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Quality Management Systems in selected Public Organizations

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This paper aims to map the situation regarding the risks and implemented tools, increasing the quality of public administration. In March-May 2020, research focused on qualitative methods in public administration was carried out. The research aimed to obtain data for further support of quality management in public administration. The primary target group for the support of quality management in public administration is individual authorities (administrative authorities, authorities of self-governing territorial units), which will support their customers' satisfaction (citizens, entrepreneurs, public administration).

1. Introduction

The overall development of public administration and its management is an important topic that affects many areas in practice and research. Increasingly, managerial approaches are applied, which have their origin in the business sphere. In today's world of change and progress, it is necessary to look for new ways to improve its services continually, both the public and private sectors, to all its customers - citizens, municipalities, organizations, and companies. This improvement process is not a one-time activity, but it is a long-term process, which is also financially demanding. Therefore, it is necessary to coordinate the modernization of the central state administration effectively, and it is necessary to ensure that the modernization of the central state administration system is professionally and organizationally ensured in the future. The private sector situation is all the simpler because there is at least one essential measure of business success: the rate of profit achieved. There is only one left for public administration organizations, regions, cities, and municipalities. To work diligently on each other and reach a certain level of quality and compare this level and compare it with the performance of other state bodies. Sustainable public service can then be argued to mean a service that is harvested over a long period and offers the capacity to delight. Therefore, to measure public service quality requires a determination of the extent to which customers and or users of public service are satisfied. Customer satisfaction has globally become a strategic initiative for organizations to achieve their objectives. Customer satisfaction is primarily measured to assess how well an organization meets the needs of its customers and what should be done better. (Pizam et al., 2016); (Makanyeza & Chikazhe, 2017) They further argued that providing high-quality customer care, including constant communication and good employee conduct have the potential to keep a customer satisfied. (Jaiyeoba, et al., 2018) It can be concluded that with regard to public service, customer satisfaction is concerned with level of service delivery expectations before receiving service and perceptions after getting the service. It could be argued therefore that in public service, customers would be satisfied when they are happy with the service they receive without experiencing delays or any difficulty. (Mosimanegape et al., 2020) Customer satisfaction may further be viewed as a psychological attainment derived from product or service use; or a mental state whereby the customer undertakes a comparison of a product or service before and after a purchase. (Paul et. al., 2016)

The aim is for this level to be the same and uniform for all organizations. Quality in public administration is connected mainly with organizations' effort to do the right things correctly (the concept of Good Governance), i.e., in a quality, efficient, and timely manner. State administration is the backbone of the modern state.

Quality management is an essential strategic factor of success in the public sector. Executives of local politics and government recognise the importance of customer focus and therefore continue to implement quality management systems. Customer focus and quality management are critical factors in optimising demand,

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supply and costs throughout the public sector. (Kobylinska, 2016) An efficient central state administration system is a prerequisite for the sufficient work of modern central administrative offices, and such offices serve citizens and the government better. Most public and third sector organisations – both within and beyond Europe – are struggling with two major problems: improving outcomes for service users and other key stakeholders without increasing overall cost; and developing measures of performance that help them improve and assure quality without motivating staff achieve arbitrary targets at the expense of poor service to the public. (Moullin, 2017)

Modern management methods and quality measurement tools have been used successfully in private and public sector entities for several decades. These methods are based on the concepts of New Public Management and Good Governance, Benchmarking (BMK), Local Agenda 21 (MA 21) and the Common Assessment Framework (CAF) and used to effectively manage and improve public communication and also to increase transparency in public administrative activities. (Stojanová & Lhotský, 2017)

The CAF model is a relatively widespread tool contributing to increasing the efficiency and quality of state administration. The CAF model helps organizations of public administration in EU countries to understand and use quality management techniques and diagnose the condition of the management system. It may prove be the right tool to be used by managers in the office with ISO 9001 in the review of governance, enabling the organization to gain a strong base to begin the process of continuous improvement of the quality management system. (Kobylinska, 2016) Organization, taking into account its own potential and needs, decides on the ways of implementation of these self-assessment criteria (e.g. how many procedures it will develop, how often management review will be conducted). (Borys & Rogala, 2007) The CAF is used only in EU countries. The CAF model is one of the tools where, with minimal financial demands, the first step can be taken to increase public administration quality in the form of self-assessment of the organization. The percentage of CAF implementation in the administrations of the EU, however, does not exceed 35%. (Kobylinska, 2016)

In recent years, the so-called benchmarking method has come to the fore as a practical tool for increasing the performance of organizations of the entire public sector and also as a tool enabling public administration organizations to reach a comparable level from an international point of view. The method represents a systematic comparison of processes and performance based on best practice, the already mentioned awareness of one's weaknesses, and the ability to learn from others and share the knowledge gained with them. Therefore, the essential prerequisite for the application of benchmarking is a thorough understanding of the organization itself, its processes, and the nature of potential problems.

Benchmarking is the process of comparing one's business processes and performance metrics to industry best practices. Dimensions typically measured are quality, time, and cost, but most of the cases, a large number of financial and nonfinancial indicators are involved. (Fratila et al., 2012).

Another useful tool to promote quality in public administration is Local Agenda 21. Local Agenda 21 is based on a UN international document called Agenda 21. Local public administration has a crucial role to play in the process of moving towards sustainable development. Good governance must be (from the UN and EU point of view) open, transparent, and accountable to the public, practical, enabling public participation in decisionmaking and planning and partnership with other social sectors and respecting expertise. Only such public administration can lead to the long-term sustainable development of the municipality or region. Furthermore, it is Local Agenda 21 that is a process whose sustainable development is a fundamental goal. The main goals are:

- quality strategic planning and management, including the financing system;
- continuous and active communication with the public building partnerships;
- systemic and measurable direction towards sustainable development. (Agenda 21, 1992)

In 2006, the Ministry of the Interior included local Agenda 21 among the official methods of improving public administration quality and other processes (e.g., benchmarking, CAF, or Balanced Scorecard), which is also virtually links. (Risk Management Methodology in Public Administration, 2016)

The Ministry of the Interior is currently evaluating the fulfillment of the objectives of the so-called Strategic Framework for the Development of Public Administration in the Czech Republic for the period 2014-2020. This document's global goal is to increase the quality, efficiency, and transparency of public administration through targeted intervention focused on selected weaknesses of public administration. The whole process consists of the modernization of public administration and the implementation of modern management methods. The main goal is to optimize public administration. Human resources are the most dynamic, most creative, and most valuable factor among all productivity factors. It is the first resource for a group to grow, and another resource mix cannot function without human resources. (Xie, 2015) Ensuring these goals while adhering to the basic rules of public administration management - transparency and economy- also brings the emergence of other

potential risks. The most common risks associated with public administration management include personnel, financial, organizational, information, and project risks. resource optimisation, accountability and a non-compliance culture seem to be the main problem areas in the public sector. (Fourie & Poggenpoel, 2016)

2. Methodology

This article is based on a literature study. Secondly, the purpose was to analyze and map the situation regarding the most common risks and implemented tools, increasing public administration quality. In March-May 2020, research focused on qualitative methods in public administration was carried out. The research aimed to obtain data for further support of quality management in public administration. The primary target group for the support of quality management in public administration is individual authorities (administrative authorities, authorities of self-governing territorial units), which will support the increase of satisfaction of their customers (citizens, entrepreneurs, public administration). The limit of research has become the COVID-19 pandemic. Due to this situation, the return was lower.

On the basis of a survey there were set and analyzed eight research questions (cases). Statistical dependence of individual answers with respect to the size of the company was verified. The research questions were formed like:

- A. Whether the kind (level) of the authority affects the perceive of the financial risk,
- B. Whether the kind (level) of the authority affects the perceive of the property risk,
- C. Whether the kind (level) of the authority affects the perceive of the personnel risk,
- D. Whether the kind (level) of the authority affects the perceive of the information technology risk,
- E. Whether the kind (level) of the authority affects the perceive of the administrative risk,
- F. Whether the kind (level) of the authority affects the perceive of the risks related to drawing subsidies from the EU,
- G. Whether the kind (level) of the authority affects the perceive of the risks related to the protection of personal data,
- H. Whether the kind (level) of the authority affects the perceive of the corruption risk.

3. Results

The occurrence of individual answers from the survey was evaluated according to a four-scaled evaluation of all eight research questions A.x, B.x, C.x, D.x, E.x, F.x, G.x and H.x where x = 1 determines municipal authorities, x = 2 determines town authorities and x = 3 determines regional authorities. The meaning of the individual grades of the rating scale is defined as follows: 1 - (Hardly) ever, 2 - Rarely, 3 - Sometimes and 4 - Often.

Measures of location and variability were found by median and discrete ordinal variance (1) due to properties of ordinal variables. Then discrete ordinal variance (dorvar) was converted to the standardized form (nor.dorvar) of the discrete ordinal variance (2). Basic statistical characteristics of collected data are briefly presented in the table, see Table 1.

$$dorvar = 2\sum_{i=1}^{k} P_i (1 - P_i)$$
⁽¹⁾

nor.dorvar =
$$\frac{2 \cdot \text{dorvar}}{(k-1)}$$
; nor.dorvar $\in \langle 0; 1 \rangle$ (2)

Table 1: Measures of location and variability of the cases

Cases	A.1	A.2	A.3	B.1	B.2	B.3	C .1	C.2	C.3	D.1	D.2	D.3
NOR	.722	.595	.593	.722	.524	.296	.676	.607	.296	.778	.574	.296
Median	2	2	2	2	2	2	2	2	2	2	2	3
Cases	E.1	E.2	E.3	F.1	F.2	F.3	G.1	G.2	G.3	H.1	H.2	H.3
Cases NOR			-	F.1 .870		-	-	-				-

The same data set can also be represented as boxplots shown in figures Fig 1 and Fig 2. These figures were used for analysis of location and variability measures of all eight research questions. The Table 1 complements this graphical information with descriptive statistics.

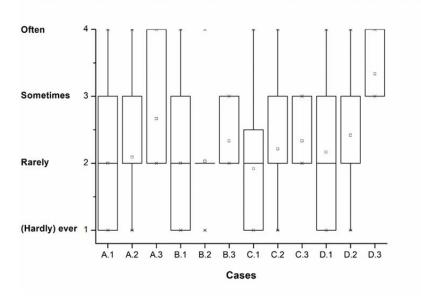


Figure 1: Boxplots of answers on identified research questions A.-D.

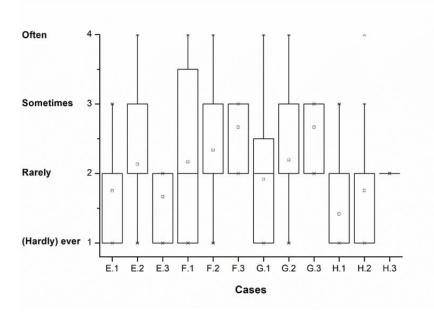


Figure 2: Boxplots of answers on identified research questions E.-H.

4. Discussion

The first research question was about financial risk. Based on the analysis of Table 1 we cannot conclude that the level of authority affects the perceive of the financial risk. No statistically significant differences were found in the individual categories of authorities. The probability of financial risk was identified as rarely in all examined categories. However, we can observe from the results that the answers of the municipal authorities are very scattered. The opposite is valid for other authorities, where the answers are less scattered. The same trend is observed in other cases (apart from administrative risk and corruption risk). Also in the second research question, the representatives of the individual categories agreed and marked the occurrence of

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property risk as rare. Even with this research question, we it can be observed a gradual concentration of answers in the vertical direction of management. Also, the occurrence of personnel risk is marked by all categories as rare. We do not follow a gradual "slimming of the scatter" as in the previous research question. Information technologies and the risks associated with them can be clearly described as statistically significant, given the level of the examined category. Therefore it can be concluded that with the increasing level of the institution (according to the categorization) the incidence and impact of the examined risk also increases. The fifth research question deals with the occurrence of administrative risk. No significant statistical dependencies were observed on this issue either. The probability of occurrence of the observed risk was marked as rare in all categories. Contrary to that, it can be noted the occurrence of personal data protection risks and subsidy risks as statistically significant with the respect to the level of authority. That means the importance of the impact of these risks could be expected. In the lower categories, the occurrence was marked as rare, but in the regional authorities it was sometimes. The last research question consisted of asking of corruption risk and a possible relationship with categories of authorities. It is the only risk that the municipal authorities have identified as hardly ever when it occurs. For this group, it can be concluded that with increasing levels of authority, the incidence of this risk and its impact also increases. The Ministry of the Interior Czech republic has issued a methodology for risk management in public administration. This methodology should be followed by all public authorities. The authors of the project intended to make available public administration bodies a model that will enable them to better know and understand their activities through self-assessment. In this way, the management leads to an increase in the efficiency and quality of work, regardless of whether it is a school, a municipal office, or a central state administration body. The basic premise of managing each individual risk is the organization's ability to identify such risk (realize that it exists) and appropriately mark or define (not necessarily formalized or written). The methodology aims not to provide organizations with detailed instructions on what organizations should do to ensure that their risks are well managed or that their negative impact is eliminated. The methodology tries to explain specifically and practically what a risk is and how its management should take place so that such a system has a chance to work in practice and positively influence the operation of the organization (or prevent adverse impacts). (Risk Management Methodology in Public Administration, 2016)

5. Conclusions

Public administration - both officials and, above all, politicians - have the means to create space and right conditions for cooperation, dialogue, and mutual communication. Because they are closest to the people in terms of government level, they play an essential role in educating, mobilizing, and responding to public input, helping to achieve sustainable development. This paper aimed to map the situation regarding the risks and implemented tools, increasing the quality of public administration. The results and conclusions described above were also supplemented by a qualitative investigation of the methods used in the crisis management of the monitored authorities. In the questionnaire, the authorities were asked about the most frequently used methods, which are: benchmarking, CAF model, process approach and (local) Agenda 21. Unfortunately, 58% of authorities were excluded from statistical data processing for further processing because they did not use any of the above methods in their agenda. There are three interesting conclusions in this area of the survey. Of the surveyed authorities, which apply at least one of the four methods in their agenda, as many as 79% of institutions reported direct and improved services provided on the basis of the used methods (benchmarking, CAF model, process approach and Agenda 21). Especially in the parameters of speed and quality. These 79% of respondents use at least two of the four monitored methods at the same time. Which is certainly not a coincidence. Finally, the last findings concern four methods and their frequency of use by individual authorities. Benchmarking is the most commonly used method for all three examined authorities (municipal authority - 100%, municipal authority - 73% and regional authority - 100%). Regional authorities supplement the benchmarking with a CAF model (in 66% of cases). For municipal authorities, benchmarking is usually supplemented by a procedural approach (in 85% of cases). Finally, the representatives of the municipal authorities stated that they also complement the benchmarking with a procedural approach (in 100% of cases).

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References

- Agenda 21, 1992, The United Nationas Programme of action from Rio, The final text of agreements negotiated by Governments at the United Nations Conference on Environment ond Development (UNCED), Rio de Janeiro, Brazil 1-3, 4.
- Borys T., Rogala P., 2007, Quality and environmental management systems, Wrocław University of Economics, Wrocław, Poland.
- Fourie, D., Poggenpoel W., 2016, Public sector inefficiencies: Are we addressing the root causes?, South African Journal of Economic, 169-180, <doi.org/10.1080/10291954.2016.1160197>.
- Fratila L., Sova R., Tipa S., 2012, Methods for benchmarking the firm performance and its influence on the efficiency indicators, Academy of Economic Studies, Bucharest, Romania, Vol 3, 1499-1508, <scopus-com.proxy.k.utb.cz/record/display.uri?eid=2-s2.0-84896083751&origin=resultslist&zone=contextBox>.
- Jaiyeoba, O.O., Chimbise, T.T., RobertsLombard, M., 2018, E-service usage and satisfaction in Botswana, African Journal of Economic and Management Studies, 9(1), 1-13, <doi.org/10.1108/AJEMS-03-2017-0061>.
- Kobylinska U., 2016, European Union Support in the Improvement of Quality Management Systems in Administration Offices in Poland, Kaunas University of Technology <doi.org/10.5755/j01.ppaa.15.1.14690>.
- Makanyeza C., Chikazhe L., 2017, Mediators of the relationship between service quality and customer loyalty: Evidence from the banking sector in Zimbabwe, International Journal of Bank Marketing, 35(3), 540-556, <doi.org/10.1108/IJBM-11-2016-0164>.
- Merriam-Webster, 2014, Reform. <merriam-webster.com/dictionary/reforms>
- Mosimanegape P., Jaiyeoba O., Iwu Ch.G., Chekula-Mahama Ch., 2020, Examining the relationship between service quality and customer satisfaction in the public service, Wseas Transactions on Business and Economics, Vol 17, <doi.org/10.37394/23207.2020.17.57>
- Moullin M., 2017, Improving and evaluating performance with the Public Sector Scorecard, Productivity and Performance Management, Bradford, Vol 66, 4, com.proxy.k.utb.cz/docview/1881428768/fulltextPDF/92DCE8660C10479CPQ/1?accountid=15518>.
- Paul J., Mittal A., Srivastav G., 2016, Impact of service quality on customer satisfaction in private and public sector banks, International Journal of Bank Marketing, 34(5), 606-622, <doi.org/10.1108/IJBM-03-2015-0030>. Accessed 28/02/2018.
- Pizam A., Shapoval V., Ellis, T., 2016, Customer satisfaction and its measurement in hospitality enterprises: a revisit and update, International Journal of Contemporary Hospitality Management, 28(1), 2-35, <doi.org/10.1108/IJCHM-04-2015-0167>.
- Risk management methodology in public administration, 2016, Ministry of Finance of the Czech Republic https://www.smocr.cz/Shared/Clanky/6326/metodika-2016-metodicky-pokyn-chj-c-2.pdf
- Stojanová H., Lhotský R., 2017, Using contemporary methods of strategic management for streamlining the performance of public administration in the Czech Republic, Strategic Performance Management: New Concepts and Contemporary Trends, 2017, pp. 197-212.
- Xie, L., 2015, Human Resource Evaluation in Universities Based on the Competency Model, Chemical Engineering Transactions, Vol. 46, 2015, pp. 613-618.

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