
ANNALES
UNIVERSITATIS MARIAE CURIE-SKŁODOWSKA
LUBLIN – POLONIA

VOL. LII, 6

SECTIO H

2018

Gdańsk University of Technology. Faculty of Management and Economics. Chair of Quality Management and
Commodity Science

PIOTR GRUDOWSKI

ORCID ID: <https://orcid.org/0000-0003-0283-7544>
pgr@zie.pg.gda.pl

ANNA WENDT

ORCID ID: <https://orcid.org/0000-0003-4329-9199>
awendt@zie.pg.gda.pl

*Managing Quality Contests Based on Excellence Model at the
Local Level. Selected Conditions and Problems – Case Study*

Wybrane uwarunkowania i problemy związane z prowadzeniem konkursów jakości opartych
na modelu doskonałości na szczeblu lokalnym – studium przypadku

Keywords: quality; model of excellence; excellence

Słowa kluczowe: jakość; model doskonałości; doskonałość

JEL code: M290; M420; R110

Introduction

Several decades ago, the essence of the so-called Economy 4.0 and the associated concept of Quality 4.0 confirmed the universality of the principle of continuous improvement, which should be inscribed in a natural manner in the development strategy of contemporary organizations. A necessary condition for the implementation of the principle of improvement is the mutual respect of the management of the organization and other employees. If the management indicates that the idea of improvement is to

be the direction of the organization's development, they must actively identify with it and actively participate in its implementation, thus confirming their authentic determination towards other groups of employees. Modern leadership focused on the ability to take on permanent challenges related to improvement is a prerequisite for the sustainable success of the organization in all dimensions. This is confirmed by numerous scientific studies and examples taken from the practices of various organizations [Dale et al., 2000, pp. 4–10].

The relationship between the quality of leadership and other aspects of organizational maturity can be shown in detail through the use of models of excellence.

The aim of this article is to present selected, characteristic phenomena accompanying competitions for quality awards, based on the use of organizational excellence models implemented at the regional level. Based on the analysis of these phenomena, typical problems are identified, the understanding of which enables the better use of the idea of excellence to raise the overall level of maturity of organizations aspiring to quality awards at the local, national and effectively international levels.

The results of self-assessment and external verification of organizations participating in the 21st edition of the Competition for the Pomeranian Quality Award are presented. On the basis of in-depth interviews conducted with employees of the unit organizing the competition as well as source materials, considerable information was obtained about this task and some directions of improvement activities were defined as a result.

1. Quality awards based on models of excellence

The idea of excellence and the process of improvement constitutes a natural element of the theory of quality management, thanks to the principles promoted by the classic authors of this area of management [Wiśniewska, Grudowski, 2014, pp. 16–17]. According to them, an organization that adopts a pro-quality orientation should systematically plan and implement the self-assessment process. As a result, the improvement of the management system in the organization becomes an endless process that leads to an increase in the overall efficiency of the organization [Skrzypek, 2014, pp. 138–145].

The principles of excellence form the foundations of the Total Quality Management (TQM) concept, which has confirmed its current relevance within the framework of the 4th Generation Economy even stronger than a few decades ago.

The quality contests that are the subject of research in this article are based on the EFQM Model of Excellence (European Foundation for Quality Management), which is a synthesis of a practical reference to the principles of TQM [Grudowski, 2015, p. 21]. The most prestigious quality competition in Europe is the EFQM Excellence Award – previously the European Quality Award [www.efqm.com].

Kacała and Wierzbic note that the use of the EFQM model facilitates the implementation of a modern management system and allows for the further improvement of the organization through the following [Kacała, Wierzbic, 2015, p. 34]:

- getting a view of the organization as a whole;
- identification of the organization's strengths and areas for the improvement;
- the ability to check the effectiveness of actions taken;
- the possibility to compare with other organizations;
- help in identifying the best practices present in the organization and sharing them;
- increasing the involvement of employees in continuous improvement;
- improvement of internal communication and integration of various pro-quality and improvement initiatives.

The occurrence of quality awards at the global or European level has led to the creation of national and regional prizes. Their advantages, as pointed out by Vovk, are:

- the introduction of modern quality systems and quality management concepts (TQM) to various types of organizations;
- dissemination among enterprises of the concept of continuous improvement and pro-quality thinking;
- broadening the knowledge of representatives of the company's management staff on the subject of modern management methods which are used in leading global companies;
- increased possibilities of promotion of information in the media about the activities of a given organization, in order to eliminate barriers to trade, with a view to expanding the internal market;
- strengthening cooperation and understanding between existing and potential partners;
- broadening knowledge about the activities of a given organization among local government organizations and voivodeship authorities.

Entities that take part in national and regional quality contests not only declare their concern about "meeting customer requirements", but also note the importance of actions aimed at meeting the expectations of other interested parties, i.e. vendors, owners, employees and local communities. Participation in regional quality contests allows for active cooperation, integration and the enlargement of groups dealing with quality issues.

National quality contests are very popular in most countries of the world. A significant part of them in European countries is based on the criteria of the EFQM. By default, organizations applying for a national quality award should take part in a regional competition, mainly treating it as a preparatory stage. In some countries of Europe, the winners of the national competition are selected from the winners of regional competitions, and in some countries the initial participation in the regional competition is not a mandatory condition for participation in a national competition [Vovk, 2013, pp. 360–364].

2. Pomeranian Model of Excellence

Grigoroudis and Siskos define the business excellence model as a set of guidelines that constitute a standard for conducting a comprehensive internal assessment, i.e. a self-assessment of its potential and effects of the management system [Grigoroudis, Siskos, 2010, p. 58]. Typically, one of the first stages of the competition based on the model of excellence is the self-assessment of the reporting organization, carried out in relation to the criteria of this model. This is also the case for the Pomeranian Quality Award (PQA) [Biuletyn Informacyjny..., 2016, p. 4]. The criteria for the PQA assessment model are shown in Figure 1. Each of these criteria consists of sub-criteria set in the form of questions, to which the answers indicate the level of excellence of a given sub-criterion. On this basis, a point evaluation of all the criteria forming the PQA model is made. The maximum possible number of points is 1,000.

The currently used PQA model is based on the structure and the approach adopted under the 2013 Common Assessment Framework (CAF) model. The CAF model is a version of the EFQM model, addressed to public sector organizations, but thanks to the possibility of modifying its elements, it can be adapted to any type of organization. The first PQA competition was organized in 1996 in the Supreme Technical Organization in Gdańsk. From then on, the organizers of the competition are as follows [Regulamin 21 edycji Konkursu o Pomorską Nagrodę Jakości]:

- Pomeranian Council of Federation of Scientific and Technical Associations of the Supreme Technical Organization in Gdańsk – it has a coordinating role for the entire venture, promotes the competition, organizes training and contacts with the candidates as well as the final gala combined with the annual conference.
- Polish Register of Shipping S.A. – certification body with headquarters in Gdańsk, which carries out the evaluation of candidates' applications and verification audits at their premises.

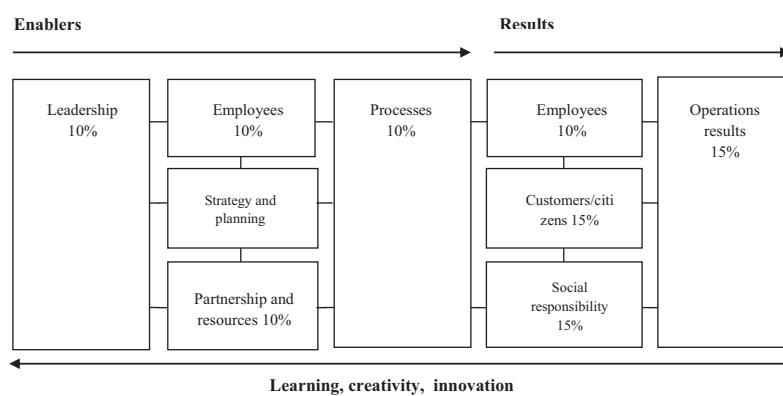


Figure 1. Criteria of the Excellence Model of the Pomeranian Quality Award

Source: *Regulamin 21 edycji...*

In the further part of the study, the resulting remarks are presented from the analysis of the information contained in the organization's verification reports that were reported to the 21st edition of the competition in 2017.

3. Analysis of verification reports regarding the participants of the 21st edition of the competition for the PQA

As mentioned before, the self-assessment questionnaire filled in by the representatives of the contestant organization is verified by the experts of the certification unit – Polish Register of Shipping S.A., supported by graduate students of Gdańsk University of Technology, the University of Gdańsk and Maritime University in Gdynia, specializing in management quality. The effect of such an audit is a report in which the expert, confronting the self-assessment report prepared by the contest participant and his/her own observations, defines the strengths and weaknesses of the organization and outlines the directions of improvement.

The report also includes a table that summarizes the resulting score from self-assessment and the expert's score issued on the basis of the verification visit. An example of such a statement for one of the participants of the 21st edition of the PQA competition is presented in Table 1.

Table 1. Scoring statement as the result of the self-assessment and verification visit in one of the reports from the participants of the contest for the PQA

Criterion	Self-assessment	Verification
1. Leadership	55	95
2. Strategy and planning	8	55
3. Employees	43	64
4. Partnership and resources	38	83
5. Processes	23	56
6. Customers/citizens relations results	24	43
7. Employees relations results	18	41
8. Social results	22	44
9. Key results	4	53
Summary (average values):	24.9	30.65%
		59.4
		73.11%

Source: *Raporty z weryfikacji 21 edycji Konkursu o Pomorską Nagrodę Jakości.*

The participants receive information on how many points they have obtained in the self-assessment and how many points they were awarded by the auditor during verification. Unfortunately, they are not informed what the maximum is. Of course, during the training, participants learn that in the self-assessment questionnaire, a maximum of 1,000 points is obtained; however, after reading the report, participants are not able to determine which criterion they should pay attention to. The summary includes mysterious points 24.9 and 59.4 and points converted into a percentage. Undoubtedly, the organizers of the PQA competition should try to refine this issue

in subsequent editions. Self-esteem is not a one-time process; it is worth returning to such a survey and checking for which aspect the organization has raised the level.

As can be seen from the data presented in Table 1, the verifying expert significantly raised the grade made by the competing organization as part of the self-assessment, which is particularly evident in reference to criteria No. 1, 2, 4 and 9. This is not an exceptional situation, not only in this but also in previous editions of the competition.

In connection with this, the following questions arise, among others:

1. Whether, and if so for what reason, does the organization issue an assessment that does not correspond to the level of maturity it represents?

2. Is the expert overrating the assessment, not guided by the actual level of management quality?

3. What is the significance of this type of situation when it comes to the development of a positive image and the spread of models of excellence as the basis for contests of quality awards?

These are, of course, only some of the questions worth answering in order to ensure real development and the spread of a valuable concept of organizational excellence [Boulter et al., 2013, pp. 197–215; Dahlgard-Park, 2008, pp. 98–119; Fonseca, 2015, pp. 85–99]. In order to better understand the essence of this issue, the authors of this article have analysed the reports of all organizations that have reached the stage of self-assessment of the 21st edition of the PQA competition.

It should be emphasized that the organizers of the PQA competition developed three versions of self-assessment questionnaires [Biuletyn Informacyjny..., 2016, p. 4]:

- for organizations employing up to 49 people (micro and small);
- for organizations employing over 50 people (medium and large);
- for public sector organizations (regardless of the number of employees).

Reports of 22 organizations were analysed. These are production and service organizations, including educational, construction, medical services, the municipal office and organizations involved in the preparation and implementation of cultural events.

Tables 2–4 show the percentage of the maximum individual rating of the 9 criteria of the model of excellence that resulted from the participants' self-esteem (S), and what resulted in expert verification (V). Due to the organizer's obligations, the organizations in question were marked with the following symbols:

- micro and small organizations: MS1 to MS10;
- medium and large organizations: ML1 to ML8;
- public organizations: P1 to P4.

Even a very rough analysis of the data contained in Tables 2–4 indicates several characteristic phenomena. Above all, the striking element is the lack of self-criticism for those contestants who do not notice the problem with exhibiting their organization at the stage of self-evaluation – in the case of one or several criteria, the maximum possible, meaning perfect assessment. This is undoubtedly the result of a lack of competence, and a lack of understanding of the essence of organizational excellence

Table 2. List of self-assessment results (S) and verification visit (V) expressed as a percent of the maximum assessment

of criteria in micro and small organizations

Criterion	MS1		MS2		MS3		MS4		MS5		MS6		MS7		MS8		MS9		MS10		
	S	V	S	V	S	V	S	V	S	V	S	V	S	V	S	V	S	V	S	V	
1	76%	87%	100%	91%	44%	71%	94%	94%	39%	76%	96%	84%	100%	100%	96%	96%	67%	89%	89%	89%	
2	65%	89%	100%	91%	35%	68%	97%	97%	11%	73%	100%	95%	100%	100%	96%	96%	61%	69%	80%	80%	
3	80%	94%	99%	87%	48%	68%	94%	59%	45%	67%	100%	92%	100%	100%	84%	84%	67%	94%	95%	95%	
4	75%	91%	96%	92%	64%	81%	98%	84%	27%	59%	100%	99%	100%	100%	89%	89%	64%	96%	94%	94%	
5	63%	83%	100%	99%	46%	69%	100%	100%	24%	59%	91%	86%	100%	100%	93%	93%	80%	80%	0%	88%	
6	48%	88%	100%	100%	54%	80%	100%	100%	48%	86%	30%	78%	100%	100%	92%	92%	60%	60%	70%	90%	
7	62%	82%	100%	97%	45%	77%	100%	100%	30%	68%	0%	83%	100%	100%	100%	100%	100%	77%	90%	83%	92%
8	62%	82%	100%	100%	42%	92%	70%	70%	44%	88%	10%	86%	100%	100%	92%	92%	58%	58%	94%	94%	
9	58%	95%	100%	100%	36%	96%	91%	91%	7%	96%	18%	85%	100%	100%	100%	100%	100%	62%	85%	96%	96%

Source: *Raporty z weryfikacji 21...*

Table 3. List of self-assessment results (S) and verification visit (V) expressed as a percent of the maximum assessment

Criterion	ML1		ML2		ML3		ML4		ML5		ML6		ML7		ML8	
	S	V	S	V	S	V	S	V	S	V	S	V	S	V	S	V
1	87%	89%	73%	87%	99%	99%	96%	98%	96%	98%	95%	95%	64%	95%	100%	100%
2	86%	89%	71%	88%	100%	100%	100%	100%	100%	100%	97%	97%	36%	88%	99%	99%
3	74%	80%	77%	96%	95%	100%	100%	100%	100%	100%	96%	96%	55%	81%	100%	100%
4	79%	88%	87%	98%	90%	90%	98%	99%	98%	99%	96%	96%	55%	76%	100%	100%
5	70%	90%	62%	93%	94%	100%	100%	100%	100%	100%	97%	97%	47%	77%	95%	95%
6	62%	78%	46%	83%	100%	100%	54%	77%	54%	77%	97%	97%	26%	71%	92%	92%
7	54%	79%	36%	78%	98%	98%	24%	77%	24%	77%	96%	96%	51%	63%	95%	95%
8	55%	74%	32%	79%	82%	82%	32%	74%	32%	74%	93%	93%	19%	71%	94%	94%
9	49%	78%	46%	82%	98%	98%	64%	64%	64%	64%	98%	98%	31%	81%	100%	100%

Source: *Raporty z weryfikacji 21...*

and the elements that create it. Organizations that evaluate reliably remain, unfortunately, in a greater minority.

As can be seen from this data, the ratings that have been verified by the expert for most organizations are higher or equal to those resulting from self-assessment. The assessments of experts who do not correct such excessive self-assessments seem equally blatant. It should be remembered, for example, that the best European organizations – winners of the European Quality Award – reach the level of 70–75% of the maximum.

Table 4. List of self-assessment results (S) and verification visit (V) expressed as% of the maximum assessment of criteria in public organizations

Criterion	P1		P2		P3		P4	
	S	V	S	V	S	V	S	V
1	41%	95%	94%	99%	100%	100%	100%	98%
2	27%	78%	92%	98%	100%	100%	100%	100%
3	55%	90%	90%	95%	100%	100%	100%	100%
4	60%	90%	91%	96%	92%	94%	93%	96%
5	22%	85%	85%	90%	95%	95%	97%	97%
6	59%	84%	49%	87%	61%	70%	89%	89%
7	28%	86%	63%	68%	56%	56%	100%	100%
8	36%	84%	75%	79%	43%	45%	99%	99%
9	20%	98%	75%	91%	52%	52%	71%	71%

Source: *Raporty z weryfikacji 21...*

According to Skrzypek, the company's success is integrally connected with the quality of management and method of process control [Skrzypek, 2010, p. 47] for which the chief executive is responsible. Latham and Myszewski claim that the effectiveness of improvement actions depends, among others, on engagement from all employees in the process of improvement and applying the style characterized by leadership [Latham, 2013, pp. 11–15; Latham, 2014, pp. 19–40; Myszewski, 2008, pp. 375–384]. It is worth noting in this context that in the organizations where, in the self-assessment criterion, No. 1 – Leadership – received a high grade, the other criteria also maintained a similar level. Although, as previously noted, the assessment, including the self-assessment of this element of the model of excellence at the level of over 70%, is significantly overrated in comparison with the practices of leading organizations, it should, nevertheless, be emphasized that it is difficult to imagine a very good assessment of the other criteria of the model with weak leadership.

The average self-assessment result of all participants in the 21st edition of the PQA competition is 76% of the perfect state, and the average verification score is 88%. This is certainly an overstated rating.

A detailed analysis of the results of self-assessment clearly leads to the conclusion that organizational maturity and awareness of own weaknesses of micro and small enterprises are lower than in the case of medium, large or public organizations. It is not about the score itself, but about the description contained in the self-assessment

questionnaire. This is one of the natural characteristics of small entities that is confirmed by numerous international studies [Murphy, 2016, pp. 345–360].

Decreasing the score as a result of the verification visit is practically non-existent. The expert conducting the audit as part of such a visit usually raises the final grade in order to personally reward the organization for the mere fact of making a decision on participation in the competition. On the other hand, if these experts were very strict about the participants, significantly lowering the self-assessment result, there is a high probability that these participants would resign from participation in the competition and cease to act as “good ambassadors” of the initiative. This could give the impression that the time devoted to completing a comprehensive, rather complex, questionnaire was wasted. According to the authors, this approach is not conducive to increasing the credibility and prestige of competitions based on models of excellence, both at the local and national level. However, it is also an important dilemma of the organizers of this type of initiatives who have to take into account a number of risk factors and adopt a strategy that will allow them to ensure the stability of the venture.

Conclusions

Regional competitions based on models of organizational excellence, such as the competition for the PQA, have a large potential, that, it is argued here, is still insufficiently used. These competitions stand out above all others due to the reliability of the participants' assessment method, resulting from the long-term, worldwide theoretical achievements and practical pro-quality management.

This method gives the organizations that use it the opportunity to use the results of assessments to compare their level of organizational maturity with other leading organizations. At the same time, thanks to the structure of the model of excellence, the organization can plan in detail the improvement activities in key areas of its potential and measurement of results. Thus, an organization participating in such a competition has a chance not only to gain image and marketing benefits, but above all to gain scientifically well-founded, comprehensive, structured knowledge about itself.

In the context of the questions asked in the first part of this study, the following conclusions are drawn:

1. Quality contests based on models of excellence should be accompanied by extensive educational activities, promoting the idea of organizational excellence and the reliable self-assessment of various entities at the local level. For this purpose, it is advisable to use funds allocated for regional development and the close cooperation of the economic environment with universities. Examples of such solutions already exist in Poland.
2. The rank of such competitions and the prestige associated with local quality awards depends on the reliability of the participants' assessment and should not remain significantly influenced by the necessity to implement subsequent

editions. This may require adaptation measures on a national scale and a certain type of central accreditation in the field of assessment, establishing, both among participants and local communities, an adequate level of trust in these initiatives.

3. The drawbacks indicated in this report related to the assessment of participants that should not be accepted by the organizers of the contests in question, regardless of the risks involved. Only then will the results of these ventures meet not only the level of “good intentions” of the participants, but also their actual achievements in the area of organizational excellence.

References

Buletyn Informacyjny Pomorskiej Rady FSNT NOT w Gdańsku, 2016, luty, wydanie specjalne.

Boulter, L., Bendell, T., Dahlgaard, J.J., *Total quality beyond North America: A comparative analysis of the performance of European Excellence Award winners*, “International Journal of Operations and Production Management” 2013, Vol. 33(2). DOI: [10.1108/01443571311295635](https://doi.org/10.1108/01443571311295635).

Dahlgaard-Park, S.M., *Reviewing the European Excellence Model from a management control view*, “The TQM Journal” 2008, Vol. 20(2). DOI: [10.1108/17542730810857345](https://doi.org/10.1108/17542730810857345).

Dale, B.G, Zairi, M., Van der Wiele, A., Williams, A.R.T., *Quality is dead in Europe – long live excellence – true or false?* “Measuring Business Excellence” 2000, Vol. 4(3). DOI: [10.1108/13683040010377737](https://doi.org/10.1108/13683040010377737).

Fonseca, L.M.C., *Relationship between ISO 9001 certification maturity and EFQM business excellence model results*, “Quality, Innovation, Prosperity” 2015, Vol. 19(1). DOI: [10.12776/QIP.V19I1.556](https://doi.org/10.12776/QIP.V19I1.556).

Grigoroudis, E., Siskos, Y., *Customer Satisfaction Evaluation. Methods for Measuring and Implementing Service Quality*, Springer Science+Business Media, New York 2010.

Grudowski, P., *Wybrane aspekty projakościowej orientacji w zarządzaniu polskimi uczelniami*, „Zarządzanie i Finanse” 2015, nr 3.

Kacała, J., Wierzbic, A., *Od systemów znormalizowanych do doskonałości biznesowej*, “Management Forum” 2015, Vol. 3(4). DOI: [10.15611/mf.2015.4.05](https://doi.org/10.15611/mf.2015.4.05).

Latham, J.R., *A Framework for leading the transformation to performance excellence. Part II: CEO Perspectives on leadership behaviors, individual leader characteristics, and organizational culture*, “Quality Management Journal” 2013, Vol. 20(3). DOI: [10.1080/10686967.2013.11918354](https://doi.org/10.1080/10686967.2013.11918354).

Latham, J.R., *Leadership for quality and innovation: Challenges, theories, and a framework for future research*, “Quality Management Journal” 2014, Vol. 21(1). DOI: [10.1080/10686967.2014.11918372](https://doi.org/10.1080/10686967.2014.11918372).

Murphy, W.H., *Small and mid-sized enterprises quality management research (1990–2014): A revealing look at QM’s vital role in making SMEs stronger*, “Journal of Small Business & Entrepreneurship” 2016, Vol. 28(5). DOI: [10.1080/08276331.2016.1166554](https://doi.org/10.1080/08276331.2016.1166554).

Myszewski, J.M., *O zapewnieniu skuteczności doskonalenia*, [in:] E. Skrzypek (red.) *Wpływ zarządzania procesowego na jakość i innowacyjność przedsiębiorstwa*, t. 1, Wydawnictwo UMCS, Lublin 2008.

Raporty z weryfikacji 21 edycji Konkursu o Pomorską Nagrodę Jakości.

Regulamin 21 edycji Konkursu o Pomorską Nagrodę Jakości.

Skrzypek, A., *Jakościowe aspekty doskonalenia zarządzania organizacją*, „Zeszyty Naukowe Uniwersytetu Przyrodniczo-Humanistycznego w Siedlcach. Seria: Administracja i Zarządzanie” 2014, nr 100.

Skrzypek, E., *Doskonalenie jakości jako szansa na sukces organizacji*, „Współczesne Zarządzanie” 2010, nr 3, Kwartalnik Środowisk Naukowych i Liderów Biznesu.

Vovk, V., *Specyfika i formy odznaczania w ramach międzynarodowych, krajowych i regionalnych nagród jakości*, „Zeszyty Naukowe WSEI. Seria: Ekonomia” 2013, Vol. 6(1).

Wiśniewska, M.Z., Grudowski, P., *Zarządzanie jakością i innowacyjnością w świetle doświadczeń organizacji Pomorza*, InnoBaltica, Sp. z o.o., Gdańsk 2014.
www.efqm.com [access: 15.09.2018].

Wybrane uwarunkowania i problemy związane z prowadzeniem konkursów jakości opartych na modelu doskonałości na szczeblu lokalnym – studium przypadku

Celem autorów było przedstawienie charakterystycznych zjawisk towarzyszących konkursom o nagrody jakości, opierających się na zastosowaniu modeli doskonałości organizacyjnej, realizowanych na szczeblu regionalnym. Wskazano typowe problemy, których zrozumienie umożliwia lepiej wykorzystać ideę doskonałości do podniesienia ogólnego poziomu dojrzałości organizacji aspirujących do nagród jakości na każdym szczeblu. Przedstawiono wyniki samooceny i zewnętrznej weryfikacji organizacji biorących udział w 21 edycji Konkursu o Pomorską Nagrodę Jakości. Na podstawie wywiadów pogłębionych, przeprowadzonych z pracownikami jednostki organizującej konkurs, a także materiałów źródłowych, opracowano diagnozę stanu aktualnego dotyczącą tego przedsięwzięcia oraz określono niektóre kierunki działań doskonalących.

Managing Quality Contests Based on Excellence Model at the Local Level. Selected Conditions and Problems – Case Study

The aim of this article was to present characteristic phenomena accompanying competitions for quality awards based on the use of the organizational excellence models implemented at the regional level. Typical problems were identified, the understanding of which allows for a better use of the idea of excellence to raise the overall level of maturity of organizations aspiring to quality awards at every level. The results of self-assessment and external verification of organizations participating in the 21st edition of the Competition for the Pomeranian Quality Award were presented. On the basis of in-depth interviews with employees of the competition organizing unit as well as source materials, a diagnosis of the current state concerning this undertaking was presented and some directions of improvement actions were defined.