



EFQM Maturity Assessment

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Abstract: *The paper identifies the approaches of Quality Management Maturity Assessments and proposes the novel Quality Maturity Assessment framework called Glykas Quality Compass (GQC) that evaluates implementation initiatives holistically and comprehensively through a matrix of Critical Success Factors (CSFs) and Enablers. The authors apply the proposed framework in the newly published EFQM Model in order to verify the framework's ease of use and concept validity. The EFQM model criteria were analyzed based on the CSFs and enablers presented in the GQC maturity framework. Based on the results of the analysis, the GQC - EFQM Model correlation table is presented. The results emphasize the importance of the contribution of excellence in improving the quality and performance of organizations that desire long-term results and sustainable value. GQC provides and integrates the CSFs with management principles and organizational resources with business objectives and leads to an integrated framework of quality management and corporate sustainability.*

1. INTRODUCTION

Models of excellence, according to the bibliography, provide a proper framework of reference about the way how one can implement TQM in an organization, as they ensure that the principles and key factors, underlying this philosophy, are fully applied, transferred to the daily activity of the companies as a coherent set and are systematically developed according to schedule. The fundamental concepts (leadership, strategy, people, alliances, resources and processes), which are presented in the models of excellence, bear a strong relationship with TQM factors, representing a valuable guide for organizations that aim to introduce and manage improvement activities following TQM philosophy.

According to Hsu et al. (2021), in actual practice, the principles and theories of TQM are not static but are constantly evolving. The outcome of TQM is organizational commitment and the collaborative effort to achieve business excellence (BE). In the research of Periañez-Cristobal et al. (2021), it is stated that the achievement of the outcomes is dependent on the application of TQM principles and practices. This research refers to the principles, which are based on experts or quality management gurus (Deming, Juran, Crosby), to the models of excellence and, finally, to theoretical or empirical research deductions.

The pursuit of excellence was mainly referred to, until the previous edition (2012), by the European Foundation for Quality Management (EFQM Excellence Award) model. Evans (2008) stated that performance excellence requires a total effort involving a total change in thinking

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rather than a new collection of tools. In 2021, the revised EFQM 2020 model was published, in which the term “excellence” was replaced by the term “outstanding” referring to the organization achieving outstanding results (Nenadál, 2020).

As defined in the EFQM itself: “Outstanding organizations achieve and maintain excellent levels of performance that meet or exceed the expectations of all their stakeholders.” Thus, excellence is a way of managing and understanding the organization, which seeks to achieve excellent results not only financially, but also in relation to its customers, employees and society as a whole. An organization is considered as really excellent when, except achieving results in terms of its competitiveness in the market, it has also influenced its groups of interest in a positive and lasting way (Calvo-Mora et al., 2014; Para-González et al., 2022).

In section 2 the paper presents a review of the research on the revised model EFQM 2020. Periañez-Cristobal et al. (2021), argue that the EFQM model of excellence supports organizations to achieve sustainable development through continuous improvement, learning, innovation and process development. It also allows for the prosecution of thorough management review, for the reception of comparison with other organizations, for the availability of a guide to determine and develop strategy, and for the identification of competencies and key resources. It is a self-assessment model in which criteria are defined based on the organization’s activities and processes and are evaluated according to its operation and performance (Fonseca, 2022).

Dahlgaard-Park et al. (2018) have conducted a study to compare the historical development of TQM with eight, known management theories. Applying the core values and elements of the EFQM Model of Excellence as a framework for their analysis, they concluded that TQM should be regarded as an evolving theory that adopts and is adaptable to an ever-changing environment. The same researchers, in 2019, studied a four-decade literature and concluded that success in TQM implementation is related to the maximum participation of employees in all the functions of the organization according to proper training, coaching and motivation. There has been highlighted the necessity for an everlasting adaptation concerning the Quality Management frameworks in a holistic way; this necessity was emphasized, based on better tools and techniques that meet the needs of the new services in any organization.

Due to globalization, dissemination and widespread implementation of Quality Management Systems, numerous governments around the world have attempted to establish or have already established National Quality Awards. Their purpose is to support, recognize and promote the efforts of their organizations to implement TQM systems. The National Quality Awards are the highest recognition for those companies that achieve excellent performance and a top-quality degree.

A National Quality Award is legislated to meet the following objectives: to promote knowledge of TQM as an essential element to improve quality and productivity, to provide guidance for the implementation of evaluation and continuous improvement and to be the starting point of a national attempt to increase competitiveness and long-term, financial development of each country.

In section 3 the paper presents a maturity framework that was developed for and is being used in QM implementation assessment called the Glykas Quality Compass (GQC). The model is composed of a ten by ten matrix containing the ten most prominent critical-success factors, which are identified in our literature survey of QM maturity-assessment frameworks and the ten most prominent enablers also identified in the same survey.

To evaluate the validity of the proposed maturity assessment framework and investigate how a maturity assessment matrix can be created especially for EFMQ 2020, in section 4 we present our research efforts on the application of EFMQ 2020 in GQC. The result is the advanced “GQC-EFMQ 2020” matrix. The matrix depicts the relationships of EFMQ 2020 criterions with the critical success factors and the enablers of GQC.

2. EFQM MODEL CRITERIA ANALYSIS

The design of the revised EFQM Model (2020) is based on years of experience in unsteady markets that drive transformation by leveraging the benefits of organizational analysis and future forecasting (Nenadál, 2020). It is based on the connection between the purpose and strategy of an organization, i.e. the cause with the results it achieves (Murthy et al. 2021; Nenadál, 2020; Fonseca, 2022). It is aligned with the United Nations Sustainable Development Goals, to simultaneously deliver performance and ensure transformation, creating lasting value for key stakeholders and achieving remarkable and lasting results (Fonseca, 2022). The EFQM 2020 model represents a significant evolution of the EFQM 2012 model. It emphasizes the necessity of transforming organizations for the future and comprehensive feedback from key stakeholders (Nenadál, 2020). The main difference is the change in the outline of the model and the activation and outcome criteria. The new structure of the model includes five criteria/enablers (leadership, policies, processes, resources and people) and two categories (out of 4) of results (EFQM Model Revised 2nd Edition). The criteria have been renamed and reduced from 9 to 7 while the sub-criteria from 32 to 25 (Murthy et al. 2021).

The criteria, according to the 2nd revised edition, are grouped into 3 dimensions/modules, which are easy to understand by those involved in the practical development of management systems (Nenadál, 2020). They are based on the simple but powerful logic of asking three questions:

1. **Direction:** Two criteria that answer the question “Why” the particular organization exists. What is its purpose and why does it have that particular strategy/direction? Moreover, the question “Why” are we implementing certain policies and practices ensures that only actions that add more value to the organization are taken. The criteria are related to Purpose, Vision and Strategy, Organization and Leadership.
2. **Execution:** Three criteria that answer the question of “How” it intends to respond to execute its purpose and strategy. It is about process design, stakeholder engagement, sustainable value creation, performance and transformation.
3. **Results:** Two criteria that answer the question “What” has the organization actually achieved to date and “What” results it intends to achieve in the future. The outcome criteria are directly related to Stakeholder Perceptions, Strategy and Operational Performance as attributes that drive the organization to success.

When grading the above criteria, Direction and Execution represent 60% of the score while Results from 40% as they are important but represent what has already happened. The greater emphasis on the criteria of the first two dimensions is due to the special importance given to the questions: why an organization exists, if it has the necessary culture to succeed, whom it serves to and how it creates and distributes lasting and sustainable value to its stakeholder groups (Fonseca, 2022).

In its latest edition, the official title of the model has changed from “The EFQM Excellence Model” which was in 2012 to “EFQM Model”. The term “excellence” was removed by the

committee and replaced by the term “outstanding” which characterizes an organization that wishes to achieve its best (Nenadál, 2020). In the revised model, the term “ecosystem” was adopted as a keyword emphasizing the interaction and interdependence of organizations as part of a wider system (Nenadál, 2020). According to the *EFQM Model Revised 2nd Edition (2020)*, the use of the term “ecosystem” is based on the vision and planning that will lead each organization to achieve exceptional levels of performance, through transformation and organizational governance that will meet or exceed the basic expectations of its stakeholders. The new EFQM 2020 model also emphasizes the term “sustainable value” as a more general term regarding the value that the organization offers to all key stakeholder groups (Nenadál, 2020).

Critical to the model is the connection between an organization’s purpose and strategy and how these are implemented to create sustainable value for key stakeholders and achieve outstanding results. An organization is considered to be truly exceptional when, in addition to achieving results related to competitiveness within the market, it has a positive and lasting impact on its stakeholders (Calvo-Mora et al., 2014; Para-González et al., 2022).

3. MATURITY ASSESSMENT FRAMEWORK IN EFQM 2020

3.1. Maturity Assessment Framework

In recent decades, Total Quality Management (TQM) has become an important aspect of the business environment, and the subject of research due to the great impact it has on individual and organizational performance (Ooi et al., 2009). In a series of studies, it has been argued that TQM is a management philosophy that focuses on organizational and human values. For the implementation of TQM these values should be taken into account and developed to create an organizational culture in which the importance of quality improvement will be felt by all stakeholders (Krajcsák, 2019).

In the literature, many research questions have emerged, during the maturity assessment of Quality Management (QM), regarding the connection of the Critical Success Factors (CSFs) with the Basic Management Principles (Jehangiri, 2017; García-Alcaraz et al. 2019; Asante & Ngulube, 2020). The quality management maturity assessment framework Glykas Quality Compass (GQC), is categorized into four quality management perspectives (philosophies, frameworks, standards and excellence awards) and analyzes the successful implementation of QM through the analysis of ten key quality concepts (Table 1), providing a clear distinction between the use of QM concepts.

The ten concepts follow the Deming cycle or PDCA (Plan, Do, Check, Act), a well-known methodology for continuous improvement that consists of four phases, each of which requires, in a different way, the existence of management principles and organizational resources to implement quality management.

In GQC management principles are considered as necessary conditions or factors to achieve the ten quality concepts which are further subdivided into three categories: 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).

Table 1. The Glykas Quality Compass Table

Quality Concepts	Quality Categories																																																															
	TQM								Frameworks and Methodologies								Standards								Excellence Awards																																							
	OE				OR				OE				OR				OE				OR				OE				OR																																			
	OS	Jds	P	MS	L&B	E	HR	C	I	IT	OS	Jds	P	MS	L&B	E	HR	C	I	IT	OS	Jds	P	MS	L&B	E	HR	C	I	IT	OS	Jds	P	MS	L&B	E	HR	C	I	IT																								
Strategic Focus																																																																
Customer Focus																																																																
Process Focus																																																																
HRM Focus																																																																
Leadership																																																																
Performance Measures																																																																
Change Management																																																																
Continuous Improvement																																																																
Partnership & Corp. Resp.																																																																
Knowledge Management																																																																

Source: Glykas, 2019.

1. Five Core Concepts

- **Strategy:** The strategy defines the type and scope of activities in the long term, the quality management system, the objectives and standards that the organization will apply, and ensures optimal decision-making and the achievement of the required levels of quality and performance of the organization. At GQC the strategic focus is on developing business objectives and critical success factors (Glykas, 2019).
- **Customers:** It is the recipient of the final products/services provided by the organizations. Attracting and retaining loyal customers drive organizations to higher levels of performance. It is perhaps the most important stakeholder group for which the organization seeks to create sustainable value. At GQC customer focus is about practices and processes related to meeting customer needs and expectations (Glykas, 2019).
- **Process:** GQC focuses on managing processes as a sequence of activities (Glykas, 2019). Defining processes includes a series of specific actions, methods, rules and steps (Petridou 2011, p.288). Processes use resources, interact with each other add value for internal and external customers (Zalvanos, 2006, p.97) and contribute to efficiency and the effectiveness of organizations.
- **People:** It includes employees at all levels of an organization. It is the responsibility of organizations and human resources managers to establish policies and practices that promote the skills and behaviors of employees that are necessary to achieve strategic goals (Dessler, 2011). The active participation of employees contributes to the acquisition of new knowledge, the understanding of the importance of quality and their commitment to the organization. At GQC the “Human Resource Focus” includes performance appraisal, education and training, rewards and incentives and career development (Glykas, 2019).
- **Leadership:** According to the literature review, it is a common position that leadership is a critical success factor in quality management and the sustainability of organizations. In today’s uncertain, complex, unpredictable and highly competitive environment, leaders should be characterized by special management skills. Transformational leadership is perhaps the nature of leadership necessary to enable an organization to respond to the rapidly changing environment, stimulating the interest of people within the organization, encouraging their involvement at every level, investing in empowerment and development, and motivating employees that will lead to engagement and improved performance (Zavlanos, 2006).

2. Three Intra-Core Concepts

- **Performance Measurement:** Performance measurement is one of the key strategic processes that determine the level of implementation of an organization's goals (Zavlanos 2006; Petridou, 2011). It is a goal-oriented process that aims to ensure that an organization has the necessary processes to maximize the productivity of employees, teams and ultimately the organization itself (Mondy & Martocchio, 2019). The indicators and the performance measurement system should be designed and linked to the organization's objectives, strategy and stakeholder demands. Performance measurement should assess the effectiveness of internal processes in conjunction with their impact on key stakeholder groups (Cagnazzo et al., 2010). Analyzing and interpreting data that will lead to corrective actions is considered essential for performance measurement (Zavlanos, 2006).
- **Change Measurement:** It is an organizational process that helps guide the transition from a current state to a specified desired future state that will bring about positive future outcomes. Change management measurements should be done progressively, planned and with the participation of all employees (Zavlanos 2006) in order to help the stakeholders affected by the change to understand and accept it. Additionally, they should be viewed holistically to provide information that will help the organization make informed decisions about how to adjust its tactics and take the necessary corrective actions to achieve goals.
- **Continuous Improvement:** In GQC, continuous improvement is directly related to the PDCA quality cycle (or Deming quality cycle) for continuous improvement. The PDCA cycle is a methodology consisting of four phases: Plan, Do, Check and Act and different techniques (Glykas, 2019). A key element in achieving continuous improvement is the existence of a culture of continuous improvement and an emphasis on feedback (Deming, 1986) which reveals system weaknesses and lays the bases for improving processes and value-added activities.

3. Two Auxiliary Concepts

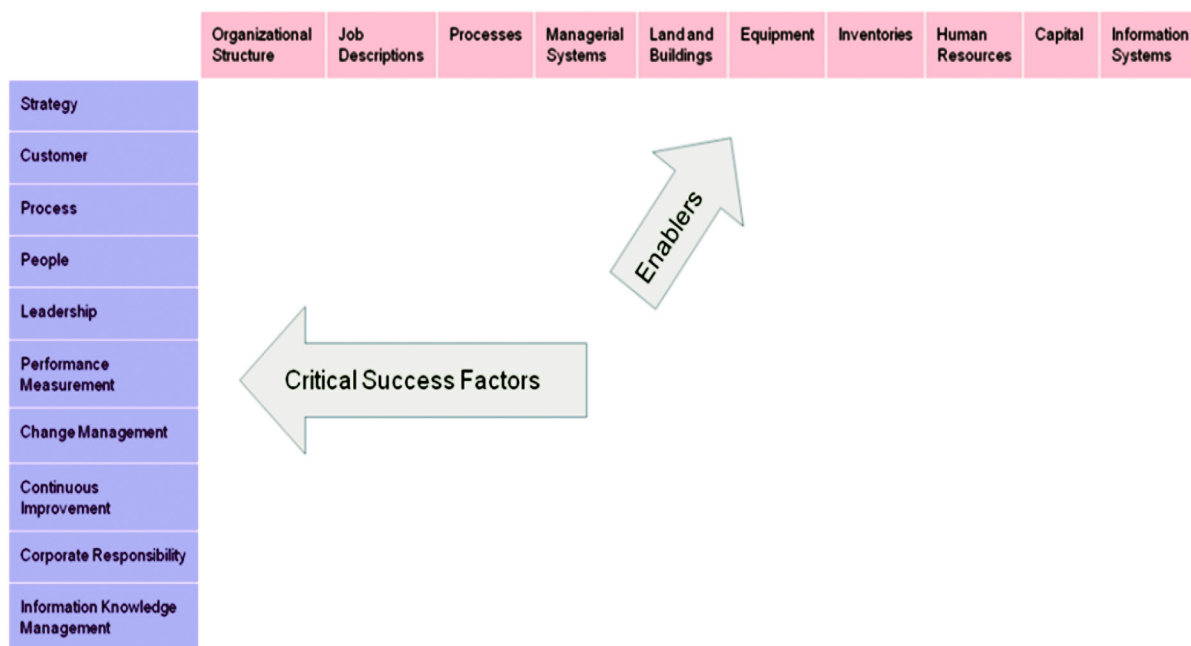
- **Partnership & Corporate Social Responsibility:** Mondy & Martocchio (2019) define Corporate Social Responsibility as "the implicit, imposed or inherent obligation of management to serve or protect the interests of key stakeholder groups outside the organization itself". CSR is reflected in management, the policy and values of an organization (Frolova & Lapina, 2014) and concerns the wider impact of corporate activities on society, environment, economy and all stakeholders. The implementation of CSR activities related to employees, in the long term, can bring about a significant reduction in the costs of the organization, while increasing loyalty and commitment and improving the overall quality of performance (Frolova & Lapina, 2014). The authors in the conclusions of their study noted that the quality management system provides a framework for the implementation of CSR policy, strategy, activities and culture at all levels of management of organizations, creating the basis for sustainable value creation and achieving business excellence. In the GQC maturity framework, partnerships are about an organization's relationships with suppliers and partners, and social responsibility is about the relationship with the wider community (Glykas, 2019).
- **Knowledge Management:** Knowledge management is the process of acquiring, exchanging and exploiting the knowledge and experiences of employees for the benefit of the organization (Iordanoglou, 2008). According to Yusr et al., (2017) study, an organization's ability to acquire and manage knowledge is a critical innovation factor. It helps maximize

collaborative expertise and improve performance by avoiding previous failed approaches and strategies. In GQC knowledge management relates to how knowledge is documented in an organization.

The GQC Maturity Assessment Framework assesses quality management initiatives holistically through a matrix of critical success factors and enablers. The matrix is based on the ten most important critical success factors identified in existing maturity assessment frameworks and the ten best known factors identified in the literature.

Critical factors for achieving the CSFs, according to studies by [Shafiqah et al. \(2020\)](#), [Jehangiri \(2017\)](#), [Monge-Mora et al. \(2020\)](#) is the presence of all the necessary organizational resources. In GQC the six organizational resources identified are: Land and Buildings, Equipment, Human Resources, Inventories, Capital, and Technology and Information Systems ([Glykas, 2019](#)). The six organizational resources with the four management principles constitute the ten GQC enablers (Table 2).

Table 2. Framework of Glykas Quality Compass (2019)



Source: [Glykas, 2019](#).

3.2. Application of GQC on EFQM 2020

In order to investigate whether the Glykas Quality Compass (GQC) maturity assessment framework in quality management can be further extended and apply the EFQM model, the EFQM – GQC table (table 4) was created, which provides the relationships of the criteria of the EFQM 2020 model (table 3) and the critical success factors and enablers of the GQC model.

3.2.1. Discussion on GQC – EFQM Table

In the Glykas Quality Compass (GQC), the main management principles (table 2) are considered as necessary conditions or factors to achieve the ten quality concepts in the context of

performance management practices. In the EFQM 2020 organizations use the model to prepare and then undergo external recognition by qualified EFQM assessors who review current activity, identify key strengths and weaknesses and provide relevant insights. The correlation carried out identified significant relationships between the EFQM 2020 model and the GQC, at the level of criteria and critical success factors, which can support and combine organizational excellence with quality in order to improve performance and create sustainable value.

Table 3. Criteria of EFQM 2020

Direction	
Criterion 1	Purpose, Vision & Strategy
1.1	Define Purpose & Vision
1.2	Identify & Understand Stakeholders Needs
1.3	Understand the Ecosystem, own Capabilities & Major Challenges
1.4	Develop Strategy
1.5	Design & Implement a Governance & Performance Management System
Criterion 2	Organizational Culture & Leadership
2.1	Steer the Organization's Culture & Nurture Values
2.2	Create the Conditions for Realizing Change
2.3	Enable Creativity & Innovation
2.4	Unite Behind & Engage in Purpose, Vision & Strategy
Execution	
Criterion 3	Engaging Stakeholders
3.1	Customers: Build Sustainable Relationships
3.2	People: Attract, Engage, Develop & Retain
3.3	Business & Governing Stakeholders – Secure & Sustain Ongoing Support
3.4	Society: Contribute to Development, Well-Being & Prosperity
3.5	Partners & Suppliers: Build Relationships & Ensure Support for Creating Sustainable Value
Criterion 4	Creating Sustainable Value
4.1	Design the Value & How it is Created
4.2	Communicate & Sell the Value
4.3	Deliver the Value
4.4	Define & Implement the Overall Experience
Criterion 5	Driving Performance & Transformation
5.1	Drive Performance & Manage Risk
5.2	Transform the Organization for the Future
5.3	Drive Innovation & Utilize Technology
5.4	Leverage Data, Information & Knowledge
5.5	Manage Assets & Resources
Results	
Criterion 6	Stakeholder Perceptions
Examples	<ul style="list-style-type: none"> • Customer Perception Results • People Perception Results • Business & Governing • Stakeholders Perception Results • Society Perception Results • Partners & Suppliers Perception Results
Criterion 7	Strategic & Operational Performance
Examples	<ul style="list-style-type: none"> • Achievements in delivering its Purpose and Creating Sustainable Value • Financial Performance • Fulfillment of Key Stakeholders Expectations • Achievement of Strategic Objectives • Achievements in Driving Performance • Achievements in Driving Transformation • Predictive Measures for the Future.

Table 4. Table GQC – EFQM

		Enabler Managerial Principle (EMP)				Enabler Resource (ER)				
		Organizational Structure	Job Description	Processes	Managerial Systems	Land and Buildings	Inventories	Human Resources	Capital	Technology and Information Systems
Critical Success Factors (CSFs)	Strategy	1.1 1.4 1.5 2.1 4.1 5.2		1.1 1.3 3.3 5.1	1.3 7	1.3		1.3 3.2	1.3	1.3 5.2
	Customer	1.2 3.1 4.2		3.1 5.3	7					
	Process	5.1		1.3 5.1 5.3	1.5 5.3			5.3		5.3
	People	1.2 2.1 2.2 2.3 2.4 4.1 4.2 4.3 5.5	3.2	3.2 3.3	7					
	Leadership	1.1 2.1 2.2 2.3 2.4 3.4 4.1 4.2 4.3			2.1			2.3 2.4 4.1 4.2		
	Performance Measurement		1.5	1.5	5.1			1.5		
	Change Measurement	4.2		2.2				4.2		
	Continuous Improvement	1.1 2.2 2.3 3.4 4.2 5.1 5.5		1.1 5.1 5.3	5.1			5.1 5.5	5.5	5.3
	Information Knowledge Management	1.3 4.4 5.3		4.4						5.3 5.4
	Partnership & Corporate Social Responsibility	1.1 1.2 1.5 3.4 4.2 4.3 5.1		1.5 3.3 5.1 7						

From the results of the analysis and correlation of the EFQM 2020 model and the GQC framework presented in the GQC - EFQM 2020 correlation table, it is worth highlighting some inferences.

- **Strategy, Purpose and Vision**, constitute a critical criterion that defines the way to create sustainable value to stakeholders and contribute to improving current and future effectiveness in the EFQM 2020 model, while in GQC it is a critical factor in developing a quality culture and quality management. Though, the design of the **processes** that is the basis in GQC for any development and improvement of the management system is missing from the EFQM 2020 model which does not emphasize the framework of key processes used for the effective implementation of the organization's strategy (Nenadál, 2020). The EFQM 2020 model highlights the role of organizational policies and practices implemented by an organization that have a direct impact, in both models, on the interaction with all key stakeholder groups, on issues related to the organization's financial performance but also on the impact of actions in the environment and society. Organizations that want to achieve outstanding results ensure that strategy and processes are implemented through a set of interdependent and interconnected systems, processes and data that add value to

stakeholders. These are processes that are evaluated on a regular basis and adapted to new data each time, allowing realistic decision-making and ensuring the effective management of potential risk and the trust of stakeholders.

- **Leadership** at all levels is a common important factor for success and improving the performance and quality of an organization. In the EFQM model, leadership has a significant and direct influence on the configuration of strategy and culture, the implementation of processes, the management of resources and key stakeholder groups. Leadership is responsible for developing and communicating a culture of transformation that will create the bases for an agile and adaptive environment focused on success, utilization of the results to date, driving change and creating sustainable value aligned with the purposes and values of the organizations and will be based on the co-creation with the organizations of the ecosystem to which the organization belongs. Establishing and maintaining a sustainable relationship with customers, as a key stakeholder group, is a vital factor that directly affects the achievement of outstanding results. On the same basis in the GQC maturity framework, leadership is a critical success factor and a key quality management principle.
- **Employee** involvement in quality management is vital as human resource management practices encourage value alignment and participation that support sustainability efforts (de Menezes et al., 2022). Investing in employee development and engagement maximize their participation and contribution to the achievement of organizational goals. An organization's employees, the knowledge and skills they possess are an inimitable resource and a competitive advantage for the organization. Organizations that invest in employees provide support, rewards, and side with their personal development by maximizing their potential, encouraging active participation, and ensuring their commitment. Employee involvement in the EFQM 2020 model and GQC appears to be a key factor affecting all key quality management practices and creating a sustainable future. However, the EFQM 2020 model does not present a comprehensive approach to human resource management since it does not provide recommendations on defining skills, competencies and the level of performance of employees (Nenadál, 2020). Furthermore, the EFQM (2020) model does not refer to the job description. To recruit, develop and retain human resources, the job description investigates whether the holder of the position get above the duties required by the position and through performance measurement is informed and encouraged to reach the best possible level of performance. In the GQC maturity framework, the job description is a key management principle that provides information about the position but also about the organization itself and its intention to implement quality management systems (Ahmed et al., 2022).
- Learning as part of **knowledge management** is considered a key strategic activity for the growth and sustainability of organizations. The management of existing knowledge and experience can contribute to the creation of new knowledge and consequently to new strategies for the improvement of an organization (Para-González et al. 2022). In the GQC maturity framework knowledge management is a critical success factor in quality management and achieving optimal results. In the EFQM model (2020) the management and exchange of knowledge within the ecosystem leads to the creation of radical innovations through a culture of continuous learning and development. The positive correlation of knowledge management in the two models proves that organizations that leverage prior knowledge and apply continuous learning processes create sustainable value and a strong competitive advantage.
- In the EFQM model, an organization's **corporate social responsibility** is expressed through its values and ethical approach. CSR encourages transparency and stakeholder participation and promotes social responsibility and environmental sustainability without

providing recommendations for measuring and optimizing the impact of an organization's operations, product life cycle and services on public health, safety and the environment (Nenadál, 2020). Corporate social responsibility in the GQC is presented as a critical success factor for quality management and the adoption of corporate social responsibility initiatives is a useful tool for improving corporate performance and the sustainability of an organization. Organizations that demonstrate corporate social responsibility in practice enhance the organization's public image and gain the trust of stakeholders.

- **Change management** has a significant impact on the performance of an organization seeking to achieve excellent results and a long-term sustainable future. The EFQM 2020 model is characterized as a transformational model that promotes change, improvement and long-term sustainability starting with the vision and strategy that each organization will implement and then with management systems and practices. Through evaluation criteria and metrics, it encourages organizations to understand where they are, manage change and improve performance. However, a study by Nenadál (2020) highlights the absence of indicators related to getting results in terms of stakeholder perceptions and strategic and operational performance of criteria 6 and 7. Accordingly, in the GQC, change management metrics are considered holistically and provide information that helps the organization make well-documented decisions about how to adjust its tactics and take the necessary corrective actions to achieve its goals.
- For GQC, the **management of resources and assets** are activators that support the organization's strategy and efficient operation (Zavlanos 2006) while at the same time contributing to the achievement of the desired results. However, the revised EFQM model does not directly refer to land and buildings and inventories. Capital can be considered to be mean to acquire the assets and resources that are considered necessary to achieve optimal performance, achievement of objectives and competitive advantage but are not directly mentioned as criteria that contribute to the improvement of performance, sustainability and achieving exceptional results.
- Regarding **results orientation**, in the revised model there is a clear relevancy between cause and effect (Murthy et al. 2021, Nenadál 2020, Fonseca 2022) to improve performance and create sustainable value. In the GQC framework **performance measurement** results are considered as critical success factors. But this is not the case for the **perceptions of key stakeholder groups**. A study by de Meneze et al. (2022) challenges the perception that financial expectations can be met through a quality management system as they contradict perceptions based on high involvement management and mutual profit perspectives. In addition, a study by Nenadál (2020) highlights the absence of indicators related to obtaining results of criteria 6 and 7 of the EFQM 2020 model. In GQC stakeholders (people) at every level of an organization must participate and contribute to the achievement of its goals organization, without clear reference to their perceptions. Therefore, the results associated with these two factors and the organization's ability to implement its strategy, fulfill its purpose and create sustainable value that can be correlated with the existence of appropriate management systems and predictive models that will provide a clear picture of the current and future state of the organization, as a consequence of the effects of management decisions so far. According to the third stage of control of the Deming quality cycle (PDCA: Planning, Execution, Control, Action), the results obtained from the last two criteria will give the organization the necessary information for further action (stage 4: Action) and the future appropriateness of the organization. In conclusion, in order for an organization to create sustainable value it has to achieve outstanding results that satisfy all key stakeholder groups. Results orientation contributes to understanding current

and future requirements for high performance, setting realistic goals and in turn adds value and sustainability at every level.

- Organizations that wish to **transform** and improve can take advantage of the EFQM 2020 and change the current situation to the desired one by shaping the strategy, implementing processes and managing the results of the model. In the GQC framework, **performance measurement** includes evaluating processes, measuring and determining the performance of the processes implemented by the organization and includes, among other procedures, the evaluation of employee performance in the context of feedback and motivation to improve performance. In the EFQM 2020 model benchmarking focused on performance indicators and while is still listed as a pillar of RADAR methodology logic, it is visibly suppressed in the guidance points (Nenadál, 2020).
- **Technology and information systems** are key elements in both models to enable performance in EFQM 2020 and successfully implement quality management in GQC.

In the Glykas Quality Compass (GQC), the main management principles (table 2) are considered as necessary conditions or factors to achieve the ten quality concepts in the context of performance management practices. In the EFQM 2020 organizations use the model to prepare and then undergo external recognition by qualified EFQM assessors who review current activity, identify key strengths and weaknesses and provide relevant insights. The correlation carried out identified significant relationships between the EFQM 2020 model and the GQC, at the level of criteria and critical success factors, which can support and combine organizational excellence with quality in order to improve performance and create sustainable value.

4. CONCLUSION

Organizations use maturity models to evaluate how they work and compare it to best practices. Through comparison, they should be able to create their own roadmap to improve and determine the future desired level of maturity (Glykas, 2019). The holistic approach of the GQC maturity model, which combines CSFs with quality management principles and the use of organizational resources, can be applied to assess the maturity of EFQM 2021 implementation.

The results of the association of GQC with EFQM 2020 emphasize the importance of the contribution of excellence in improving the quality and performance of organizations that desire long-term results and sustainable value. GQC provides and integrates the critical success factors with management principles and organizational resources with business objectives and leads to an integrated framework of quality management and corporate sustainability. Accordingly, the EFQM 2020 model is based on the principle of creating a sustainable future through the criteria of strategy, leadership, corporate governance, stakeholder management to define organizational purpose and culture, and quality management (de Menezes et al., 2022). The criteria and guidelines of the EFQM 2020 model in line with the ten concepts of the GQC maturity assessment model, can support any organization, regardless of sector or size to be flexible in dealing with opportunities and threats, manage change, create sustainable value, improve organizational performance and adopt quality management principles in a general and holistic manner that will support business ethics and meet or exceed the expectations of key stakeholder groups.

The contribution of the present research through the QM maturity framework lies in the implementation of an integrated maturity framework in the criteria of EFQM 2020. A literature review revealed that GQC is the only maturity model that makes a clear distinction and

incorporates QM perspectives (TQM, Methodologies, Standards, and Excellence Awards). In addition, it provides a clear distinction between CSFs, quality management authorities and organizational resources (Glykas, 2019).

Research specialization is proposed to be applied to future research in a public administrative environment. The need to address the pathogenesis of the public sector, inefficiency and the growing demands of citizens for better services have led to the need to adopt approaches and practices of modern public management (Kritas et al., 2021). Implementation in a public organization evaluated by the criteria and certified of EFQM 2020 will contribute to the creation of a general GQC-EFQM 2020 matrix, by adapting and developing new techniques and methodology to be used as a reference by future researchers in the field of QM maturity assessment and a new toolkit for this case, which will be an extension of the research on implementation in public administration.

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