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The European Foundation for Quality Management(EFQM) Model Scale: A Quantitative Instrument

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Abstract

The purpose of the paper is to present a scale to measure EFQM model application in any organization as an instrument. This paper will present a set of original information and tool for the Model users. A quantitative research strategy with SPSS uses to test the validity and reliability of the presented questioners. The EFQM model scale will guide and support future research lines in this field of management. A literature review from previous publications wasconducted. Many papers were selected and aspects related to the purpose. The suggested scale was tested with around 100 NGOs in the Middle East testing the EFQM criteria validity and reliability.The study result presents a clear scale and instrument help to measure the nine criteria presented as a main component for this model, and more furthermore a dozen lines of future research.

Keywords: European Foundation for Quality Management, EFQM, Instrument.

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1.INTRODUCTION AND BACKGROUND:

The European Foundation for Quality Management (EFQM) was founded in October 1989. The Foundation assembled a team of experts from both the corporate and academic sectors to create the EFQM Excellence Model. However, a first European Quality Award was held in 1992.The Model was upgraded in 1999, and again changed in 2003.[1,2,3] In the year 2010. In 2010 and 2013, EFQM updated the model once more. [4]

The European Foundation for Quality Management (EFQM) model is a globally recognized management framework that helps organisations succeed by measuring where they are on the path to transformation, assisting them in understanding the gaps and possible solutions, and allowing them to advance and dramatically improve their organization›s performance. The model might be beneficial to all organisation's sizes, sectorsor persons looking for a tried-and-true management approach.

In October 1989, the European Foundation for Quality Management (EFQM) was founded. To build the EFQM Excellence Model, the Foundation convened a team of specialists from both industry and academia. The first European Quality Award was established in 1992, [2] and the model was modified in 1999 and revised in 2003. (Blackmore and Douglas, 2003). The EFQM model has adjusted again in 2010, 2013, 2019 and 2020.

The new paradigm, which is based on design thinking, has evolved from a simple evaluation tool to one that provides a critical framework and approach for dealing with the changes, transformations, and disruptions that individuals and organisations confront on a daily basis.

The model›s main goal is to: The EFQM Excellence Model›s major goal is to improve the competitiveness of European enterprises and to aid in the long-term growth of European countries. As a result, it is a self-contained non-profit organisation dedicated to assisting its members in their persuadingof greatness. The EFQM Excellence Model is a non-binding framework for quality management.

Many pieces of researches have conducted which in turn various publications have recommended using the EFQM Excellence Model in which sectors it is suitable for any organization.Focus on a quality approach based on the European Foundation for Quality Management model as a framework for quality in the healthcare sector. Their study is about the health sector in in northern Spain, which indicated significant improvements in the level of performance of the organizations that applied it. Most cases showing that the majority of EFQM criteria have improved. [5]

EFQM benefits: The model is one of the most widely used management frameworks in the management world, as it has adopted by global companies, SMEs, public entities and private organizations. It has uses in all sectors, from petrochemicals to manufacturing and everything in between. The EFQM Model has serves as a model for enterprises across Europe.Also, its uses beyond to establish a culture of performance and innovation since its beginnings.

The EFQM Model has served as a model for enterprises across Europe and beyond to establish a culture of performance and innovation since its beginnings. then the EFQM model is for you. Its benefits are as follows:

- Helps in the definition of an organizations goal: A company›s purpose is its lifeblood. There is no incentive to serve without it. If organisations are to produce sustainable value, the new EFQM model lays an unprecedented focus on the need of purpose, vision, and agile strategies.
- Helps the new European Foundation for Quality Management (EFQM) model is revolutionary in terms

of culture, valuing basic quality ideas and shared goals at the heart of businesses while allowing them to remain linked and devoted to their vision.

- Helps to Ensures strong decision-making, collaboration, and teamwork in every team and project: Effective leadership keeps the organisation true to its purpose and vision, which is why the new EFQM model advocates a «leaders at every level» approach to ensure strong decision-making, collaboration, and teamwork in every team and project.
- Helps organisations transform: Change takes time, and the EFQM model provides a tried-and-true framework for making the transition as easy and painless as possible.
- Promotes Agile Methodologies: Being nimble in the face of new dangers is a sign of a well-run firm. The new EFQM model offers corporate analysis and insight to help you stay on track.
- Aids in the resolution of certain organisational issues: The European Foundation for Quality Management understands that every organisation is unique, and that there is no one-size-fits-all solution to transformation. That›s why the new EFQM model was designed from the ground up to be adaptable to specific regulatory challenges and flexible enough to deliver on its performance promises.
- The new EFQM approach is based on years of experience in changing markets to grasp the value of regulatory research, future forecasting, and predictive intelligence in driving true transformation.

The basic principles of the EFQM Model: there are 8 main principals' organza the EFQM model are; (1) Adding value for the benefit of customers. (2) Building a sustainable future. (3) Developing institutional capacity. (4) Harnessing creativity and innovation. (5) Leadership through vision, inspiration and integrity. (6) Managing with flexibility and speed adapting to change. (7) Success through the talents and capabilities of employees. (8) Sustainability of outstanding results

The classic EFQM and the simplified model: nine criteria that make up the EFQM model. Five of these are referred to as «enablers,» while the remaining four are referred to as «results.» The facilitators criteria are concerned with an organization›s actions, whereas the results criteria are concerned with what an organisation is capable of accomplishing. The enablers and the results have a feedback loop: the enablers cause the second ones. The EFQM model is founded on the idea that the best results are produced by Leadership, Policy, and Strategy, which are delivered through Processes, People, Partnerships, and Resources, as measured by Key Performance, Customers, People, and Society (the four results) (the five enablers).

Each of the nine criteria is split down into sub-criteria to assess an organization›s performance in that area. The first phase for organisations is to gather evidence relevant to the nine criteria of the EFQM model. Reducing the complexity of the approach to the core,this can be accomplished through the use of a list of practical questions that employees are encouraged to ask themselves (auto-evaluation model). It means that organisations must consider how well they are performing each of the criteria and how they may improve.

There are a variety of the ways to respond to these kind of questions, depending on the organisation: questionnaires (the most common approach), workshops/brainstorming, or focus groups.
Although the EFQM methodology enables organisations to gain a clear self-diagnosis of their activities without external validation.Also introduces a continuous improvement culture whose demonstrated by trend analysis has certain potential drawbacks.Applying on small businesses level, this technique can be effective, with long time implementation. Furthermore, a training phase is always required in order for the employees involved in the organisation to completely comprehend the model›s meaning and implementation. A simplified model has been developed to overcome these restrictions.

The simplified EFQM approach does not examine the entire organisation, but only the selected process to provide a strengths and weaknesses analysis of the process itself. In this scenario, simplicity is critical because the auto-evaluation must be completed in a short amount of time by personnel who have little experience with process optimization.The overall concept is to have the process owner lead the improvement project team, which has the added benefit of instilling a strong desire for continual improvement in field people.The simple model can be used as a first step in evaluating a process, and then other methodologies such as Six Sigma can be used to implement improvements. [5-10]

2. Methods

Participants were 84 out of 100 employees working in 36 different NGOs and CSOsworking in humanitarians' programs in Middle East. Initial itemdevelopment supported as part of capacity building programme focusedon developing implementation leadership training and implementationmeasure development. The data were collected from employees in the humanitiesprogramme running by NGOs to be utilized for exploratory factor analysis. The confirmatory factor analysis controlled for the multilevel, Reliability andvalidity analyses were then conducted with the fullsample.

3.Participants and Procedure

This study targeted 36 management members in NGOs and CSOs working in the Middle East,

Measures:

Two-part questionnaire was used to assess the study variables. First part included country and gender, second part was measuring the nine criteria included 32 statements scale developed by the author. All scales' items were measured on a five-point Likert scale. Answers ranged from 1 (Strongly Disagree) to 5 (Strongly Agree).

Furthermore, to test the validity of the used measures, two steps were used. First, the three-part questionnaire was revised by a panel of 10 experts (10 academics) who assessed the content of each part and evaluated the clearness and appropriateness of this content. The experts indicated that the used questionnaires are clear, valid and appropriate in the recent academic in higher education.Second, the reliability measures, in terms of Cronbach's alpha, were above the recommended level of 0.70 as an indicator for adequate internal consistency. [11-17]

The exploratory factor analysis resulted in a 32-item scale with 9 subscales representing the 9 criteria for measuring the scale applicability and level in organisation. Confirmatory factoranalysis as table 3 shows, this analysis supported an a priori higher order factor structure with subscales. The scaledemonstrated excellent internal consistency reliability as well as convergent and discriminantvalidity.

3. Conclusion:

The study›s major goal is to determine the current state of the art (advanced) in quantitative research in the EFQM excellence model. From 1992 to 2019, the paper will present a clear scale to measure the application or the intention within the organisation of its applicability. Also the paper will categories the researchers› focus areas and knowledge gaps in empirical quantitative literature on the EFQM excellence model.The article will also list the impact media and publications where pieces concerning the EFQM excellence model have been published.

4. Declarations:

Safaa Shaaban and Mohamed Hassan whose names are listed immediately below certify that they have NO affiliations with or involvement in any organization or entity with any financial interest (such as honoraria; educational grants; participation in Hresource development (HRD) is process of the developing and speakers' bureaus; membership, employment, consultancies, stock ownership, or other equity interest; and expert testimony or patent-licensing arrangements), or non-financial interest (such as personal or professional relationships, affiliations, knowledge or beliefs) in the subject matter or materials discussed in this manuscript

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- Code availability (not applicable)
- Authors› contributions (Declare that)
- Ethics approval (approved)
- Consent to participate (not applicable)
- Consent for publication (approved)

Criteria for measuring the EFQMA:

The first criterion: leadership: will be measured using the following statement:

Developing the mission, vision and values and embodying the culture of excellence
Confirming the development, application and continuous improvement of work systems
Communicating with customers, partners and community representatives
Motivating, supporting and appreciating employees.
Define and support change

The second criterion: policy, strategy: will be measures using the following statements:

Determining current and future needs and expectations.
Determining the information derived from measuring performance, learning and creativity.
Develop, review and update policies and strategies.
Dissemination and implementation of policies and strategies

The third criterion: individualswill be measures using the following statements:

Planning, management and development of human resources.
Determining, developing and developing employees' knowledge and capabilities.
Involve and empower employees.
Communication and dialogue between employees and the facility.
Rewarding, appreciating and caring for employees.

The Fourth criterion: Partnership, Resources will be measures using the following statements

Managing external partnerships.
Managing financial resources.
Management of materials, buildings and properties.
Technical management.
Information and knowledge management

The Fifth criterion: Operationswill be measures using the following statements:

Design and process operations in a scientific and systematic manner.
Improving operations as needed, using innovative ideas to achieve customer satisfaction and other beneficiaries.
Designing and developing products and services according to the needs and expectations of customers.
Preparing and presenting products and services.
Customer service management and development.

The Six criterion: Customer Results will be measures using the following statements

Measures of employees' impressions and opinions.
performance indicators

The Seventh Criterion: Individual Results will be measures using the following statements

Metrics for customer/beneficiary impressions and opinions.
performance indicators

The Eight criterion: Community Outcomes will be measures using the following statements

community satisfaction metrics.
Performance indicators related to society

The Nine criterion: Key Performance Results will be measures using the following statements

The main performance outputs
KPIs

Table (1) Reliability test Criteria as variables

Scale	EFQM	C1	C2	C3	C4	C5	C6	C7	C8	C9
Alpha	.977	.901	.850	.938	.840	.855	.663	.837	.902	.832

Results and Findings

Table (2) Correlations between EFQM sub-variables

Correlations

	Mean	Std. Deviation	EFQM	C1	C2	C3	C4	C5	C6	C7	C8	C9
EFQM	122.6667	27.00171	1									
C1	20.7143	4.46829	.958**	1								
C2	15.2381	3.65902	.937**	.883**	1							
C3	20.8571	4.94096	.945**	.908**	.887**	1						
C4	16.5714	4.56885	.895**	.839**	.836**	.783**	1					
C5	18.1905	4.27511	.890**	.840**	.761**	.832**	.811**	1				
C6	7.9524	1.84916	.848**	.786**	.807**	.854**	.733**	.702**	1			
C7	7.4762	2.31536	.875**	.842**	.800**	.752**	.730**	.741**	.726**	1		
C8	7.3810	2.22746	.796**	.723**	.698**	.706**	.613**	.670**	.554**	.796**	1	
C9	8.0952	1.80774	.727**	.695**	.711**	.660**	.588**	.447**	.607**	.680**	.757**	1

**. Correlation is significant at the 0.01 level (2-tailed).

As table (2) shows that there is a positive significant relationship between the FEQM and its nine criteria.

Table (3) factor analysis for 32 items in the EFQM scale

Communalities

	Initial	Extraction
q1	1.000	.758
q2	1.000	.889
q3	1.000	.812
q4	1.000	.938
q5	1.000	.806
q6	1.000	.773
q7	1.000	.715

q8	1.000	.884
q9	1.000	.898
q10	1.000	.656
q11	1.000	.922
q12	1.000	.894
q13	1.000	.895
q14	1.000	.929
q15	1.000	.899
q16	1.000	.938
q17	1.000	.782
q18	1.000	.841
q19	1.000	.842
q20	1.000	.747
q21	1.000	.813
q22	1.000	.811
q23	1.000	.862
q24	1.000	.882
q25	1.000	.754
q26	1.000	.728
q27	1.000	.715
q28	1.000	.879
q29	1.000	.887
q30	1.000	.886
q31	1.000	.872
q32	1.000	.922

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