

Management Behaviour on Planning, Cooperation and Competition

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Abstract: - In the present paper we analyzed the behavior of firms in the construction and manufacturing sectors, located in the region of *Vale do Sousa*, in the north of Portugal. From the literature, even revising some disagreements, it is possible to conclude that planning is crucial for firms' survival and growth. Co-operation is another aspect that the literature presents as an important factor for firms sustainability. It also plays a major role in competition, since firms are adopting coo-petition strategies. By studying a sample of 251 firms, it was possible to realize, that the majority started their business without a formal planning, and they keep going without using it. In cooperation aspects, there is a lack of cooperation. It was possible to verify, that existing cooperation has some evidence but at a vertical level. These vertical relations were also identified in stakeholder's involvement.

Key-Words: - Planning; Co-operation; Competition; Innovation, Strategy;

1 Introduction

Since the beginning of the XX century, management has been assuming an important role in any firm. With the scientific management, Taylor and Fayol drove the management into the heart of the organization. But what is management about? What is its real role in today's firms? There are many concepts associated to the management concept, but some of them assume a relevant position.

It is not the aim of this paper to discuss the most important concepts in firm's management, however those quoted in this paper title, are undoubtedly relevant for a firm management. If one considers the basic management functions that can be found in any management handbook planning is there.

A good planning strategy, accompanied by an efficient management system are the engine for firms growth, market share increasing, and consequently to get more profits, in other words, to blow competition away. Besides planning an organizational efficiency also depends on organizational culture [1].

However nowadays there a few companies that might be able to fight alone, unless they are acting in local markets. It is easier to succeed within a

group then alone. It is safer to compete as a network, than as a single firm. In a group, ones weaknesses are offset by others. So if a firm is able to co-operate with other firms, together they will be stronger.

Normally firms are putting so much effort on beating competition, that they don't pay attention to planning or co-operation opportunities. However these are issues that must be in management front row.

Considering planning or strategic planning some studies consider that it is not essential for small businesses [2], [3], or for any kind of business when the long run is taken into consideration [4] while some others argue in the opposite way [5], [6], [7], [8]. Other authors argue in favour of planning since the very beginning [9]. If one considers recent management theories like the "New Japanese Style Management" [4] Business Process Orientation (BPO) [10], [11] or even by the utilization of information technologies (Business Intelligence) [12] planning is there in implicit or explicit terms. However it is frequent to find firms working without a plan, or just following an informal planning. But are those firms ready to compete? Are those firms

prepared to succeed in the long-run? They might be successful in the present but that may not last.

It is widely accepted that in order to survive and grow, firms need to be innovative. However innovative firms might be less likely successful in the short-term than their non-innovative counterparts [13]. If managers are aware of these issues, will they be able to sacrifice short-run benefits, in order to increase results somewhere in the future? And we are back to the long term planning. So innovation together with firm performance must be planned using for instance scenario planning methodologies [14], [15], [16].

When the issue of innovation comes to discussion, it is important to distinguish whether it is large or small firms' innovation. The former, normally present own resources, skills and capabilities to do it by themselves or they have capabilities and resources for efficient planning and cooperation regarding innovation. This co-operation can be done by outsourcing a part of the process, and it is frequent to outsource to smaller firms. But this innovation policy can be difficult for small firms, either by firm/management restrictions such as resources paucity, lack of specialized hand work, or adaptation costs [17], [18], [19]. Sometimes even the concept of innovation is not recognized in the same way when analyzed from different stakeholders [20]. This insight is important, because if different stakeholders have different ideas about innovation, this may also be a barrier to create a network. If one does not recognize an innovative product or process in the idea that sustains the network, probably the cooperation will be declined. Moreover, innovation in itself might be problem [21]. It might also promote an anti-innovative behaviour promoting protective strategies such as speed to market or secrecy, instead of innovation [22].

So, in order to get better results on innovation terms, and/or performance small firms should be able to cooperate among them [23], [24]. *“According to the perspective of social networks, individuals or companies cannot exist alone in a society. Instead, they will form connections with other people or companies through various reasons; those are so called ‘social networks’ and ‘business networks.’”* [25]. But is it possible to create a business network, and/or cooperate in a competitive environment? Besides creation, it is also necessary to strength the relations in the network in order to get better results [26], [27]. This means that is not enough to create or to be a network member. In order to get results cooperation must be present.

According to Braguinsky & Rose [28] the more competitive is the market, the less costly it is for firms to help each other like good neighbours. And as competition increases among teams, increases the cooperation among team members [29].

So, it seems that co-operation in vertical or horizontal perspective promotes innovation, increases performance and makes firms more resilient [23], [22]. However firms will not lose their competition. On the contrary, nowadays competition is increasing, but in order to face it are cooperating to compete. In the literature, this behaviour is known as coo-petition [30], [31], [32].

Through coo-petition firms can get not only better performance but also to pursue technological innovation [33]. At the same time, coo-petition helps in costs reduction, since it can also promote cooperation through virtual teams [30].

By co-opetiting a firm may cooperate and compete at the same time. This competition may occur in different or even in the same markets [34]. However, in order to get better results and to make the cooperation lasts, a cooperation that leads both sides to a joint competition will certainly avoid some potential conflicts.

The question that arises is: Are firms ready to cooperate? Are they able to look to a competitor as a potential partner for the future? If so, in what levels are firms cooperating? With suppliers and customers, or are they ready to cooperate at a horizontal level?

In this paper we are analysing industry (manufacturing and mining and quarrying, and construction sectors) in a Portuguese region located in the north of Portugal – *Vale do Sousa*. It is our goal to analyse whether firms are by themselves adopting planning and cooperation strategies. The planning analysis will be done by considering the moment of firm creation, and the studies taken until the present days, as well as the stakeholder's involvement in decision making. On what regards co-operation we will analyse horizontal and vertical co-operation.

2 Resources and Methodology

In order to better understand the methodology adopted as well as the resources used in this study, we will briefly present the region where the study was carried out. After that we will present the methodology adopted to determine the necessary sample size in order to get statistical valid results. Since this paper is a result of a broader research, some specific methodologies will be described in the following chapter along with the results. By

having simultaneously some results and the path followed to get them, the discussion might be more profitable.

2.1 The Region

The region where this study was conducted is composed of six *concelhos*¹ (Castelo de Paiva, Felgueiras, Lousada, Paços de Ferreira, Paredes, Penafiel) which together form the Vale do Sousa Urban Community. This region is located in the North of Portugal, and for statistical purposes it is a region within NUT III – Tâmega.

According to the last census the population in this region in 2010 is 339,616 inhabitants. That means a population variation of 13% between 1991 and 2001, but only 3.6% between 2001 and 2010 [35]. Nowadays the main activities in this region are: shoe making, textiles, manufacture of furniture and construction. In four of these *concelhos* it is even possible to identify, some industrial districts [36], [37]: Felgueiras: Shoes production; Lousada: Textiles; Paços de Ferreira and Paredes: Furniture Manufacture. The existence of a specialization by *concelho* can be a threat to entrepreneurship. As referred in an OECD report [38] a strong concentration may be an inhibitor factor for entrepreneurship, and consequently to the strategies that lead to a better level of entrepreneurship. Even though being possible to find many activities in each *concelho*, in some of them there is a significant dependence of a major activity.

In order to describe the entrepreneurial fabric, it was necessary to collect information from different institutions, since the available information varies from source to source. According to data from the Statistics National Institute, in this region there are 34,049 firms. However, information from CofaceMOPE reveals the existence of 11,973 firms and, according to the Labor Ministry, the number of firms is 10,231. After contacts with local entities, it became clear there is no accurate information about the exact number of firms, which led us to believe that the number of firms was probably close to 12,000.

According to the data provided by the above mentioned institutions, this distribution (in relative values) is similar, pointing to retailing, manufacturing and construction being the main activities, representing 75% of the firms in the region.

¹ Concelho: Portuguese administrative unit divided into smaller units called freguesias.

Nevertheless, it is not easy to analyze the firms' management strategies and their entrepreneurial and innovative actions using a single approach to all of them, since they belong to different sectors. The degree and type of entrepreneurship differs from a clothing store to a technology software industry [39] (even as regards the strategies adopted). In order to find more significant results, it was decided to limit this study to industrial (manufacturing and mining and quarrying firms) and construction businesses. This choice can be justified by the number of firms these activities engage, almost 50% of the total number of firms, and 75% of total employment. According to the data provided by the three institutions, the number of firms engaged in the industrial and construction sectors are around 5,000 (this figure will be used as the total population for the purposes of this study).

2.2 The Questionnaire

In order to get the necessary results to proceed with this study and considering the alternative options and some experience from past studies, the questionnaire seemed to be the best solution. Based on the literature review theories and a number of ideas and suggestions, a summary table was built to support the questions that were to follow.

Since questioning the whole of the population (5,000 firms) was out of the question, the study was focused on a valid sample. Next we present a formula suggested by Saunders [40] which takes into account the variability of the factors studied, the confidence interval required and the error margin was used to calculate the sample size:

$$(1) \quad n = p\% * q\% * [z/e\%]^2$$

where: n: minimum sample size required;
p%: proportion belonging to the specified category;
q%: proportion not belonging to the specified category;
z: z value corresponding to the level of confidence required;
e: margin of error required;

According to Saunders, since the population is less than 10,000 a smaller sample can be used without affecting the accuracy.

The adjusted formula is:

$$(2) \quad n' = \{n/[1+(n/N)]\}$$

where: n': adjusted minimum sample size;
n: the minimum sample size (as calculated above);
N: total population;

Taking the strategic entrepreneurship (the combination of innovation, risk and proactivity factors) as the main factor and considering a variability of 80%-20% (which was later corroborated by the results), $n' = 235.47$ was obtained.

The questionnaire presented to firms included a large number of questions so as to allow the evaluation of different aspects of the firms' management. The total sample comprised 251 firms. Depending on the subjects the questions were presented in a different format. The question formats were also dependent on the results expected from each question. Even being this section the one where we are presenting the methods, the type of questions presented for each research subject will be present in the next section, with the results. Like this, it will be easier for the reader to connect the subject, the question and the result. Even the discussion might have some influences from the type of questions.

3 Results and Discussion

Considering the problem presented in the Introduction, as well as the methodology described in the previous section, we will present our findings. The results will be presented in three steps: Planning, Co-operation and Competition. In some cases the discussion of one single subject will touch all of them. So it seems logical, to present the results followed by a simple discussion (if/when possible) and finish then this section with a general discussion considering the three aspects studied.

On what regards planning the questionnaire addressed two questions: Market Researches and Stakeholders involvement in firm's new projects. Planning is indeed a primordial aspect for any kind of business. In theory its importance is generally accepted, but in real world sometimes it does not exist. One of the questions presented in the questionnaire aimed to measure the percentage of firms that started their activities with a business plan. The question was direct: "*Did you realize a market research/business plan in order to start your business?*"

If we keep in mind what the theory argues about planning, the results were astonishing. Only 10% of firms realized a market research before initiate the business. This means, that 90% of firms started operating without a theoretical support to measure whether that could be a good investment. In order to find a relation between those firms that realized a market research and some factors such as firm age, some statistical tests could be performed. However

some basic requirements were not respected. So, we followed by performing some crosstab tests, with SPSS software, but we just found random distributions, which means that does not exist a characteristic associated to firms that realize market researches and/or business plans.

Following the planning analysis there was another question about researches on customers' needs. The results were even more disappointing. In strategic terms, 92.8% of firms never realized a study about their customers.

Anyway, there's a result to stress. It was interesting to note, that from those 10% of firms that realized a business plan, 42.3% already did some researches about their costumers needs. Even without statistical evidences due to assumptions non-compliances, it is possible to say that either firm present and follow a planning policy, or they just don't give importance to business planning, at least in theoretical terms.

On what regards stakeholders' involvement in firms' decisions, the questionnaire also presented a direct question: "*Is it common in this firm to get stakeholders opinions in order to plan a new project?*" To this question 55% of firms answered positively. Considering the sample size, it means that 138 firms follow this policy.

Going a bit further we tried to find out what stakeholders were considered to decision making.

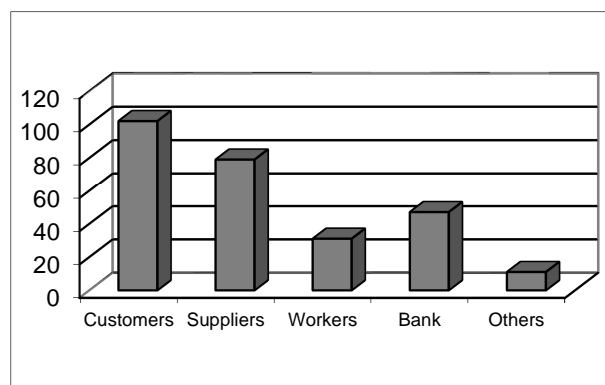


Fig. 1. No. and type of Stakeholders considering for decision making

In first place, it is important to mention that the number of contacts is higher than the number of firms that adopt the strategy of stakeholders' consultancy. In total we registered 270 contacts. These figures mean that firms contact more than one stakeholder for their decisions. The average result suggests that each firm takes into consideration two stakeholders (1.95) for their decision make.

Considering both industry and construction sectors, presented in Figure 1 it is easy to realized that customers/suppliers (up-streams and down-streams

approach) are the most important stakeholders on firms decision making.

Analyzing the results by sector and absolute frequencies (figure 2), industry is more active in stakeholders' contacts.

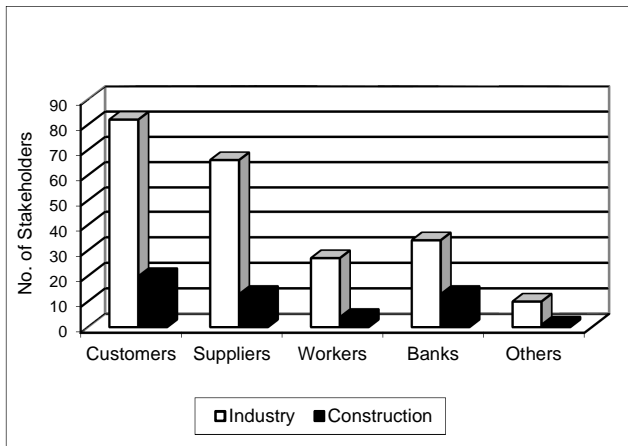


Fig. 2. Stakeholders contacted before a new project

From Figure 2 there are two aspects to stress (1) Customers and suppliers are the most contacted stakeholders. (2) Workers involvement got the 4th place. That might mean that firms are focused in the outcomes and don't spend much time planning the future.

Most of answers marked as *other* the respondent indicated that the other stakeholder was the firm accountant.

However, most of firms in this study are working in industry businesses (78%), so it seems important to do a comparison in relative terms.

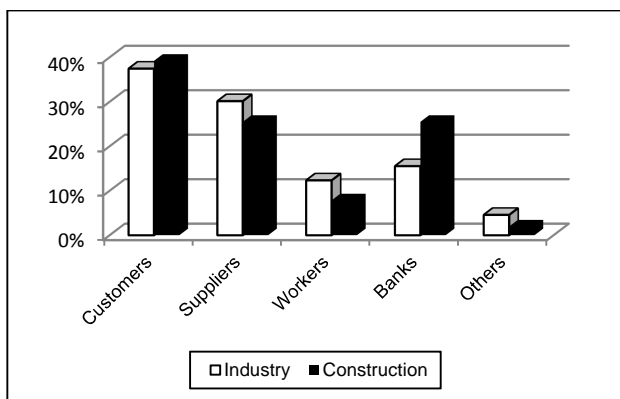


Fig. 3. Stakeholders contacted before a new project in relative frequencies

By using relative frequencies we can get a different picture about stakeholders' consultancy. Customers keep the first position, but with more relevance in the construction sector. This sector also presents more dynamics on financial issues. The main

reasons for that are related with the type of business. If a firm is doing a project for a specific customer the involvement is obvious. On the other hand, if a firm strategy is to build to sell later or to work for public projects they might need financial support. For that reason, banks are also an important stakeholder for construction sector. These explanations lead us to a question: "Are they contacting their stakeholders as a strategy or because they are forced to?"

Another important issue is the workers involvement. Even though with some more relevance in the industrial sector workers seem to be classified as a less important stakeholder in both sectors. However the involvement of workers in firm's decisions might promote efficiency and better performances. These stakeholders are those who know the process (process innovation) and being involved in the decision process they would consider themselves as a part of the business and/or the solution. Stakeholders' involvement can also be a bridge for cooperation. When a firm adopts a strategy of dialogue with their business partners they might be more proactive to develop cooperation strategies.

On what regards co-operation the first results to present were measured in a group of questions targeting to measure innovation strategies. From those strategies it was possible to build the next table regarding co-operation:

Table 1. Frequencies of co-operation strategies

	Frequency (in 251 possible)	%
Competitors Co-operation	2	0.8
Suppliers Co-operation	12	4.7
Customers Co-operation	16	6.3

The figures are clear. While in some strategies we got results of 61% (new equipment) 29% (New products), 28% (management reorganization), the results in co-operation strategies are clear: Firms in this region/sector are reluctant to cooperation. Even on vertical co-operation the results are very poor.

Taking into consideration the firms that adopt a strategy of stakeholders' consultancy the results on cooperation are as follows:

Table 2. Frequencies of co-operation strategies considering firms that adopt stakeholders' consultancy

	Frequ ncy	% (out of 251)	% (out of 138)
Competitors Co-operation	2	0.8	1.5
Suppliers Co-operation	8	3.2	5.8
Customers Co-operation	10	4	7.2

Comparing the results from Tables 1 and 2 it is possible to argue that in fact, firms that adopt a strategy of stakeholders' involvement are more likely to cooperate. Considering the column of frequencies we can verify that 66.6% of firms that adopt cooperation strategies also adopt a stakeholder's involvement strategy. Within this last group the strategies of co-operation (even being very low) present some better results than the entire sample.

As previously mentioned, the questionnaire was broader than the issues addressed in this paper. One of the issues studied was innovation. After classifying the firms into innovation classes [41] were identified the cooperation strategies by innovation class.

The results, even with a low level of co-operation were interesting. The 2 firms the present competitors co-operation were classified as innovator firms. Those who co-operate with suppliers and competitors are distributed among the 5 classes of innovation, but most of them were classified as averse or very averse to innovation.

Even with a small sample of co-operative firms it is possible to verify that those who can see the competitors as a partner are leading in innovation issues.

This lack of co-operation might occur due to the competition identified in this region, as well as a *black box* behaviour. When questioned about the number of direct competitors, 35% of firms did not reply. May it means that firms are not following what is going on in their markets?

From those that replied it was found an average of 28 competitors for each firm. Notice that this was a question about the perception of managers on the numbers of direct competitors. Even being an average number it seems to be a high value for direct competitors. If the result reflects the reality this might be an explanation for the absence of cooperation in this region.

The results on the number of competitors lead us to another analysis regarding the type of competitors. It was asked to the interviewees to identify the type

of competitors. More than one answer was possible and the results are as follows.

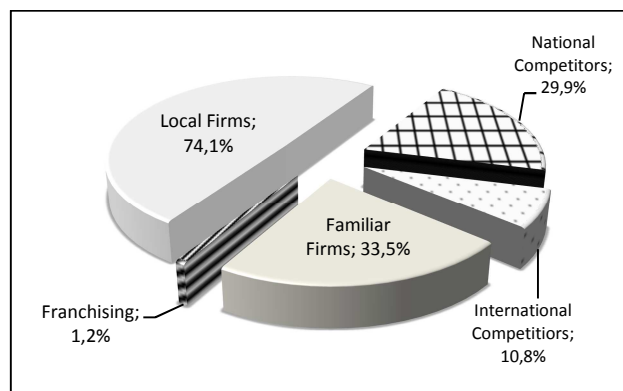


Fig. 4. Type of competitors identified

Since we were accepting more than one answer the results are presented with an inflated N. In order to better understand the percentages, 74.1% of the 251 firms identified as their competitors local firms. 33.5% identified as competitors familiar firms. However one firm may have identified as competitor both a local and a familiar firm. For that reason the sum of the percentages in Fig. 4 exceed 100%.

The main idea from Fig. 4 is that firms are identifying their neighbours as competitors and not as potential partners. These results are somehow in accordance with the results presented in the previous tables (1 and 2) where we identified a lack of cooperation in this region and sectors.

In order to get a more complete idea about this region, we analyzed the location of the three most important competitors. Interviewees were asked to identify the location of their three most important competitors, by different proximity levels. The results are as follows:

Table 3. Location of the 3 most important competitors

Location \ Competitor	1 st	2 nd	3 rd
Same <i>concelho</i>	74%	47%	41%
Another <i>concelho</i> in the same region	5%	34%	20%
Another <i>concelho</i> in the north of Portugal	9%	5%	22%
Another place in Portugal	6%	7%	8%
European Union	5%	4%	2%
Other	0%	1%	3%
No answer	1%	2%	4%

From Table 3 is clear, that firms identify their competitors, mainly in the same *concelho*. Considering all them an overwhelming majority identifies their competitors at most, in the north of Portugal. The results are also in accordance to the previous result where managers identified 74,1% of their competitors as local firms (Figure 4).

This competitor's identification may also occur due to the existence of industrial clusters. Since there are many firms from the same sector in the same *concelho*, it might increase the level of competitiveness. This competition can even be fostered in places where does not exist a co-operation culture.

In the next figures we can find a representation of both environments and possible results from both of them.

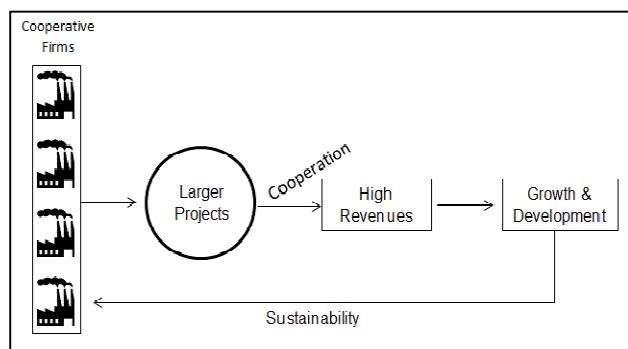


Fig. 5. Co-operative Environment

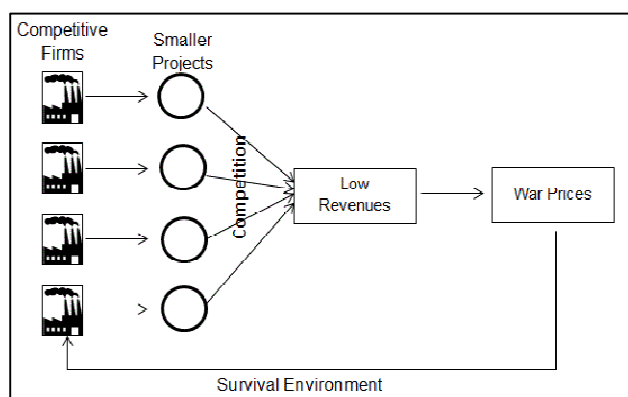


Fig. 6. Competitive Environment

In Figure 5 we have a representation of a cooperative environment (considering the horizontal level) where firms can work all together in the same projects. As a result, they will be a stronger competitor in the global market, leading their strategies to co-opetition behaviour. While in Figure 6 each firm is acting by itself, which means, that in most cases they don't have enough resources and/or capabilities to assume large projects. So, all of them

are competing for the smaller projects available in the market.

The final results are reflected in revenues. While in a co-operative environment there is a great chance of getting higher revenues, and consequently to promote welfare on economic (or even social) levels, in a competitive environment, the results are poorer.

If competition is interesting from a consumer point of view, for a sector, competition may be dangerous, in particular when they are acting in the same markets. In this case, it seems important the role of the businesses associations that exist in this region. They might start promoting co-operation. However, this is not an easy task. In order to get results on co-operation it is necessary to overcome some barriers, in particular psychological ones. When managers don't take into consideration those stakeholders that are important for their businesses, even more difficult will be to share knowledge, experience and contacts with their competitors. This resistance to co-operation leads most of times to war prices, and imitation strategies, that create a very competitive environment (*red oceans*), where firms, sometimes, are fighting for their survival.

It seems to be urgent to promote a cooperation culture in order to make the managers of these firms, most of them (87%) small firms, realize that they can get better results if they are able to cooperate. Together they might be able to engage in larger projects, competing in new and larger markets (*blue oceans*) and promoting like that economic growth in this region.

Nowadays these types of policies or behaviors are identified as co-opetition as mentioned in the Introduction. However, in this region it is possible to identify a high level of local competition, and probably due to the nature of the existent businesses (industrial clusters) do not exist a co-operation culture, thus, there still exists a long way to establish networks leading to co-opetition.

4 Conclusion

The concepts analyzed in this paper are crucial for firm's survival. In a formal (or not so much) way, planning must be considering before a new venture. Planning is essential in any environment, but in particular for competitive ones. Besides planning, a firm must be able to interact with their stakeholders in actions other actions than the simple transactions activities. This interaction may occur both in horizontal and vertical levels.

In this region and sectors, it was registered a lack of a planning culture. Most of owners/managers,

started their business without a guideline plan, and since they survived, they kept their business in a kind of day by day management.

However, those few managers that took into consideration planning in the beginning of their activities are more likely to keep a planning culture in their businesses.

At the same time, firms that keep planning in their strategy, are more receptive to consider their stakeholders opinion in the decision making process. On what regards stakeholders' involvement in firms decisions there are some evidences that they are considered. However this does not seem to be a regular action.

Anyway, there are a larger number of firms considering stakeholders opinions, than those that are adopting a planning strategy. Customers are pointed out as the most important stakeholder in this process. In some cases (construction) this contact is mandatory, but in some others firms are just trying to get the customers opinion. It seems important the implementation of Customer Relationship Management systems, in order to help firms in these relations. Besides customers, suppliers are also an important stakeholder which means that firms are mostly focused in their vertical line, acting mainly in their own value chain.

Not only, but also because of this vertical concentration the poor culture of planning was also identified at a cooperation level.

This absence of cooperation may also be a result from the weak planning. Since firms do not take time to plan, probably they are living constantly as if they were in a tightrope walking.

Managing a firm in a competitive environment and without a future plan makes more difficult to welcome a cooperative culture. Moreover, when the neighbour is seen as a competitor instead of a partner, it motivates the management to focus in their own business, trying to get more results by improving their value chain. In Particular, firms are looking for cost reduction. In this region It was identified a high level of local competition. That might occur due to the existence of industrial clusters in four of these six *concelhos*.

This competitive environment should in first place be reorganized in order to promote some cooperation. The existence of industrial clusters may lead to a wrong interpretation of a competitive environment. Being in a pure competition strategy firms are acting in red oceans. This environment is interesting for a consumer point of view, but on the other hand it is not benefiting the region as a whole. If these firms were able to develop some cooperation strategies, they would be able to

compete in different markets, and to get better results.

As a final comment we can argue that firms in this region, in general, are neither planning nor cooperating. The management seems to be based in a competitive environment, where we could easily adapt models, such as Porter's 5 forces. This application is also valid due to the stakeholders' involvement strategies (just nearly 55% of firms are considering their stakeholders opinions). It seems that in global terms there is a gap between managerial decisions and management theories.

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