The idea of synergic quality management as a key pillar of building social resilience

Objectives, context, and methodology

The aim of this article is to discuss the idea of synergistic management through quality in the context of the role it plays in building social resilience, present definition problems, concepts, methods, and techniques, as well as the role of leadership and the evolution of management principles through quality.

The research methods used in this work include content and background data analysis, comparative analysis, a case study, conceptual analysis and synthesis used to draw key conclusions after a literature review on various concepts and methods of quality management. The use of the above-mentioned methods allowed the identification of common characteristics and, at the same time, the elimination of irrelevant features and finding specific dependencies in the studied phenomena.

Quality management, the role of competences, and building social resilience are currently key topics that have been very popular for several decades and are analysed by representatives of various scientific disciplines. They are interesting because they concern almost every area of our lives – their development as well as problems to be solved, implementing innovations, constantly taking into account the context of

socio-cultural, economic and technological changes, the security environment, and other key spheres. Therefore, the security environment is “[…] a universal method of improving the efficiency of human teams. This method, although today still the most frequently used in enterprise management, has a much wider range, as it is also used in the management of public and local administration institutions, education, health care, and even the police and the army.”

Social resilience and management through quality

The resilience of a society is most often defined as the endurance and/or vulnerability of social groups of various ranges to the influence of environmental, social, infosphere/cyber, and biological factors, as well as military and non-military threats that may affect the acceptable standard of living and functioning of these groups. The current Strategia Bezpieczeństwa Narodowego Rzeczypospolitej Polskiej (National Security Strategy of the Republic of Poland) of 12 May 2020 contains a statement about the need to “increase the state’s resistance to threats by creating a universal defence system based on the efforts of the entire nation and by building understanding for the development of the resistance and defence capabilities of the Republic of Poland.”

Management through quality (Total Quality Management, TQM) is defined differently. The most popular approach is comprehensive or total quality management. The idea concerns a pro-quality approach to life and work based on cooperation (with particular emphasis on the sense of teamwork), commitment, mindfulness, self-control, and the need to develop and improve one’s own qualifications and competences. Ultimately, that affects the long-term development and well-being of employees and institutions as well as potential applicants, customers, etc., Additionally, a wide range of institutions and people using the services of a company/institution or cooperating within various areas (e.g., social, cultural, economic, educational) understood it in various aspects.

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An important starting point is the analysis of what quality is all about and whether quality and value can be used interchangeably. Unfortunately, this happens quite often. The concept of quality emerges mainly in connection with a service or product. It could be also both, because these two issues are often interrelated. However, while we believe that a product or service should be good or very good, it is more difficult to determine how these issues should be measured in order to assess them in the context of whether they meet or they do not meet (or meet only partially, and if so, to what extent) certain criteria that a product or service to be considered at least good. Looking at various solutions, various institutions differently motivate people to work in order to develop good-quality products and services. So, it is clearly visible that the end result invariably depends firstly on the will (not so much external as internal motivation), and secondly, on the competence (knowledge, skills, and qualifications) of employees. Naturally, it is desired situation when willingness and competence go hand in hand, but this is not always the case nor does it depend only on the person/employee, but also on a number of external conditions. Sometimes there is a will, but lack of skills (the reasons lie not only with the employee, but also with the company), other times there is a know-how package, but a lack of motivation. Often because the employer settles employees not for quality, but according to purely quantitative criteria, i.e., for exceeding the standard or not meeting it.

Concepts and methods of management through quality

The beginnings of the concept of management through quality date back to the second half of the 20th century in the United States and are a continuation of the success of the Japanese economy in the mid-20th century. The trend of comprehensive quality management by TQM found many enthusiasts. Unfortunately, it was not always understood correctly, hence its effectiveness varied greatly. This process continues to this day. Its sources, however, can be found in the 1920s in Walter Shewhart’s research on the development of the principles of statistical process control, which provided the basis for statistical quality control, already used during World War II in the American defence industry. In the 1940s, engineers from Japan became interested in these solutions. Walter Shewhart’s student William Edwards Deming introduced them as part of a series of lectures given in Japan. In the 1950s, the knowledge of quality and statistics was promoted in Japan by Joseph Juran.

At the beginning of the 1960s, the concept of TQC (Total Quality Control)\(^9\) was formulated as comprehensive quality control combining a system of methods of developing, ensuring, and improving quality, and over time it expanded into the concept of Total Quality Commitment, also known in the 1970s as Company-Wide Quality Commitment (CWQC). Contemporary Japanese solutions in English-language texts often use the term Total Quality Control (TQC) instead of Total Quality Management (TQM). The key Total Quality Control (TQC) methods include: 5xS, Just in Time (JIT), kaizen, hostin kanri, Quality Function Deployment (QFD), and the so-called quality circles or 7 techniques for identifying and describing quality management problems.\(^10\)

The 5xS method and kaizen are the most interesting and, at the same time, the main tools in the quality improvement process, especially at the operational level. As for the 5xS method, any improvement starts with it. Its basic assumption is to change the behaviour and existing habits of employees, and to activate them in their participation in the process of change. It consists of five elements: seiri (sorting – selection), seiton (setting in order), seiso (sweeping – cleaning/tidying up), seiketsu (standardising/neatness), and shitsuke (self-discipline). The method is quite simple and effective. All these elements create one synergistic whole.\(^11\)

Another interesting concept is the kaizen management philosophy derived from Japanese culture,\(^12\) on the basis popular among concerns as Toyota, Honda or Sony. The term kaizen means continuous improvement by small steps. Only in this way, according to this concept, you can progress towards perfection. In the work environment, it means, inter alia, mobilising the entire team towards analysing processes, rules, and implementations in order to eliminate errors and improve work in various sectors of the company/institution. It is a people-driven strategy that pays a lot of attention to the work environment and organisational culture. This philosophy is often presented in relation to the Western system of managing an institution, which takes into account two functions: firstly, maintaining the status quo (maintaining the current state of procedures, technology, organisational culture, and rules) and secondly, innovation, i.e., all actions and initiatives mainly from the management staff, which are of pivotal importance for the functioning of the organisation. The Japanese

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management system includes, apart from these two, another function – *kaizen*, small steps of improvement of the company, implemented by employees inspired by the management.\(^{13}\)

There is a fundamental difference between *kaizen* (improvement) and innovation (spectacular innovation). In the first case, there are small steps, conventional know-how steps, effort, process orientation, and a free growth policy. In the case of innovation, there are big steps, discoveries, investments, focus on results, and a policy of rapid growth. Both of the described 5xS methods and the *kaizen* philosophy are used together with the other mentioned methods.

### Management through quality in terms of William Edwards Deming’s concept

In the 1980s, a real revolution in the context of quality was made by Deming, the aforementioned American specialist in the field of management (with a doctorate in physical sciences). He belonged to a group of US experts whose task was to support Japan in restoring its industry after World War II. He had significant achievements in the development of shipbuilding and optical and armaments industry after introducing the principles of quality management and statistical quality control methods. The beginning of the 1950s was a very difficult period for Japan – the lost war, the emotionally broken society in need of support, and the industry associated with low-quality products, presented an excellent area for Deming to provide effective support and build an industry which would in the future become competitive in the world markets. The implementation of his plan was designed for 25 years, and the assumptions were fulfilled. In the mid-1970s, the Japanese electronics and optical industries became competitive for the European and American markets. After these spectacular achievements, American interest in Deming grew in the 1980s, when he returned to the United States and NBC broadcast his short lecture entitled “If Japan can, why can’t we?”\(^{14}\) It was then that he became the subject of special interest to corporations, so he began to conduct training cycles based on the principles that he implemented on the Japanese market, leading the economy of The Land of Cherry Blossoms to spectacular prosperity.

Over the past four decades, more and more companies around the world have been introducing the method (often referred to as the Japanese-American method) to improve the efficiency and quality of organisations with different statutes, goals, and functions. These are hospitals, banks, public and local government institutions, schools, military structures, and services. Amongst them are General Motors, Ford,

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\(^{14}\) A. Blikle, *op. cit.*, p. 349.
Royal Dutch Shell, US Navy, and public administration. Qualitative management in the workplace is associated with a change in attitudes towards the private sphere, intelligent use of free time and the need to have it, so that it has an effective impact on work, development, and general condition of a workforce, their ability to act and effectively work in a group to create reality.\textsuperscript{15}

The development of the idea of management through quality shows where on the horizontal axis we have successively placed the stages of pro-quality management development from the lowest to the most advanced level. These stages are quality control, quality control, quality assurance, quality management and comprehensive quality management (TQM, lean). On the vertical axis, looking from the lowest to the most advanced level, are final control, statistical tools, design, prevention, process and system approach, management orientation towards quality in correlation with comprehensive quality management.\textsuperscript{16} This process has been presented in detail in professional literature merging economics, management and social sciences.\textsuperscript{17}

The implementation of the Total Quality Commitment (TQC) methods developed in the Japanese market was named as a Total Quality Management (TQM) on the American market, often referred to as a philosophy that used a set of pro-quality methods. Not all of them came from Japan. Some of them, such as Failure Mode, Effects Analysis or Six Sigma, were developed by American corporations. The implementation of the rules taken literally from the Japanese market to the US or European market did not always bring results comparable to those in Japan. The reason for this was mainly due to the different organisational culture and socio-cultural conditions of various countries where the principles developed on the Japanese market were to be implemented. As it turned out, one of the key factors was the pace of changes and the implementation of tasks. Unfortunately, the focus on shortening the work-time conflicted with the strategy of gradual improvement distributed over a long-term process.

In the last decade of the 20th century, a kind of antidote to improve the work, quality was to be the implementation of the Business Process Reengineering method, which consisted in a rapid (revolutionary) implementation of changes in the company. Unfortunately, the method turned out to be very cost-consuming and ineffective, so its originators quickly withdrew from using it, especially in large projects, focusing only on key processes and their implementation. The quality management philosophy is popularised by national quality awards, including established in 1951 by the Union of Japanese Scientists and Engineers JUSE Deming, the annual (since 1992) European Quality Award organized by the European Quality Management

\textsuperscript{15} Ibidem.


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Foundation (EFQM)\textsuperscript{18} or the Polish Quality Award (PJN). Based on the latter there is a distinction award presented to outstanding enterprises since 1995 by the National Chamber of Commerce, Polish Research Centre and the Now Poland Foundation. All of these awards are based on criteria formulated under Total Quality Management.\textsuperscript{19}

Principles, role of leadership, institution

When looking at the evolution of quality management principles, it is worth paying attention to a few concepts, which are the starting points for creating one’s own concepts adapted to the type of organisation/institution, country, organisational culture, motivational preferences and other factors. At first, it is worth starting this review with the 14 principles formulated by W.E. Deming. He highlighted several processes, including planning, design, personnel management, and monitoring. In his opinion, over 90% of all problems related to the quality of operations of a company, organisation, or institution lie with managers.\textsuperscript{20} They are responsible not only for quality management, but also ensure it through joint decision-making in cooperation with employees. He was not a supporter of management by objectives, results, pressure, or control; he often criticised these solutions. The theses formulated by him circulate in the professional literature in various versions. There are 14 of them in total. They are treated as the key to the efficient functioning of modern institutions based on interpersonal relations, statistical thinking (applying its methods and drawing conclusions based on them), and modern leadership.

The first principle concerns persistence in intentions (clearly defined long-term goals constructed not only with today’s but future needs in mind, achieving quality based on fixed goals); the second – applying a new management philosophy (drawing conclusions from mistakes, avoiding waste, conscious and effective leadership); the third – resignation from mass control methods in order to ensure quality (buying on statistics in order to estimate errors/defects in the process and preventing/exclude errors); the fourth – ending the common practices of selecting co-operators (not guided by the lowest price but the quality of products and building long-term cooperation based on mutual trust and loyalty); the fifth – constant improvement of the quality of production/services (this will ultimately allow to permanently reduce costs and reduce errors); the sixth – introducing modern methods of employee development (all levels of staff, especially in the area of methodology and psychology of managing an

\textsuperscript{18} The Foundation has over 750 organisations representing European countries.
institution and people); the seventh – building leadership (a leader who is a mentor, supports rather than controls and holds his employees accountable, builds relationships with subordinates); the eighth – removing fear in order to improve work efficiency (building quality relationship, it is not only the achievement of the goal and the numerical results that are important, but their quality); the ninth – removing barriers between departments (cooperation, joint problem-solving, understanding the company/institution as one organism, flattening the hierarchy, resignation from divisions, care for cooperation between departments); the tenth – elimination of the use of platitudes such as “zero defects” or “a new level of efficiency” (the core of low efficiency and quality is mainly on the side of management and the system); the eleventh – elimination of substitutes for leadership and management by objectives (using statistical methods); the twelfth – the elimination of barriers between positions (tasks) in an institution (work is a team, each employee and the activity performed by them is important and worth appreciating); the thirteenth – creating a solid programme of education and self-improvement; and lastly, the fourteenth principle – all employees should be involved in the transformation of the company/institution.\footnote{See A. Blikle, op. cit., pp. 366–367; „Dr. Deming’s 14 Points For Management”, The Deming Institute, https://deming.org/explore/fourteen-points [accessed: 21 February 2022].} According to Deming, it is key for a leader to: understand the importance of team cooperation for the quality of the company’s/institution’s functioning, constantly analyse the subsequent phases of this process, create friendly working conditions, inspire trust, be an advisor/mentor, and constantly work on improving the quality of the company’s functioning.\footnote{Ibidem.}

The European Foundation for Quality Management (EFQM) has developed its own model of excellence, which encompasses nine areas.\footnote{See EFQM Excellence Model, European Foundation for Quality Management, Brussels 2004, pp. 13–24.} The first of them is leadership (focus on values, commitment, employee institution improvement, clear communication of the vision, cooperation with the environment), which has a direct impact on the next three areas. The second are employees (selection, cooperation, competence development, communication, and motivation). The third are policy and strategy (methods of building a strategy, taking into account current and future needs, decision-making and implementation activities). The fourth are partnership and resources (management of information, relations with the environment, information, knowledge, and technology). All of these have an impact on the fifth area: processes (designing and improving processes and relations between team members/institutions and the environment, building a positive brand image). And they, in turn, affect the next areas: employees behaviours (motivation, commitment, effectiveness, quality, performed work), customer satisfaction (perception
of the organisation by the environment), environment (image, social responsibility, relations with the environment) and key performance results (final effects/results of activities and processes depending on the institution’s profile). All of these areas illustrate the EFQM Excellence Model.

Although the presented concept of measuring the institution’s excellence (quality) in the EFQM model shares many areas with the 14 principles formulated by Deming, which are the basis for the implementation of TQM, many analyses indicate the lack of correlation between the two proposals and are critical to measuring the level of advancement of quality management in a given institution/company/organisation using this model. The analyses concern, inter alia, failure to define “quality” in the principles proposed in the EFQM model, a lack of dependencies (defining relationships) between individual elements, too much approach of the institution to achieve the configuration of the presented model, regardless of the nature of the institution, the current market situation, and adopted methods and goals. The criticism also concerns a very superficial approach to the need for continuous improvement of the institution/company, taking into account the current conditions and trends, and focusing almost exclusively on meeting the EFQM model criteria and economic objectives.

Deming’s 14 principles and the concept of the “Quality Doctrine”

In addition to Deming’s 14 principles and the concept of the European Foundation for Quality Management (EFQM), the approach of Andrzej Blikle and his concept of the quality doctrine, which the Japanese-American method of W.E. Deming, in cooperation with the concepts of Peter Druckner and W. Shewhart, reduced to three basic principles which together constitute the “Doctrine of Quality”. Blikle presented them in the form of a triangle, based on the “principle of rationality” (systemic thinking) and the “principle of cooperation” (building relationships), and at its top “the principle of continuous improvement” (comprehensives, continuous, improvements). Later Blikle described this concept in detail in his book *Doktryna jakości. Rzecz*
Conclusions, starting points for further development of the idea of management through quality

The concepts presented in this article, formulated on the basis of Total Quality Management (TQM), clearly show how comprehensive and continuous care for quality translates into excellent form of management and the profits resulting from it at subsequent stages, and the general well-being of employees and company managers – the basis for creativity and resistance to various factors disturbing this conjuncture. This is very vividly shown in the Deming Chain Reaction.33 The approach to organisa-

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29 A. Blikle, op. cit.
tional culture, work, employees, structure, motivation system and value orientation, and not just achieving ad hoc goals, is worth not only recalling, but also applying the concepts and methods formulated on the basis of Deming’s 14 principles, the TQM philosophy, and methods of application in different areas of life. The above-mentioned principles and the concepts presented in this article are also an excellent basis for the ethical shaping of recipients’ needs, the creation and improvement of principles focused around the idea of sustainable development, building and continuously improving the quality of mental and social resilience of people, continuous improvement of quality standards, and many other issues in accordance with the principle of a constant process of quality development within various spheres of social, economic, cultural, scientific and many other? Social resilience should not be treated as a state, it is a process that, along with changes and accompanying problems to be solved, should be constantly updated, developed, and taken care of in terms of quality. This article is an attempt to draw attention to the importance of this need.

References


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Abstract

The issues related to management, quality competences and social resilience for at least several decades have been very popular and are the subject of analyzes by representatives of various scientific disciplines. They are interesting because they concern almost every area of our life – their development and, at the same time, problems to be solved, implementing innovations, constantly taking into account the context of socio-cultural, economic, technological and other changes. Total Quality Management refers to a pro-quality approach to life and work based on cooperation, commitment, mindfulness, self-control, the need to develop and improve own qualifications and competences. Ultimately, this is to affect the long-term development and well-being of employees, institutions as well as potential applicants, customers, etc. and a wide range of institutions and people using the services of a company/institution or cooperating with it (within various spaces of social, cultural, economic, educational reality, etc.) and society understood in its various dimensions. The article deals with the key dimensions and contexts of the concept of comprehensive quality management, which is one of the key pillars of social resilience.

Key words: quality management, human teams, society, cooperation, development, competences, Total Quality Management, social resilience