

Özmen, Özgür; Sârbu, Roxana; Săseanu, Andreea Simona; Toader, Corneliu

Article

The European Foundation for Quality Management (EFQM) excellence model in a low voltage switchgear company

Amfiteatru Economic Journal

Provided in Cooperation with:

The Bucharest University of Economic Studies

Suggested Citation: Özmen, Özgür; Sârbu, Roxana; Săseanu, Andreea Simona; Toader, Corneliu (2017) : The European Foundation for Quality Management (EFQM) excellence model in a low voltage switchgear company, Amfiteatru Economic Journal, ISSN 2247-9104, The Bucharest University of Economic Studies, Bucharest, Vol. 19, Iss. Special Issue No. 11, pp. 1064-1076

This Version is available at:

<https://hdl.handle.net/10419/196410>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.



<https://creativecommons.org/licenses/by/4.0/>

THE EUROPEAN FOUNDATION FOR QUALITY MANAGEMENT (EFQM) EXCELLENCE MODEL IN A IN A LOW VOLTAGE SWITCHGEAR COMPANY

Özgür Özmen¹, Roxana Sârbu², Andreea Simona Săseanu^{3*}
and Corneliu Toader⁴

¹⁾²⁾³⁾ Bucharest University of Economic Studies, Romania

⁴⁾ National Institute of Neurology and Neurovascular Diseases, Bucharest,
Romania

Please cite this article as:

Özmen, Ö., Sârbu, R., Săseanu, A.S. and Toader, C., 2017. The European Foundation for Quality Management (EFQM) Excellence Model in a Low Voltage Switchgear Company. *Amfiteatru Economic*, 19(Special No. 11), pp. 1064-1076.

Article History

Received: 8 June 2017

Revised: 22 September 2017

Accepted: 4 Octobre 2017

Abstract

The Turkish low voltage switchgear sector is made up of several local and international companies. Generally, local companies operating in this sector try to get a competitive advantage by fabricating cheap products, in order to cope with the competition that focuses more on quality. What's more, international corporations perform quality activities under the organization and control of their top-managements from abroad. Although VIKO is a local producer, it is a company willing to invest more in quality, as well as in research and development. VIKO company is the focus of this self-assessment study, since it lies at the conjunction of companies operating in this sector, it being a local company performing various quality enhancement activities. Simultaneously, the authors consider that this study shall prove useful to create an overview over the entire Turkish low voltage switchgear sector. The evaluation of the company and its core-activities was based upon nine criteria of the European Foundation for Quality Management (EFQM) Excellence Model, in order to identify the strengths, the weaknesses and aspects that require improvements. This is the first study worldwide performed in the low voltage switchgear sector and it is aimed at motivating other Turkish companies that operate in this sector to implement The European Foundation for Quality Management (EFQM) Excellence Model in their TQM activities (Total Quality Management).

Keywords: self-assessment, The European Foundation for Quality Management (EFQM), low voltage switchgear sector.

JEL Classification: L15, M16, M21.

* Corresponding autor, **Andreea Simona Săseanu** – saseanu@yahoo.com

Introduction

This study was performed in order to reflect the implementation of The European Foundation for Quality Management (EFQM) Excellence Model in Viko company, which is at the forefront of the low voltage switchgear sector, from the point of view of quality and which has been awarded multiple times and in order for Viko to become a role model for similar organizations in this sector. The study focuses on the approaches applied on the basis of the EFQM Excellence Model criteria by this low voltage switchgear company that has been greatly successful. The expected result of this study is for it to become a guide for other companies operating in the low voltage switchgear sector that want to build a structure based on the EFQM Excellence Model. Additionally, the study emphasizes on the integration problems when Turkish low voltage switchgear companies try to implement this model. Considering these objectives, the study uses a descriptive methodology that is aimed at explaining certain situations, events, people etc. The methodology is useful to the study, taking into account the time and cost restrictions. Furthermore, the methodology is efficient for the analysis and interpretation. The analysis, carried out through the transformation of the self-assessment process, indicates the advantages, difficulties and key factors in understanding the success of this company. An interview model case study was used taking into account all types of secondary and primary data obtained from the top and middle level managers of the company, who are experienced in performing self-assessments.

1. Scope of the paper and literature review

The fast developing Turkish low voltage switchgear sector has had several opportunities to perform various quality related activities at the level of the international business environment after the 1980's, especially due to the implementation of the liberal economic policies in Turkey (Özmen, Demir and Özel, 2013).

The purpose of this paper is to demonstrate the adopting utility of the Excellency Model of European Foundation for Quality Management, by presenting the results of a research made inside the Viko Company. Viko, owned by Tüsiad-KalDer National Quality Award is a benchmark and a role model for other companies in the low voltage switchgear sector in Turkey. The company has adopted The European Foundation for Quality Management (EFQM) Excellence Model as a management philosophy in the early 2000's and has been highly successful. Precisely for the fact that it is the market leader and an efficient role model for other companies operating in the low voltage switchgear sector, Viko has been chosen as the object of this study.

At present, both the public and the private sector are dealing with problems in performing quality-related activities, especially with respect to uncompleted quality-enhancing activities, the systematic workstyle and carrying on the efforts in this respect. It is difficult for organizations to implement an effective and efficient system because of the restrictions and constraints imposed by the management. Nevertheless, this aspect is extremely necessary as consumers are mainly looking for achieving and using high quality products (Dinu et al., 2010). The European Foundation for Quality Management (EFQM) Excellence Model offers a no-strings-attached management system. This is why the model offers a management instrument that can function even in different environments, cultures regardless of the size of the organization (Denizhan, 2008).

The concept of quality was defined in its widest meaning as a degree of excellence, which must be adapted to the desired objectives and, in its most restricted meaning, as a compliance with requirements, lack of flaws or of contamination and the degree of customer satisfaction. In order to monitor all these aspects included in the definitions, organizations need a quality assessment process, which must be a dynamic, essential and continuous process (Jones et al., 2007). This assessment system contributes to the enhancement of quality, to setting up a definition of the mission and to the development of a sense of accountability (Vakani, Fatmi and Naqvi, 2011).

Daily self-assessment becomes an important management technique for the continuous enhancement of the general business performance (Zink and Schmidt, 1998). Self-assessment is essential in establishing a benchmark, as well as in identifying the best efforts and practices within an organization (EFQM, 2014). However, combining self-assessment with external benchmarking might counteract internal orientation. Additionally, self-assessment encourages the proper environment for continuous improvement, promotes a holistic view and helps people to realize more about the business (Zink and Schmidt, 1998; Gadd, 1995). The EFQM Excellence, Deming and Baldrige Quality Awards which are popular models for self-assessment, contain several criteria constructed of many sub-criteria addressing every aspect of the organization (Samuelsson and Nilsson, 2002). Although their models and scopes vary, awards, questionnaires, workshops and pro-forma are the main tools for implementing self-assessment in an organization aimed at identifying points that need improvement, measuring performance, involving people in developing a process improvement approach to quality and raising understanding and awareness regarding the importance of quality (Ritchie and Dale, 2000; Van der Wiele and Brown, 1999; Sharma and Hoque, 2002; Ford and Evans, 2006; Samuelsson and Nilsson, 2002; Tari and Juana-Espinosa, 2007).

Otherwise, the self-assessment process comes with certain restrictions, because it depends on an accurate collection of data. Some tools may collect less accurate and comprehensive data (Hides, Davies and Jackson, 2004). Furthermore, the choice of the self-assessment method is related to the organization's level of maturity and the level of effort invested in the self-assessment process (Karapetrovic and Willborn 2001). The low level of maturity proven by the organization might result in a waste of resources used for the comprehensive self-assessment project (Svensson and Klefsjo, 2006). Besides, the information, time, energy, finances and organizational culture have a great impact on the thoroughness of the self-assessment process (Hides, Davies and Jackson, 2004; Shih and Gurnani, 1997; Samuelsson and Nilsson, 2002; Sousa-Poza, Nystrom and Wiebe, 2001; Davies, 2008). Although there is no universal self-assessment method, several approaches might be useful as long as they fit the organization, are continuously used and foster participation (Samuelsson and Nilsson, 2002). Several research studies about the relation of quality awards and performance (Rahman, 2001), the process of self-assessment (Van der Wiele et al., 1996; Van der Wiele and Brown, 1999; Ritchie and Dale, 2000; Samuelsson and Nilsson, 2002) and the development of a self-assessment tool based on the criteria of quality awards (Lee and Quazi, 2001; Tari, 2006). Moreover, in order to obtain the commitment of middle and top management, people must be informed about targets, execution and consequences of self-assessment, as well as the benefits of improvements brought forth on the overall business (Thiagarajan and Zairi, 1998; Van der Wiele et al., 1996; Hillman, 1994; Ghobadian and Gallear, 1997; Zink and Schmidt, 1998; Samuelsson and Nilsson, 2002).

2. Methodology

Throughout the self-assessment study performed in Viko company, primary and secondary data was collected. Secondary resources refer to books and journals that relate to quality,

online search engines, the company’s own webpage, internal and external documents prepared for the national award for quality, self-assessment, project plans, progress reports, strategic plans, presentations, final reports and plans aimed at the improvement of previous self-assessments performed for different purposes, external reports and others. This data has also been used in order to develop the structure of interviews and to contrast the primary data obtained from observations and interviews carried out with top and middle level managers of the company. With the help of this primary data, the process was analysed and, then, the weaknesses were cleared up with the strategic planning and management systems manager in order to attain better results.

This study focuses on nine areas, with the objective of creating a general overview with respect to what people consider to be functioning in the case of Viko. The study was conceived as an interview with questions, modified from the 2013 EFQM Self-Assessment Questionnaire. It is available on the EFQM webpage. The original EFQM version of the questionnaire has a 5 Likert scale answer feature, but in order to get a deeper view and to secure more effective results, the structure of the questions was modified to open-ended questions instead of close end questions with Likert scale. The research tool is a 72 question form that is based on the EFQM Excellence model’s nine criteria and 32 sub-criteria and includes also many questions from RADAR. The tool consists of 40 questions covering the enabler categories and 32 questions assessing the results categories. The enabler categories were leadership (8 questions), policy and strategy (8 questions), people (8 questions), partnerships and resources (8 questions), and processes (8 questions). The results categories were customer results (8 questions), people results (8 questions), society results (8 questions) and key results (8 questions). For each sub-criterion, items were formulated primarily regarding the areas addressing the EFQM Excellence Model. The questionnaire evaluates the organization based on three dimensions. Firstly, it requires qualitative descriptions of the managerial applications relevant to measures. Secondly, the level of maturity and perception of the strategic importance of measures are briefly explained, and, thirdly, the open-ended questionnaire was tested among the mid-level managers and, then, several changes were made and pre-information notices were prepared in order to make sure all participants were informed enough, questions made clearer and more relevant to the case of the low voltage switchgear company.

One of the authors of this paper handled with collecting data for this research. The data has been collected between thirty of May and twenty first of July two thousand fifteen.

Top and middle level managers briefly answered all questions in face-to-face interviews with an average duration of an hour in the summer of 2015. All interviews were conducted in their native language. A total of 59 in-depth interviews were conducted using the semi-structured interview guide, whilst the investigator had a limited control over events. The interviewees were made aware that all interviews would be confidential. In total, 64 professionals were contacted, of whom 59 filled in the questionnaire (table no. 1). A total of 5 questionnaires were not filled in, mainly because of holidays or sick leave.

Table no. 1: Number of participants managers to interview

Position	Number
Supervizor	20
Administrator	13
Manager	18
Director	8
Total	59

The data was organized on the basis of the EFQM themes and sub-themes and were generated from the structure of the survey tool. Then, the answers obtained from the interviews were combined and summarised and only then after the interpretations and assertions were performed (Creswell, 1998; Vakani, Fatmi and Naqvi, 2011). The data quality was preserved due to the triangulation of the information collected from various sources. The data collected by means of the triangulation method were evaluated by using content analysis. The categories used in the content analysis were determined on the basis of the EFQM criteria as a research instrument structured on the basis of the same format. Finally, the similarities and differences of all pieces of combined information were compared and analysed according to each category.

The triangulation method, used in navigation and military Strategies in order to locate the exact position of an object by using multiple reference points (Clark, 1951) and also used in social sciences and psychology (Smith, 1975), is, currently, the preferred method by management studies for solving difficulties related to the interpretation and building a theory (Jick, 1979; Jack and Raturi, 2006). In this study, the methodological triangulation has used multiple sources of data or quantitative/qualitative methods. The research primary data was collected through direct observation and semi-structured interviews with the top and mid-level managers. The secondary data was supplied by certain internal documents from each department and external sources found online or classical sources. The primary data was complemented by this secondary data.

3. Analysis and results

The main activities of the Viko Company have been assessed on the basis of the nine criteria of the Excellency Model of European Foundation for Quality Management: Leadership, Strategy, People, Partnerships & Resources, Processes, Products and Services, Customer Results, People Results, Society Results, Business Results (figure no. 1) to identify its strong points, its weak points and the aspects that need to be done better.

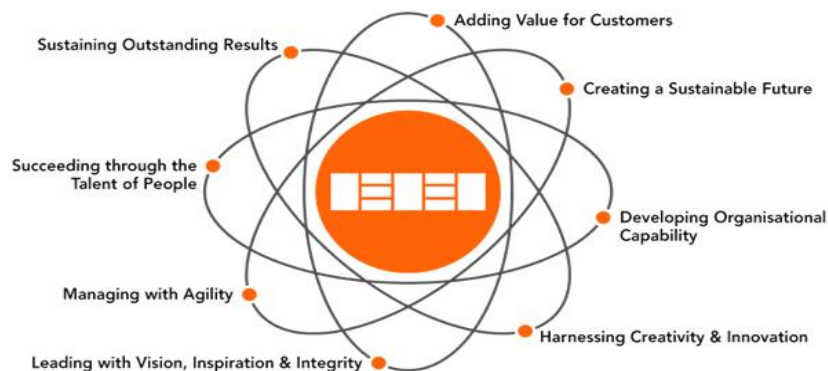


Figure no. 1: Fundamental Concepts of „EFQM Excellence Model”, version 2013
Source: EFQM, 2016

- *Leadership*

The mission, vision and values of the organization are developed by leaders. They are the ones who set up activities, manage processes, monitor progress and control the effective implementation of plans. Leaders attend meetings and visits in order to come up with the answers that best fit the customers', partners' and company's expectations and needs. Additionally, company leaders accept customers, suppliers and all partners as natural members of the organization and they include them in the Recognition & Reward System. Leaders take a role in team work and in the Suggestions System. Furthermore, they effectively manage changes and reveal the internal and external factors by using various analysis methods. Leaders actively participate in the Strategic Management Process in order to identify the priority areas for the improvements that may affect the business results of the organization. In order to revise the efficiency of Leadership, it is essential to analyse the Employee Satisfaction Survey and 360° Performance Management System with Feedback. Finally, the aspects that need improvements and that are related to the 1st Leadership criterion are identified by means of the self-assessment and these points are included in improvement action plans aimed at enhancing the efficiency of Leadership behaviours.

- *Strategy*

All information obtained by means of systematic data collection and through the evaluation method is analysed in order for it to be used in the approaches related to strategic planning and strategic thinking. The internal performance of the company is revised and analysed as an input to the strategy. The SWOT analysis is used in order to prevent the occurrence of certain deficiencies as a result of strategic errors caused by an uncertainty regarding the future. The evaluation of markets and of strategic business units is performed by means of the Business Portfolio Analysis, the Growth Share Matrix and the Multifactor Portfolio Matrix. With the help of the Porter Approach, external forces are analysed, such as power of suppliers, product replacement, degree of competition, etc.. the Prahalad – Hamel approach helps companies establish a relation between clients and their needs; additionally, this approach reveals strategies necessary for the development of new markets. The Slywotzky approach facilitates the development of logic on the basis of customers' requests instead of the company skills.

All strategies of Viko have been created on the basis of the Balanced Scorecard Approach, focusing on four dimensions: financial objectives, process, client and development. The improvement projects created in order to attain the objectives are determined by interdepartmental teams during strategic meetings. Also, the improvement projects, as a result of strategic management, are decided upon during high level strategic meetings for each department. Additionally, the main strategies and reasons are brought to the attention of employees during the meeting especially organized for sharing the strategy. Moreover, performance indicators are correlated with strategies and the attainment of targets is monitored on a regular basis. The achievement of strategic objectives is provided by evaluating deviations from the target and by initiating the proper remedial actions. Simultaneously, performance indicators are correlated with the strategies and the achieved objectives and are monitored on a regular basis. The achievement of strategic objectives is analysed by means of evaluating the deviations from the target and starting the appropriate remedial actions.

- *People*

The Human Resources Department analyses employees' needs and annual training courses on the basis of the outputs of the strategic management summit. The Performance Management System establishes the knowledge and skills of employees and it makes sure they comply with these conclusions, as well as with the needs of the organization. Viko implements this PMS as a 360° type approach for white collar employees and the top-down approach for blue collar employees. Individual performance scorecards as an output of the PMS are important for the identification of the employees' strengths and weaknesses as well as for understanding the employee's own performance.

Social communication is important for Viko in the sense of creating a spirit of society and expanding a family atmosphere also for the future. The Social Activities Team, with the participation of employees, determines the requirements to meet this kind of communication needs by means of the Social Activities Team Survey, the Employee Satisfaction Survey, face-to-face interviews, self-assessment and the Proposal Evaluation System. The leaders' opinions regarding the dissemination of corporate culture, suggestions of employees conveyed through the Employee Satisfaction Survey, the Suggestions System and benchmarking data are used for the process design and improvement activities. The Recognition and Reward System was designed as taking into consideration the achievements obtained as an individual or as a team. Basic principles of the company's Human Resources Planning are identified as the prevention of growing surplus or lack of labour in a certain period and the detection of the necessary human resources in due time at an optimum level of quality and quantity, in accordance with the company's level of activity and growth curves. The planned improvement projects are carried out by teams with the participation of employees according to the results obtained in the Employee Satisfaction Surveys and other feedback tools. The outcomes of the people-related improvement projects are measured and refined by feedback obtained from the employees by means of methods like Employee Satisfaction Survey and Performance Feedback Interviews.

- *Partnerships & Resources*

Strategies with respect to entering new business areas/products, subcontracting & outsourcing and minimizing costs are involved in VIKO's strategic plans. In order to achieve these strategies, findings obtained from exhibitions, company visits, market researches and supplier visits are evaluated so as to decide on the establishment of strategic partnerships. The company has financial policies, processes and information meant to support the efficient use of resources and improvement activities. The requirements of the company are met by emphasizing the improvement needs, which are identified with respect to the management of partnerships and resources. The set up teams perform their outsourcing activities in accordance with the company policies such as training of employees, identification of aspects requiring improvements, planning of necessary activities and scrutinizing the necessary improvements. All these improvement activities are performed with all partners, including customers and suppliers. The outcome of improvement projects related to partnerships and resources are measured and refined.

- *Processes, Products and Services*

Processes are systematically planned, managed and defined on the basis of the principles of the system approach, by revealing the vertical relation of processes. Viko monitors the situations that focus on objectives, as well as relevant indicators that reflect the performance of defined processes. Product development activities are carried out in order to meet current and future requirements of customers and strategies are elaborated in order to provide competitive advantage. In the process of product range management, data is collected from various environments so as to benefit basic competences, innovation and creativity of customers, employees and partners. Viko promotes and markets its products and services through vendor meetings, campaigns and TV commercials that optimize its sales, revenue and profitability. Performance indicators are monitored in environments like coordination meetings, management review meetings, executive board meetings, besides being regularly monitored by the person responsible of processes. In the case of deviations from targets included in the performance indicators, necessary process improvement activities are initiated.

- *Customer Results*

The satisfaction of customers is monitored by performing a Customer Satisfaction Survey once every two years throughout all domestic sales channels and first level customers from overseas. The main indicators are followed-up in order to monitor the performance trend of processes, the potential problem areas are diagnosed in due time and the necessary precautions are taken by Viko. The analysis of the Survey for past years proves that Viko has been successful in obtaining the targeted satisfaction level, which was higher than the benchmarking company for all years. It also helps the company to obtain recommendations, complaints and/or suggestions and the customers' perspective on the performance of the company (speed, quality, service levels...).

In order to achieve the quantitative goals, targets are determined on the basis of criteria by evaluating Customer Satisfaction Survey. For the most relevant indicators used in this area, the company compares its performance with benchmark activities. Viko has the opportunity of benefitting from benchmarking by means of activities carried out throughout the year with companies that have similar customers, distribution channels and sales structures.

- *People Results*

Since 2001, the Employee Satisfaction Survey is applied to all employees once a year in this company. By means of this indicator, the company monitors the employees' understanding of the strategy and quality of internal communication, it evaluates and consolidates employees' productivity and measures the compatibility between individual skills and the needs of the organization. The participation in the Employee Satisfaction Survey is not mandatory, however, the participation rate generally surpasses 95%. The areas needing improvement are determined by implementing the Performance-Importance Analysis to data which is obtained from the survey. In order to achieve the quantitative objectives, the targets are set up on the basis of the criteria obtained from the Employee Satisfaction Survey. For the most relevant indicators used in this area, the company compares its performance with benchmarks. Viko has the opportunity of benefitting from benchmarking by means of activities carried out throughout the year with companies that have similar customers, distribution channels and sales structures.

• *Society Results*

The company systematically manages its efforts for the society, by means of the Social Responsibility Managing Process, which applies the Society Perception Survey once every two years to the surrounding areas, in order to assess the environmental impact, the social impact and the image of Viko Company on social responsibility. The Survey on the Perception of Society has been prepared by taking into consideration expectations from the EFQM Excellence Model and VIKO’s social responsibility policy. All company activities are based on the social responsibility policy, which complies with VIKO’s vision, mission and strategies. The company involves its customers and employees in these activities and shares results with them, thus raising their awareness to the fact that social responsibility has a direct impact on the satisfaction of customers and employees. The company regularly supports activities that encourage employees' social commitment. In order to achieve the quantitative goals, which are set for the most relevant indicators the company uses in this respect, targets are established on the basis of criteria obtained by evaluating the Survey on the Perception of Society (figure no. 2). For the most relevant indicators used in this area, the company compares its performance with benchmarking activities.

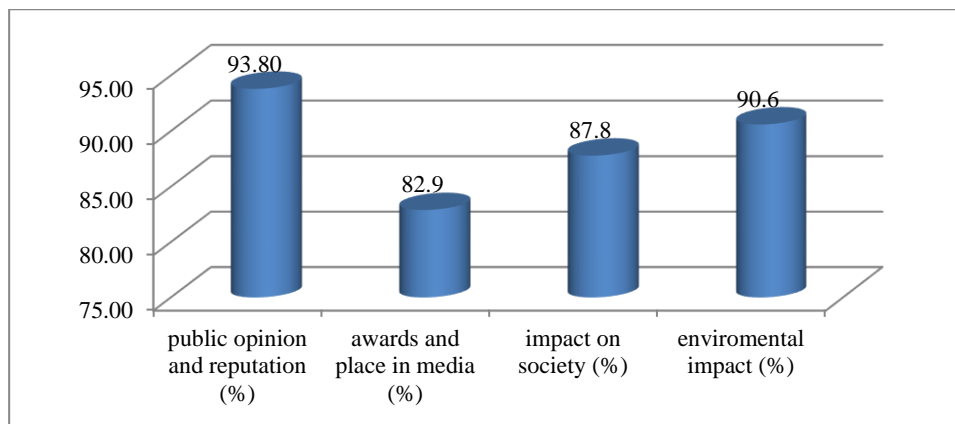


Figure no. 2: Society Perception Survey

Source: Produced by the authors based on the data from Viko Company

• *Business Results*

In this company, market and sales performance are measured by way of indicators like profitability, turnover, market share, etc. The productivity and overall operational performance are measured by way of indicators like OEE, scrap rate, accuracy of demand estimate. Moreover, indicators like savings obtained from innovation projects, number of innovative ideas, etc. are used as indicators for measuring the company’s performance in the field of innovation. The indicators related to business results are measured by the systematic reports and in the meetings related to Strategic Management Process. For the most relevant indicators used in this area, the company compares its performance with benchmarks. Viko has the opportunity of benefitting from benchmarking by means of activities carried out throughout the year with companies that have similar customers, distribution channels and sales structures.

Furthermore, some weaknesses were discovered after the self-assessment study. First of all, basic indicators in the financial indicators were identified and it is necessary to determine other process performance indicators in this respect. Strategic risks must be evaluated as a whole. Secondly, the comparison data should be used in the measurement of business results, which generate added value for customers. Thirdly, resources are allocated to many change projects in Viko. More efficient management of change processes and development of measurement systems for these processes may prove to be beneficial for the management of change within Viko. Fourthly, there is a need to identify risks within all processes. Finally, the participation of employee representatives can be provided in order to decide upon and review approaches related to employees.

Conclusions

Self-assessment is a starting point for a regular strategic or operational planning process that also brings continuous improvement, which is crucial for a business. Thus, quality certifications encourage businesses to carry out "continuous improvement", registering their stages in this respect and contributing to customer satisfaction. According to the EFQM Business Excellence Model, in order for an organization to be successful, it should have a good management system. The model structures the management system of an organization by means of self-assessments.

In the researched sector, local companies try to get comparative advantage by producing competitive cheap products with less concern over quality. Although Viko Company is a national producer, it has the willingness to develop more in the field of quality and R&D. Therefore, Viko started the quality journey so as to achieve a valuable increase of its competitive power. The company has identified existing values by means of its corporate culture survey and its leaders have set up necessary systems in order to carry out TQM culture as a lifestyle and to achieve targeted values. In order to ensure the continuous improvement of process performance, yearly self-assessments are performed so as to identify the strengths and aspects that require improvements and, afterwards, activity plans were structured on the basis of necessary improvements. For an effective management of the interaction between processes, necessary databases were developed and high-speed and secure information flows are provided. This company adopted EFQM Excellence Model as a management philosophy at the beginning of the 2000's. A goodwill manifesto was signed with Kalder in order to obtain excellence results and execute more systematic TQM activities in a competitive work environment. Viko is the pioneer in its sector that implements EFQM Excellence Model along with a continuous improvement in the quality of their products. As a result of these efforts, the company was awarded the National Quality Achievement Award in 2005.

In this study, Viko's main activities have been assessed on the basis of the nine criteria of The European Foundation for Quality Management (EFQM) Excellence Model in order to identify its strengths, weaknesses and aspects that require improvements. This is the first study at a global level carried out in the low voltage switchgear sector and it is aimed at motivating other Turkish companies in this sector to implement The European Foundation for Quality Management (EFQM) Excellence Model in their Total Quality Management activities. The study seeks to present the EFQM Excellence Model approaches applied by this low voltage switchgear company, which has been highly successful. The study has the

possibility to become a guide for other companies operating in the low voltage switchgear sector on their way to building a structure based on the EFQM Excellence Model. Moreover, it also focuses on the integration issues encountered in the implementation period of the model in Turkish low voltage switchgear companies.

This study has proven the efficacy of the self-assessment process performed by means of a questionnaire, which is based on the EFQM model for all services. Self-assessment allows Viko to identify its strengths, the aspects requiring improvements, as well as actions that must be included in an improvement plan based on the analysis of data taken from documents, interviews and observations. This self-assessment study brings forth certain contributions that could also be used by the managers of other companies in the low voltage switchgear sector. Additionally, certain conclusions of the study have a great significance for management, regarding total quality, as well as for general management, working in multinational corporations in the field of low voltage switchgear production. On the other hand, the study deals with certain limitations, such as the difficulty to extrapolate the lessons learned without over generalizing and the researchers' bias, which the use of the triangulation technique attempted to neutralise.

References

- Creswell, J.W., 2012. *Qualitative inquiry and research design: Choosing among five approaches*. London: Sage Publications Ltd.
- Davies, J., 2008. Integration: is it the key to effective implementation of the EFQM Excellence Model?. *International Journal of Quality & Reliability Management*, 25(4), pp.383-399.
- Denizhan, D., 2008. *EFQM Mükemmellik Modeli ve Kocaeli Sanayi Odası Uygulaması*. Unpublished master dissertation. University of Kocaeli, Turkey.
- Dinu, V., Marchevski, I., Dobrescu, E. and Petrescu, R.M., 2010. Education and training needs in the field of consumer protection in the Lower Danube region. *Amfiteatru Economic*, 12(Special No.4), pp.709-734.
- EFQM, 2016. *Self-Assessment*. [online] Available at: <<http://www.efqm.org/what-we-do/assessment/self-Assessment>> [Accessed: 2 June 2016].
- Ford, M.W. and Evans, J.R., 2006. The role of follow-up in achieving results from self assessment processes. *International Journal of Quality & Reliability Management*, 23(6), pp.589-606.
- Gadd, K.W., 1995. Business self-assessment: a strategic tool for building process robustness and achieving integrated management. *Business Process Re-engineering & Management Journal*, 1(3),pp.66-85.
- Ghobadian, A. and Galleary, D., 1997. TQM and organization size. *International Journal of Operations & Production Management*, 17(2), pp.121-163.
- Hides, M.T., Davies, J. and Jackson, S., 2004. Implementation of EFQM excellence model self-assessment in the UK higher education sector—lessons learned from other sectors. *The TQM Magazine*, 16(3), pp.194-201.
- Hillman, G.P. 1994. Making self-assessment successful. *The TQM Magazine*, 6(3), pp.29- 31.

- Jack, E.P. and Raturi, A.S., 2006. Lessons learned from methodological triangulation in management research. *Management Research News*, 29(6), pp.345-357.
- Jick, T.D., 1979. Mixing qualitative and quantitative methods: Triangulation in action. *Administrative science quarterly*, 24(4), pp.602-611.
- Jones, M.L., Hobson, R.S., Plasschaert, A.J.M., Gundersen, S., Dummer, P., Roger-Leroi, V., Sidlauskas, A. and Hamlin, J., 2007. Quality assurance and benchmarking: an approach for European dental schools. *European Journal of Dental Education*, 11(3), pp.137-143.
- Karapetrovic, S. and Willborn, W., 2001. Audit and self-assessment in quality management: comparison and compatibility. *Managerial Auditing Journal*, 16(6), pp.366-377.
- Lee, P.M. and Quazi, H.A., 2001. A methodology for developing a self-assessment tool to measure quality performance in organizations. *International Journal of Quality & Reliability Management*, 18(2), pp.118-141.
- Özmen, Ö., Demir, A. and Özel, S., 2013. EFQM Excellence Model as a Basis for Self-Assessment: A Study of Electromechanical Sector in Turkey. In: Conference Readings Book Proceedings, *6th Annual EuroMed Conference of the Euromed Academy of Business*. Estoril, Cascais, Portugal, 23-24 September 2013. Estoril: EuroMed Press. pp.2565-2569.
- Rahman, S.U., 2001. Total quality management practices and business outcome: Evidence from small and medium enterprises in Western Australia. *Total Quality Management*, 12(2), pp.201-210.
- Ritchie, L. and Dale, B.G., 2000. Self-assessment using the business excellence model: a study of practice and process. *International Journal of Production Economics*, 66(3), pp.241-254.
- Samuelsson, P. and Nilsson, L.E., 2002. Self-assessment practices in large organisations: experiences from using the EFQM excellence model. *International Journal of Quality & Reliability Management*, 19(1), pp.10-23.
- Sharma, U. and Hoque, Z., 2002. TQM implementation in a public sector entity in Fiji: public sector reform, commercialization, and institutionalism. *International Journal of Public Sector Management*, 15(5), pp.340-360.
- Shih, L.C. and Gurnani, H., 1997. Global quality management programmes: how to make their implementation more effective and less culture dependent. *Total Quality Management*, 8(1), pp.15-32.
- Smith, H.W., 1975. *Strategies of Social Research: The Methodological Imagination*. New Jersey: Prentice Hall.
- Sousa-Poza, A., Nystrom, H. and Wiebe, H., 2001. A cross-cultural study of the differing effects of corporate culture on TQM in three countries. *International Journal of Quality & Reliability Management*, 18(7), pp.744-761.
- Svensson, M. and Klefsjö, B., 2006. TQM-based self-assessment in the education sector: Experiences from a Swedish upper secondary school project. *Quality Assurance in Education*, 14(4), pp.299-323.
- Tarí, J.J., 2006. An EFQM model self-assessment exercise at a Spanish university. *Journal of Educational Administration*, 44(2), pp.170-188.

- Tari, J.J. and Juana-Espinosa, S.D., 2007. EFQM model self-assessment using a questionnaire approach in university administrative services. *The TQM Magazine*, 19(6), pp.604-616.
- Thiagarajan, T. and Zairi, M., 1998. An empirical analysis of critical factors of TQM: a proposed tool for self-assessment and benchmarking purposes. *Benchmarking for Quality Management & Technology*, 5(4), pp. 291-303.
- Vakani, F., Fatmi, Z. and Naqvi, K., 2011. Three-level quality assessment of a dental hospital using EFQM. *International Journal of Health Care Quality Assurance*, 24(8), pp.582-591.
- Van der Wiele, A., Williams, A.R.T., Dale, B.G., Carter, G., Kolb, F., Luzon, D.M., Schmidt A. and Wallace, M., 1996. Self-assessment: a study of progress in Europe's leading organizations in quality management practices. *International Journal of Quality & Reliability Management*, 13(1), pp.84-104.
- Van der Wiele, T. and Brown, A., 1999. Self-assessment practices in Europe and Australia. *International Journal of Quality & Reliability Management*, 16(3), pp.238- 252.
- Zink, K.J. and Schmidt, A., 1998. Practice and implementation of self-assessment. *International Journal of Quality Science*, 3(2), pp.147-170.