 103-107. p.

GULYÁS, D. K.- FODOR, F. I.- THAILMEINER, G. (2019) Managerial decision-making in employee satisfaction in the dairy sector in the district of Baja. Acta Carolus Robertus 9 (1) 81-95. p.

GÁSPÁR, S. - **GULYÁS, D. K.** - GERGELY, L. (2019): implementing a kaizen approach based on management objectives in the processes of a car manufacturing organization. In *Controller Info,* 7 (3) 21-25. p.

GULYÁS, D. K (2018) Analysis of when and how does EU conditionality work with reference to central and Eastern Europe based on theoretical approach Acta Carolus Robertus 8 (2) 83-90. p.

GULYÁS, D. K.- DAJNOKI, K. (2016) Exploring the eras of global leadership competencies based on international literature. Taylor.

Scientific conference publication or conference proceedings

HÁGEN I. ZS. **- GULYÁS D. K. - TÉGLA ZS. (2022)** Can managerial performance be measured in sales activities? XVIII International Scientific Days Conference Gyöngyös Lecture 05/05/2022 - 06/05/2022 CD p. 1 - 12

HÁGEN I. ZS. **- GULYAS D. K. -** NURU S. - TÉGLA ZS. **(2022)** Controlling and logistics in strategic and operational thinking XVIII International Scientific Days Conference Gyöngyös Lecture 2022. 05. 05. - 2022. 05. 06. 06. CD p. 1 - 12

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