EFQM Excellence Model – A Systematic Literature Review.
A Proposal FOR a Maturity Assessment Framework

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Abstract: Performance Improvement is high on the agenda of most organizations worldwide. A growing number of improvement models are now available, and it is necessary to adopt an approach to earn the most attractive organizational excellence performance. One such practice is implementing the EFQM Excellence model, which is a self-assessment framework for determining the strong and weak points and measuring areas of improvement of an organization across continuous quality improvement. EFQM Excellence Model is used by any kind of organization regardless of size, sector, maturity and structure. Following the identification of the most known CSFs, we present the Glykas Quality Compass (GQC), a novel methodology for assessing the Quality Management Maturity that assesses implementation projects holistically and thoroughly using a matrix of critical success factors (CSFs) and enablers. The proposed methodology for maturity assessment might be specifically applied to the four quality management categories: Total Quality Management, Quality Standards, Quality Methodologies and Excellence Awards.

1. INTRODUCTION

Changing market conditions and continuously increasing intense competition day by day affect most organizations throughout the world to being more and more competitive. European Foundation for Quality Management has developed “EFQM Business Excellence Model” to lead these companies that are in search of business excellence. European Foundation for Quality Management (EFQM) was established in 1988 by 14 leading European companies with the mission of “Being Stimulus of Sustainable Excellence” and the vision to create “A World That European Organizations Strive Excellence” (Nabitz et al., 2000). European Foundation for Quality Management (EFQM) now serves over 800 organizations (members) in different countries worldwide. The organizations, which are represented by the EFQM, are companies that are composed of the most known and successful brands all over the world.

The EFQM Business Excellence Model is a useful tool that presents companies’ current position toward excellence and assists them in identifying opportunities and defects. EFQM Business Excellence model is a widely used organizational framework in Europe, which main components are customer and employee satisfaction, and excellent business results in society. The EFQM Excellence Model was based on the principles of Total Quality Management (TQM). In this respect, the model is the most known and applied in Europe for TQM. EFQM inspires organizational awareness. Therefore, the EFQM Excellence Model and TQM complement each other and assist organizations and businesses to survive in the current competitive market situation (Inan et al., 2010).

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Furthermore, EFQM and Total Quality Management complement each other to inspire organizations’ awareness and to achieve their existence in the current competitive market.

The original version of the European Model for Total Quality Management was updated by gathering inputs from years of application in changing market conditions that are made inside and outside Europe. The new EFQM version was launched in November 2019 to replace the previous version of 2012 (EFQM, 2022).

The recently published EFQM 2020 Model is aligned with European business ethics values and United Nations Sustainable Development Goals (SDGs) (Fonseca, 2022). In comparison to its previous version, EFQM 2013, the term “excellence” is no longer explicitly present and in most cases has been replaced by the term “outstanding” (Nenadál, 2020). The EFQM 2020 model is less prescriptive compared to EFQM 2013 and it is composed of seven criteria grouped in three dimensions, namely: Direction (why), Execution (how), and Results (what) (EFQM, 2022). The seven criteria are further subdivided into 23 criteria parts and 2 results criteria, and 112 guidance points. The methodology tool that EFQM has developed is called RADAR (Result, Approach, Deploy, Assess, and Refine).

2. LITERATURE REVIEW: MATURITY ASSESSMENT IN QUALITY MANAGEMENT

2.1. Quality Management (QM)

Much has been written about Quality Management (QM) practices and how they have now been embedded into the organization’s operations. Quality Management (QM) was developed almost two decades ago with the core ideas of “quality gurus”, W. Edwards Deming, Joseph Juran, Philip Crosby and Kaoru Ishikawa. Quality Management provides an all-pervasive management approach to competitiveness and a means for achieving business excellence in organizations. Finding its way into most sectors of today’s business environment, Quality Management (QM) has developed to serve all the business sectors and increasingly constitutes a very important research area for further research.

According to Dale et al. (1994), Quality Management (QM) has “four stages”. The first stage is described as the Inspection Stage. The inspection process is the first stage, which includes all information gathered for products and service improvement and the insurance that all finished organization’s products have been examined, to guarantee quality (Evans & Lindsay, 2005). The second stage of Quality Management is Quality Control (QC). The Quality Control process ensures that the quality goals are met during the organization’s operations (Evans & Lindsay, 2005). Quality Assurance (QA) is the third stage, which includes all the necessary actions regarding the customer’s needs, providing them with services or products, which fulfill the required standard (Boharan & Ziarati, 2002). Total Quality Management (TQM) is the fourth stage of Quality management. The TQM process is associated with long-term success through customer satisfaction, applying all the quality management concepts and principles to every operation of the organization.

2.2. Maturity Assessment (MA)

The concept of ‘maturity’ is clearly defined by Soanes and Stevenson (2006), as: “The state of being complete, perfect or ready.” Quality Maturity Assessment is a way of examining a range
of an organization’s capabilities that are required to support innovation (Paulk, 2018). Maturity assessment was described by Wilson (2015) as a way of establishing outputs, inputs, customer and staff satisfaction and performance measurement counted with other parameters (Wilson, 2015). One way of assessing maturity assessment in this sense is by using Quality Maturity Models (QMM). Quality maturity models help to identify organizational strengths and weaknesses, according to Khoshgoftar and Osman (2009). Furthermore, maturity models are crucial tools for the assessment of specific organizational capabilities against a benchmark standard (Brown, 2013).

Organizations continuously attempt to improve their Quality Management System (QMS) maturity level to achieve their mission, goals and objectives. Quality Management (QM) implementation maturity assessment provides useful means to examine the possible capabilities of supporting innovation (Paulk, 2018). This kind of assessment reviews organizational activities to identify possible weaknesses and then seeks recommendations for their improvement. Assessment is generally achieved via audits, both internal and external. However, audits alone are not sufficient. Valadao et al. (2013) highlight the importance of organizational self-assessment. The aim of this assessment is the achievement of the continuous improvement of the maturity level of the Quality Management System.

2.3. Continuous Improvement (CI)

Continuous Improvement is an extremely important phenomenon that has been considered a vital element in achieving an organization’s excellence. This may result from the continuous changes in the business environment and the emergence of the adoption of quality management systems. The development of the Continuous Improvement concept follows the quality evolution. The concept of Continuous Improvement came from the Japanese term Kaizen which was first spread by the father of continuous improvement, Masaaki Imai. Kaizen is a combination of two Japanese words that includes two main concepts: Kai (do, change) and Zen (well, to improve). Bessant et al. (2001) described "continuous improvement" as a continuous, incremental innovation process, targeted and involves every aspect of the organization. Mello et al. (2009) pointed out that continuous improvement is a formal requirement, and it is up to organizations to continuously seek efficacy and efficiency improvements to their operations. Continuous Improvement (C.I.) focuses on increasing organizational efficiency and effectiveness, which leads to costs and time reduction (Rio-Rama et.al., 2016).

2.4. Quality Maturity Models

The methods of assessing the level of a quality management system (QMS) resulted from the organizational maturity models. Quality maturity models have developed from the TQM concept. Hence, these models entail a detailed understanding of the current and future position of the entire company. Furthermore, the Quality Maturity Assessment process assists in identifying an organization’s strengths and weaknesses (Khoshgoftar & Osman, 2009), as Quality Maturity Models provide the appropriate frameworks for the way toward the organization’s better performance.

A thorough analysis of the literature has been done on the various models that can be used to determine the organization’s level of quality maturity (De Bruin et al., 2005). De Bruin et al. (2005) identified three key characteristics of maturity models, including a descriptive maturity model, a
prescriptive maturity model and a comparative maturity model. Regarding the descriptive maturity model, it is appropriate for assessing the existing and the current situation of the organization, offering a deeper understanding of a prevailing situation. A prescriptive model specifies how to identify the desirable future maturity level, providing measures for improvement. The comparative model benchmarked similar practices across organizations against disparate industries.

Several models have been developed for assessing the maturity of an organization. The concept of maturity was first proposed by Philip Crosby. One of the earliest maturity models for determining the level of quality maturity was created in 1979 and is known as Crosby’s Quality Management Maturity Grid (QMMG). Crosby’s model identifies the current situation concerning maturity (Crosby, 1979). Bessant’s Continuous Improvement Capability model was created by John Bessant in 1997 and it is a helpful model for organizations to understand where they stand concerning other organizations and to improve their Continuous Improvement capability (Bessant et al., 2001). Capability Maturity Model (CMM) was developed in 1987 by the Software Engineering Institute (SEI) at Carnegie Mellon University and it offers a guide for organization to manage its process to C.I. (Paulk, 2018). Capability Maturity Model Integration (CMMI) was created in 2000 and it is a model which has common features with CMM and ISO 9000 (Alblawi et al. 2014).

Two, also, notable maturity models used for performance measurement and change are the Balanced Scorecard (BSC), using a more customer-oriented strategy towards the change and the European Foundation for Quality Management (EFQM) Excellence Model, paying more attention to factors that contribute to the organization’s success. Certainly, in the future, it is worth examining the quality maturity models as they offer a critical measurement tool for assessing the quality management system maturity of the organizations.

3. LITERATURE REVIEW: CRITICAL SUCCESS FACTORS IN EFQM IMPLEMENTATION

Table 1 presents the Critical Success Factors proposed by all literature surveys of EFQM. The literature review aims to identify the most prominent CSFs proposed in the literature mainly during the last decade.

From the Table 1 it is evident that in the literature there are nine critical success factors in EFQM. One of the contributions of the research presented in this paper is related to the categorization of CSFs that should be included in future Maturity Assessment Frameworks. The most noticeable CSFs determined in the literature survey as presented in the table above are Leadership, Strategy, People, Partnerships & Resources, Processes, Products and Services, Customer Results, People Results, Society Results and Business Results. The context and structure of the EFQM Excellence Model consist of nine criteria. Five criteria out of nine generate “input” criteria while four criteria out of nine generate “result” criteria.

3.1. Leadership

Leaders develop the mission, vision, and values of an organization. Excellent organizations have leaders who shape the future and lay the foundation for it. Leaders of excellent organizations have flexible personality and guarantee that the organization will be led to success by estimating and carrying out crucial factors. Leaders must become involved with customers, partners, and representatives of society.
Table 1. Literature Survey of EFQM

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<tr>
<th>Critical Success Factors-CSFs</th>
<th>Reference</th>
<th>Leadership</th>
<th>People</th>
<th>Strategy</th>
<th>Partnerships &amp; Resources</th>
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3.2. Strategy

The structure of strategy is a significant step for quality. By following the opportunities and threats of the market, and sharing all processes with employees, organizations can create a policy
and strategy which is based on the present and future expectations and needs of its stakeholders. Excellent organizations create their mission and vision by creating a shareholder-based strategy.

3.3. People

Human resource is the only and necessary factor so that organizations can compete and survive in the market’s competitive circumstances. Employees should have the opportunity to take part in the decision process and reveal their skills to an excellent organization. Excellent organizations value their employees and create a vision and mission from which they and their shareholders benefit one another.

3.4. Partnerships & Resources

Excellent organizations plan and manage their cooperation with external partnerships. Once the organization examines its cooperation and resources, the cooperation with external partnerships will be easily managed.

3.5. Processes, Products and Services

The most important one among input criteria is the systematic design and management of the processes. An excellent organization should design and develop its products and services based on customer needs and expectations. Excellent organizations design processes, products and services and manage and enhance them to improve quality and to enhance customer relationships.

3.6. Customer Results

Result criterion related to customers indicates that excellent organizations achieve and sustain outstanding results that meet the expectations and needs of their customers. When observing how the reputation and image, the product and service value, the customer loyalty and engagement have an influence on customers in detail, it is aimed that product or service quality will reach the highest level. How serious the organization considers the product and service delivery, the customer service and support or the complaints handling is a key point in customer results criterion. Another crucial element is how effectively the overall support processes are carried out before and after the sales in order to foster client loyalty.

3.7. People Results

The result criterion related to employee efficiency is crucial as it also measures the employees’ satisfaction. When examining to which extent the target of the organization has been reached, the employees’ performance is assessed impartially. Absence rate, duty ratio, satisfaction and participation in the organization’s processes are an overview of the employee’s performance.

3.8. Society Results

The organization is not composed of only employees and customers; society is also important as customers. Therefore, it is impossible to ignore the damages and benefits in society. The contribution to the local and national economy is also used to examine whether the organization is appropriate and regarded as an excellent organization.
3.9. Business Results

Achieving and sustaining outstanding results that meet or exceed the needs and expectations of the organization’s stakeholders can result in an excellent organization. The results of Key Performance are divided into two separate sections, financial and non-financial results. Sales, profit, budget and cash flow are included in the financial results. In nonfinancial results, the management of cycle processes and productivity are examined.

In conclusion, the input requirements relate to how the organization operates to achieve business outcomes and how it achieves these results. Results criteria are related to the accomplishments and goals of the company (in terms of business results). Excellent organizations are regarded the organizations that have reached a high level of performance for all, both input and output criteria.

4. A PROPOSED MATURITY ASSESSMENT FRAMEWORK

Maturity Assessment Framework – Glykas Quality Compass (GQC) Maturity Assessment Framework

In the previous section, we presented the nine main dimensions of EFQM Excellence Model. The most prominent CSFs identified are: Leadership, Strategy, People, Partnerships & Resources, Processes, Products and Services, Customer Results, People Results, Society Results and Business Results. The novel holistic Quality Management Maturity Assessment Framework, called Glykas Quality Compass (GQC) is proposed in this section and has been applied to a variety of industrial sectors. The proposed GQC maturity assessment framework is categorized into four quality management perspectives (philosophies, frameworks, standards, and excellence awards) and analyzes the successful implementation of Quality Management through the analysis of ten key quality concepts. In GQC, management principles are viewed as necessary conditions or factors to achieve the ten quality concepts. The ten quality concepts are further categorized into three categories, which are: five core concepts (customer focus, human resource management, leadership, process, strategy), three intra-core concepts (performance measurement, change measurement, continuous improvement) and two auxiliary concepts (collaborations and corporate social responsibility and information/knowledge management) (Glykas, 2019).

4.1. Five core concepts:

**Strategy:** The organization’s vision and quality management system are both closely related to the strategy. An organization with a well-defined strategic direction will reach higher levels of internal and external customer satisfaction, greater employee involvement, commitment and contribution, and improve human efficiency and performance. The strategy is directly related to driving and achieving the organization’s vision.

**Customer:** Focuses on actions intimately related to meeting the customer’s needs and expectations.

**Process:** It concerns processes and mutually reliant activities that turn inputs into outputs and generate value while increasing quality and productivity levels.
People: To fulfill the organization’s goals, people at every level of an organization must take an active role and participate. Through active engagement, employees gain new knowledge and experiences, realize the value of quality, and go up their commitment to the organization.

Leadership: One of the most crucial factors in the continuous improvement (C.I.) process of the quality organization is the appropriate high-level executive management. The decision-making process and quality policy definition must be following the leader’s overall instructions. The organization’s leadership should develop and communicate the vision and strategy, as well as ensure that all the employees are actively participating in achieving the organization’s objectives.

4.2. Three intra-core concepts:

Performance Measurement: Evaluation, measurement and determination of an employee’s performance are all considered in the performance measurement. According to the description of the position, it is determined whether the position holder fulfills the requirements of the job description. Through the performance measurement process, the employee is informed and motivated to work at the highest possible level of performance by receiving the necessary and ongoing assistance. Each employee’s personal growth is ensured through this procedure, which also encourages job satisfaction, motivation and dedication to the company’s goals.

Change Measurement: Change Management is measured through evaluation techniques and corrective actions throughout the entire organization. Measurements are taken, data is gathered, examined and used to produce corrective measures that may result in the adoption and support of change. To give the company the data it needs to make informed decisions about how to modify its strategies and take the appropriate corrective action to reach its objective; change management metrics should be seen holistically.

Continuous Improvement: Continuous improvement, focusing on enhancing value-added activities throughout all organizational processes is included in this process. The employment of strategies that will teach them about process improvement and workflow management will be beneficial for organizations with a culture of continuous improvement.

4.3. Two auxiliary concepts:

Corporate responsibility: The impact an organization has on society, the environment, the economy and all stakeholders are the subject of corporate responsibility. Effective corporate responsibility programs enable businesses to operate in ways that benefit society and the environment while also adding value to the business itself. CSR initiatives can also assist strengthen the relationship between staff members and the company, raise spirits, and promote dedication.

Information-Knowledge management: Knowledge management is the process of defining, maintaining and exchanging employee knowledge and experience within a company. By eliminating prior ineffective methodologies and strategies, knowledge management involves a cycle of knowledge generation and exchange that maximizes collaborative know-how and improves performance. Employees are urged to share knowledge in businesses where learning and development are valued to enhance the workforce and realize knowledge management objectives.
The aforementioned ideas are used in all four quality perspectives (Total Quality Management, standards, methodologies and quality excellence awards) and are in accordance with the PDCA (Plan-Do-Check-Act) cycle for continuous improvement. The Deming cycle, often known as the PDCA Cycle, is a process with four steps: Plan, Do, Check and Act. The most important stages in the execution of quality management are planning and pursuance (Do), which look at how all organizational aspects are planned to support and regulate the implementation following the organizational resources available. The quality management principles, the organizational structure, the processes, the job descriptions and the management systems are all considered organizational factors in GQC during the planning stage. Land, buildings, equipment, human resources, capital and information systems are all considered organizational resources and all are included in the Execution stage (Glykas, 2019).

The Glykas Quality Compass (GQC) framework offers a matrix/a ten-to-ten table (Figure 1), that lists the ten most important, critical-success factors, which are identified in recent maturity-assessment frameworks and the ten, best-known factors, which are identified in the existing literature.

Accordingly, studies by Shafiqah et al. (2020), Jehangiri (2017), and Monge-Mora et al., (2020) have highlighted the need of having all the organizational resources needed to achieve the key – Critical Success Factors. Based on accounting theory and operations management as resources utilized in activity-based costing and business process costing models, Glykas Quality Compass lists six organizational resources: Land and Buildings, Equipment, Human Resources, Inventories, Capital, Information Systems, (Glykas, 2019). The aforementioned six resources and their respective four management authorities are the ten enablers of Glykas Quality Compass (GQC).

The proposed Quality Management Maturity Assessment Framework (Glykas Quality Compass, GQC) makes a clear distinction between the application of Quality Management ideas by applying maturity assessment to each of the four practices individually (Glykas, 2019). According to the study of Vitzileou et al. (2022), the proposed framework (GQC) has been applied to assess the maturity of ISO 10018:2020 implementation.
5. CONCLUSION AND FUTURE RESEARCH

In section two we presented a literature survey on the Maturity Assessment (MA) in Quality Management (QM) and on EFQM Excellence Model. After identifying research gaps and limitations and taking into consideration the reputable articles, we developed our research questions; in section three we focused our literature on the critical success factors (CSFs) in EFQM Excellence Model. A summary table of these identified critical success factors was presented. In the summary table, we highlighted the CSFs found in EFQM Excellence Model scholars to identify the most noticeable ones. In section four, we presented a Maturity Assessment Framework called Glykas Quality Compass (GQC). The holistic approach of the GQC maturity model combines CSFs with quality management principles. The members of Quality Management team can better understand the theory and link it to daily tasks thanks to GQC’s holistic approach (Glykas, 2019).

This study employed Systematic Literature Review to investigate the Critical Success Factors (CSFs) affecting the successful implementation of EFQM Excellence Model. This Systematic Literature Review observes and identifies CSFs after implementing EFQM Excellence Model in organizations independent of the industry sector where the company operates. The findings indicate that CSFs vary across industries and timespans. The importance of Leadership and People as crucial CSFs is identified. This systematic literature review also identified the importance of Maturity Assessment in Quality Management.

The research aims not only to help academics and researchers in identifying Critical Success Factors in EFQM Excellence Model but also to assist practitioners in field implementation. The study also promotes the adoption of the EFQM Excellence Model and also of GQC for business excellence, and lays the foundation for further literature review studies of these two models.

References


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