



Changes to the Management Control Function Due to The Impact of the Covid-19 Pandemic

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Abstract

Since the division of management into individual functions, controlling has – despite some turbulences – been an integral part of management theory. The Covid-19 pandemic broke out in the first half of 2020 and hit the work of perhaps every manager hard. Managers had to adapt their functions, including controlling, because the crisis threatened not only the existence of the organisation but also the lives of its members. Crises also bring opportunities for the wise, and the changes they bring can become permanent. However, a literature review of academic papers revealed that this opportunity was rarely taken and that the authors paid little attention to changes in controlling. Based on a questionnaire survey of 425 organizations operating in the Slovakia (conducted in the spring of 2022), this paper presents case studies of 17 companies on how the controlling function has changed for a number of their managers due to the pandemic. The sample consisted of those companies from which more than one manager responded. Compared to the overall sample, the case study companies did not report a single significant change in function, but the proportion of larger changes was almost double that of all businesses analysed. Although in many cases managers have made changes to control and will retain these changes, the results suggest that this management function has seen only minor, or no changes and the crisis of the Covid-19 pandemic did not turn into an opportunity to optimize it.

Keywords: control; Covid-19; changes; managerial work; crisis management

1. Introduction

From the earliest days of humankind, management has been one of the key activities of the human race. Although the term was not used, man as a social creature needed to associate in smaller or larger groups in order to achieve his goals. From very simple goals to seemingly unattainable ones that needed a variety of different resources. The larger the groups were, the more complicated their organisation became, and the more difficult it was to manage them.

The problem with this management has been that it has not been systematically studied for a long time, and despite its centrality, science has been devoted to other areas, on which, in turn, management has had a major impact. While the early literature on management was written by

practising managers describing their experiences and attempting to relate the basic principles, more recent literature has come from scientists and researchers.

One of the practising managers was Henri Fayol, a Frenchman who, thanks to his approach to managing organisations, managed to influence management teaching in particular up to the present day. While his competitor in the US (Frederick Winslow Taylor) was primarily concerned with management at the shop floor level, Fayol explored directly the heart of management – the top management of the organization. He wrote up his successes in business in his book in French, but it took until the middle of the last century for his theory to make a major breakthrough and become globally dominant. One of the most important principles was the division of management into multiple functions.

Among the first management functions proposed by Fayol was controlling, which will be discussed in this paper. We define it as an ongoing process of designing standards, measuring performance, comparing actual performance against the standard, and taking corrective action to ensure the efficient and effective conduct of activities in the organization. Controlling has had an interesting history, with the first traces appearing as early as five millennia BC (the keeping of charity records by Sumerian monks). In modern history, the function of controlling has been first praised (Classical Management) but also condemned (Behavioural Approach). Currently, it has the problem that its term is also used in some cases to describe a management support tool (the German term Controlling).

More than seven decades since Fayol's theory broke through (by translation into English), nothing has changed the status of this sequentially taken function of management, which follows planning, organizing, (in some theories staffing) and leading. Despite its centrality, management scholars have not been keen to examine controlling.

Of course, management and its individual functions must respond to all major crises, whether it is at the level of a part of the organization, the organization as a whole, a region, a country, a continent, or the entire world. In the first half of 2020, the Covid-19 (COroNaVirus Disease 2019) pandemic caused by the SARS-CoV-2 virus (Severe Acute Respiratory Syndrome COroNaVirus 2) became a global crisis. In the traditions of Fayolism, we consider management to be universal. Of course, governments had to react to the new virus. Organizations were forced to follow the guidelines and regulations of governments. Either through legal regulations or social pressure (Parker, 2020). Also, thanks to this, there have been significant changes in the environment. For example, demand in healthcare has increased significantly, while demand in restaurants, air transport or tourism has decreased significantly (Kraus et al, 2020). In Poland, industries that meet basic needs saw the smallest declines in revenues, in contrast to less necessary needs, where organizations saw significant declines in revenues (Kubiczek & Derej, 2021). In many cases, the result was significant reductions in income, budget deficits, challenges in the field of human resources, increased stress among organizational members, or even burnout syndromes. As Aguinis and Burgi-Tian (2021) state, these challenges already existed, but the pandemic intensified them.

Despite its relatively short history of scientific investigation, general management has offered a huge assortment of potential options for dealing with the economic crisis caused by the outbreak of the pandemic (Veselovská & Hudáková, 2023). One of the most visible changes was the transition to work-from-home. However, the results were different. Sarwar et al. (2022) point out that research offers evidence of increasing cases of family-work conflicts, increased employee stress or decreased job satisfaction. As Kusumasari, Munajat, & Fauzi (2023) showed, good indicators of good governance during the Covid-19 pandemic were voice and accountability, political stability and absence of violence/terrorism, government effectiveness, regulatory quality, rule of law, and control of corruption.

Controlling and control systems signalled problems for the best companies and organizations already at the turn of 2019 and 2020, when the first cases of a mysterious respiratory disease began to appear in China. The given period could have been crucial for preparing for the crisis, which the World Health Organization first designated on January 30, 2020, as a Public Health Emergency of International Concern and on March 11, 2020, as a pandemic.

2. Theoretical Background

The theory of controlling is relatively well described and established, as evidenced by a plethora of student management textbooks, which do not differ significantly in their content in the chapter on controlling. Among the minor differences, we can mention, for example, that exceptionally the control process does not have four but only three phases, when the creation of standards is considered part of planning (Robbins et al., 2017). In our earlier publications, we also highlight the differences in theory between traditional democracies and countries that have had or have authoritarian regimes, where the latter have a more sophisticated theory of bureaucratic/mechanistic/hierarchical control (Mišún, 2017), and significantly divide, according to the origin of the controlling entity, control into internal and external control.

As mentioned, the relatively lower interest on the part of the scientific community also hinders the progress of controlling. It is not good that the research is left to the scholars in the field of management accounting, because the control function is extremely important for every single manager. The next text in the theoretical background will be devoted to the changes that the authors discovered in the function or its individual components.

In September 2023, we conducted a literature search through the Web of Science in order to find out changes in the management function of controlling. The results for the function itself were very modest, so we conducted further searches with the individual steps of the control process: creating standards, measuring performance, comparing standards with performance, and corrective actions. As we have already mentioned, we consider management to be universal, which means that in addition to the business sector, in our opinion, management is also carried out in public administration or the third sector.

Paradoxically, the closest to our topic is an article by another Slovak authors – Veselovská and Hudáková (2023), which attempted to analyse how the Covid-19 pandemic influenced changes in management, namely on economic managers. They mainly concentrated on the time spent by the different management functions. The authors found that the managers surveyed increased the time devoted to planning and organizing, significantly reduced the time devoted to leading (from three to 1.5 hours), but also reduced the time devoted to controlling (from two to 1.5 hours) by one-quarter. The time devoted to controlling has declined the least for managers in micro- and small enterprises. Of the sub-tasks in controlling, measuring the effectiveness of work activities and performance has increased in importance. Controlling of activities in the company showed relatively no change. (Veselovská & Hudáková, 2023).

Passetti et al. (2021), among others, investigated in the first lockdown period which control mechanisms were used – whether mechanistic or organic. They found that ultimately both were utilized without a single characteristic to describe an organizational approach to control. According to the authors, managerial control allowed to cope with the unfolding of the crisis and to pre-emptively design a more resilient organization for the future (Passetti et al., 2021). Although the paper by Szarowská (2021) is primarily concerned with financial management, we can conclude that it describes very well the management of the Moravian-Silesian regions of the Czech Republic, as it contains the steps of the control process, including the corrective measures.

Digitalization was of course a big topic in the case of the Covid-19 pandemic, as it was probably the most significant response to the crisis (Schaupp, 2022), and it is therefore very good that a large literature review has been published on the impact of digitization on management control (Fähndrich, 2022). However, it has again drawn attention to a fact that appears in the conceptual apparatus. Namely, in Germany, the term controlling is only partially used in the same sense as in the Anglo-American literature and the management accountant (controller) is heavily involved in its performance, or controlling is completely performed by the controller (Mišún, & Mišúnová Hudáková, 2018). This problem has also appeared in a paper of Bieńkowska & Tworek (2022, p. 3), which aimed "to determine what is the mechanism of controlling support of management for organizations operating under conditions caused by COVID-19."

According to Gyurák Babel'ová et al. (2022), the ability to control the performance of employees was limited due to societal measures. This was one of the reasons why the implementation of Industry 4.0 elements in the management of the organization was accelerated. According to the results of the authors' research, employees in various job positions perceive that Industry 4.0 positively influenced the performance of the organization during the pandemic. Aguinis and Burgi-Tian (2021) point out that, overall, the value of performance evaluation was questioned at the time of the pandemic, with many companies choosing to downgrade, defer, or even abandon it altogether. As Silva and Rosa (2022) note, the literature provides a consensus that managers find the home office challenging as they are unable to monitor employees' actions in relation to the tasks they perform. Their research found that output control and autonomous motivation are significant in explaining task performance, but there is no direct effect of controlled motivation on task performance.

Takemura et al. (2022) report two basic management approaches implemented by hospital executives, namely a) they declared an emergency and held a multidisciplinary decision-making meeting based on information gathered from various departments, and b) they clearly declared a policy to protect all employees' safety and made decisions according to that policy. At industry level, for example, all airlines faced a similar set of challenges, but the scale and mix of measures during the acute phase of the crisis differed significantly and were neither country of origin nor business model specific. The most common responses of airline operators and their parent companies were changes to flight operations, rationalising the fleet, reducing staff numbers, and reconfiguring networks and capacity (Budd, Ison & Adrienne, 2020).

Sarwaret et al. (2022) examined more closely the reasons for impaired work performance during a pandemic and found that the reason contamination fears impair staff performance is the significant depletion of their emotional resources due to the threat to their own well-being and that of their loved ones. The authors also made an interesting finding in relation to corrective actions, stating that the relationship of performance and fear through emotional exhaustion depended on the extent of the organization's measures to protect against Covid-19.

Regarding external audit (from a systems management theory perspective), Gong et al. (2022) found that travel restrictions or stay-at-home orders led to lower audit quality (as measured by restatements and discretionary accruals) in the acute phase of the crisis, and this decline in audit quality was driven by non-Big Four auditors and can be attributed to firms with high inventories relative to assets or high R&D expenditures relative to assets. Like Drew (2020) or McCabe (2020), they expect that the likelihood of auditors using remote work in the future is high. On the opposite side, Elmarzouky, Albitar and Hussainey (2021), based on automated textual analysis, found a significant positive relationship between Covid-19 disclosure and corporate performance disclosure in annual reports, with both board independence and gender diversity moderating the relationship between Covid-19-related information and the level of performance disclosure in annual reports.

As the economy gradually adapts to the new conditions, we can expect to see many of the changes brought about by the pandemic to continue. For example, the platform economy business model has a technological basis of algorithmic work control, which enables the spatial and organisational decoupling of workers from the organisation. As Schaupp (2022) notes, this remote control can be referred to as 'delocalization'.

3. Methods and Aims

The results of this study come from a questionnaire survey that was conducted between 25 April and 15 May 2022 to identify changes in management functions triggered by the Covid-19 pandemic. The database Finstat.sk was used to find suitable companies and currently contains mainly financial information on more than 360 thousand business entities operating in the Slovak Republic. Almost 2500 businesses were contacted, and we received 532 responses over the period. Consequently, those questionnaires were excluded which were not filled in by managers but by rank-and-file employees (e.g. the managers delegated this task to them) or did not have sufficient data. In total, we retained responses from 425 enterprises from different sectors of the economy for further processing.

For each management function (planning, organizing, staffing, leading and controlling), respondents first selected no/smaller/larger/significant change on a scale (values from 1 to 4), then used a qualitative response to describe the change, and again indicated the likelihood of keeping the change on a scale (definitely won't keep/probably won't keep/probably will keep/definitely will keep; values from 1 to 4). The midpoints were deliberately omitted so that respondents would have to lean to one side of the scale or the other and, given that these were some of the last questions in the larger questionnaire, did not fall prey to midpoint response bias.

For some enterprises, we had multiple managers from various parts of the organization complete the questionnaires. There was a total of 55 such questionnaires from 17 different enterprises, which, combined with their available economic results, creates an opportunity for us to treat them as case studies.

Thus, the aim of this paper is to use a deeper analysis of 17 different enterprises to identify changes in the management control function due to the impact of the Covid-19 pandemic. Therefore, the research question should be whether the management control function changed during the Covid-19 pandemic, and if so, how specifically? In addition, we compare the firm-specific results from the case studies with the overall sample of surveyed firms based on descriptive statistics.

4. Results and Discussion

As mentioned earlier, this paper is concerned with changes in the management function of controlling and the results come from a larger questionnaire survey on changes in management due to the impact of the Covid-19 pandemic. We use 55 qualitative questionnaire survey responses from multiple respondents from seventeen different companies to illustrate the changes. We refer to these companies as Company A through Company Q (in order of the time in which the responses were received) under the promise of anonymity and, due to their relatively high specificity, we will not report the job titles of the respondents. We will describe the results by the sectors from which the various companies and their respondents come, starting with those from which we got the most responses.

As many as three companies (B, C, L) out of 17 operate in the food retail sector. All three are among the largest in the sector, are large enterprises in terms of number of employees and are

based in the capital city (Bratislava). The sector did not have to close during the lockdown periods, although it had to comply with strict anti-pandemic measures. This was also reflected in the economic results, where there was some turbulence, but C and L also grew on these indicators thanks to their expansion strategy. It was the minor impact of the pandemic on both operations and economic performance that may have resulted in as many as 7 out of 10 respondents indicating that no changes were needed in their control function. However, there was one respondent in each company that had seen changes. Thus, a finance-focused manager (B) reported a simplification of controls due to online processes. The team coordinator (C) in turn mentioned the beginning of the use of Key Performance Indicators, and the branch manager (L) started to delegate more, to control much more, and this included the ongoing execution of tasks. All these three managers will definitely keep the changes given.

The next two companies (J and Q) are involved in clothing retailing, are large businesses and are based in the capital city. Nine respondents described the changes they have seen. This sector had already been more severely affected as they did not sell daily necessities and lockdowns had affected them more severely. Those companies that had not been able to move to an online business with eventual personal collection in stores were struggling to survive. However, this was not the case for our two analysed companies, which either expanded or absorbed their sister companies, thereby increasing their revenues. The combination of these facts probably caused 5 out of 9 responses to be that there were no changes. However, two respondents each noted changes. J's managers noted an increase in the amount of reporting to senior managers and the retention of online communication, as well as necessary improvements in coordination and consideration for the speed or efficiency of task execution. In both cases, managers expect to probably keep the changes. Q's managers, in turn, reported regular controls for pandemic compliance or more time to control due to low staffing levels. In the first case they are probably, in the second they definitely will not keep the change.

Companies I and M could be classified in the automotive industry, although one company (I) sells premium cars and the other (M) manufactures car parts. Indeed, both are linked by their dependence on the very car companies that had their global supply chains disrupted during the pandemic. The dealer is a large company (4 respondents), the parts manufacturer a medium-sized one (2). Their economic results have been more severely affected by the crisis, with sales not yet reaching pre-pandemic figures. Respondents' answers ranged on the scale from none to larger changes, with manufacturer managers tending towards the lower end. Three times no changes appeared in the explanations, twice of which were at the manufacturer. For the dealer, for example, we discovered "setup based on regularity and evaluation" (definitely will keep) or "operative" (definitely will not keep). The most senior manager mentioned more control due to remote working (probably will not keep).

The next two enterprises could be classified in the financial sector, as one (E, 3 respondents) is an important player in the insurance and brokerage market and the other one of the largest banks (P, 2). One is a medium-sized, the other a large enterprise. After the initial turbulence, the sector has been able to transition to an online environment, which can be seen in the companies' economic results. There were no, smaller, and larger changes on the scale, with three times managers giving reasons for this (e.g., "Nothing changed, just used the online spaces more."). One respondent from each company was more talkative. For the broker, the respondent said that he or she supervises new people more to make sure they do the right things (probably will keep the change), and for the bank, the respondent pointed out the need for more autonomy for subordinates, but also increased supervision of them when they fail to perform their tasks (definitely won't keep).

Companies F and K operate in a completely different sector (production of household chemicals and reinsurance), but their common feature is that they operate shared service centres in Slovakia. This is why they are both classified as large enterprises and their core business could be moved to online premises. Again, none, smaller or larger changes appeared on the scale, with the reinsurer tending towards smaller. From both companies we again have two more elaborate justifications. For the manufacturer, the larger change was more regularity of controls and for the reinsurer, more frequent liaison with colleagues for the same purpose. Both are likely to keep the change.

The last two enterprises that can be combined into one category are characterized by their status as critical infrastructure of Slovakia, as one is a producer of electricity (H, 3 respondents) and the other of petrochemical products (O, 2). Both are large enterprises, and their economic results were not so much affected by the pandemic as by the subsequent turmoil and war in Ukraine. Once there was “no change,” however, which the respondent negated with a rationale (“Feedback in the execution of the set production plan.”). Smaller changes were in the form of feedback from subordinates (definitely will not keep), lack of direct contact (probably will not keep), and follow-up on adherence to measures (definitely will keep). Larger change (O) concerned the use of multiple types of control processes by a project manager and will definitely be kept.

The other four businesses are too unique to be placed in one of the previous categories, so we describe them separately in order of the largest number of respondents. Company N is active in the rental and leasing of equipment mainly for the construction sector, belongs to medium-sized enterprises and is based in the capital city. During the pandemic, it experienced a drop in sales in the first year, with gradual growth leading up to above pre-pandemic levels. Profit has not yet reached this level. Five managers responded to our questions, with only one finance manager indicating no changes. For small changes, we discovered our problem with the conceptual apparatus (“Controlling is done on a monthly basis at most, sometimes weekly.” – will definitely keep the change), less frequent face-to-face controls (definitely will not keep), or more frequent online communication (probably will not keep). A single larger change (fewer business trips) will definitely not be kept by the highest ranked respondent.

The medium-sized company A was established (as a successor of another company) during the pandemic in the last quarter of 2020. As it is engaged in transport and freight forwarding, the pandemic had a rather positive impact on its economic results (profits grew by over 100 per cent and revenues by almost a fifth). Four respondents reported twice smaller and twice larger changes. Smaller related to greater confidence and measuring work outcomes through measurable performance indicators. The manager liked this change because he was sure he would definitely keep it for the sake of objectivity. More electronic control and statistical reporting will not probably be kept by the second most senior manager (finance) in the sample. Larger changes involved more control, which the most senior manager will probably not keep. The lack of personal interaction on important projects was the second larger change and probably won't be kept.

Company D is one of the largest fast food restaurant chains, operating based on its own restaurants and franchises. The restaurant sector, like the travel industry, was hit hard by the pandemic. The business we analysed experienced a slight decline in sales and has not yet managed to return to pre-pandemic levels. However, profit showed a slight decline in 2020 and then an increase, indicating optimization on the cost side. Despite the large hit, four respondents reported no change up to three times and only one a smaller change. As justifications, respondents (all under 30 years of age and with a high school education) cited already lofty standards set by the company, or one that he did not know the answer to this question. Smaller

change was justified by saying that other branches have seen changes, and the respondent expects the changes are probably to be kept.

Last analysed company (G) is a medium-sized wholesaler of industrial, heating, or cooling systems. Although it is to some extent dependent on the construction industry and investment in building renovation, it has overcome the pandemic without major problems. Thanks to the energy crisis triggered by Russia's invasion in Ukraine, the economic results even rose significantly in 2022. Two respondents mentioned only no and smaller changes, the first answer again revealed a problem in the conceptual apparatus ("No changes, the controlling was and is set up correctly."), since it was a company originally from Germany and it was a top manager. The second manager described the smaller change as "less control because results are visible, trust is more important" and assumed that the change would be kept.

5. Conclusion

In our paper, we have described possible changes in the control function as the last sequential management function. It is safe to say that the global crisis in the form of the Covid-19 pandemic has further confirmed that the scientific community's interest in this (as yet still unheralded) management function continues to be insufficient. The results of a literature search of the most important global scientific database show only modest results, either as part of a broader research effort or as a secondary outcome of research that is primarily focused on something else. Research is thus often rescued by specialists in management accounting, which often provides key decision support for managers. Practice adapts to this and, as we see in our results, two respondents understand controlling in a rather German sense. If the little research in the area continues, the question is whether management students should continue to be taught that the manager needs to control, or whether it is more appropriate to teach that the manager should delegate control to the controller and only interpret the controller's decisions to the members of the organisation.

Of course, based on the 17 companies from which we had 55 different responses; it is exceedingly difficult to draw larger general conclusions. But certainly, an interesting finding was that there was not a single significant change in any of the responses on the change in controlling scale. By comparison, in the total sample of 425 enterprises surveyed, a significant change occurred in 10 cases (2.35%). The proportion of larger changes was 23.64% for the case studies vs. 11.75% for all enterprises. Statistical comparison of the values tells us an average of 1.8, median of 2 and mode of 1 for the case studies versus an average of 1.6, median and mode of 1 for all companies studied (no=1, smaller=2, larger=3, significant changes=4).

We can see from the partial results that many managers have become aware of the changes in control that they have had to make, and in some cases these changes have worked well and will be retained. In the case of our case studies, we would particularly highlight those that have appealed to the most senior managers. This is because they have the power to expect these changes from the lower managers and so can change the control system in the company. The retention of multiple questionnaires from the same company proved to be an appropriate test of accuracy.

Compared to previous studies, we cannot confirm that the time devoted to the controlling function (case studies or the whole sample) decreased in our sample, as was the case in the study by Veselovská & Hudáková (2023). The difference may be due to the different sample, as the authors focused on economic managers, and we focused on any managers with subordinate employees. From the qualitative responses, we can confirm the findings of Passetti et al. (2021) that, despite the great tradition of mechanistic control in Slovakia, it cannot be

identified as the dominant response even in the first lockdown period. We also lean towards the conclusions from Schaupp (2022) that digitization was the most significant response to this crisis. Related to this is the reduction in employee performance monitoring, which also appeared in our results, like Gyurák Babel et al. (2022), and there was evidence of delaying performance evaluation or less performance monitoring, as suggested by Aguinis and Burgi-Tian (2021). Like Silva and Rosa (2022), the managers analysed by us find it challenging to control employees' activities when they work in home office mode.

As our case studies show, the pandemic affected different industries and sectors differently. Some had to remain operational as they were critical infrastructure, some had only minor restrictions as they provided daily needs for the population, some were able to transition smoothly to an online environment, and some felt the brunt of the limitations due to the pandemic. These results are consistent with studies by Takemura et al. (2022) or Budd, Ison and Adrienne (2020). As could be seen in our examples, industries dealt with the situation differently, and often missed opportunities.

Overall, we must conclude that the results of our research suggest that the management function of control has seen only smaller or no changes. It reached a median of 2 (i.e., small changes) for the case study sample and even a median of 1 (no changes) for the total sample. Thus, it should be concluded that, at least according to the statements of the managers we studied in the Slovak Republic, the crisis of the Covid-19 pandemic did not turn into an opportunity to optimize one of the functions of management. What gives us little hope are the results of the extent to which managers will retain the changes in function introduced because of the pandemic. The case studies have a median response of 2, i.e., probably won't keep, but the overall sample changed to probably will keep with a median of 3.

Of course, this paper also has its limitations. One of them is the case study approach used, which shows some limitations and may not be sufficient with two questionnaires in one enterprise. In the case of a literature search on the change management controlling function, a perfect search would require a very partial keyword search for sources, as the function contains many tools, methods, or procedures. Partial results could thus form a comprehensive picture of the changes.

Future research has subsequently already been carried out. The qualitative responses in the form of justifications were statistically processed, narrowed down to just a few categories, and those queried in the next questionnaire research, which was conducted in the spring of 2023, approximately one year after the survey described above. Overall, however, the issue of controlling and other management functions in companies in the post-pandemic period offers many opportunities. One of the problems, however, is that one crisis has smoothly turned into another crisis (the war situation in Ukraine), which has caused other crises, and Slovakia as a neighbouring country is now in its third year in a state of multi-crisis.

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References

- Aguinis, H., & Burgi-Tian, J. (2021). Talent management challenges during COVID-19 and beyond: Performance management to the rescue. *BRQ Business Research Quarterly*, 24(3), 233–240. <https://doi.org/10.1177/23409444211009528>
- Bieńkowska, A., & Tworek, K. (2022). Controlling and Its Influence on Organizations' Functioning under Conditions Caused by the COVID-19 Pandemic. *Sustainability*, 14(24), 16644. <https://doi.org/10.3390/su142416644>
- Budd, L., Ison, S., & Adrienne, N. (2020). European airline response to the COVID-19 pandemic – Contraction, consolidation and future considerations for airline business and management. *Research in Transportation Business & Management*, 37, 100578. <https://doi.org/10.1016/j.rtbm.2020.100578>
- Elmarzouky, M., Albitar, K., & Hussainey, K. (2021). Covid-19 and performance disclosure: does governance matter? *International Journal of Accounting & Information Management*, 29(5), 776–792. <https://doi.org/10.1108/ijaim-04-2021-0086>
- Fähndrich, J. (2022). A literature review on the impact of digitalisation on management control. *Journal of Management Control*, 34(1), 9–65. <https://doi.org/10.1007/s00187-022-00349-4>
- Gong, S., Ho, N., Jin, J. Y., & Kanagaretnam, K. (2022). Audit quality and COVID-19 restrictions. *Managerial Auditing Journal*, 37(8), 1017–1037. <https://doi.org/10.1108/maj-11-2021-3383>
- Gyurák Babel'ová, Z., Vraňaková, N., & Stareček, A. (2022). Moderating Effect of Industry 4.0 on the Performance of Enterprises in the Constrains Related to COVID-19 in the Perception of Employees in Slovakia. *Administrative Sciences*, 12(4), 183. <https://doi.org/10.3390/admsci12040183>
- Kraus, S., Clauss, T., Breier, M., Gast, J., Zardini, A., & Tiberius, V. (2020). The economics of COVID-19: initial empirical evidence on how family firms in five European countries cope with the corona crisis. *International Journal of Entrepreneurial Behavior & Research*, 26(5), 1067–1092. <https://doi.org/10.1108/ijeb-04-2020-0214>
- Kubiczek, J., & Derej, W. (2021). Financial Performance of Businesses in the Covid-19 Pandemic Conditions – Comparative Study. *Polish Journal of Management Studies*, 24(1), 183–201. <https://doi.org/10.17512/pjms.2021.24.1.11>
- Kusumasari, B., Munajat, M. E., & Fauzi, F. Z. (2022). Measuring global pandemic governance: how countries respond to COVID-19. *Journal of Management and Governance*, 27(2), 603–629. <https://doi.org/10.1007/s10997-022-09647-4>
- Mišún, J. (2017). Changing Views on Organizational Control in the Countries of the Eastern Bloc. In R. Seweryn & T. Rojek, Knowledge – Economy – Society. Selected Problems of Dynamically Developing Areas of Economy (pp. 49-63). Cracow: Foundation of the Cracow University of Economics.
- Mišún, J., & Mišúnová Hudáková, I. (2018). Two Controlling Terms: Half a Century of Quiet Coexistence. *Proceedings of the 8th Business & Management Conference, Venice, Italy, 04 - 07 September 2018*, 158-184.
- Parker, L. D. (2020). The COVID-19 office in transition: cost, efficiency and the social responsibility business case. *Accounting, Auditing & Accountability Journal*, 33(8), 1943–1967. <https://doi.org/10.1108/aaaj-06-2020-4609>

- Passetti, E. E., Battaglia, M., Bianchi, L., & Annesi, N. (2021). Coping with the COVID-19 pandemic: the technical, moral and facilitating role of management control. *Accounting, Auditing & Accountability Journal*, 34(6), 1430–1444. <https://doi.org/10.1108/aaaj-08-2020-4839>
- Robbins, S. P., Coulter, M. K., & DeCenzo, D. A. (2017). *Fundamentals of Management* (10th ed.). Pearson.
- Sarwar, A., Abdullah, M. I., Imran, M. K., & Fatima, T. (2022). When fear about health hurts performance: COVID-19 and its impact on employee's work. *Review of Managerial Science*, 17(2), 513–537. <https://doi.org/10.1007/s11846-022-00536-6>
- Schaupp, S. (2022). COVID-19, economic crises and digitalisation: How algorithmic management became an alternative to automation. *New Technology, Work and Employment*, 38(2), 311–329. <https://doi.org/10.1111/ntwe.12246>
- Silva, C. A. da, & Rosa, F. S. da. (2022). Control and motivation in task performance of public servants at home office in the face of the COVID-19 pandemic. *Revista de Gestão*, 30(3), 267–281. <https://doi.org/10.1108/rege-06-2021-0093>
- Szarowská, I. (2021). Effect of the COVID-19 Pandemic on the Management of Czech Regions: The Case of the Moravian-Silesian Region. *Scientific Papers of the University of Pardubice, Series D: Faculty of Economics and Administration*, 29(1). <https://doi.org/10.46585/sp29011244>
- Takemura, Y., Inoue, M., Ichikawa, N., Kida, R., Koyanagi, H., Ikezaki, S., & Ikeda, M. (2022). Key strategies for managing nursing care under the COVID-19 pandemic: A multiple-case study of nursing directors. *Journal of Nursing Management*, 30(8), 4042–4053. <https://doi.org/10.1111/jonm.13844>
- Veselovská, L., & Hudáková, L. (2023). How the COVID-19 Pandemic Changed the Work of Managers: Case Study of Economic Managers. *Administrative Sciences*, 13(5), 130. <https://doi.org/10.3390/admsci13050130>