



A Competing Values Framework Approach on Growth and Performance in Micro Firms

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Abstract

This study aims to analyze and compare four micro-firms' organizational culture, evaluated through the Competing Values Framework (Quinn & Rohbaugh, 1983). Data was collected in 2011 and 2013 in firms selling the same type of software and providing the same kind of services, focusing on the years between 2008-2011. Findings point to somewhat different results of micro-firms, when comparing to other samples in the literature. Suggestions for future research are given.

Introduction

Micro-firms (firms up to 9 workers) represent the large majority of enterprises in the whole world (e.g. OECD, 2012), as in Portugal where the average size of firms is 3,5 employees and micro-firms represent 95.5% of the firms in the country (Gabinete de Estratégias e Estudos, 2009). The analysis of this type of enterprise is relevant, given that they are the ones who suffer the most with the lack of resources and the fact that there are very few studies about



this type of enterprise in literature. The main question addressed here is: which organizational cultures are related to a better business performance in micro-firms?

Four micro-firms were analyzed and compared, relating the organizational culture, and various measures of organizational performance, between 2008 and 2011. Initially the theoretical bases of the concepts used are presented: the organizational culture model used; and culture, performance and organizational growth. The data collecting methodology, as well as the case studies and finally the results are presented and the prepositions that have emerged are discussed.

Theoretical background

Organizational Culture Model: Competing Values Framework

Competing Values Framework (CVF) (Quinn e Rohrbaugh, 1983) has been mentioned as one of the 40 most important models in the history of management (Have, Have, Stevens, Vander-Els, & Pol-Coyne, 2003) and widely used in organizational research, namely when organizational culture and performance are analysed (Gregory, Harris, Armenakis, & Shook, 2009). Quinn e Rohrbaugh (1983) have shown that there are two common culture dimensions which explain organizational effectiveness and that may be considered orthogonal planes: structure and focus. Structure may be seen as a continuum that ranges from flexibility/change to stability/control (vertical axis). Focus, on the other hand, ranges from internal orientation, towards people and processes, and external orientation, towards markets (horizontal axis). By overlapping these two axes we create a spatial model with four quadrants that represent organizational culture typologies: Clan, Adhocracy, Hierarchy and Market.

Clan Culture or Group Culture is characterized by flexibility and orientation towards people inside the organization. Openness, trust and group values are highly emphasized. *Adhocracy Culture* or Development Culture is characterized by flexibility, external focus/orientation, adaptation to internal and external changes, innovative suggestions, and competitiveness as ways to guarantee organizational competitiveness. *Market Culture* or Rational Culture (e.g. Quinn & Rohbaugh, 1983) is the quarter of stability/control and exterior/market focus. In this case, employees are controlled by objectives that direct their behaviors towards the market. *Hierarchy Culture* focuses on two dimensions: stability/control (structure axis) and orientation towards the interior of the organization (people and processes). This kind of organizations is concerned with internal standardization and efficiency. There are rules for behaviors and managers define, coordinate and enforce those rules.



Culture types and organizational effectiveness

When one says that organizational culture influences the behaviour of organizational members is because it enforces them to act accordingly to its values, and organizational culture is a set of shared values (Schein, 1985). The meta-analysis performed by Hartnell, Ou, & Kinicki (2011), analyzes studies published between 1980 and 2008; their findings support the existence of a relationship between culture (by using CVF model) and organizational effectiveness has provided enough evidence to support the conclusion that each organizational culture typology may be related to organizational effectiveness (Hartnell et al., 2011).

Although all types of culture relate to organizational effectiveness, the meta-analysis has shown that the Clan Culture is the most consistent when it comes to predict organizational effectiveness. The results from this meta-analysis have supported the relationship between the culture typologies and organizational effectiveness. Specifically, those results point out that the Clan culture is more related to quality and product and service innovation than the Market oriented culture, as the model suggests. Meaning also that product and service quality have more to do with internal processes development and a good relationship between employees than with market orientation and results achievement.

The fact that culture studies have related culture to several measures of organizational effectiveness makes it difficult for any effort of understanding and/or comparison. Trying to overcome the difficulty in defining Organization effectiveness, and its multiple constitution, several authors present taxonomies with three dimensions: Venkatraman and Ramanujam (1986); Dyer & Reeves, 1995; Hartnell et al (2011).

Methodology

Case study methodology was used to compare four micro firms (up to 10 workers) across five years (2008-2012) which sell Enterprise Resource Planning software - ERPs and provide related services to their clients. These micro firms were selected according to: selling and providing services in the same business; selling one or two of the same brands of ERP software; and being located around the same geographical area, facing the same market, thus being business competitors among themselves. This was a convenience sample. We have collected data in two periods of time: between May and December 2010 and at a second moment, between February and April 2013. The main focus of research was the last five years (2008-2012).



Dimensions, referred in the literature as affecting culture creation, were measured:

- *Business characteristics*: year of establishment, first year in the ERP business, business products and services range, and organizational structure);
- *Employees' characteristics*: gender, average number of employees and its evolution; school qualification and employees' recruitment strategies;
- *Owners'/ownership's characteristics*: number of owners (including silent partners) and gender, qualification, experience in the field, management experience and self-employment experience at start-up;
- *Organizational culture*: OCAI questionnaire, Competing Values Framework survey (Cameron & Quinn, 2011) which was translated to Portuguese by the researchers. Both firm owners and their employees responded to the 24 items.
- *Performance indicators*:
 - Financial effectiveness: revenue and number of employees' growth; growth is also measured by the increased number of employees;
 - Operational effectiveness/business performance, productivity ratio and its evolution over the time period under study (sales/number of employees);
 - Employee attitudes/organizational effectiveness: Commitment - affective commitment, 7 items sub-scale (Meyer & Allen, 1997), rated in a 7 points scale; Job satisfaction - Job Satisfaction Survey© Spector's (1994), translated to Portuguese by João Malheiro (2011) accessed in the authors' website. Six of the original nine subscales were used: supervision, operation conditions, coworkers, nature of work, communication and contingent rewards. The 24 items were rated in a 6 points scale.

Business and employee characteristics were assessed through interviews both with owners and employees. Firms' revenue, productivity and employment growth were obtained from the Portuguese Ministry of Finance's website. Data was analyzed through content analysis methodology, and categories derived from the interviews' protocols and literature. Surveys were classified according to respective authors' specifications.

The firms have similar characteristics, but they have different histories (Table 1).

Table 1 – Detailed case studies’ description

Firms	A	B	C	D
Business’ characteristics				
Establishment year/ ERP	1994/ 1995	2000/ 2000 (both ERPs)	1998/2000	1997 / 2004
Business products & services	ERP A + New software (for micro firms) + Hardware and infrastructure assistance	ERP A & B + Hardware & infrastructure assistance + Hardware computer accessories sell	ERP B + Hardware & infrastructure assistance + Hardware & computer accessories sell	ERP A + Hardware and infrastructure assistance
Employees’ characteristics				
# in dec.2012	4	9	10	6
Evolution	=	↘	↗	↘
Qualification & recruitment	N=1 HE; N=1 Incompl. HE N=1 12 years; Network	N=1 HE; N=6 12 years; N=1 9 years; Network, DB	N=1 HE; N=6 12 years; N=1 9 years; Network, adds	N=2 HE; N=2 12 years; University, adds
Owner’s / ownership’s characteristics				
Gender/#	M/1	M/1	M/1 + W/1	M/1
Previous experience	In the field - Yes Management - X Self-employment- Yes	In the field - Yes Management - Yes Self-employment - Yes		In the field - Yes Management - Yes Self-employment - Yes



Firm D, which started its business of selling software after 2002 (so it didn't benefit from the "golden" years: 2000, the passing of the millennium; and 2002, the changing from the Portuguese currency to the euro). The firms A, B and D sell ERP A, and firms B and C sell ERP B. Only firm B sells both types of ERP. The firms A, C and D have direct client services, computer equipment and accessories.

The organizational structure of all the firms has technicians linked to software, and also hardware. In all cases the sale, implementation and assistance to ERP is the main business. Only firm A doesn't have a person linked specifically to the administrative area. Regarding dimension there are two groups: 4 or 5 workers (firms A and D) and 9 or 10 workers (firms B and C). Between 2008 and 2012 firm A maintained the number of workers, firm C increased and firms B and D decreased their number of workers.

The qualifications of the workers vary between elementary education (9 years of schooling) and higher education. Each firm has used various strategies for recruiting, but in firms A, B and C network is the most used. Firm D has an agreement with a university and recruits their software technicians through them. The owners are mainly men, only in firm C is there a woman in the ownership team; all attended higher education and only the owner of firm C is missing one year to finish his degree. All the businessmen and the businesswoman have experience in the area, the owner of firm A didn't have previous management experience and the owners of firm C didn't have experience in self-employment before starting in this business.

Results

In this section we analyse the organizational culture of the four case studies according to authors' instructions (Cameron & Quinn, 2011). We then present performance and growth data and, finally we compare case studies culture, performance and growth. Data enables us to develop propositions about the suitable organizational culture for best performing micro-firms, as well as growth and sustainability of these firms.

Organizational culture

OCAI was the instrument used to measure organizational culture, and its authors (Cameron & Quinn, 2011) advise some kinds of analyzes. Organizational culture scoring on OCAI by firm owner and their employees is presented (Table 2).



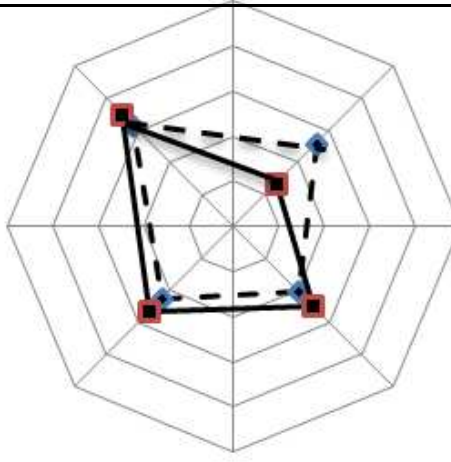
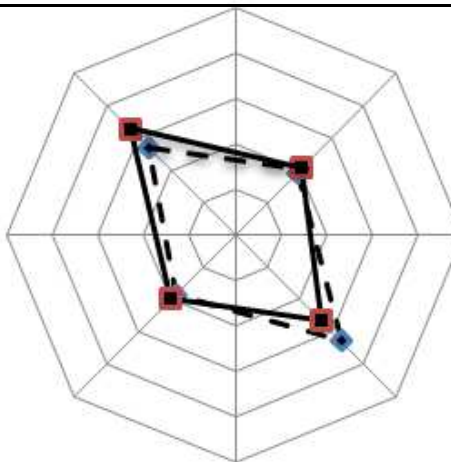
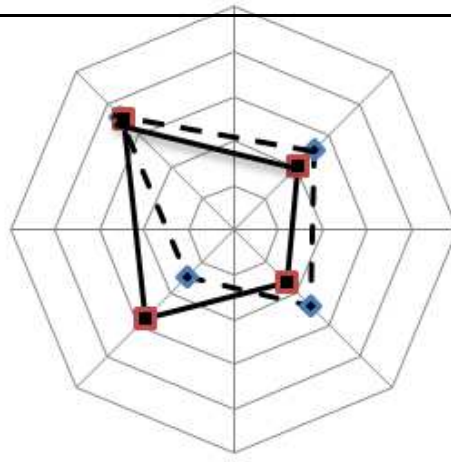
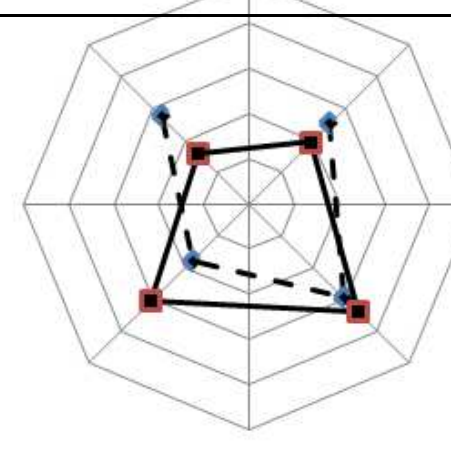
Among owners, the main culture type of culture is Clan, except for firm D owner, which is Market. Firm's A and C employees refer to their firms having Clan type of culture and firm's B and D employees report Market type of culture. Firm D's employees are in pace with their employer. As CVF authors say that up to 10 points apart, results aren't



considered as being different (Cameron & Quinn, 2011), Firm's B owner and their employees perception of culture is alike. All firms' cultural profile has 2 or 3 orientations within 10 points, which means that the configurations are balanced, and there isn't a stronger culture type. The cultural profile design is roughly similar, namely between owners and their employees, the difference is the scale. Only firm D's owner cultural profile is completely different from all other owners and employees, including his own.

Data shows that Hierarchy culture type is moderately/highly acknowledged by firm owners, and reported as not being a main concern by employees, except in Firm A's. This is different of CVF authors' findings (Cameron & Quinn, 2011). This difference can be explained by the size of this study's firms, when comparing to authors sources. The micro firms studied, even though they began their businesses some years ago, processes are not very well defined, and they keep on changing procedures and people who do them. Cameron & Quinn (2011) when analyzing data trends, say that focusing on flexibility and innovation isn't very common, which reflects a low Adhocracy scoring. This is also the perception of this study's firm owners, but it is contradictory to the culture evaluation by their employees. This data is congruent with employees not admitting big importance to rules and, contrary of firm owners who want to control and standardize work.

Table 2 – Case studies’ organizational culture scoring by owners and employees

Firms	A	B
Culture: Owners and Employees Legend: Owners  Employees 		
Owner-Employees differences’ sum	25	15
Firms	C	D
		
Owner-Employees differences’ sum	27	35
Differences	between Owners all firms: between Employees all firms:	
	Minimum difference – 7,47; Maximum difference – 19,0 = 11,53 Minimum difference – 6,52; Maximum difference – 12,47 = 6,05	

The most different profile is between firm D’s owner and his employees. This owner believes that Clan culture type is the last on the priority list. Firm B is the on the opposite situation, being the firm owner closer to the employees’ perceptions on organizational culture types: Market and Clan / Clan and Market. Corporate culture assessed by employees in all firms is very similar, differences between the maximum and minimum is lower than 10 points. On the other hand, the owners of the firms have bigger differences among themselves. This means that employees of all the firms think of their own culture in a very similar way.



Organizational performance and growth

Performance and growth is measured by financial and business results, and organizational effectiveness. Data is presented in Table 3. Employment only grew in firm C. The number of employees was maintained in firm A. Between 2008 and 2011, the number of employees decreased in firms B and D. The financial dimension is measured by the revenue and the growth of the revenue is measured by the evolution of that indicator between 2008 and 2011. As a way of comparing revenue values between the firms, the value per employee was calculated; and to maintain firms' figures confidentiality, the percentage of the revenue was calculated having the base set at the highest value (firm A). Firm D, is the one to have the lowest net income average.

The revenue growth (2008-2011) is the measurement of growth of each firm. Firm C is the one which grew the most in terms of net income. Dividing that value by the average number of employees during the same period of time allows us to compare the growth of the various firms: firm C increased their net income value of 2008 per employee by 198%, and firm D lost 37% per employee in relation to the income of 2008.

Business performance dimension was measured through the indicator productivity (sales/number of employees) between 2008 and 2011. The value of sales per employee was similar among firms A, B and C, but firm D was about half of the others (51%). When comparing the evolution of productivity between 2008 and 2011, firm A, despite having the highest average revenue per employee, was the firm which decreased its average productivity per employee, during the same period of time (-7%). Firm B was the one to have improved its average of productivity (+4%), maybe because the number of employees decreased. Organizational efficiency wise: employees of all firms feel affectively committed to their firms; the employees of firm D express less job satisfaction than employees of the other firms.

Table 3 – Primary Organizational Culture types (firm owners and employees), performance and growth indicators

Firms	Firm A	Firm B	Firm C	Firm D
ORGANIZATIONAL CULTURE				
Primary Organizational Culture types (Firm Owners)	Clan, Hierarchy, Market	Clan, Market	Clan, Hierarchy	Market, Hierarchy
Primary Organizational Culture types (Employees)	Clan, Adhocracy, Hierarchy	Market, Clan	Clan, Adhocracy	Market, Adhocracy, Clan
FINANCIAL PERFORMANCE				
Average revenue by employee comparing to firm A (2008-2011)	100%	65%	78%	11%
Revenue growth (2008-2011)	82%	403%	1830%	-37%
Revenue growth by employee (2008-2011)	21%	35%	198%	-5%
BUSINESS PERFORMANCE				
Productivity (Average sales/Average number of employees) comparing to Firm C (2008-2011)	94%	99%	100%	51%
Productivity growth by employee (2008-2011)	-7%	4%	1%	0,2%
ORGANIZATIONAL EFFECTIVENESS				
Work satisfaction	75%	60%	75%	53%
Affective Commitment	83%	80%	88%	76%

Relating organizational culture to performance and growth

Findings in Table 3 point to Clan culture evaluated by the owners as being associated with better revenue and productivity. Simultaneously, the one firm whose owner CVF survey results show that the human relations model is at the bottom of his way of managing has the worst financial and business performance indicators. The satisfaction at work is at its lowest in the firms, whose owners and employees indicate Market type of culture as the most prominent (firms B and D). Affective commitment is high, regardless of the firm's culture.



Discussion

Analyzing research on CVF and organizational performance is clear that all types of organizational culture can be related to organizational effectiveness (Cameron & Quinn, 2011). However, the Clan culture type appears as the most frequent predictor of efficacy in organizations (Hartnell et al., 2011), which is consistent with the data found in these four case studies. All firms whose owners and respective employees' referred Clan as a primary culture type, have the highest revenue and productivity results and growth. Reinforcing this data, the owner of the firm that has worse performance (firm D) also reports the Clan type of culture at the end of the list of types of culture in his firm. This results allows us to suggest that: *Clan culture is related to best performing micro-firms.*

Our findings point to many business owners emphasizing Hierarchy culture type. The choice of a Hierarchy culture can be adequate if the long-term goal is not innovation (Schgens, Bausch & Balkin's, 2013). But our findings point to, the firm owner who considers the Hierarchy culture very important in his firm, is the one having bad organizational results. Perhaps the interaction of various types of culture is important for obtaining good organizational results. According our results, focusing mainly on control and stability when companies are dealing with financial weakness is not sufficient. So we can propose that: *Various types of culture are important for obtaining good organizational results in micro-firms, being aware of not to focus solely on the Hierarchy and Market cultures.*

Lund (2003) found that job satisfaction was positively related to Clan and Adhocracy cultures, and negatively related to Market and Hierarchy cultures. In these case studies, firms whose owners and employees report among the most prominent Market type of culture, present not so good job satisfaction results (firm B and D). If it is just the owner reporting those types of culture (firm A) it doesn't have the same impact. One could argue that given that firm D is not going well and employees feel it, they could reflect that on the expectations they have on their work environment, that isn't being up to it. But the other firm, who is performing very well financially and productivity wise, even if not as bad, hasn't a good perception on job satisfaction. These findings suggest that: *Market culture type perception by micro-firms' employees is associated with low work satisfaction.*

Results suggest that, not only when firms grow bigger, also when firms go older, that they tend to go more stable, wanting to standardize procedures and control and compete in the external environment. Data differences between micro and larger firms leads to the preposition: *Micro-firms, after a certain time in business, seek to standardize and control processes and goals.*

6. Conclusion

This research revealed that in best performing micro-firms both owners and their employees find Clan culture among the most important culture types. Job satisfaction is negatively associated with owners and employees perception of Market oriented culture amongst the primary culture types. Standing on the very small size of micro-firms (up to



10 workers), firms' evolution leads owners to perceive Hierarchy type of culture as prominent, which is contrary to their employees perceptions. Employees', regardless of the time of the firm in business, feel the culture as innovation prone, and as supporting individual risk taking. Another one of the conclusions of this study is that several culture types' configurations are adequate, as long as they don't focus only on stability and control axis types of culture. This study allowed for exposing some of micro-firms specificities, showing the importance of following and deepening this line of research, allowing for further knowledge both of micro-firms, and organizational culture and performance fields. Further studies, should follow the configuration study stream of research, since the interactions between culture types seem to be able to shed light into contradictory data at first sight.

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