Transposing good practices in the Field Of Quality Management in Japan, within Romanian Public Administration

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ABSTRACT

This paper presents the results of a case study conducted within the Ministry of Education and Research (MEC) from Romania, with focus on identifying the level of knowledge and use of the methods and instruments of Total Quality Management in the institution, using the Japanese model of TQM as a point of reference. In the first part, the paper briefly discusses the peculiarities of the unique style in which the Japanese use Total quality management specific tools, such as Statistical Quality Control (SQC), Quality Circles (QC), Continuous Improvement (kaizen), or Deming's cycle called P-D-C-A. Next, the paper aims to identify the way in which TQM is understood and used by the human resource of the Ministry of Education and Research in Romania, the efforts directed towards the implementation of a quality management system, the degree of implementation of internal management control standards (SCIM), which are specific to public administration at central level and last but not least, the perception and vision that civil servants in the Ministry of Education have in relation to the techniques and methods of implementing TQM, as identified in the first part of this study. Therefore, in the last part, we present the analysis, as well as the interpretation of the data obtained following the application of a quantitative survey administered among Ministry staff.

Keywords: *total quality management, Japan, statistical means of quality control, public administration from the central level, internal management control standards (SCIM).*

INTRODUCTION – TOTAL QUALITY MANAGEMENT IN THE JAPANESE CONTEXT

Central level Japanese institutions present a series of special features, one of them being the influence of total quality management (Noutomi and Nakanishi, 2007), also known as the Deming quality management cycle or P – D – C – A, (Plan – Do – Check – Act) cycle, implemented in public administration and other public policy areas (Berman et al, 2010). Moreover, one of the most important quality *guru*, as well as the founder of quality circles, the Japanese professor Kaoru Isahikawa, had introduced what we might call today „seven basic techniques of quality control": cause and effect diagram, Pareto chart, histogram, control charts, check sheets, scatter diagram and stratification (Morgan & Murgatroyd, 1944). The specific manner in which Japanese have managed to successfully make use of quality control methods was by adopting a clear set of quality objectives. Also, quality data, which is collected and shared with the employees in order for them to analyze it, represents another key point in the activity of Japanese organizations (Luthans & Doh, 2012). It is for this very precise measurement aim, meant to be achieved by using the statistical quality control techniques, which help diagnose the existing situation (where the organization is) and also design the desired situation (where the organization wants to be) (Webber & Wallace, 2007). Furthermore, a good quality control activity cannot be achieved without becoming familiar with statistical methods of control, Ishikawa himself stating that 95% of the problems in a company can be resolved by using simple statistical methods (JUSE, 2015).

1. LITERATURE REVIEW ON THEORETICAL ASPECTS CONCERNING TQM

1.1. Collectivism, internal client and teamwork – core components of the TQM strategy in Japan

Researchers have determined that teamwork is an excellent instrument for organizing activities within organizations. Japanese, in particular, use teams in various forms: Quality circles, *kaizen*, or small group activities aimed at improving the quality of goods and services (Bhote, 2002). In an paper published in the *Harvard Business Review* Magazine, the former Baldrige Prize judge, Donald Berwick, claimed that total quality management cannot be achieved by simply following managers rules, but through the curiosity, pride and willingness of lower level employees, all of these attributes being transmitted at the work place (George & Weimerskirch, 1998). In other words, managers should always remind employees that they know their job best and that innovation and improvement have to begin at their level, where the "action happens" (the so called *gemba*, in Japanese) (Ohmane, 1982).

Big part of the Japanese success is due to the quality concept they embrace. In Japanese organizations, quality is seen as an objective which needs to be achieved, bur also as a standard which once achieved becomes a *benchmark* for the next objective (Morgan & Murgatroyd, 1944). We can add here the importance *hoshin* planning concept, which means in order to improve the quality of goods and services very high objectives have to be set. Moreover, the existence of a common vision through the company, *kisha hoshin* in Japanese, or ”the spark”, as well as the integration of all hopes and wishes of the ones associated with the organization, are essential elements of the total quality management style practiced in Japan (Morgan & Murgatroyd, 1944).

2.1. **The P – D – C – A cycle and *kaizen* at the central public administration level**

The principle of continuous improvement (*kaizen*) is translated into the *P – D – C – A* cycle (*Plan – Do – Check – Act*): 1. *Plan*: Defining the problem, collecting data, identifying the root causes of the problem; 2. *Do*: Generating and implementing a solution, as well as measurements of its efficiency; 3. *Check*: Confirming the results and comparing them to de initially collected data; 4. *Act*: Documenting the results, informing the others about the changes suffered by the process, formulating the recommendations (European Commission, 2015). The main idea behind this process is represented by the fact that, it is not an event which happens once, but a continuous cycle of activities which make a process better and better, in time (Webber & Wallace, 2007).

Continuous improvement or *kaizen*, as the Japanese name it, is based upon the dedication and participation of all the people in the organization and it can be easily implemented by using the quality circles method (Kanji & Asher, 1996). Therefore, *kaizen* implies innovation as well as maintaining the improvements through small steps which often generate important changes (Wilkinson et al, 1998). By using a systemic plan such as Deming`s (*P -D - C- A*), the employees are encouraged to search for different small scale improvement methods, which in the end help in the client`s needs satisfaction process (Morgan & Murgatroyd, 1944).

In their research paper, *The impact of education reform on the quality assurance system in Japan*, Knipprath H. and Arimoto M. (2007), are stating the fact that, when American specialists tried to explain Japan success in the education field, they focused on cultural and social facts, as well as on the control exercised by MEXT (Ministry of Education in Japan) by setting ambitious national standards and objectives in the education field. Moreover,

the quality of the education system in Japan, can be assured at three distinct levels: the input, the process and the output. In order to secure a certain level of performance, efforts need to be done in order to determine standards (output), measure their implementation stage (process) and evaluate the way in which the expected results are obtained or not (output) (Knipprath & Arimoto 2007).

2. QUALITY MANAGEMENT FRAMEWORK WITHIN THE MINISTRY OF EDUCATION AND RESEARCH

As stated in the Government Ordinance OUG 57/2019, The Ministry of Education and Research in Romania (MEC) is an organ of specialty, part of the central public administration, which "performs the governmental policy in the fields of interest stated by the Government" (O.U.G. 57/2019, art. 52, al. 1). MEC is the institution which coordinates domains such as education, professional development, scientific research, technology development and innovation" (HG 24/2020, art. 1, al. 2). One of the first steps in adopting a TQM based culture in the ministry was represented by the *Strategic Plan for 2007-2009*, which acknowledged the lack of a quality management policy in the institution, as well as the necessity to develop and implement such a policy (MECT, 2007).

In this document certain problems which negatively affect the quality of the ministry`s activity were underlined by the employees, some of the most important being: defective interinstitutional and interdepartmental communication, constant change of the decisional factors, non-compliance with ergonomic principles at the work place, lack of feedback, the fact that employee`s ideas are not treasured through the institution, lack of a meeting based culture, as well as reduced flows of information from the top to the bottom of the Ministry. All these issue signaled problems affecting in a negative way the quality of services provided by the Ministry to the citizens (MECT, 2007). Moreover, the above mentioned plan reveals several other causes which may be responsible for the low service quality offered by the Ministry, further pinpointing the necessity of TQM implementation in the institution. Such causes refer to excessive institutional bureaucracy, lack of standards, reduced level of human resources motivation, flawed communication process between citizens and ministry, as well as reduced capacity of public servants to quantitatively and qualitatively asses their own work (MECT, 2007).

The Action Plan for the Staged Implementation of Quality Management in Public Authorities and Institutions 2016-2020, carried out as a result of the partnership between Romania and the European Commission, stressed once again the need to implement TQM within the Ministry and set several quality objectives for the Ministry. The implementation of the CAF self-assessment

tool, as well as the ISO 9001 standard within the Ministry, until December 2016, was one of the objectives assumed by the ministry through this plan (MDRAP, 2016). Moreover, the *Administrative Capacity Operational Program 2014-2020* was aimed to implement a quality management system both for MEC and for its subordinate structures. The specific objectives of the project were focused on the adaptation and implementation of the self-assessment tool (CAF) at the level of the ministry; staff training for use of specific quality management tools; promoting best quality management practices, such as CAF (MEC, 2019). Among the activities proposed under this program is the use of specific TQM methods in the field of education, emphasizing the importance of the CAF implementation process in public administration. It is therefore suggested that the Ministry intends to conduct a study on the most effective TQM activities carried out in the public sector in other countries and use this study to implement such techniques (MEN, 2019).

3. RESEARCH METHODOLOGY

The purpose of this paper is to identify ways to increase the quality of services provided by the Romanian Ministry of Education and Research, through quality control methods specific to quality management practices (TQM) used by Japanese organizations and institutions. In relation to the above-mentioned idea, the objectives of the paper are: O1. Identifying and presenting the quality control methods used in private and public sector institutions in Japan; O2. Revealing the perception of the human resource within MEC, regarding the quality control methods used, but also regarding the quality control methods they could use, in order to increase the quality of the services provided; O3. Assessing the stage in which MEC is positioned in terms of level of awareness and implementation of specific TQM tools.

After revising the state of the art and establishing the research objectives, we formulated a series of hypotheses that we tested using the survey method, based on the application of an online questionnaire: H1. The perception of the MEC staff is that a system of quality objectives at the level of the institution has a crucial role in terms of quality of services; H2. In the staff's view, the problems present at the level of the institution can be solved by using simple statistical methods of quality control; H3. The activities that involve teamwork and active participation of all employees are perceived by the ministry staff as necessary in order to control the quality of the services provided; H4. The human resource within the ministry understands and applies the Internal Management Control Standards (SCIM) accordingly; H5. Ministry employees are encouraged to look for small scale improvement method, which ultimately contribute to meeting citizens needs. In order to test

these hypotheses we designed a questionnaire containing 16 single-answer questions, two open-ended questions, eight value-scale questions, out of which two matrix questins and five are socio-demographic questions.

4. RESULTS

The questionnaire was administered through an online platform and returned 35 responses from employees working in the Intermediate Body for the Human Capital Operational Program (OI POCU) of the Ministry of Education and Research.

During the first phase, we found out that approximately half of the total respondents, respectively 51.5% consider the level of quality of services provided by MEC as high or very high. On the other hand, 37.1% respondents believe that the level is a medium one, while 11.4% employees consider that the level of quality of services provided by MEC is low or very low.

Following the above-mentioned information, we identified that about half of the respondents (51.4%) confirm that MEC has a system of quality objectives, while 31.4% of them do not know or did not want to express their opinion on this matter, and the remaining 17.1% claim that MEC does not have such a set of quality objectives. What is relevant is the fact that, when having a closer look at the database resulted from the application of the questionnaire, we discovered that OI POCU employees, although from the same department, claimed either that MEC has a set of quality objectives or that they do not know whether the ministry in question has such a set of objectives. It can be concluded that employees are not very familiar with the quality objectives of the institution in which they operate, so the existence of a common vision at the level of MEC is uncertain.

Additionally, we found out that according to staff, the most important effects of defining a system of quality objectives at the Ministry`s level are: the increase in the quality of services provided (26.5%), a common vision at the Ministry level (22.4%), increase in the employees motivation level (21.4%), better understanding of tasks and activities (18.4%) and increased synergy at the institutional level (10.2%). We concluded that, although a key element of the TQM philosophy, the synergy of the institution is not seen as important compared to other aspects, in terms of the effects of meeting the same set of quality objectives at the ministry level, although it is considered that the existence of such a set of objectives may lead to increased levels of quality services provided by the Ministry.

In order to identify the opportunity for the ministry's human resources to use TQM tools, we used the set of responses which we obtained by analyzing the answers to a control question. Therefore, we found out that tools such as

scatter diagram, quality circles and P-D-C-A cycle are used in a proportion of 10.7%, cause-and-effect diagram and Pareto charts are used in a proportion of 17.9%, control charts in a proportion of 25 % and the check sheets, in the largest proportion of 67.9%. We can therefore conclude that MEC employees use TQM specific tools only to a very small extent, the emphasis being placed mainly on checklists.

At the same time, regarding the degree of use of activities based on the idea of collectivism and active involvement of all employees, 54.4% of the respondents claim that meetings are very common in the department in which they operate, while group activities which have the role of improvement of a process or service was placed second (24.6%). Quality circles (8.8%) and improvement teams (10.5%) are weakly present in the activity of MEC employees. In conclusion, the most used method of debating quality issues is represented by the classic meeting.

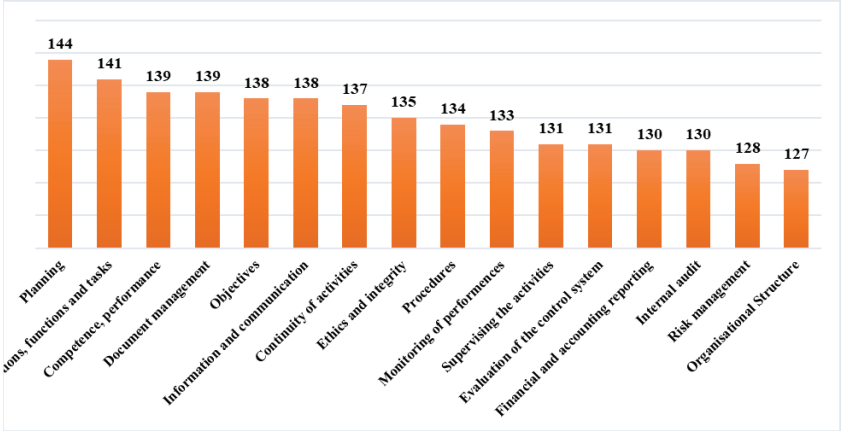
Regarding the existence of a bottom-up decision-making system at the MEC level, 28.60% of respondents appreciated this type of system to be a practice present in the ministry, 28.60% said they do not know / do not want to answer, while 42.9% claimed that such a decision-making system is not present at MEC level. We can easily conclude that the decision-making system at the Ministry level is not a bottom-up one, fact that is also supported by the answers to another question, which reveals that more than half of the respondents directly acknowledge that employees' ideas are not put into practice.

Furthermore, regarding the activities carried out in order to implement the 16 Standards of Internal Managerial Control (SCIM), respondents chose again the meetings (30.5%) as the most popular practice at MEC level, as well as departments level. At the same time, the use of written documents such as plans, strategies or projects, represents another method often used to ensure the implementation of standards (30.5%). Self-assessment activities (18.6%), as well as statistical tools (15.3%) are less common in the activity of respondents, hence indicating that statistical control activity is not a constant variable in the work of MEC staff.

In terms of difficulty of implementation, respondents rated the standards differently, on a scale from 1 to 5. Therefore, in order to interpret the data more easily, we created a table with scores of difficulty regarding the implementation of the standards, depending on the values assigned by the respondents. It can therefore be seen from the graph (Figure 1) that the standard with the highest difficulty score is the planning one (144).

SCIM implementation scores

Figure 1



Source: The authors, 2020

Results seem to suggest that there is a difficulty at MEC level in terms of continuity of activities, meeting deadlines and achieving targets, all of these aspects being direct effects of the poor implementation of the SCIM planning standard. In the second place, in terms of difficulty of implementation, the standard related to attributions, functions and tasks was positioned, with a score of 141. Thus, the difficulty in implementing this particular standard can be translated into the existence of a problem at organizational level, which has as direct effect the very problems related to the ignorance of employees' attributions among themselves, but also related to personal attributions.

The management of documents (score 139) is strictly related to the problem of excessive institutional bureaucracy, which hinders the activity of the human resource and reduces the efficiency and effectiveness of its work. The next standard that obtained the same difficulty score (139) is related to competence and performance, both issues being reported by the human resources through other questions in the questionnaire and being directly related to matters such as low professionalism of the human resource or non-compliance with deadlines. Immediately after this, with a score of 138, is the standard related to the information and communication processes that is also a pressing issue at MEC level. On the other hand, the standards with the lowest difficulty score are the organizational structure (score 127), risk management (score 128), but also the internal audit and accounting and financial reporting (score 130).

Furthermore, regarding the main issues reported during the meetings, respondents had various answers, which we divided into several categories,

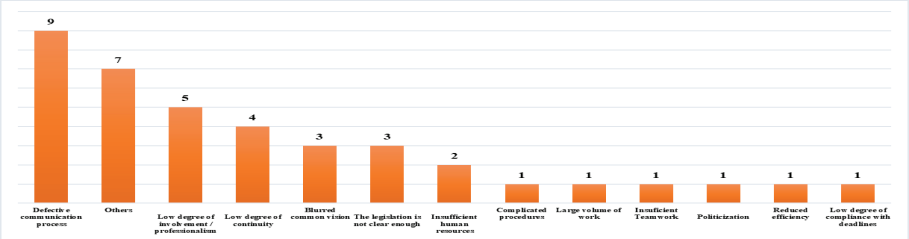
thus highlighting those that are more often encountered by the human resource. Therefore, it can be seen that the communication process is an issue often discussed in meetings, along with the non-compliance with deadlines. We also found out that there are problems regarding the different opinions of the employees, the daily activity and the respect regarding colleagues and work in general, these being also topics of discussion during the meetings.

Also, the implementation process, whether we are talking about standards, measures or projects, is another aspect often discussed in meetings that generates difficulties in the activity of MEN staff.

We also identified some of the main problems that stand in the way of providing quality services according to MEC human resource (Figure 2).

The main problems that prevent the provision of high-quality services by MEC

Figure 2



Source: The authors, 2020

What stands out is the impact that a defective communication process has on MEC employees, in all its aspects (communication between superiors and subordinates, communication between employees at the same hierarchical level, communication between MEC and its subordinate institutions). Given the fact that this process has deficiencies at the ministry level, Total Quality Management cannot be implemented, as it implies the involvement of all employees, communication and collaboration, as well as the removal of interdepartmental barriers. We concluded, therefore, that the previous plans and programs through which MEC tried to implement a system based on TQM were not successful precisely for this reason: the communication process is not running properly.

Moreover, the reduced concern and involvement of human resources for activities related to quality management is another issue reported by respondents, which has negative effects on quality management at the ministry level. The lack of continuity also has major implications on the activity of human resources, along with non-compliance with deadlines, increased

working loads and lack of clear legislation. All these represent problems that lead to a decrease in the work efficiency and the efficiency of the human resource and implicitly, to the decrease in the quality of the services provided by the Ministry to the citizens.

Regarding the methods identified for improving the work carried out, respondents pinpointed various options, the most significant being communication, consultation and teamwork. It is therefore clear that Ministry staff are aware of this communication deficit existing at the level of the ministry. Moreover, increasing employees number, as well as the number of positions at departments level is a measure proposed by some respondents. Other measures mentioned were related to the simplification of procedures, introduction of performance-based management or following examples of good practice from other EU member states. However, another important aspect is represented by the fact that employees ideas are not put into practice at the ministry level. This comes in contradiction with the TQM philosophy which places great value on the involvement and participation of employees at all hierarchical levels. As previously mentioned, we can therefore conclude that the decision-making system is not a bottom-up one and that collectivism and active involvement of all employees are not fundamental values at MEC level.

CONCLUSIONS

Questionnaire data analysis enabled us to test the hypotheses derived from TQM theory. Therefore, the first research hypothesis claiming that MEC staff perceive the system of quality objectives as crucial, was validated. However, the existence of such a system is uncertain, given the fact that the employees' answers differ significantly, although respondents come from the same department.

Hypothesis two was also validated, with more than half of the respondents considering that the use of statistical quality control methods can help solving problems generated by the low quality of the services provided. It is important to note that, although most respondents claimed that they use quality control tools in their work, questionnaire findings proved the opposite, as many of the specific TQM tools are being used by MEC officials only to a very small extent.

Regarding hypothesis number three, it was also validated, as employees perceive the deficit of communication, collective activity and collaboration as barriers for properly conducting their work. Although meetings seem to be a constant practice at the ministry level, staff perception reveals deficits in communication at all levels, while teamwork, although insufficiently practiced,

is perceived by employees as a necessity. At the same time, although it does not seem the case at MEC level, employees claim that the common vision is a necessary prerequisite in their work.

Hypothesis number four was invalidated. Respondents claimed that SCIM is of high importance at Ministry level and the degree of implementation of SCIM standards is considered to be medium to high. Moreover, the organization of meetings as a tool to debate the degree of implementation of these standards is perceived as a necessary activity. However, the analysis of the difficulty scores showed that the most difficult standards to implement are directly related to the most acute problems existing at the MEC level.

Hypothesis five was invalidated due to the identification of two key ideas: the decision-making system is not a bottom-up one and MEC's human resources claim that employees' ideas are not taken into account and there is a small value placed on active involvement and identifying new ways of working or approaching problems. Moreover, the open-ended questions helped collect qualitative data, that revealed respondents are concerned with the methods of improving their work and manage to identify possible solutions. However, the fact that their ideas are not regarded as valuable at the level of the institution, leads to a decrease in their motivation levels.

In conclusion, it becomes evident that MEC finds itself in the ”awakening phase”, which is the second stage of the TQM maturity matrix for public services (Crosby, 1990). The peculiarities of this stage imply the fact that decision-making factors in the institution acknowledge quality management as being a valuable instrument, but are not willing to invest time and effort to develop this area. Organising quality activities do not benefit from the expertise of professional in the TQM area. Problems are discussed during meetings, however teamwork is an undervalued asset for generating solutions. There are strong deficits in terms on communication, human resources motivation and organizing collective activities. Empowering employees by placing value on their improvement ideas is not a practice within MEC, that results in low levels of staff interest for quality management methods. Nonetheless, the findings of the survey we carried out suggest that public employees within MEC are very much aware of the problems that exist in the institution, expressed in terms of errors, failures, defects, which is specific to the ”awakening phase”, in which former plans and programs for implementing TQM and CAF did not prove successful and the degree of implementation of an internal managerial control system is not satisfactory. There is therefore the need for a new approach based on teamwork, communication, statistical quality control approach, common vision and shared quality objectives. Such a framework might lead the ministry to the next stage, which is the „enlightenment” one.

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