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## RAISING MANAGERIAL COMPETENCES IN THE FACE OF THE COVID-19 PANDEMIC

## ABSTRACT

**Objectives:** The impact of the COVID-19 pandemic on all areas of human life has been great. The prevailing disease also turned out to be a challenge for managers and the entire educational environment, which is the genesis of this article. Therefore, the aim of this article is to compare interest in the issue of improving managerial competences in the period before and after the Covid-19 pandemic and to draw conclusions in this area.

**Material and methods:** The article contains a presentation of the results of research relating to the need to improve competences by the management staff of the organization before the pandemic (2018) and after its end (2022). The research covered middle-level managers and small business entrepreneurs.

**Results:** The obtained results prove that it is necessary to constantly adapt to new market conditions and requirements, and new competences are indispensable in order to do so. Respondents see the need to improve the level of their knowledge, opting for forms that will not absorb them excessively (e.g. self-improvement). The respondents emphasize the need to know international issues and law, and the main inspiration for improving competences is the changeability of the company's operating conditions and concern for its fate. The COVID-19 pandemic emphasizes that, especially in such circumstances, improving managerial competences is indispensable.

**Conclusions:** The obtained results undoubtedly show significant changes that have taken place in the way of performing professional functions, including managerial ones and shaping the competencies of managers, but also the complexity of the analyzed phenomenon and the problems articulated in this area. The analysis carried out and its results constitute an important guideline for management practice, mainly in relation to people holding managerial positions.

**KEYWORDS:** *manager, competences, professional development, Covid-19 pandemic, improving skills.*

## INTRODUCTION

The COVID-19 pandemic has had a huge impact on all areas of human life (Sułkowski, 2020) and was a huge challenge for managers and the entire educational environment (Schleicher, 2020). This is why research conducted in this area is particularly important. The aim of this article is to compare interest in the issue of improving managerial competences in the period before and after the Covid-19 pandemic and to draw conclusions in this area. The authors analyzed and assessed the process of improving managerial competences in the period immediately preceding the Covid-19 pandemic (Q4 2018) and in the period after its end. This allowed to demonstrate that improving competences is one of the indispensable conditions for achieving business success (Barham et al. 2020; Sarvari et al. 2021). Improving knowledge and qualifications can take place in various ways, as evidenced by the results of the conducted research. It should be emphasized that there are no studies that would refer to the period of the COVID-19 pandemic and would contain research results focused on the need to improve managerial competences. There are studies that deal with the implementation of didactic tasks, but in relation to various types of remote learning conditions, but not in relation to the issues that are included in this article.

Qualified managers at various levels are needed especially during crises, but it is also important to constantly improve the acquired knowledge or skills (Oehlhorn et al., 2020, Ahammad et al. 2020). The changeability of the environment supports the need to constantly update managerial competences (Drucker 1998). This is due to the necessity to counteract the growing complexity resulting from globalization, competition, formal and legal regulations, pressure from shareholders, etc. The job of a manager brings many challenges, but it also creates enormous opportunities. However, success requires extensive knowledge.

Achieving effectiveness by an organization depends largely on the effectiveness of the manager and the ability to use existing conditions (Drucker 1998). The pandemic had a negative impact on the situation of many Polish entrepreneurs. Maintaining financial liquidity, price increases, uncertainty are just some of the problems (Polish Chamber of Commerce, 2022). The final months of 2022 clearly showed that Polish enterprises will need restructuring after the pandemic and a change in the business model. The pandemic has

emphasized that organizations need manager-leaders (Terblanche, 2022). A modern manager must be a professional (Ścibiorek & Borucka, 2022). Not only the pandemic, but also conclusions from practice indicate that being a good manager requires constant improvement (Verma & Gustafsson, 2020).

In order to ensure high quality of management, it is necessary to acquire new or consolidate previously acquired professional skills and qualifications (Veile et al., 2020). Lessons learned from Industry 4.0 implementation in the German manufacturing industry. *Journal of Manufacturing Technology Management*, 31(5), 977-997.). Success requires a high level of competence (Kuc, 2009; Sajkiewicz 2008). The need for continuous development of people in managerial positions is also strongly emphasized (Thierry et al., 1994). The manager should make every effort to ensure that the employees subordinate to him/her have clarity of goals and tasks and participate in their execution (Evans 2005). This position corresponds to the fact that the success of any organization depends on the personnel: knowledge, qualifications and motivation of its employees, their striving for better work, change and progress (Penc 2014, Ścibiorek 2006).

## **RESPONDENTS' CHARACTERISTICS**

The main aim of the research was to analyse the premises aimed at improving the competences of small and middle-level managers from south-western regions of Poland. The study analysed: premises for raising qualifications and self-improvement of persons performing managerial functions or nominated for managerial positions. In addition, the preferred forms of improving competences and the time spent on self-improvement and the language of educational studies were diagnosed. For a more favourable and at the same time comprehensive insight into the obtained results, they have been presented in one table (Table 5).

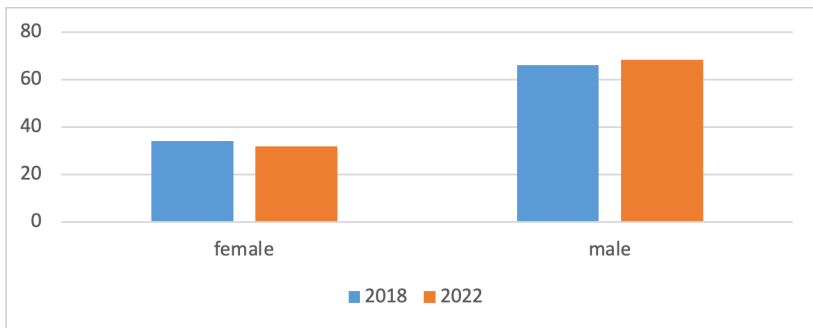
The study did not include the assessment of personality traits, which are also an important element of the competence of a good manager. Evaluation of these features would require more extensive research, going beyond the framework of the adopted research method. For the purposes of this study, it was assumed that professional competence is an essential prerequisite for achieving business success.

The research sample consisted of middle-level managers who directly work with personnel in logistics companies and play a key role in shaping the organizational

culture. Their actions have a significant impact on the effectiveness and innovation of the enterprise. Through continuous personnel management and decision-making at various organizational levels, they shape the work atmosphere, influence employee motivation, and the overall functioning of the company. Their ability to manage teams, communicate, and build interpersonal relationships is crucial for the effective operation of logistics companies. Additionally, through their industry knowledge and ability to make strategic decisions, they can contribute to innovative solutions in logistics, allowing the company to maintain competitiveness in the market. The selection of respondents – the research sample was non-random (non-probabilistic), the sample was representative, managers represented various companies and diverse positions, selection was not preferred based on gender or achieved business (professional) successes. There was a balance between women and men in improving professional competencies. This indicates that the respondents identified with the company they work for and appreciate the importance of enhancing professional competencies.

In order to achieve the research objective, a diagnostic survey was used. The survey included people in two research cycles. The first one took place in 2018, before the COVID-19 pandemic. At that time, 147 people were examined: 50 women and 97 men. The research was carried out for the second time in the last quarter of 2022, when the implications of the armed aggression of the Russian Federation against Ukraine were noticed in the conducted business activity. In this case, the study included 189 people: 60 women and 129 men (Figure 1).

**Figure 1.** *Percentage of representatives of particular sexes depending on the study period*



**Source:** Own elaboration

In 2018, the average age of respondents was around 39, and four years later it was around 40. In both cases, the age of the women was on average about 5 years higher than the men surveyed. In addition, in-depth interviews were conducted in the research process, aimed at supplementing and detailing the knowledge about the premises and implementation of educational projects by people involved in management in organizations representing various sectors.

The differences are not significant, but after the pandemic, the percentage of women among the respondents decreased quite significantly. The analysis of seniority was also carried out taking into account the year of the study. Basic descriptive statistics were calculated, which are presented in Table 1.

**Table 1.** *Basic descriptive statistics of the job seniority variable*

year	no.	total	mean	median	sd	min	max
2018	147	712	6.59	6.5	4.48	1	22
2022	189	1108	8.09	7.0	6.18	1	25

The average seniority is definitely higher after the pandemic, which may be due to the fact that the pandemic verified the market situation and only stable companies with an established, strong position remained. The minimum and maximum values were similar, the shortest seniority in both groups was one year, while the maximum length for 2018 was 22 years and for 2022 it was 3 years longer.

An analysis of seniority in relation to the type of manager was also carried out. Only the group of middle-level managers and entrepreneurs of small companies was analysed, because only these two groups had work experience. The results are presented in Table 2.

**Table 2.** *Basic descriptive statistics of the seniority variable in groups of managers*

year	type	no.	mean	median	sd	min	max
2018	middle-level managers	73	8.59	9	4.031	1	22
2022		104	9.83	9	6.274	1	25
2018	small firms' entrepreneurs	35	2.43	2	1.501	1	5
2022		36	3.22	3	1.758	1	6

Similarly to the previous study, seniority was higher in both groups after the pandemic. The same results were obtained when examining seniority by gender (Table 3). Each time it was bigger after the pandemic.

**Table 3.** Basic statistics of the descriptive variable seniority by gender

Year	Sex	no.	mean	median	sd	min	max
2018	woman	50	7.31	7.5	5.20	1	20
2022		60	8.19	7.0	4.81	2	19
2018	man	97	6.37	6.0	4.23	1	22
2022		129	8.06	7.0	6.48	1	25

The preliminary analysis of the study group and the conclusions drawn from it allowed us to move on to the key issue, which is the analysis of answers to the questions asked to the respondents. The aim of the authors was to obtain information whether the year of the study, i.e. the situation before and after the pandemic, is a key (significant) factor influencing the response. To determine this, it was necessary to use appropriate statistical tools. Due to the categorical (qualitative) form of the variables, the chi-square test was used for this purpose. The chi-square test of independence allows to assess whether the observed distribution (in this case, the answer to the question) depends on the second variable (in this case, the year of the study). The test statistic is (Kozłowski et al., 2023; Wilson & Hilferty1931):

$$\chi^2 = \sum_{i=1}^n \frac{(O_i - E_i)^2}{\sigma_i}$$

where:  $O_i$  – measured value,  $E_i$  – the theoretical (expected) value resulting from the hypothesis corresponding to the measured value,  $\sigma_i$  – standard deviation,  $i$  – number of measurements.

The null hypothesis assumes that there are no differences in the distributions of the examined variable (the year factor does not significantly affect the answers). The alternative hypothesis assumes that the respondents' answers depend on the time in which they were given (variable year).

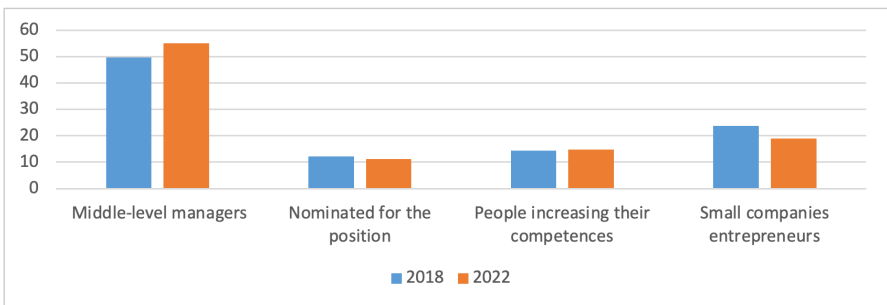
At the significance level, the null hypothesis is rejected if:

$$\chi^2_{\text{count}} > \chi^2_{\alpha,df}$$

where:  $\chi^2_{\alpha,df}$  is the critical value of the chi-square distribution at the significance level  $\alpha$  and  $df = k-p-1$  degrees of freedom where:  $k$  – number of classes taken for calculations,  $p$  – the number of parameters estimated from the sample.

The research sought to implement multiple influences and premises regarding the improvement of competences by people with different involvement in business activities, seniority of being a manager and the size of the economic entity in which the respondents held their positions. Participants were people with diverse professional experience and/or nominated for managerial positions. Due to the different number of respondents at each stage (in a year) of the study, percentage values for individual years were calculated for comparison. The results are presented in Figure 2.

**Figure 2.** *Percentage share of manager groups in individual years*



**Source:** Own elaboration

Similarly to the previous study, seniority was higher in both groups after the pandemic. The same results were obtained when examining seniority by gender (Table 4). Each time it was more after the pandemic.



**Table 4.** *Basic descriptive statistics of the job seniority variable by gender*

year	sex	no.	mean	median	sd	min	max
2018	woman	50	7.31	7.5	5.20	1	20
2022		60	8.19	7.0	4.81	2	19
2018	man	97	6.37	6.0	4.23	1	22
2022		129	8.06	7.0	6.48	1	25

When analysing the research results, the content contained in theoretical materials, especially compact studies containing the results of scientific investigations, was taken into account. Such a strategy of solving the undertaken research problem meant that the scope of the article includes the professionalism of the manager in terms of the theoretical literature on the subject, as well as the premises of the researched managerial staff and their inspirations to make intellectual and educational effort at the same time. The authors point to the need for permanent improvement of managerial features and skills, along with management competencies and their use as determinants of organizational success.

## RAISING COMPETENCES IN THE LIGHT OF RESEARCH

The research was conducted for a diverse group of respondents. The diagnostic survey (surveys and partially categorized interviews) was dominated by middle-level managers. Owners of companies, mainly small and medium-sized enterprises (employing up to 50 employees), were also in the sphere of scientific interest. The study also covered post-graduate students in management. With the deliberate selection of the research sample, we strived to ensure that the respondents represented diverse enterprises, both in terms of their scale and industry, and also had professional experience, which was already included in Figure 2. During the partially categorized interviews, the main focus was on obtaining answers to three basic questions. The first concerned the prerequisites for improving competencies. It is striving to answer the question: why self-improvement or lifelong learning is now indispensable? The next set of questions concerned the issues of what forms of improving or updating competences

are – according to the respondents – the most beneficial, mainly due to the nature of their duties (performed tasks or functions). The third set of questions was related to the respondents' time management in terms of the possibility of self-improvement. A summary of the research results in relation to the checked issues is presented in the table below. The results of research work presented there show many aspects of the issues under consideration. At the same time, they emphasize their volatility over four years.

**Table 5.** *Summary of the Research Results*

Respondents' position on the issue:	Amount in percent/answers	
	research results from 2018	research results from 2022
<b>Certain conditions for the functioning of companies</b>		
the indispensability of knowledge of international issues	41/ <b>61</b>	51/ <b>97</b>
the impact of the international environment on the functioning of the organization	36/ <b>52</b>	26/ <b>49</b>
the positive impact of the Euro on the functioning of the company	23/ <b>34</b>	23/ <b>43</b>
<b>Weekly self-improvement time:</b>		
a. approx. 1 h	30/ <b>44</b>	46/ <b>88</b>
b. up to 3 hours	21/ <b>31</b>	17/ <b>32</b>
c. approx. 8 hours	12/ <b>17</b>	7/ <b>13</b>
d. when dealing with business matters approx. 2 hours	37/ <b>55</b>	30/ <b>56</b>
<b>Inspiration for self-improvement:</b>		
a. statements from other businesspeople	70/ <b>103</b>	67/ <b>126</b>
b. concern about the fate of the company	30/ <b>44</b>	33/ <b>63</b>
<b>Nature of studies:</b>		
a. compact studies	35/ <b>42</b>	46/ <b>87</b>
b. magazines	65/ <b>105</b>	54/ <b>102</b>
<b>The language of professional literature:</b>		
a. Polish	67/ <b>98</b>	46/ <b>87</b>
b. English	33/ <b>49</b>	54/ <b>102</b>
<b>Preferred form of competence development:</b>		
a. formalized education/trainin,	44/ <b>65</b>	64/ <b>121</b>
b. supervisor's participation in training	56/ <b>82</b>	36/ <b>68</b>
<b>Implications of changing the law:</b>		
a. take up too much time	76/ <b>112</b>	48/ <b>91</b>
b. change the established rules of business activity	24/ <b>35</b>	52/ <b>98</b>

**Source:** Own elaboration

As for the legitimacy of managers' knowledge of the fundamental issues of the modern world, these issues were perceived differently over the four years. Probably the aggression of the Russian Federation against Ukraine was the main reason for the increased interest in international issues and their perception in relation to business activity. The vast majority of small business entrepreneurs did not notice the impact of the external environment presented in this way on what takes place in their company. Probably a relatively limited (partial) perception of certain issues of business activity resulted from the fact that these business entities operate in the local dimension, where international issues or internationalization of the conducted activity do not have a significant impact on what takes place in a particular enterprise.

All those interviewed were in favour of following international affairs as an important factor influencing the tasks carried out, and the positions of the interlocutors were divided in half.

The issues of the conducted activity and functioning of enterprises in the future concerned the introduction of the euro in our country. The vast majority of respondents perceived such an event in terms of an unspecified future. This ambiguity about the timing and implications of the new currency was probably the main reason for not taking a clear stance. Behind the scenes, the respondents expressed the belief that many years would pass before the introduction of the euro, and the fact itself would be preceded by a transitional period. This, in turn, will allow entrepreneurs to adapt to the changed operating rules. Respondents began to perceive the positive impact of the Euro on the functioning of the company in the face of the diverse views of the country's political elites. Nevertheless, the results of statistical testing showed that the observed differences are not statistically significant. The test statistic was 4.157,  $p$ -value = 0.125, so there is no reason to reject the null hypothesis.

The next two questions directly concerned issues related to self-improvement. With regard to how many hours, on average per week, respondents devote to self-improvement, there is a noticeable trend to devote more and more time to self-education. Their inspiration for self-education was concern for the condition and fate of the company, striving to be better, to operate more effectively.

The respondents devoted much more time to self-improvement during the week, which could have been facilitated by remote work and hours

spent at home. During the pandemic, the number of business meetings conducted online also increased, which may have resulted in an increase in answers d. A significant part of the respondents, including more than half of the people interviewed, declared that they gain “new knowledge” while settling business cases and at various types of meetings. These people saw the need to improve or constantly update their knowledge, but they usually “excused” the lack of time for this undertaking. The conclusions of the chart confirm the results of the chi-square test. The test statistic  $\chi^2 = 13.52$ , p-value = 0.003, which does not allow for the null hypothesis. Therefore, the year variable significantly affects the answers to question 2.

In the context of the previous question, it is “understandable” to have a varied position on inspiration for self-improvement. In 2018 and 2022, the main impulse was the statements (position) of businessmen. Despite the differences in the number of answers, the percentage share is almost the same, so regardless of the circumstances of the study, the respondents had a similar attitude to what inspires them. This is confirmed by the results of the statistical test, which do not allow to reject the null hypothesis  $\chi^2 = 0.298$ , p-value = 0.585.

The respondents presented the position that the main materials in the process of improving competences (question 4) are compact studies. They dominated among people who occupy lower positions or manage smaller business entities. With regard to substantive issues, representatives of lower management levels were interested primarily in materials dealing with new solutions and new technological possibilities, usually contained in various types of periodicals. The interests of this group of respondents were dominated by issues directly or indirectly aimed at increasing the company’s efficiency. Other issues were of interest to people at higher levels of management and people currently improving their qualifications. This group of respondents dealt with issues related to management, especially the impact on the company’s personnel, as the most valuable capital of any organization. Their interests were aimed at increasing conceptual and interpersonal (social) skills, as well as increasing the level of organization of their work. At the same time, one could sense the expectation that there would be more and more publications allowing for raising qualifications in a selected, often specialist field, which greatly facilitates the consolidation of knowledge acquired during courses and studies.

As for the publication language, Polish was dominant. In 2018, 67% of respondents were in favour of analysing the content of publishers in their native language. The situation changed quite significantly four years later, as 46% of respondents were of the same opinion. Probably this group of people, not knowing any modern language other than Polish, narrowed their circle of interest. A characteristic feature related to this issue is the fact that this group was dominated by people who previously advocated knowledge of international affairs as an indispensable condition for the effectiveness of modern business. The growing interest in English-language items, which may be a derivative of the clear emphasis on international contacts as a specific consequence of the war in Ukraine. The test results show significant differences. The test statistic  $\chi^2 = 13.4$ , the p-value = 0.0002, which indicates the need to reject the null hypothesis.

Probably too much preoccupation with operational matters was the basic premise for taking a position on the preferred form of improving competencies. In this matter, the prevailing position was that these should be organized trainings. In 2018, 44% of respondents were in favour of such a solution. The situation has changed radically in 2022. Respondents after the pandemic put more emphasis on formalized education/training than on participation in educational projects of their superior. This may be due to the reduction of such training in 2018 due to the epidemic threat situation. Statistically significant differences are confirmed by the results of the chi-square test. Test statistic  $\chi^2 = 12.33$ , p-value = 0.0004.

During the interviews, the respondents believed that various forms are the most effective and allow for influence (“steering”) on the strategy of acquiring new knowledge. This position corresponds with the results of other studies, which show that the most popular and affordable method of improving qualifications are several days of training for employees.

The functioning of companies in a dynamic environment was one of the premises to raise the issue contained in question 7 regarding the implications of changes in the law. Before the pandemic, more than two-thirds of respondents (76%) held the view that quite frequent modifications to the law and formal and legal conditions for the functioning of companies consume too much time. Thus, they change the established rules of business

activity. Respondents in 2022 still expressed their critical stance towards frequent changes in certain provisions of the law (48%). Mainly representatives of small companies opted for not introducing new rules of running a business or affecting it too often. They expressed the opinion that too high frequency of such events absorbs such entrepreneurs too much from matters essential for them, and moreover, in many cases they have to use the help or advice of specialists from outside the parent company, which has an impact on financial issues. Respondents definitely changed their approach to changes in the law, pointing to their necessity. Significant differences are confirmed by the calculated chi-square test statistic  $\chi^2 = 26.03$ , p-value =  $3.363 \cdot 10^{07}$ .

## CONCLUSIONS

In recent years, there have been significant changes in the way of fulfilling professional functions, including managerial ones. The level of competencies necessary for effective operation is constantly increasing, which makes the “once and for all” vocational training model an anachronism.

The research was conducted using statistical testing. The obtained results show the complexity of the analysed phenomenon. On the one hand, managers were in favour of the need, even necessity, to improve competencies. Measurable action has not always gone with this position. The forms of improving competencies are dominated by solutions aimed at the participation of managers in training projects, during which the transfer of knowledge dominates. Little involvement of small business entrepreneurs in improving their competencies results primarily from their preoccupation with operational matters. Thus, they forget that if they want to continue to function on the market, it is essential to pay more attention to the issues related to updating their knowledge.

Professional studies, addressed to a fairly wide audience, are not always appreciated by managers, whose interest is often relatively narrow. They expect the development of training materials addressed to particular levels of management or industries. However, meeting this expectation may lead to the acquisition of knowledge within a very narrow framework.

The respondents emphasized that self-improvement is the most mature, subjective participation of an individual in becoming what he perceives as desirable. Self-education is, on the one hand, an educational process, and on the other, a lifestyle of active learning about the world and oneself. The main factor and at the same time a condition for self-education is educational activity resulting from the independence of planning and undertaking educational activities for oneself and the social environment, in all spheres of personal and social life. These issues, resulting from the conducted research, are an important clue for management practice, mainly in terms of their impact on people in managerial positions. In the context of the obtained results, it is reasonable to continue the research, mainly in terms of whether the increase in managerial competences affects the effectiveness of the functioning of companies, and if so, to what extent?

#### **CONFLICT OF INTEREST**

The authors of the article declare that there is no conflict of interest between them.

#### **CONTRIBUTION OF THE AUTHOR(S).**

The authors contributed to the study, interpretation of results and writing of the article. The authors read and approved the final manuscript.

#### **ETHICS**

The obtained test results comply with all national and international ethical requirements.

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