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A Management Trinity: Employee Satisfaction, Customer Satisfaction and Economic Performance

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Abstract

Management and Total Quality Management Theories support the importance of employee satisfaction and customer satisfaction for companies economic results and ensuring success. However, there are still some gaps concerning evidence of relationships between these three constructs. This research aims to access if there are indeed positive relationships between employee satisfaction, customer satisfaction and companies economic performance. By using a large database from a Portuguese Official Agency, framed according to the EFQM Business Excellence Model, with inputs of small and medium companies in stable industries over 10 years, 3 hypotheses were statistically tested. The results support the propositions of valid relationships between EFQM Model results criteria with evidence of positive relationships between employees satisfaction and customer satisfaction and economic performance, and between customers satisfaction and companies economic performance, which is relevant both from a theoretical and practical point of view.

Key words: *Companies economic performance; Customer satisfaction, Employee satisfaction, Total Quality Management.*

1. INTRODUCTION

Many companies face today a very competitive environment with strong competition, increased mobility and access to information and a growing economic and financial inter dependence.

Both Scholars and Practitioners have stressed the importance of employees and customers to the success of companies for its enduring success and the satisfaction of their shareholders.

However, there is still some controversy about these claims due to some inconsistency on research methodologies and results. In addition, the recent economic crisis led many companies to cut costs (in many cases leading to less employee and customer satisfaction) focusing more on short term survival than in enduring success.

The aim of this research is to use a considerable large and reliable sample to avoid the possible time limitations and respondent bias of other studies and investigate if there are indeed positive correlations between employees satisfaction, customer satisfaction and companies economic performance.

By using an official Portuguese Agency database [1] with data from 2002 to 2012 and framed on the EFQM Business Model [2] a quantitative analysis is performed

and compared with previous investigation results. Being Portugal an European country, with a Gross domestic product (GDP) per capita in Purchasing Power Standards (PPS) lower than Check Republic and Slovenia but higher than Poland and the Baltic States [3] it is likely that the results of this investigation can be replicated in other similar countries.

The results of the research support the hypotheses that there are positive medium to high correlations between employees and customers satisfaction and companies economic performance bringing additional sustain to both Business Management and Total Quality Management theories and approaches.

2. LITERATURE REVIEW AND HYPOTHESES

2.1 Literature review

Several management theories are available to help companies achieve an enduring success:

- Market Industry Theory by Porter [4, 5] that considers the external environment as the key influence on organizations strategies and performance results;
- Stakeholder Theory mainly by Freeman [6] that focus on the importance of a firm's relationships

with critical stakeholders that may lead to better performance, as organizations that integrate business and societal considerations create value for their stakeholders;

- The Resourced Based View of the Firm from Barney [7] that considers if the organizational resources and capabilities of a firm are valuable, rare, inimitable and no substitutable, they will translate into competitive advantages that can in turn generate operational results and generate sustainable value. But in order to achieve sustainable competitive advantage, an organization must assure the satisfaction of all relevant stakeholders. For the Resource Based View of the Firm (RBV) it is the unique combination of resources and capabilities (internal) of each firm that allow the it to be unique, different and with better performance than its competitors as so is the basis for its strategy and development.

All these three relevant theories put a great emphasis on the importance of employees and customers to the success of organizations:

- Employees and customers are vital for success of the activities of Porter value chain; The bargaining power of customers is considered by Porter Competitive Forces model;
- Barney et al. view employees and customers as organizational valuable, rare, inimitable and non-substitutable (VRIN) resources;
- Freeman et al. consider employees and customer as key stakeholders and that their satisfaction is relevant for the economic success of the organizations and shareholders satisfaction.

There also researchers that have studied specifically the relationships between employee satisfaction, customer satisfaction, and financial performance. Chi and Gursoy (2008) using data from employees, customers and managers of three and four star hotels suggest customer satisfaction has positive significant impact on financial performance but employee satisfaction has no direct significant impact on financial performance, Instead, there is an indirect relationship between employee satisfaction and financial performance, which is mediated by customer satisfaction [8].

Also, the Total Quality Management (TQM) authors have paid considerable attention to the employee, customer and economic results relationships. Powell [9] described TQM an integrated management philosophy and set of practices that emphasizes, among other things, continuous improvement and meeting customers' requirements. Powel also found support for the hypotheses that TQM could be a strategic resource that generates economic value and provides the firm with sustainable competitive advantage.

The EFQM model allows an organization to measure its progress towards excellence [10, 11] and to improve traditional Total Quality Management [12]. EFQM is a non-profit foundation based in Brussels founded in 1988 by a group of leading European organizations and is the custodian of the EFQM Business Excellence Model. The model is based on the Fundamental Concepts of Excellence (that comprehend the key elements or principles common to TQM models), on the Model Criteria (based on Enablers and Results) and the Radar that is a tool for driving systematic improvement in all areas of the organization and is presented on figure 1 below:

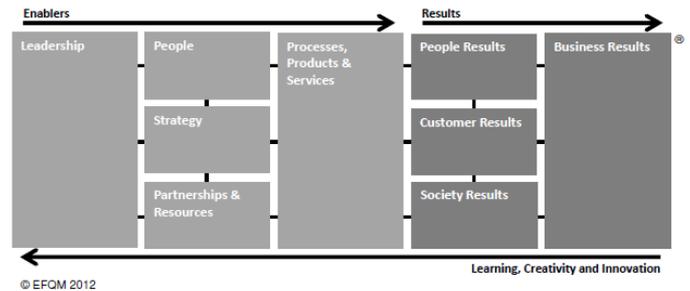


Figure 1. EFQM © 2013 Business Excellence Model

The 2013 edition of the EFQM Model considers the following Fundamental Concepts of Excellence [2]:

- Adding value for the Customers
- Creating a Sustainable Future
- Developing Organizational Capability
- Harnessing Creativity and Innovation
- Leading with Vision, Inspiration and Integrity
- Managing with Agility
- Succeeding through the Talent of People
- Sustaining Outstanding Results.

Academics like Dahlggaard-Park [13] support the view of EFQM Business Excellence Model brings relevant benefits for organizations, like a holistic and integrated approach, defined relationships between approaches and results and reinforced system dynamics. Research from Fonseca [14] found a positive relationship between ISO 9001 certification maturity and EFQM Business Excellence Models results supporting the view that ISO 9001 International Standard by incorporating many of the principles present on the EFQM Business Excellence model is consistent with this model and can be considered as a step towards that direction. Concerning the specific relationship within the EFQM model, Heras-Saizarbitoria et al. [15] have found that the relationships within the categories of the EFQM are robust, but there exist relationships among some of its enablers and results that fail to reach a suitable level of validity. As an example, this research didn't detect any significant relationship between the people results criterion and any other criteria including key performance results criterion. This research used data

obtained from external assessments of the EFQM model made by independent assessors, however, many small and medium enterprises have never been accessed this way so it is questionable if these conclusions can be generalized to those companies.

As a conclusion, in line with the position of Jayamaha et al. [16] there is still insufficient evidence of the validity of Business Excellence Models such as EFQM, due to the lack of available data, particularly with regard to the scores obtained by award applicants for the measurement items.

The aim of this investigation is to access the relationships of three critical EFQM model results criteria over a considerable time period and using data from a large number of Portuguese small and medium companies from relatively stable industries over an extended period. This objective was achieved by using the Benchmarking and Good Practices database from the Portuguese IAPMEI – Public Agency for Competitiveness and Innovation that features a detailed survey structured according to the nine criteria of the EFQM Business Excellence Model.

This investigation addresses some literature gaps on the EFQM Model results relationships and the limitations of other studies that were restricted to a short time period or to a single industry.

2.2 Research Hypotheses

Following the conclusions of the literature review, this research aims to test the following hypotheses:

- H1: There is a positive linear relationship between Employee Satisfaction (EMPS) and Customer Satisfaction (CUSTS);
- H2: There is a positive linear satisfaction between Employee Satisfaction (EMPS) and companies Economic Performance (ECPERF);
- H3: There is a positive relationship between Customer Satisfaction (CUSTS) and companies Economic Performance (ECPERF).

3. METHODS

Taking into account the research objectives, the investigation was based on a hypothetical - deductive approach assuming a deductive logic starting from a previous theoretical body of knowledge to formulate hypotheses that can be tested and accepted or rejected [17]. This scientific process implies two methodological levels, one concerning the nature of data, that in this study was collected with Likert scales and the second one concerning the techniques of analysis that were of quantitative statistical nature. The research is cross-sectional with the data collected in a single moment in time and belonging to a sample of the population.

The population of this research consisted of Portuguese Small and Medium Enterprises participants of the Benchmarking and Good Practices database from the Portuguese IAPMEI – Public Agency for Competitiveness and Innovation, with at least one certified management system (according to International recognized standards (ISO 9001 for

Quality, ISO 14001 for Environmental and OHSAS 18001 for Health and Safety). This data was gathered thanks to a protocol established between IAPMEI and UAL in the framework of a Doctoral Thesis at UAL-Lisbon Autonomous University [18].

The IAPMEI Excellence and Benchmarking Survey is framed on the EFQM Business Excellence Model and consists of a total of 34 questions and 5 sections for Enablers and 4 sections for Results. Considering the objective of this research section 6 – Customer Results, 7 - People Results and 9 – Key Performance Results were used.

The sample yielded a total of 2220 companies that fulfilled the protocol for this research. The data comprehended a period ranging from 2002 and 2012 and for each company the oldest input was considered (only one input per company). On average companies had 48,54 employees (Standard Deviation=61,41) with a maximum value of 886 employees and a minimum of just 1. Concerning annual sales volume, the average value was of 87.606 thousand Euros but with a high variation, ranging from a few thousand euros to 759 million euros. Companies were from all activity sectors with construction companies (n=101, 4,6% of total) being the highly represented.

Each variable for this investigation was operationalized by the mean of 3 questions with a 4 point Likert scale (1 minimum; 4 maximum) in the IAPMEI Benchmarking Survey, as follows:

- Employee Satisfaction (EMPS): To access the level of performance the company is archiving concerning their employees satisfaction;
- Customer Satisfaction (CUSTS): To access the level of performance the company is archiving concerning their customers satisfaction;
- Economic Performance (ECPERF): To access the level of performance the company is archiving concerning the planned objectives (financial and key business objectives).

SPSS software – Statistical Package for Social Sciences (v.21) was used for data treatment. Concerning descriptive statistics, mean, standard deviation, maximum, minimum, mean rank, asymmetries and kurtosis were calculated.

Construct reliability was tested using Cronbach alpha which assess reliability through the internal consistency of each construct [19] and using the criteria recommended by Hair et al. [20], yielding the results presented in table 1 below:

Table 1. Variables Conbrach Alpha

Variable	Number of itens	Conbrach Alpha	Criteria
EMPS	3	0,78	Satisfactory
CUSTS	3	0,69	Acceptable
ECPERF	3	0,78	Satisfactory

These results demonstrate a satisfactory internal consistency (acceptable for CUSTS), which validates the use of the IAMPEI survey (convenience sampling). Normal distributions were assumed due to the high dimension of the sample by applying Central Limit Theorem as supported by Maroco and Bispo [21]. Correlation coefficient Pearson (r) was applied to measure the intensity of the relationship between ordinal variables with significance test at ($p < .001$) (2-tailed). The sign of the Pearson correlation indicates the direction of an association between X (the independent variable) and Y (the dependent variable). If Y tends to increase when X increases, the Pearson correlation coefficient is positive. If Y tends to decrease when X increases, the Pearson correlation coefficient is negative. The criteria used to evaluate the research hypotheses followed the recommendations of Pestana and Gageiro [22]: if Pearson coefficient is between 0,2 and 0,69 we can state that the linear association between the two variables is moderate and if it is between 0,7 and 0.89 is high.

4. RESULTS AND DISCUSSION

Descriptive statistical results are presented in table 2 for the 3 studied variables

Table 2. Variables descriptive statistics

	n	Mean	Std Dev.	Skewness	Kurtosis
EMPS	2218	2,01	0,74	0,42	-0,53
CUSTS	2220	2,38	0,73	0,02	-0,71
ECPERF	2216	2,26	0,74	0,19	-0,65

In order to further validate the assumption of normal distributions, the histograms distributions for the three variables are presented in figures 2, 3 and 4. We can confirm these distributions are approximately normal although EMPS is less symmetrical than the other two. Test to detect the presence of outliers were made with SPSS and it was confirmed that no outliers were presented without the need to eliminate extreme cases that could be a source for bias and error.

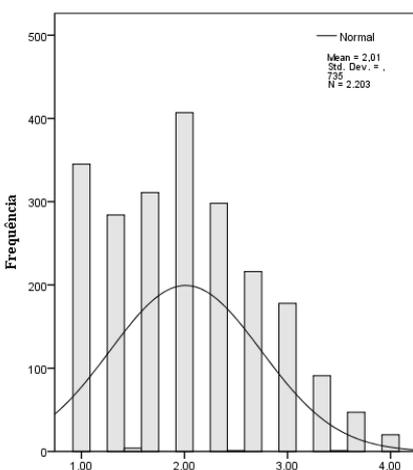


Figure 2. Histogram Distribution of Variable EMPS

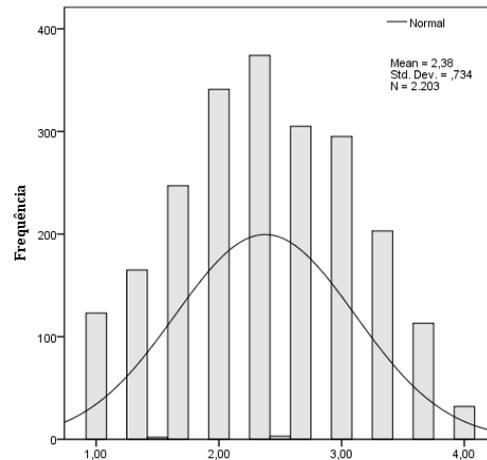


Figure 3. Histogram Distribution of Variable CUSTS

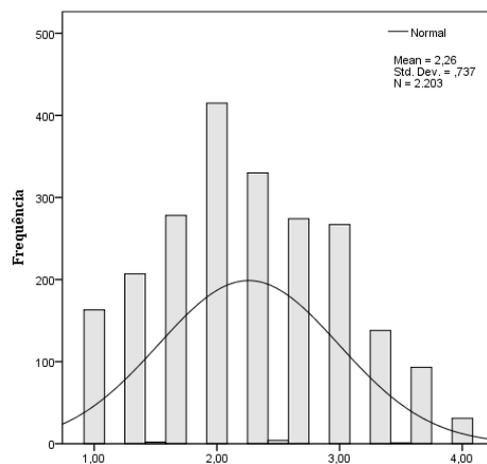


Figure 4. Histogram Distribution of Variable ECPERF

Concerning the Person (r) correlation coefficients the results are presented in table 3 below:

Table 3. Variables Correlation Coefficients

	EMPS	CUSTS	ECPERF
EMPS	-	-	-
CUSTS	0,69**	-	-
ECPERF	0,67**	0,66**	-

** Pearson correlation is significant at ($p < .001$) (2-tailed).

As is illustrated in Table 3, all the results show a positive medium to a high correlation between the analyzed variables since all correlations are significant at ($p < .001$) (2-tailed).

We can therefore statistically validate the hypothesis that there are positive linear relationships between Employee Satisfaction and both Customer Satisfaction and Companies Economic Performance and between Customer Satisfaction and Companies Economic Performance, in line with the relationships assumed by EFQM Business Excellence Model.

The importance of employee satisfaction and customer satisfaction for companies' economic performance (financial and key business results) and enduring success are highlighted in this research results.

5. CONCLUSIONS

This research brings support for the existence of valid positive relationships between EFQM model results criteria using data from a large number of Portuguese small and medium companies from relatively stable industries over an extended period. The analysis of this type of data reinforces the conclusions on the relationships among the studied variables.

The results evidence the relevance that satisfied employees have for customers' satisfaction and for companies' economic performance and also the importance of customer satisfaction for the success of companies.

This is a relevant message both for managers and academics on what companies should do to assure enduring success. It supports Freeman Stakeholder Theory and Barney Resourced Based View of Employees and Customers as VRIN resources. It also confirms the views of Academicians that support the relationships of EFQM Business Excellence Model and Total Quality Management approach that employees and customers are keen for the success of companies. One of the research limitations of this works is that the respondents were Managers from Portuguese organizations with a certified management system. Another limitation is the data didn't allow the use of more powerful statistical methods such as Partial Least Squares (PLS) or Structural Equation Modelling (SEM). Qualitative research should be done to triangulate these results to check for possible bias in IAPMEI survey responses and it might be useful to replicate the study with Managers from other countries (e.g., cultural dimensions).

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Upravljačko trojstvo: Zadovoljstvo zaposlenih, zadovoljstvo klijenata i ekonomski učinak

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Apstrakt

Činjenica je da menadžment i sveobuhvatno upravljanje kvalitetom podržava i propagira značaj zadovoljstva zaposlenih, kao i zadovoljstva klijenata sa ciljem da kompanije postignu željene rezultate i obezbede planirani uspeh. Međutim, i dalje postoje određene praznine i nesigurnosti o povezanosti ova tri konstrukta. Ovo istraživanje ima za cilj da ispita i utvrdi eventualno postojanje pozitivnih odnosa između zadovoljstva zaposlenih, zadovoljstva kupaca i ekonomskih performansi preduzeća. Koristeći veliku bazu podataka iz zvaničnih izvora oficijalne portugalske agencije, uokvirene u skladu sa EFQM modelom poslovne izvrsnosti, sa fokusom na ulaz malih i srednjih preduzeća u kontekst stabilne industrijama u period od preko 10 godina, 3 hipoteze su statistički testirane. Dobijeni rezultati podržavaju predloge važećih odnosa između kriterijuma EFQM modela sa dokazima o pozitivnim odnosima između zadovoljstva zaposlenih, zadovoljstva kupaca i ekonomskog učinka, dok je pozitivan odnos između zadovoljstva kupaca i ekonomskog učinka preduzeća posebno interesantan kako sa teorijskog tako i praktičnog stanovišta.

Ključne reči: *Ekonomski učinak preduzeća; zadovoljstvo kupaca, zadovoljstvo zaposlenih, menadžment kvalitetom.*