

THE EFFECTS OF MARKETING AND MARKET ORIENTATION ON ECONOMICAL AND FINANCIAL PERFORMANCE IN PORTUGUESE SMEs

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Abstract:

The market orientation (MO) degree has been studied for scientific and academic community, occupying actually a prominent place at the marketing research field. In a stakeholder's value creation perspective and in highly competitive environments, the development of a customer and market-oriented culture may represent the frontier to the companies' survival, specially micro and medium enterprises (SMEs). This paper includes the results of an empirical research about marketing, market orientation degree and environmental variables such as competitive intensity and market turbulence as factors that can influence the economic and financial performance of Portuguese micro and small companies located in a rural area. The results indicate that: (a) marketing is seen by these companies as an accessory, not deserving an attention materialized in practical actions that can be considered like strategic, (b) at market orientation level, the market information affects positively some performance indicators, (c) and economical and financial performance is superior in conditions of highly market turbulence and there is a negative relationship between competitive intensity and the companies ratio turnover/total assets.

KEYWORDS: small and medium enterprises, market orientation, economic and financial performance

1. INTRODUCTION

In Portugal, like in other European countries, SMEs have a decisive importance in the real economy, being active agents to change and interpreters of a permanent entrepreneurship culture. According to data from the Portuguese National Statistics Institute (INE, 2010) for 2008, this category of

firms represents 99.92% of total national business community, are responsible for 79.13% of the total employment created by businesses and contribute with 71.43% of the total business turnover.

The success of these enterprises depends on its ability to market positioning, which is strongly influenced by the attention devoted to the marketing area. This is particularly true in rural areas with low population density and with a weak entrepreneurial network. In this paper we analyzed the marketing strategies adopted by the Portuguese north interior SMEs (districts of Vila Real and Bragança), the MO degree revealed by their employers and managers, as well its impact on the economic and financial performance. For this purpose, the following research questions are highlighted: (a) Does MO degree influences the economic and financial performance? (b) Does the competitive intensity and market turbulence degree influence the economic and financial performance? (c) Is this performance influenced by the number of marketing activities that are developed by SMEs?

To achieve these objective, the paper is organized as follows: Section 2 is dedicated to the theoretical foundation of MO; section 3 describes the methodology used in data collecting; section 4 presents the results; and finally, section 5 concludes with some final remarks.

2. MARKET ORIENTATION: AN OVERVIEW

MO reflects the companies' propensity to adopt the marketing concept (Baker & Sinkula, 2009). It is usually measured by the company's commitment assessment to support their strategic decisions on customer oriented information. Bouranta *et al* (2005) define MO as the set of beliefs that puts the customers interests first, without excluding other stakeholders such as owners, managers and employees to develop a long term profitable company.

The scales used to measure MO degree are mainly attributed to the work of Kohli and Jaworski (1990) and Narver and Slater (1990).

Figure 1, based on Dobni and Lufman (2000), emphasizes the relationship between behavior (MO), action (marketing strategy) and results (return of the investment). The expectation of this relationship is that MO will be directly related with the strategic guidelines; the different environmental contexts such as competitive intensity and technological turbulence; the difficulty of introducing new products or services; and how the technological advances affect the organization and its business areas (called PSI factor).

In a competitive environment, these contextual variables are generally uncontrollable by the firms' management. It is suggested here that MO needs to be considered in a holistic manifestation that has implications for management. Given this holistic expression, two important aspects of the research are presented:

- The competitive contexts will shape the orientation profiles and market strategy. Specifically, it is suggested that MO affects in a direct way the business economic and financial performance;

- There is an association between behaviors, actions and outcomes with regard to the competitiveness context.

Although there are numerous interpretations of MO, all of them show a particular attention to market information processing activities through consumers and competitors observation, particularly on issues related to the acquisition, dissemination and capacity to behaviorally answer to information received.

MO can then be seen (Baker & Sinkula, 1999) as a characteristic of an organization that focus its priority on market information, which will be used through all their strategic process. With this in mind, the companies are more prepared to a quickly adapting to the changes of the market conditions. However, it's important to realize that MO reflects the amount of market information processing activities by companies and not the weight that these activities have in the strategic planning process.

The extensive literature on MO shows that, essentially, there is a latent dichotomy between two different perspectives about the concept; first, a group of authors defending MO in a behavioral perspective (Kohli & Jaworski, 1990; Jaworski & Kohli, 1993); and, second, others defending the concept as a cultural phenomenon (Slater & Narver, 1990).

For empirical application, Kohli and Jaworski (1990) and Kohli *et al.* (1993) developed the validation of a scale for measuring MO, named MARKOR (Market Orientation). This scale is composed by 20 variables divided into three groups: 6 about generation of market information; 5 to market information dissemination; and the remaining 9 about response to the generated information.

Relatively to the cultural approach, Narver and Slater (1990) developed a model that considers MO as a corporate culture characterized by three behavioral components - customer orientation, competitor orientation and inter-functional coordination - and there are two decision criteria - long term focus and profit as a target. Slater and Narver (1995) also propose that all companies competing in dynamic environments need to enhance the learning process of behavioral change and improve its performance. The authors argue that MO supplemented with entrepreneurship propensity, makes a cultural substrate for organizational learning. They defend that a culture conducive to entrepreneurship and MO, combined with certain factors of organizational climate that establish conditions for organizational flexibility and a communicative leadership, are fundamental conditions for success. This generates higher profitability and sales growth because it ensures a greater satisfaction to its customers and its new products tend to be more successful. Despite the stand based on strictly behavioral elements, these authors define MO as a specific type of organizational culture. About this issue, MO should promote a cultural environment conducive to organizational learning.

The relationship between MO and business performance has been investigated in a range of contexts. The majority of empirical works suggests that that MO has a positive impact on the company performance (Ellis, 2006). According to Li *et al* (2008), the increasing level of technological and market uncertainty,

highlights the importance of knowing the relationship between MO and the business performance. Song and Parry (2009) argue that the importance of environmental variables to the desired level of MO is evidenced by discussions on the impact of environmental instability on business performance. Jimenez-Jimenez and Navarro (2007) consider MO as a source of competitive advantage that allows the identification of customer information.

3. METHODOLOGY: SURVEY AND DATA COLLECTION

Based on the research objectives and the literature review, a questionnaire was constructed to collect the data. The questionnaire is divided into five question groups:

- **Group 1–Market Adjustments:** Seeking information about the companies agreement with certain factors of market turbulence and competitive intensity, and the set of activities it pursues to cope that environment.
Market turbulence and competitive intensity, whose response options were presented to respondents in a 7-point Likert scale;
Actions taken to cope with market turbulence and competitive intensity, whose response options were presented as a nominal scale with two response options.
- **Group 2 - Marketing Activity:** This group of questions aims the verification and characterization of the marketing activities types consciously developed by the companies. For the answer options we used a nominal scale with two response options.
- **Group 3 - Functional Indicators:** This group of questions aims to collect information for the companies classification, such as the Economic Activities Classification (CAE), number and skills of employees (full time, part-time and level of educational attainment), number of commercial workers and the directors and employees marketing training.
- **Group 4 - Performance:** Seeks to obtain economic and financial information relating to the years of the examined period, as well about how the company assesses itself in comparison with the main competitors, in order to allow us to evaluate the financial performance.
- **Group 5 - MO:** This set of questions intend to verify the practical relationship between the company and its business environment, particularly in terms of information generation, information dissemination and decisions and actions taken. The response options were presented to respondents in a 7-point Likert scale.

Table 1 summarizes the relationship between the objectives to be achieved and the corresponding items to be analyzed.

The questionnaire was filled through a personal interview and after a pre-test¹ applied to three firms.

Due the high number of companies in this area, in a first step we decided to select companies that are members of the entrepreneurial associations, NERVIR (Vila Real) and NERBA (Bragança). In a second step, these companies were contacted by phone and questioned if they are available to answer to the questionnaire. At the end of this process, 87 firms constitute the sample.

The personnel interviews to the managers were conducted between August 2008 and January 2009 and took place in firm's headquarters.

To verify the reliability and validity of variables measures, the Cronbach Alpha test was applied. The results are presented in Table 2.

Considering that there is a good, acceptable and weak consistency if the Cronbach's alpha is respectively greater than 0.80, between 0.60 and 0.80 and below 0.6 (Pestana & Gageiro, 2003, Hill & Hill, 2005), it appears that the internal consistency of the dimensions "Information Generation" and "Information Dissemination" is good, and those on "Information and Decision" and "Market Turbulence" are acceptable and only "Competitive Intensity" is less good. Thus, the achieved dimensions not respect exactly the initial composition of MARKOR and MKTOR scales, but substantially approximate and respect its original spirit.

Relatively to the 87 observations, the majority of firms (66.7%) is micro (under ten employees), belongs to wholesale and retail sector (34.5%) and are limited liability companies (78.2%). On average, the annual amount of investment and its total sales are low.

4. RESULTS

In order to analyze the influence of variables related MO on the performance it is estimated a linear regression whose, we used multiple linear regression models considering the variables expressed on Table 3.

Relatively to the variables with two categories, a binary variable is assumed (yes and no). Thus, the variables were categorized "Actions against market turbulence and competitive intensity" (going to be known by Bin_1) and "Marketing Activities" (called Bin_2) with the following assumption:

- Bin_1 = 1, if practices 50% or more of the questioned actions or Bin_1 = 0, if practices less than 50% of the questioned actions;
- Bin_2 = 1, if practices 50% or more of the questioned actions or Bin_2 = 0, if practices less than 50% of the questioned actions.

Additionally, the possible existence of outliers is analyzed and, if detected, is eliminated the respective observation. In this process, it is considered outlier if

¹ Pre-test represents the application of the questionnaire among a small sample of respondents, with the aim of identifies and eliminates potential problems (Malhotra, 2001).

the value of one variable is higher or lower three times than the standard deviation, which conducted to the elimination of 4 observations.

Table 4 includes the descriptive statistics of the data. Looking for the coefficient of variation (ratio between standard deviation and mean), we found that in the dependent variables, except asset turnover, the relative dispersion is high, assuming, in descending order, the following values: 9,0467 (RLV), 5,8602 (CF/VL), 5,8165 (ROA) 1,4149 (ROI), 1,1241 (ROV), 0,7711 (Rot_Act). It follows that, for all indicators studied, the asset turnover is the closest to the mean, standing in the opposite position to sales profitability.

Regarding to the independent quantitative variables, the relative dispersion is relatively low, except for the number of full-time and part-time employees, as well the number of commercial workers. In descending order we have: 3,0906 (n_com); 1,9062 (func_int); 1,4537 (func_cs); 0,2737 (turb_merc); 0,1942 (om_div_inf); 0,1784 (int_comp); 0,1434 (om_ger_inf); 0,1121 (om_inf_dec). These indicators suggest that the observed values are more around the average values than the dependent variables, which will certainly influence the results of the regression.

For the binary variables (Bin_1 and Bin_2), 34.94% of companies develop actions against market turbulence and competitive intensity, while only 26.51% have a systematic marketing activity. The most common marketing activities in this restricted number of companies focus on developing actions to promote products and services, production of promotional material and creation of a website.

In terms of MO degree, the main conclusions are:

- To information generation, we noted concerns in assessing the customer satisfaction degree and in the changing needs knowledge; the direct interaction between productive area employees and customers was also an aspect emphasized by companies;
- For information dissemination, deserve be highlighted aspects related to share relevant information with customers and employees and give to the customers the information about products and services at their disposal, so that they can be used and consumed with the best possible efficiency, and provide the desired satisfaction;
- To information and decision, the most important aspects are mainly focused at the customer level, in terms of deciding in order to serve it, develop and adapt products according to their needs, improve support services, promote their complaints fast handling and scrupulously fulfill the promises made to them.

Moreover, some aspects have been detected that appear somewhat “neglected”, in particular the following:

- Are not made regularly commercial visits to current and potential customers, since 69% of the sample companies do not have sales staff or employees with purely commercial functions;
- There are no development of information systems for detection of significant market changes, no regular contact with the public

administration and no research about trends, fashions or styles that influenced the activity;

- In general terms, has not been seen as a priority the immediate sharing of information when identifying new initiatives of competitors.

Table 5 presents the results of multiple linear regression models, corrected for heteroscedasticity, using the White method (Wooldridge, 2003).

Observing the estimated results, the value of F statistic indicate that the models with the dependent variables *Rend_Act*, *Rot_Act*, *ROI* and *ROV* are globally statistically significant. The models concerning dependent variables *RLV* and *CF/VL* are not statistically significant. This means that the variation of *Rend_Act*, *Rot_Act*, *ROI* and *ROV* is simultaneously explained by all explanatory variables and there were no such occurrence for the other models.

Based on the sign and individual statistical significance (t test), it is possible to infer that: (a) *turb_merc* influences positively *Rot_Act*, *ROI* and *ROV*; (b) *Bin_1* influences negatively *Rend_Act*, *Rot_Act*, *ROI* and *ROV*; (c) *int_comp* influences negatively *Rot_Act*; (d) *func_int* influences positively *ROV* and negatively *Rot_Act*; (e) *func_cs* and *n_com* influence positively the variable *Rot_Act*; (f) *om_ger_inf* influences positively *Rend_Act* and *Rot_Act*; (g) *om_div_inf* influences negatively the variable *Rend_Act*; (h) was not found any direct relationship between the variables *Bin_2* and *om_inf_dec* with any of the dependent variables.

5. CONCLUSIONS

Literature indicates that marketing is revealed as a primary function for creating value for the company and its stakeholders. However, in our sample only 26.51% of the companies meet the requirements in terms of developing effective service marketing.

Competitive intensity and market turbulence were relevant factors in influencing the company performance accordingly several studies. In our case, there is a positive influence of market turbulence in performance variables such as asset turnover, *ROI* and Sales Operational Profitability, which may be related to the attention of companies to cyclical conditions, in terms of customers change or products and services obsolescence, which requires a quick answer.

We found that there is an inverse relationship with performance in terms of asset turnover. It is also found that competitive intensity and market turbulence have a negative influence on performance indicators such as *ROA*, asset turnover, *ROI* and Sales Operational Profitability. These results can be related to the larger structural requirement for companies, because competitive intensity and market turbulence affects companies' ability to optimize and to capitalize on the existing structure and may force them to sacrifice their profit margins to stay competitive. On the other hand, more competitiveness requires strategic changes as the level of prices, quality products and services and response to competitors, which may force the company, often, to new

investment levels, with changes in costs structure, which require more longer recovery periods, depending on their size.

We also observed the curious fact that companies who feel greater market turbulence, normally not respond to it. We assumed as possible explanation that the actions in response to market turbulence involves investments that companies have not financial capacity to execute or that can cause additional expense or revenue reductions on short term, which limits the efficiency and profitability results.

It was also concluded that, overall, some human resources indicators have a positive influence on company performance. The number of full-time employees correlates positively with Sales Operational Profitability, which may be due to the existence of scale economies or to the fact that a larger number of employees allow a better resources allocation which permit increase the expertise in certain key business activities. Also there is a positive relationship between number of employees with technical or university course and number of commercial employees with Asset turnover; the explanation may be in a better utilization of the structural capacity of enterprises as result of these employees specificity or the better cost benefit ratio that they may provide. We found too a negative relationship between number of full-time employees and assets turnover, which could arise from the fact that increasing the number of full-time employees brings stronger structural requirements at the level of operating income.

Regarding the market information generation there is a positive relationship with ROA and assets turnover. Therefore, we think that companies should regularly promote measures such as meet with customers to identify products or services they need in the future, make a good market research, quickly detect possible changes in customer preferences and evaluate periodically, along of these, the products and services quality.

About market information dissemination, we found a negative relationship with ROA. The hypotheses proposed to explain this fact can be supported by the small size of the firms, in which the information dissemination is almost automatic, without need for a formal conception of it, and, moreover, that automation may indicate a lack of systematization, control and interpretation of that information.

For decisions involving departmental interconnection in order to meet customers' needs and expectations by implementing an effective strategy for generated information, is not found any relationship with the performance, meaning that there is a passive attitude of the companies to the market. The findings of this study, although largely agree with literature, has limitations in terms of the sample and geographic context in which data were collected. Certainly the results would be more robust if based on a larger and more diverse sample in companies' types as from others geographical contexts.

Moreover, a longitudinal measurement of some variables - such as competitive intensity, market turbulence and market orientation - could allow the analysis of possible modifications inherent to market dynamism.

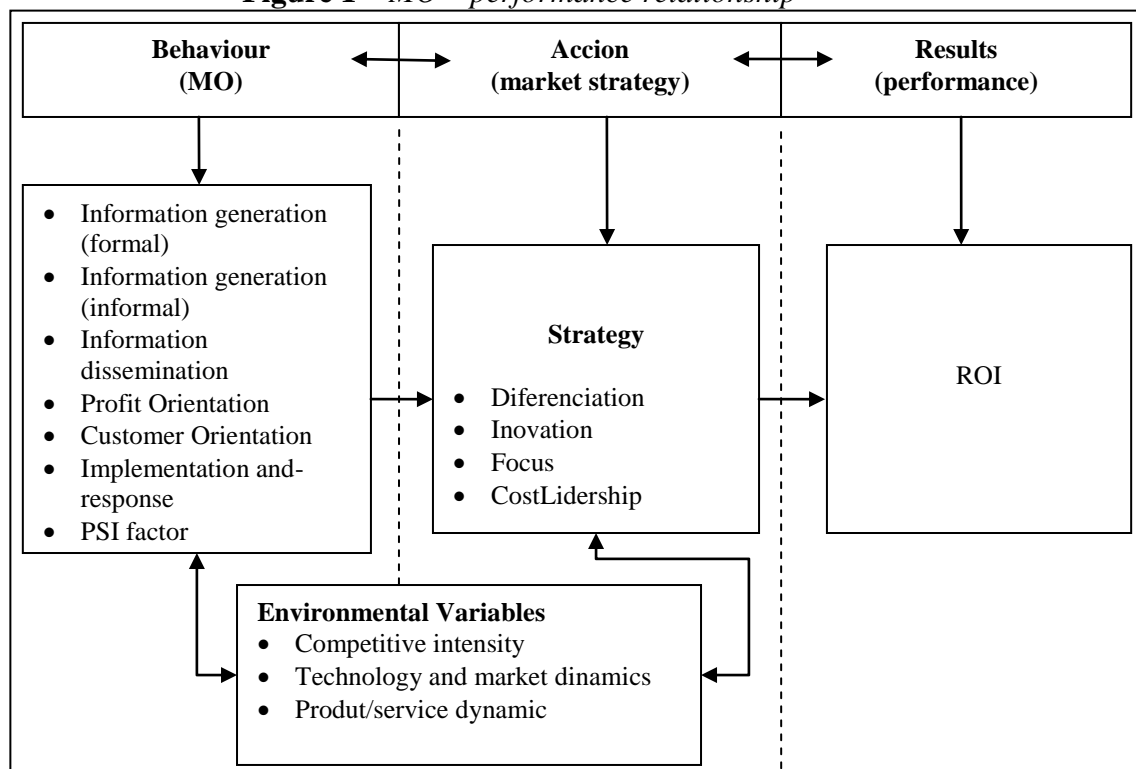
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ANNEX

Figure 1 – MO – performance relationship



Source: Dobni and Luffman (2000: 506)

Table 1 - Relationship between study objectives and items to analyze

Objectives	Items to be analyzed
Market turbulence and competitive intensity characterization	Market turbulence and competitive intensity factors
	Acts against market turbulence and competitive intensity
Developed marketing activities characterization	Marketing activities
OM degree characterization	Information generation
	Information dissemination
	Information and response
Economical and financial evaluation	Accounting information (2004 to 2007)
	Competitive performance indicators

Table 2 – Reliability and validity test (Cronbach Alpha)

Variables	Dimensions	Items	Cronbach Alpha (λ)
Market Orientation	3		
Information Generation		13	0,804
Information Dissemination		8	0,876
Information and Response		12	0,708
Market Turbulence	1	4	0,611
Competitive Intensity	1	4	0,557

Table 3 -Variables of the linear regression models

Dependent variables (explained)	Independent variables (explanatory)
Return on Assets (ROA)	Market Turbulence (turb_merc)
Sales Profitability (RLV)	Competitive Intensity (int_comp)
Assets Turnover (Rot_Act)	Actions against market turbulence and competitive intensity (Bin_1)
Cash-flow/Sales (CF/VL)	Marketing Activity (Bin_2)
Return on Investment (ROI)	Full-time employees (func_int)
Sales Operational Profitability (ROV)	Employees with university course (func_cs)
	Comercial employees (n_com)
	MO – Information Generation (om_ger_inf)
	MO – Information Dissemination (om_div_inf)
	MO - Information and Response (om_inf_dec)

Table 4 - Descriptive statistics measures

Variables	Average	Minimum	Maximum	Variation Coefficient
ROA	0,0166	-0,2758	0,3099	5,8165
RLV	-0,5873	-48,388	0,4343	9,0467
Rot_Act	1,2013	0,1039	4,1864	0,7711
CF/VL	0,5119	-0,4156	27,382	5,8602
ROI	0,6377	-0,3651	4,1864	1,4149
ROV	0,5047	-2,1875	1	1,1241
Turb_merc	4,247	1,25	6,75	0,2737
Int_comp	5,0934	2	6,5	0,1784
Bin_1	0,3494	0	1	1,3729
Bin_2	0,2651	0	1	0,4441
Func_int	15,386	1	184	1,9062
Func_cs	1,2771	0	8	1,4537
N_com	0,9759	0	25	3,0906
Om_ger_inf	4,8239	3	7	0,1434
Om_div_inf	4,8509	1	7	0,1942
Om_inf_dec	5,0823	3,25	6,5	0,1121

Table 5 - Results of OLS estimated models, corrected for heterocedasticity, for performance variables

(*, **, ***) Statistically significant to 10%, 5% and 1%, respectively

Independent variables	Dependent Variables (economical and financial performance indicators)					
	Return on Assets (ROA)	Sales Profitability (RLV)	Asset Turnover (Rot_Act)	Cash-flow/ Total Sales (CF/VL)	Return on Investment (ROI)	Sales Operational Profitability (ROV)
	Coefficient (t-ratio)	Coefficient (t-ratio)	Coefficient (t-ratio)	Coefficient (t-ratio)	Coefficient (t-ratio)	Coefficient (t-ratio)
Constant	-0,063 (-0,587)	0,31 (0,213)	-0,419 (-0,422)	-0,744 (-0,765)	-0,471 (-0,651)	-0,609 (-1,02)
Bin_1	-0,033* (-1,651)	-0,077 (-0,264)	-0,359* (-1,825)	0,037 (0,167)	-0,377** (-2,353)	-0,231* (-1,831)
Bin_2	-0,026 (-1,234)	-0,008 (-0,029)	-0,096 (-0,482)	-0,118 (-0,562)	-0,052 (-0,34)	0,046 (0,408)
Func_int	3,537e-05 (0,245)	0,0003 (0,131)	-0,004* (-1,672)	-8,507e-05 (-0,069)	0,002 (0,887)	0,004*** (5,692)
Func_cs	0,009 (1,517)	0,021 (0,291)	0,072* (1,769)	0,008 (0,183)	0,003 (0,09)	-0,013 (-0,432)
N_com	0,001 (0,556)	0,001 (0,069)	0,06*** (5,464)	-0,001 (-0,106)	-0,027 (-1,115)	-0,038 (-1,379)
turb_merc	-0,01 (-1,383)	0,002 (0,021)	0,2*** (3,134)	0,005 (0,078)	0,12* (1,953)	0,161*** (3,766)
Int_comp	-0,0003 (-0,041)	-0,022 (-0,174)	-0,214* (-1,939)	0,003 (0,036)	0,044 (0,55)	0,064 (0,865)
om_ger_inf	0,061** (2,634)	0,02 (0,07)	0,632*** (3,014)	0,238 (1,28)	0,152 (1,051)	0,095 (0,877)
om_divul_inf	-0,024*** (-2,662)	0,106 (0,491)	-0,016 (-0,148)	-0,249 (-1,639)	-0,043 (-0,35)	0,026 (0,37)
om_inf_dec	-0,009 (-0,426)	-0,176 (-0,579)	-0,215 (-1,268)	0,207 (1,151)	-0,028 (-0,239)	-0,071 (-0,632)
R²	35,99%	0,98%	47,08%	16,04%	27,01%	65,82%
F-statistic	4,05***	0,07	6,41***	1,38	2,66***	13,87***

(*, **, ***) Statistically significant to 10%, 5% and 1%, respectively