

Small and Medium Enterprises Pursuing Organizational Excellence: A Toolkit for Improvement

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STRUCTURED ABSTRACT

Purpose - This paper presents the development of a new organizational excellence tool specifically for use by small and medium-sized enterprises (SME) while implementing business excellence models. A literature review was conducted to analyse the current state of business excellence models and their content and application around the world, including the identification of key principles that drive their creation and implementation. In this paper, we present a framework that has been validated by an Expert Panel of Organizational Excellence Professionals, considering the unique characteristics of SME and their industry contexts. It is hoped that this toolkit will allow these companies to strive for organizational excellence through a framework that is better suited to their context and needs.

Design/methodology/approach - An initial extensive literature review was conducted on the topics of Excellence Frameworks, Excellence Programs, Excellence Awards and the different contextual environments between LE and SME. Based on the literature review, we began by reviewing several scientific articles aimed at understanding the different contexts of LE and SME. From this point of view, and with a focus on small and medium-sized enterprises, we emphasized the themes that offered a better fit to the needs of these organizations and that, as a result, should be integrated into this framework. The Quality and Organizational Excellence Framework for Small and Medium Enterprises (QOE-SME) was built based on the weaknesses and shortcomings found in the use and implementation of SME's excellence models. The model was then validated by a group of quality experts through an online survey. This group was chosen based on criteria for reaching out to people who, in both academia and industry, have carried out significant and appropriate research in the field of organizational excellence and/or in the field of quality promotion and superior performance in SME.

Findings - Organizational excellence programs have created a catalyst and frameworks for improved success and productivity within large organisations. However, small and medium-sized organizations often try to achieve the same results using these same structures. However, evidence suggests that some of these frameworks are seen as unrealistic and difficult to implement. These implementation levels and records of positive implementation of OE models in SME are still small. The question is seen by both practitioners and researchers because of the various implementation difficulties faced by SME. Such perceived difficulties contributed to the development of the QOE-SME Framework.

Keywords: organisational excellence, excellence frameworks, small and medium enterprises.

Paper type: Research paper

INTRODUCTION

Small and Medium Enterprises (SME) operate in an extremely competitive market environment, often dealing with the same challenges as Large Enterprises (LE) while having more limited resources. Despite these limitations, and in order to compete in increasingly complex markets, SME must continue to adapt and improve in order to remain relevant. In the face of this reality, SME are becoming increasingly aware of Organizational Excellence (OE), recognizing it as a pathway for achieving competitive edge (Foote, Gaffney and Evans, 2010), and adopting existing Excellence models to guide them in achieving the benefits of organizational excellence (Arif, 2007).

However, while reports show that Excellence models can play a big role in maintaining an SME's competitiveness (Bauer, Falshaw and Oakland, 2005), several studies also show that SME often find it difficult to deploy and implement these models (Murphy, 2016; Wilkes and Dale, 1998). In fact, the truth is that most Excellence models have been designed for LE (Dahlgaard *et al.*, 2013; Olaru *et al.*, 2010; Armitage, 2002; McAdam, 2000; Ghobadian and Gallear, 1996), making it challenging for SME to successfully implement and efficiently use them to their full potential (Dahlgaard *et al.*, 2013). Although shorter or adapted approaches have been developed with a focus on SME, this does not seem to be enough to fully align with the needs of SME (Olaru *et al.*, 2010). SME comprise more than 80% of worldwide companies, but LE continue to be the drivers of new Quality and Excellence initiatives (McAdam, 2000). Consistently, there are also reports that some SME find OE programs and models too complex and decontextualized from SME's reality and market (Armitage, 2002; Ghobadian and Gallear, 1996).

Based on these somewhat conflicting reports, we believe the negative views may point towards a gap between the formulation of OE strategies and their deployment. Accordingly, there is a clear need for

a review of the different dimensions that influence the deployment of Organizational Excellence strategies. To help SME overcome these challenges, it is important to highlight the criteria and strategic items that, in the face of the current market landscape, are vital for the successful implementation of an OE Model. As a result, we have designed a conceptual framework that lists the different factors - with different levels of detail - that potentiate a successful pursuit of Excellence. By doing so, we hope to help guide SME as they look to more efficiently implement Organizational Excellence initiatives.

QOE-SME Framework Development

The QOE-SME framework proposed here is based on a detailed review of four existing and internationally recognized Quality and Organizational Excellence frameworks. They are (1) the Shingo Model, (2) the ZED Program, (3) the EFQM and (4) Baldrige Excellence Framework. The study reviewed these frameworks since they combine a high rate of acceptance, application in industrial contexts, and focus on the necessary elements considered vital for a company's success. These elements are identified as (1) culture, (2) sustainability, (3)/(4) processes and (3)/(4) leadership/strategy.

In the design and development phase of the QOE-SME framework, we strived to ensure a simple and succinct representation. The design of the model was inspired by Hofstede's cultural model presented as concentric rings, since the research team concluded this would be the easiest and clearest way of presenting the toolkit. This simplicity of design was identified as a key need through the literature review – a common concern was that OE frameworks were complicated and not easy for SME to implement as they had greater constraints than larger companies. The QOE-SME framework is a result of an extensive literature review into excellence frameworks and their impact / application in SME.

Framework Validation

While the model for SME proposed by the research team and described in this article is still undergoing its initial practical validation, it was developed with a strong practical knowledge base including a research team with vast experience consulting dozens of organizations, both on professional and academic projects, in both the US and Europe. In addition, the model, including the dimensions, criteria, and tactical elements found within, were reviewed by a panel of 20 Organizational Excellence and SME experts. This panel consisted of both academics and industrial practitioners that work directly with SME and with representatives from countries around the world, namely: Brazil, China, Italy, Japan, Portugal, Spain, and the United States.

The panel was asked about their perceptions in different domains, resulting in six multiple choice statements based on a 5-point Likert scale- Table 1.

Table 1 – Statements evaluated by the expert panel.

Statements	The model presents a logical evolution through the different levels (dimension→criterion→item).
	The ontology used to define each level was well chosen (dimensions, criteria, items).
	The criteria are well organized according to the respective dimension.
	The model fits the reality/environment of SMEs.
	The QOE-SME Framework will be useful and able to be implemented by SMEs.
	The QOE-SME Framework is innovative in the organizational excellence models' literature field.

Results showed that in all 6 domains approximately 82% of the experts perceive the model positively, as indicated by a score equal to or greater than 4 out of 5. The version of the model presented in this article already reflects the iterations with the panel. Figures 3 to 8 summarize the experts' perceptions regarding the QOE-SME framework presented to them.

Figure 1 shows the distribution of the responses according to the perceptions regarding the logical evolution of the model's levels (Dimensions → Criteria → Items). The results show a high agreement with the evolution adopted, with approximately 89% of the experts agreeing with it. On the other hand, only 5.56% disagree with the suggested evolution and 5.56% maintain a neutral stance concerning the labels suggested.

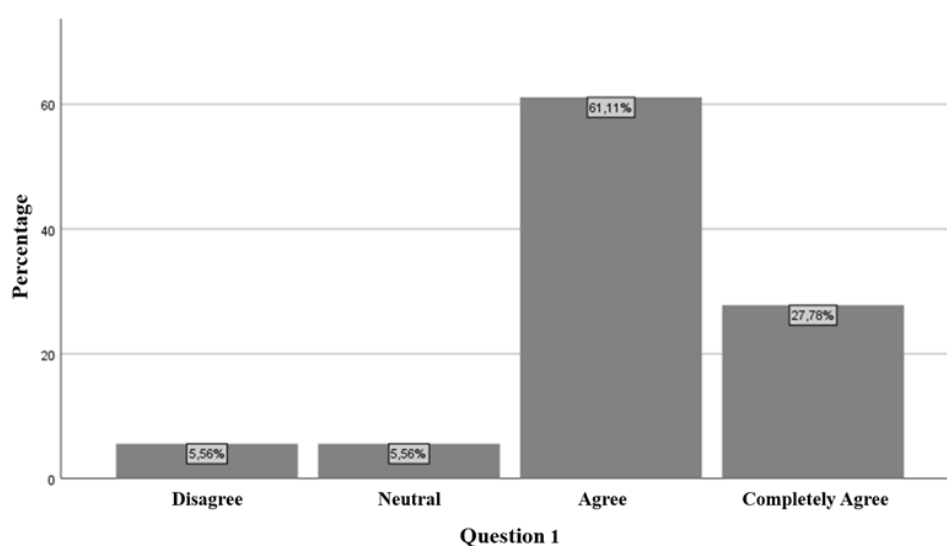


Figure 1. Perceptions regarding the logical evolution of the levels.

In addition, 94% of the respondents agreed with the ontology, leaving only a small portion (5.56%) that remains neutral on this question (Figure 2).

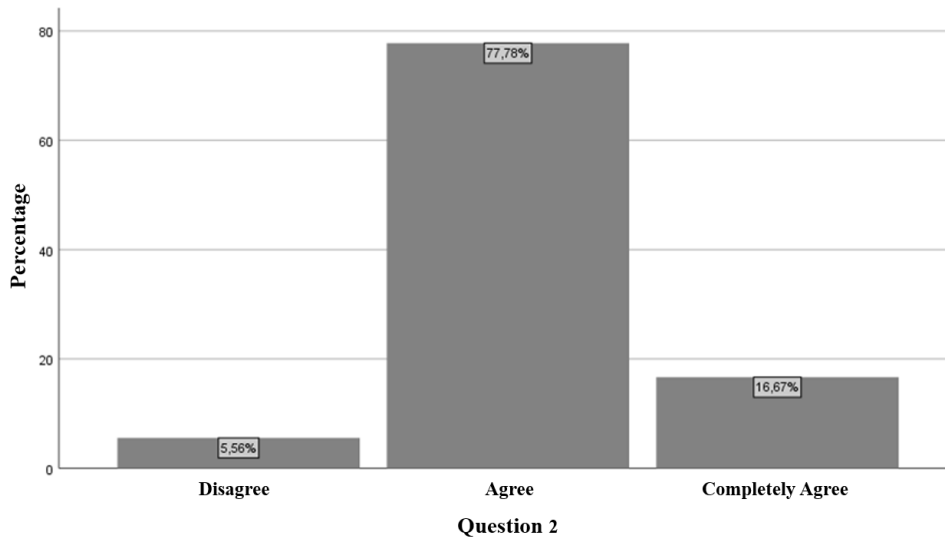


Figure 2. Perceptions according to the ontology used.

When asked about the distribution of the criteria by the different dimensions (Figure 3), 88.89% of the experts agree with the proposed work - only 11.11% answered 'neutral' which reveals a small level of uncertainty regarding this topic.

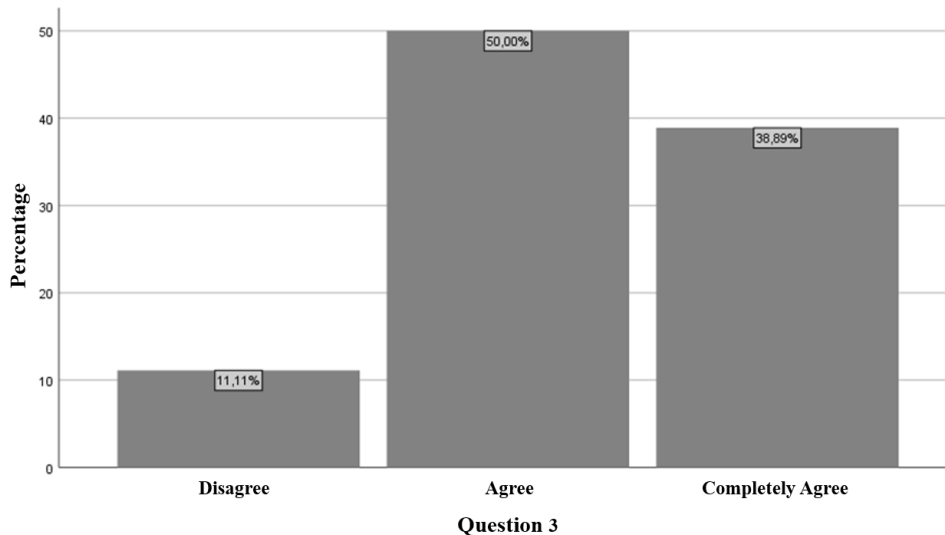


Figure 3. Perceptions about the fit between criteria and dimensions.

Figure 4 shows the distribution of the responses relative to the perceptions regarding the suitability of the model for use in SME. Approximately 78% of respondents believe that the model will succeed when implemented in SME, since it considers their reality of action. However, one should not

disregard the 11.11% who disagree, this being an indicator of the importance of industrial implementation and testing of the model through actual application within case companies.

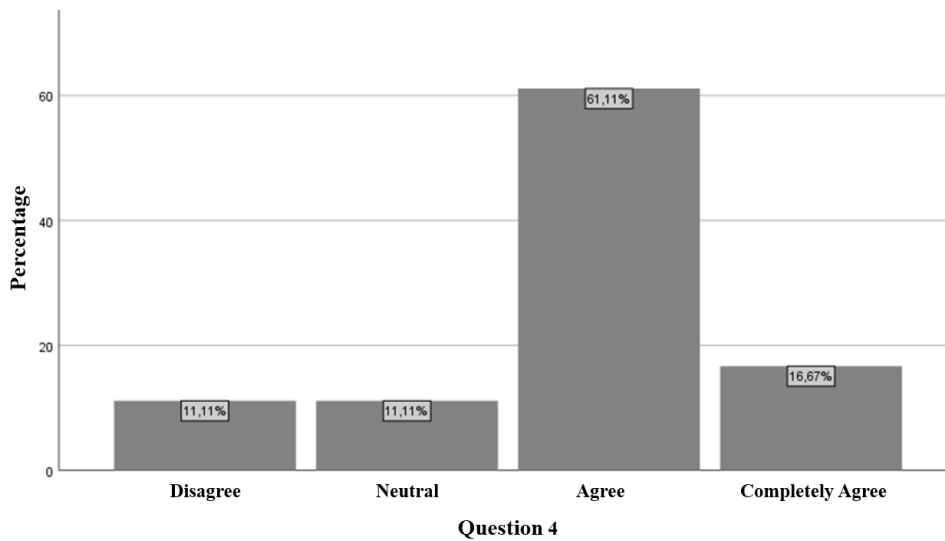


Figure 4. Perceptions regarding the suitability of the model to the reality of SME.

Regarding Figure 5 and its concerns - perceptions regarding the usability of the model in SME - about 67% of the experts believe that, in addition to being implementable, the model will be useful to SME in the quest for organizational excellence. On the other hand, 33.33% of the experts show some uncertainty regarding this topic. This uncertainty should once again be considered as a priority and supports the need to verify the usefulness of the model through implementation via case studies.

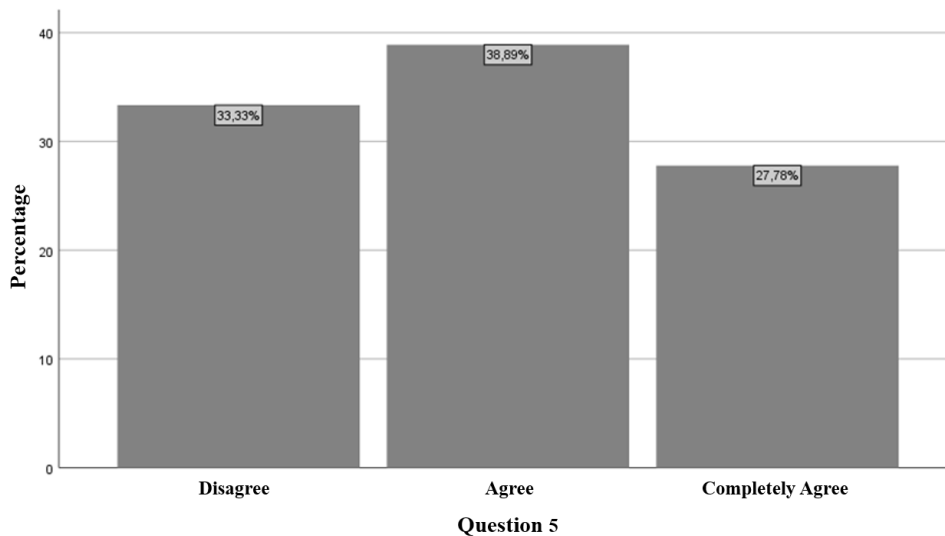


Figure 5. Perceptions about the usability of the model in SME.

Finally, when asked about their perception of the model with respect to its innovative aspect, about 72% of the specialists believe that it is a model that presents innovation with those already existing in literature (Figure 6).

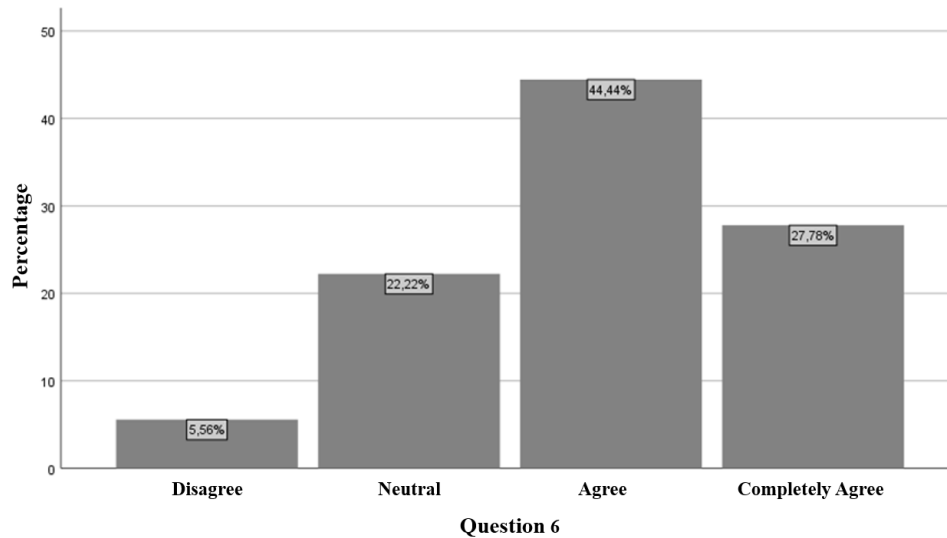


Figure 6. Perception regarding the innovation of the model in relation to the existing ones.

After treatment of qualitative data from the answers provided by the 20 experts, the QOE-SME framework was improved. This toolkit underwent through changes in the three levels, namely: (a) replacement of items by other important ones in the context of an SME (Example: Insertion of the Innovation item), (b) level change between leadership and management, considering the opinions presented and new literature and (c) reconstruction of the third level of the model.

The QOE-SME Framework

The purpose of offering a conceptual model is to promote an understanding of the key dimensions, criteria and tactical elements that are vital for the successful implementation of Excellence initiatives in SME.

The Quality and Organizational Excellence Model for Small and Medium Enterprises (QOE-SME Model) presented in this article is divided into three distinct levels, each level providing more tactical detail than the last. Accordingly, while designing the QOE-SME Model, focus was first put on identifying the dimensions that are particularly critical for enabling SME to reach their Excellence potential. These were identified by researching various excellence models and comparing their defined dimensions, enablers or critical success factors with the limitations and constraints reported by SME worldwide. Internationally recognized Quality and Organizational Excellence models reviewed include (a) the Shingo Model, (b) the Zero Effects, Zero Defects (ZED) Program, (c) the European Foundation for Quality Management (EFQM) Model and (d) the Baldrige Excellence

Framework. These models were selected because they each not only combine a high rate of global acceptance and have application in industrial contexts but also because some of them already focus on the pursuit of Excellence for SME. We now intend to further discuss this topic, by making public information that may help SME to better understand how they can achieve OE through these frameworks.

In its first and highest level (Figure 7), the QOE-SME model defines its dimensions. Dimensions, in this context, represent the main domains that OE models often deploy in order to achieve excellence. As a result of an extensive literature review, a set of core dimensions were identified by the team as the main contributors specific to an SME's success regarding OE (Talwar, 2011; Kumar, 2007). These are (a) Values, (b) Leadership, (c) Strategy, (d) Culture and (e) Stakeholders.



Figure 7 - First Level of the QOE-SME Conceptual Model (Dimensions).

These dimensions foster the basis of the QOE-SME model and its definitions can be found in Table 2.

Table 2 - Dimensions of the Conceptual Model.

Dimensions	Value
	Leadership
	Strategy
	Culture
	Stakeholders

As we begin our dive into these dimensions, adding the first level of detail to the model, the target criteria for SME striving to reach Excellence becomes better defined. The model’s center criteria, Value, is defined as providing Products or Services that costumers recognize as being worth the price, they pay for them. Leadership is broken into sociotechnical perspectives that, much like excellence criteria from EFQM and MBNQA, includes the involvement of Top (1) Management, the engagement of (2) People and a clear focus on (3) Processes. The strategy criteria are further segmented into three key differentiated strategic approaches that allow organizations to leverage the opportunities and meet the needs of not only current but future market demands: (1) Digital Transformation, (2) Sustainability and (3) Agility. Culture includes (1) Behaviors, (2) Principles and (3) Artifacts. While behaviors and principles may be observable, they are not always tangible. Artifacts are typically physical items that reveal valuable information about an organization and its culture and can include evidence such as infrastructure, dress codes, documents, language or communication formats. Defining culture from these three perspectives is essential to ensure leaders do not simply define what they want their culture to be but also seek evidence, through observed behaviors, recognized principles and visible artifacts, of what their culture actually is (Carvalho *et al.*, 2017; Schein, 1983). Finally, Stakeholders highlight (1) Customers, (2) Partners and (3) Society, since interests in companies come not only from our costumers but also from others with a real or perceived interest in our organizations.

These criteria can be seen in Figure 8. This visual representation allows SME to successively understand the intermediate level of the model and its connection with the dimension level. Criteria are listed in Table 3.

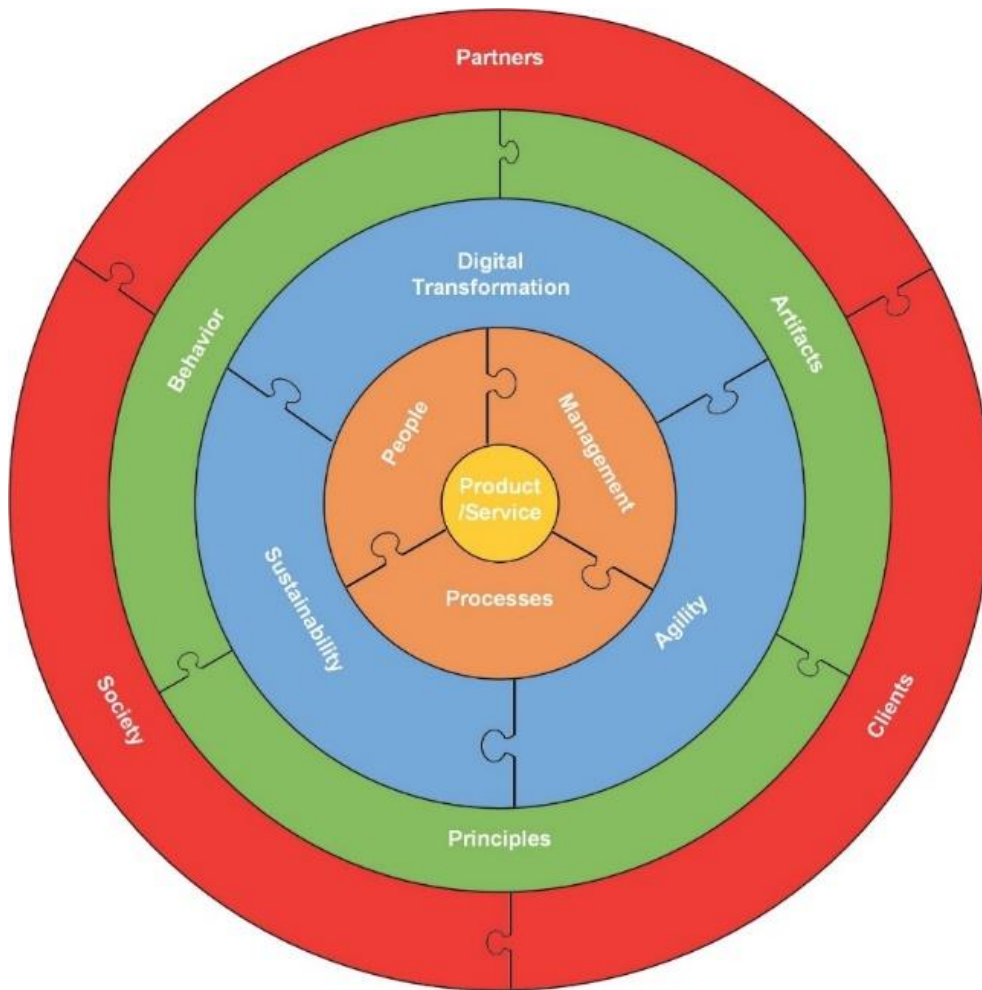


Figure 8 - Second Level of the QOE-SME Model (Criteria).

Table 3 - Dimensions: deployment by criteria.

Value	Product/Service
Leadership	Management
	People
	Processes
Strategy (new strategic areas)	Digital Transformation
	Sustainability
	Agility
Culture	Behaviors
	Principles
	Artifacts
Stakeholders	Costumers
	Partners
	Society

Each criterion identified in the intermediate level was segmented to provide additional details. This leads us to the final level of the model, which follows the purpose of enabling SME to assess in detail the more tactical elements that will influence their performance, processes, and results (see Table 4).

Table 4 - Criteria: deployment by items.

Product / Service	Meeting Deadlines	Continuous compliance with deadlines, establishing a reliable reputation and promoting customer loyalty.
	Conformity	A measure of how the product and / or service meets the criteria planned and expected by the customer.
	Delighted Customer	Promotion of a high sense of customer satisfaction, achieved by the immediate fulfillment of their needs when those are more desirable.
Management	Effective Communication	The perceived organizational goals and, consequently, the efficiency and effectiveness of its communication through the organization.
	Team Enthusiasm	A team's satisfaction with the interactions that they establish among themselves and with other teams of the organization, promoting an increase of joint work.
	Alignment (of business strategy and processes)	Process alignment that consists of a progressive and extremely dynamic phenomenon, allowing the achievement of goals in all divisions of the organization.
People	Training	Continuous development of employees.
	Motivation	Maximizing productivity and increasing organizational efficiency through Motivation.
	Employee Satisfaction	Maintaining positive emotional responses regarding the products or services that an organization provides.
Processes	Innovation	Creating a single network processed conferring advantage to the organization.
	Mapping	Maps of the core processes, having a higher level of abstraction and illustrating these organizational processes.
	Continuous Improvement	Continuously monitoring the processes and avoiding waste due to non-compliance with customer specifications.
Digital Transformation	Use of technology	Acquisition and use of technology, finding positive and consistent associations with a better organizational performance.
	Systems Integration	Use of existing data and functionalities in the organization or in the various linked systems, making it not necessary to use specific programs or databases to access certain information.
	Digitalization and Connectivity	Systems that connect the virtual and physical worlds.
Agility	Flexibility	The degree that an organization has in management capacity, and also the speed with which that capacity can be activated, in the sense of increasing the adjustment control of its internal environment to respond to changes in the external environment.
	Team Dynamics	Teams with high levels of performance, in order to understand the critical success factors in teamwork.
	Decision-making Process	The process of selecting an alternative among a set of several others, promoting the achievement of organizational objectives and goals.
	Operational Development	A set of goals, looking for future's vision based on organizational sustainability.
Sustainability	Sustainable Use (of natural resources)	The responsibility that society expects companies to have regarding the use of natural resources and other environmental impacts generated by their activities.

	Organizational Transparency	The importance of opening the flow of information.
Principles	Organizational Values	Abstract rules that can be applied to several organizational experiences.
	Individual Behavior	Understanding the values and their implications in the actions of the employees of a given organization.
	Norms	Expectations and rules by which a culture guides the behavior of all its members in any situation.
Behavior	Commitment	The vision of the organization as an element that provides the possibility of union among all employees in the organization.
	Cooperation	The improvement of diverse characteristics such as communication, participation and effectiveness through Cooperation.
	Multidisciplinary	Teams that comprise members of various functions and have demonstrated positive results for the organization and are recognized for their value in the decision-making process.
Artifacts	Organizational Orientation	The importance to consider the ability to proceed to a clear definition of organizational culture to diagnose problems and develop better cultures.
	Documents	Effective document development and management.
	Infrastructures	Essential operating components such as policies, equipment, data, human resources and other external components.
Clients	Client' Satisfaction	It must be recognized that these are the main stakeholders, and, at the same time, their satisfaction is the main concern of the organization.
Partners	Loyalty	Loyalty is more profitable than the search for new customers.
	Strategic Partnerships	Organizational integration of external sources and Strategic Partnerships that positively influence their performance.
Society	Benchmarking	Management techniques used to identify performance failures and to improve organizational performance.
	Social Responsibility	Integrating organizations as part of solving major social and environmental problems.

This level is designed to give leadership a more tactical level of focus to drive the implementation of OE, with each item acting as a fundamental piece of a puzzle (Figure 9). Completing the puzzle results in progress regarding OE within an SME. Removing any element from the model may lead to an incomplete implementation, making it potentially difficult to achieve the full results of the OE strategies.



Figure 9 - Third Level of the QOE-SME Model (Tactical Elements).

CONCLUSIONS

Literature suggests that there is a gap between existing OE models and their successful deployment by SME (Murphy, 2016; Wilkes and Dale, 1998). While no OE model is perfect for all organizations, different models have shown to provide positive results for some smaller organizations. However, most SME still find it difficult to achieve OE as they consider that the adaptations made to OE models for LE to meet SME needs still do not provide enough information for their own environment (Olaru et al., 2010; McAdam, 2000; Armitage, 2002; Ghobadian and Gallea, 1996).

Thus, with this paper we intend to provide further information so OE can be met through easier and adapted techniques for SME. Accordingly, the Quality and Organizational Framework for Small and Medium Organizations provides an approach to support SME in efficiently implementing Organizational Excellence initiatives. The goal of this framework is thus not to compete or replace existing excellence models, but to help organizations in self-assessing their capabilities in a series of different dimensions. The strategic items included help close the gap in implementing excellence

initiatives. This new toolkit was designed based on a strategic implementation of OE for SME and organizing the items that support it, which will help guide SME as they further seek to improve and to adapt to the demands of the ever-complex markets in which they compete

Despite all efforts, the model presents some limitations. In the first place, it will have a greater value for organizations that are already embedded in a quality culture, since these will more easily understand its applicability and importance. Secondly, some SME may find some complexity in the model because literature reports they seek prescriptive models, and in its domain – Organizational Excellence – prescription is not the suitable method. Finally, most SME focus their efforts on financial metrics, and the model proposed focus on several areas that are crucial for OE, which may result in some resistance to change. However, having in mind the feedback that the research team already received from the experts consulted, we truly believe that amazing results will be achieved through this work and soon will be presented to the scientific community.

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