

# “THE RELEVANCE OF THE ORGANIZATION’S ENTREPRENEURIAL LEADER”

## CASE STUDY - AUTOMOBILE SECTOR IN THE MUNICIPALITY OF VILA NOVA DE FAMALICÃO

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### ABSTRACT

Entrepreneurship is a concept increasingly present in business organizations or in educational systems, assuming an incremental prominence in public debate regarding the future of economic policies for competitiveness within the knowledge economy and information society. Its relevance prompted the study in its various aspects, worsened by the structural crisis of capital. The privileged behavioral analysis of the entrepreneur’s profile and identification of its role in organizations was supported by a case study on the automotive companies in Portugal, Vila Nova Famalicão. It states a close relationship between the entrepreneurship concept and the fruitful discovery of opportunities, which are based on spirit of change and innovation, central to the entrepreneur. Competitiveness appears as a basic premise in value creation and sustainable progress of organizations. The study also allowed confirming a dissimilarity of concepts and approaches, grounded in empirical and scientific evidence that is still exiguous. The work thus aimed to raise awareness of organizational and academic communities to this issue, contributing to a more comprehensive and current understanding of its relevance within the organizations. The multidimensional paradigm change occurs in a structurally weakened economic and financial situational context, which instigates a transfiguration of the concepts and patterns observed until now. Entrepreneurship and the behavioral profile of the entrepreneurial leader are of paramount importance in the effective value creation process: incremental, distinctive and sustainable.

**Keywords:** Entrepreneur profile, organizational performance, sustainability, innovation, opportunity.

## RESUMO

O empreendedorismo é um conceito cada vez mais presente nas organizações empresariais ou nos sistemas educacionais, assumindo um destaque incremental no debate público no que concerne ao futuro das políticas económicas para a competitividade, no âmbito da economia do conhecimento e da sociedade da informação. A sua pertinência instigou o estudo nas suas diversas valências, agudizado pela crise estrutural do capital. A análise privilegiadamente comportamental do perfil do empreendedor e a identificação do seu papel nas organizações foi corroborada por um estudo de caso sobre empresas do ramo automóvel em Portugal, Vila Nova Famalicão. Anui-se uma relação estreita entre o conceito de empreender e a descoberta profícua de oportunidades, que se fundeiam num espírito de mudança e inovação, central ao empreendedor. A competitividade afigura-se como premissa basilar na criação de valor e no progresso sustentável das organizações. O estudo permitiu atestar também uma dissimilitude de conceitos e aceções, alicerçados em evidências empíricas e científicas ainda exíguas. O trabalho objetivou assim uma maior sensibilização das comunidades organizacionais e académicas a esta temática, que contribua para uma compreensão mais abrangente e atual da sua relevância no seio das organizações. A mudança multidimensional de paradigma insurge-se num contexto situacional económico-financeiro estruturalmente debilitado, o que instiga a uma transfiguração dos conceitos e padrões observados até aqui. O empreendedorismo e o perfil comportamental do líder empreendedor assumem assim uma capital importância no processo eficaz de criação de valor: incremental, diferenciador e sustentável.

**Palavras-chave:** Empreendedorismo, perfil do empreendedor, desempenho organizacional, inovação, sustentabilidade, oportunidade.

## 1. INTRODUCTION

The entrepreneurship concept assumes a significant incremental importance in business and academic structures. The global economic environment is experiencing a period of general crisis whose weakened morphology shows a fracture of the labor market and the rupture of the paradigms in force until then. This weakness and uncertainty era has been giving rise to the study of entrepreneurship; with a special focus on the entrepreneur's profile and ones potential to create ones own business, by introducing an increasingly relevant concept in contemporary society: sustainable entrepreneurship.

The literature suggests several approaches regarding entrepreneur's profile classification and comprises different measurement

methodologies of the organizational performance level, intrinsic to business management. Despite the conceptual differences, which constitute a limitation to the research, this work aims at an explanation of the determinant agents and their applicability in organizations under a privileged behavioral perspective, enabling an even greater awareness of the interested or affected communities to this issue. In order to understand the role of the entrepreneur and sustainable entrepreneurship in organizations, it is necessary to refer to some structural conceptual models that allow their multidimensional perception. There are also confirmed limitations to these models, concerning empirical evidence of the applicability of the indicators and their effective impact on economic growth.

When setting future expectations, a conceptual and structural model and a canonical correlation model is suggested so as to allow, through empirical evidence, the characterization of the entrepreneur's profile and surrounding environment, combined with its core competencies and organizational performance in the creation and / or management of a business.

The developed empirical analysis aimed at a holistic understanding of sustainable entrepreneurship in real work environment, based on a case study of entrepreneurs in the automobile sector in Portugal, municipality of Vila Nova Famalicão. The empirical study focused the investigation to a sample of 123 auto repair businesses in four key dimensions: (1) Behavioral profile; (2) Organizational performance; (3) Inhibitors / accelerators of entrepreneurial activity; and (4) Relevance of the role of the entrepreneurial leader.

Statistical inference assents four entrepreneur typologies and surrounding environment, intending that the developed models may eventually allow its applicability and measurement of entrepreneurship impact on the economy in this branch of activity.

## 2. LITERATURE REVIEW

### 2.1 *Entrepreneurship and entrepreneur*

The definition of entrepreneurship has always been very controversial, since this term is used by many researchers to signify different situations (Stewart, 1991).

The management expert (Schumpeter, 1934, p. 86) assumes that an entrepreneur is an agent of change, who shakes the conventional way of doing things and, when successful, causes a generalized imitation. On the other hand, Peter Drucker emphasizes the concept of risk as an essential component in the entrepreneur, not necessarily having to bring about changes, but rather exploiting the opportunities created by the change itself (Acúrcio, 2005).

Many attributes implied to entrepreneurial profile can be observed. Vecchio (2003) outlines five of the attributes in the entrepreneur's profile meaning: the propensity for risk, the need for achievement, the need for autonomy, self-efficacy and locus of control. Similarly, the study by Schmidt & Bohnenberger (2009) in the construction of a measuring instrument for the entrepreneur's profile evokes the analysis of other attributes such as planning, persistence, sociability and innovation.

### 2.2 *Organizational performance*

The measurement and performance analysis are essential to guide the organization in achieving its strategic plan and its operational goals, primarily to determine the relevant performance indicators and their relation to the objectives and activities to be developed (Popova & Sharpanskykh, 2010). The conceptual model of Mitchell (2002, p. 3) highlights the influence of intra and inter dependent agents on the organization itself:

Figure 1 – Different dimensions of organizational performance



Source: Mitchell, 2002, pp. 3.

### 2.3 Sustainability

The concept of sustainability has been of incremental importance over the years, and is commonly defined as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (World Commission on Environment and Development, 1987). However, the major milestone for global sustainable development was undoubtedly the United Nations Conference on Environment and Development (ONU , 1992), where several important documents were approved, including Agenda 21. This document is intended to guide the nations to sustainable development in the formulation of policies and practices for sustainability and encourage the participation of individuals in this development process.

The perception of the different dimensions and challenges of sustainability anticipates the question, which is the entrepreneur’s role in organizations in order to create sustainable development?

Kuckertz & Wagner (2010) show that the sustainable entrepreneur must manage the “triple bottom line”, balancing economic health, social equity and environmental resilience. From another perspective, (Dean & McMullen, 2007, p. 58) define sustainable entrepreneurship

as “the process of discovering, evaluating and exploiting the economic opportunities that are present in market failures that undermine sustainability.” In the view of Rauch *et al.* (2008), the entrepreneurial orientation bases its origins in the planning, analysis, decision making, culture, system of values and mission that define the business strategy and influence the performance and sustainability of the organization. (Parrish, 2008) illustrates a correlation between the different fields of knowledge of sustainable entrepreneurship:

Figure 2 – Fields of sustainable entrepreneurship knowledge



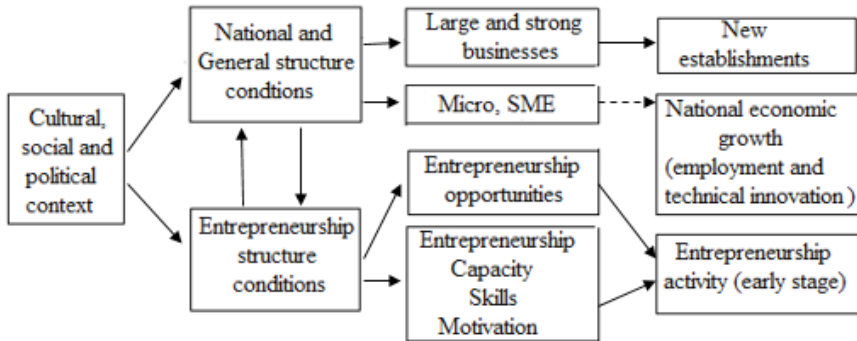
Source: Parrish, 2008, p. 5.

A holistic, diligent and operational conduct of the entrepreneur is indeed decisive for the success of the strategic pursuit of sustainability, intra and inter organizational.

#### *2.4 Entrepreneurship and organizational development in a sustainable perspective*

The European Parliament and Council (2006, p. 17) highlights the spirit of initiative and enterprise as “the ability of individuals to turn ideas into actions (...) It includes creativity, innovation and risk-taking (...) ability to plan and manage projects to reach goals (...) “. Hockerts & Wüstenhagen (2010) attest to a new paradigm of business success potential: social entrepreneurship. The Global Entrepreneurship Monitor – GEM (2007, pp. 4-6) defines the different contexts of entrepreneurship inductors:

**Figure 3** – Conceptual and structural model of the determinant factors of entrepreneurship



Source: GEM (2007, pp. 4).

Entrepreneurship is not only a driving force for job creation, competitiveness and growth, but also a contribution to personal fulfillment and social objective achievement (Flash Eurobarometer, 2010). The (OECD - Eurostat , 2008) demonstrates in the entrepreneurship indicators, three key and interdependent components: determining factors, performance and its effects. The European Commission has the support of entrepreneurship and innovation in businesses as a main objective (CIP 2007-2013).

In Portugal, “The Portuguese government, electing entrepreneurship and innovation as priority objectives for development and increased competitiveness of the national economy, presented (...) the Strategic Programme for Entrepreneurship and Innovation (...)” (CIRIUS , 2012, p. 16) which aims to promote different measures to support entrepreneurship based on four main pillars (CIRIUS, 2012): 1. Extension of the competences of the population; 2. Stimulation of innovation; 3. Encouragement of entrepreneurship; and 4. Promotion of these objectives.

Entrepreneurship must understand its environment, business and political culture, and base the proficiency of the entrepreneur’s role on the whole process of value creation.

### 3. DATA COLLECTION

The empirical understanding of the concepts mentioned in the context of sustainable entrepreneurship considered the statistical analysis of a case study – survey – conducted to professionals in the automobile sector in Portugal, municipality of Vila Nova Famalicão, which noted five key parameters: 1. Description of methodological issues related to the survey conducted to professionals in the automobile sector; 2. Conceptual relation between the questionnaire carried out to professionals in the automobile sector and bibliographical research, focusing on correlations between behavioral variables, surrounding environment, and sustainable entrepreneurship dimensions; 3. Generalized typification of entrepreneur's profile in this field and its surrounding environment; 4. Explanation of an econometric study that illustrates the relation of the professionals in the automobile sector with the concepts of sustainable entrepreneurship; and 5. Development of a conceptual and structural model and a canonical correlation model of the developed analysis.

### 4. RESULTS AND DISCUSSION

#### *4.1. Structure of the empirical analysis developed*

The descriptive presentation of results intends to translate the relation between the respondents and the four central dimensions in the context of sustainable entrepreneurship: (1) What is the profile of the entrepreneurial leader of a sustainable automobile micro company? Characteristic profile; and Behavioral profile (psychological and cognitions); (2) How is the organizational performance characterized and assessed in this sector? Organizational motivation; Organizational capacity; and Environment; (3) What are the main inhibitors / accelerators of the entrepreneurial activity in this sector, in the Portuguese situational context? Economic; Social; Environmental; and Institutional; (4) How to classify the relevance of the entrepreneur leader's role of a sustainable automobile micro company in Portugal? Current context; and Future expectations.



The correlative analysis of the different variables in study allowed the inference and construction of:

4.2 Generalized typification of the entrepreneur's profile in this sector and its environment;

4.3 Explanation of an illustrative econometric study of the relation between professionals in the automobile sector and the concepts of sustainable entrepreneurship;

4.4 Development of a conceptual/structural/canonical correlation model of the developed study.

*4.2 Generalized typification of the entrepreneur's profile in this sector and its environment*

**Table 1** – Generalized typification of the entrepreneur's profile in the automobile sector and its surrounding environment in Portugal, municipality of Vila Nova de Famalicão

Characteristic profile			
Gender	Age	Academic education	Professional status
Male (84%)	50 or more (32%)	Basic education or secondary (33%)	Owner (63%)
Behavioral profile			
Motivation	Need for fulfillment	Propensity to risk	
Reasonable (54%)	Very high (93%)	High (63%)	
Confidence in decision process: determination and independence			
High (83% and 88%, respectively)			
Autonomy	Persistence	Adaptability	
Internal control locus	Perseverance		
Planning			
Reasonable (61%)	High (88%)	High (84%)	
Competitive aggressiveness		Proactivity	
High (74%)		Spirit of initiative	
Recognition of opportunities		Very High (93%)	
High (84%)		Tolerance to ambiguity	
		Undefined (35%)	
Creativity			
High (83%)			
Sociability: coexistence with different opinions and interest in sharing ideas and convictions			
High (86% and 93%, respectively)			
Organizational performance			

Organizational motivation						
History		Incentives / Rewards			Mission / Culture	
* Family business (81%)		* Personal fulfillment need (84%)			* Sustainability: economic, social and environmental (90%)	
* Own creation (68%)		* Appropriate business idea (77%)			* Main purpose to generate value (75%)	
Organizational capacity						
Leadership strategy	Structure	Human resources	Financing	Programs Services	Infrastructure and Technology	Interorganizational relations
Participative (90%) and aware to social responsibility (88%)	Organized (81%)	* Qualified (70%) * Valued by merit (88%)	Undefined (39%)	Undefined (46%)	Continued investment in:  * Technology (65%)  * Innovation (70%)	Very good (93%)
Organizational environment						
Technological	Economic and Administrative	Social and Cultural		Political	Stakeholders	
Reduction of investment in technology (70%)	Financial difficulties (39%)	Decrease in the number of customers (67%)		Tax changes with a negative impact on the economy of the companies (75%)	Economic difficulties (67%)	
Inhibitors / Accelerators of entrepreneurial activity						
Economic inhibitors				Economic accelerators		
* Access to financing discouraging in the growth of the companies (70%)				Inexistent		
* Insufficient Monetary Fund support (58%)						
Social inhibitors				Social accelerators		
Portuguese society is very critical to the failure of an entrepreneur (67%)				Positive relation between the improvement of the national academic level and business development (74%)		
Environmental inhibitors				Environmental accelerators		
Environmental policies as a barrier to business growth: non-pedagogical, unadjusted to the business reality (61%)				Measures to encourage sustainable development (67%)		
Institutional inhibitors				Institutional accelerators		
* High tax charges (91%)				Inexistent		
* State initiatives of support for entrepreneurial activity and government policies do not encourage the business creation (49%) and entrepreneurial growth (63%)						
* Excessive bureaucracy in the governmental system (88%)						
Relevance of the entrepreneur leader's role						
Current context						
* The entrepreneurial leader has a central role in the sustainable development of a company (95%)						
* The value of the entrepreneurial leadership is proportional to its distinctive organizational performance (90%)						
Future expectations						
* Sustainable innovation is a critical factor for the development of companies (81%)						
* The future success of companies depends on the effectiveness of a multidisciplinary leadership: economic, social and environmental (79%)						

Source: Own creation.

### 4.3 Explanation of an econometric study illustrating the relation of the automobile sector professionals with sustainable entrepreneurship concepts

This study brought an empirical understanding through the methodology of the chi-square test: 1. The relation between the different variables being studied; 2. Comparison between the values observed in the sample and the expected value; and 3. Clarification of positive or negative correlation between the different variables being studied by the methodology of linear regression: the closer the correlation value is to 1 (the square:  $R^2$ ), the stronger is the correlation between variables (positive correlation value, positive correlation; negative correlation value, negative correlation); it is evidence of a strong correlation: Positive, if  $R^2 > 0.65$ ; Negative, if  $R^2 < -0.65$ .

Statistical analysis was based on the four main dimensions with greater relevance in the relational study between professionals in the automobile sector and the concepts of sustainable entrepreneurship: Behavioral profile; Organizational performance; Inhibitors / Accelerators of entrepreneurial activity; Relevance of the entrepreneur leader's role.

#### 4.3.1 Behavioral profile (psychological / cognitions)

In the domain of behavioral profile, below are presented relations between the different variables observed that attempted a greater statistical significance for this study:

∴ Is it possible to confirm the existence of significant differences between: the certainty of achieving difficult tasks and the belief in luck and the help of others in order to achieve them ( $P < 0.05$  and  $R^2 = 0.7444$ ).

∴ It is not possible to confirm the existence of significant differences between: (1) optimism about the future and the predisposition to take risks ( $P > 0.05$  and  $R^2 = 0.7090$ ); (2) self-determination in the implementation of own actions and resistance to possible rejection by others in the defense of their decisions ( $P > 0.05$  and  $R^2 = 0.9169$ ); (3) the propen-

sity to change something they do not like and the certainty of completing difficult tasks ( $P < 0.05$  and  $R^2 = 0.7681$ ); (4) the practice of new ideas and interest in competing with others ( $P < 0.05$  and  $R^2 = 0.9008$ ); (5) the creativity and interest in sharing ideas and beliefs ( $P < 0.05$  and  $R^2 = 0.7842$ ); (6) the interest in sharing ideas and beliefs and good coexistence with different opinions ( $P > 0.05$  and  $R^2 = 0.9375$ ).

Concerning the recognition of opportunities and tolerance for ambiguity, there was no relation between the different variables observed which attempt a statistical relevance to this study, in particular between the fear of achieving success when betting on a new idea and the interest in meeting new challenges.

#### *4.3.2 Organizational performance*

In the context of organizational performance, below are presented relations between the different variables observed that found a greater statistical relevance to this study:

∴ Is it possible to confirm the existence of significant differences between: (1) it is a family business and its origin is of own creation ( $P < 0.05$  and  $R^2 = 0.7695$ ); (2) the company's mission is to create wealth and its main purpose is to generate value ( $P < 0.05$  and  $R^2 = 0.6494$ ).

∴ It is not possible to confirm the existence of significant differences between: (1) the establishment of the company arises from the need for personal fulfillment and a sense of appropriate business ( $P > 0.05$  and  $R^2 = 0.8460$ ); (2) the main purpose of the company is to generate value and its main objective is the sustainability – economic, social and environmental ( $P > 0.05$  and  $R^2 = 0.9103$ ); (3) the company is characterized by an administration aware of social responsibility and its leadership is characterized by the frequent sharing of opinions with employees ( $P > 0.05$  and  $R^2 = 0.9399$ ); (4) the company is characterized by an administration aware of social responsibility and the company is an organized structure ( $P > 0.05$  and  $R^2 = 0.9783$ ); (5) the qualification of the company's human resources and its valuation by merit ( $P < 0.05$  and  $R^2 = 0.7511$ ); (6) the continuous investment in new technology and the innovation being a critical success factor

in the company ( $P > 0.05$  and  $R^2 = 0.7733$ ); (7) the company is characterized by an administration aware of social responsibility and defines itself by the good relationship with business partners ( $P > 0.05$  and  $R^2 = 0.8160$ ); (8) the reduction of investment in the company and financial difficulties presented by the business partners, due to the global economic conjuncture ( $P > 0.05$  and  $R^2 = 0.8645$ ).

#### *4.3.3 Inhibitors / Accelerators of entrepreneurial activity*

Concerning inhibitors/accelerators of entrepreneurial activity, below are presented the relation between the different variables observed with greater statistical relevance for this study:

∴ Is it possible to confirm the existence of significant differences between: (1) access to finance as a discouraging factor for the growth of a company and monetary funds business support ( $P < 0.05$  and  $R^2 = 0.7113$ ); (2) the influence of governmental policies in business growth and the bureaucracy of the governmental system in the activity of companies ( $P < 0.05$  and  $R^2 = 0.8949$ ); (3) the influence of governmental policies in business growth and tax charges in the development of companies in Portugal ( $P < 0.05$  and  $R^2 = 0.9672$ ).

∴ It is not possible to confirm the existence of significant differences between: (1) the impact of environmental policies in business growth and stimulus measures for the sustainable development of a current company ( $P > 0.05$  and  $R^2 = 0.9516$ ); (2) the influence of governmental policies in business growth and state initiatives to support entrepreneurial activity on business creation ( $P > 0.05$  and  $R^2 = 0.8025$ );

In terms of inhibitors / social accelerators, there was no relation between the different variables observed with statistical relevance to this study, particularly between stimulating entrepreneurial activity and national culture: (1) Valuation of Portuguese society to sustainable innovation; (2) Criticism of the Portuguese to the failure of an entrepreneur; and (3) Improvement of national academic level as a positive factor in the development of enterprises.

#### *4.3.4 Relevance of the entrepreneurial leader's role*

In terms of the relevance of the entrepreneurial leader's role, below are presented the relation between the different variables observed with a greater statistical relevance for this study:

∴ It is not possible to confirm the existence of significant differences between: the importance of the entrepreneurial leader in the sustainable development of a company and the value of its entrepreneurial leadership to be proportional to its distinctive organizational performance ( $P > 0.05$  and  $R^2 = 0.8993$ ).

With regard to future expectations, there was no relation between the different variables observed which attempt a statistical relevance to this study, particularly between sustainable innovation constituting a critical factor for business development and the future success of the companies depending on the effectiveness of multidisciplinary leadership.

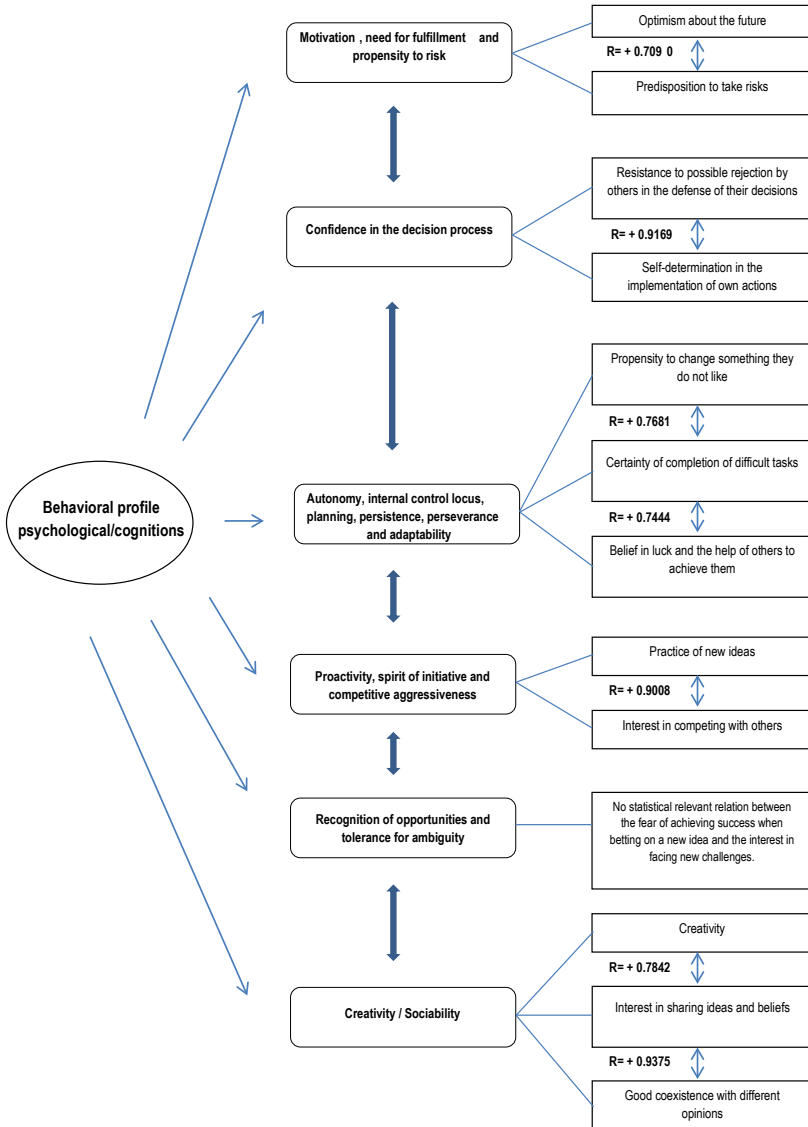
#### *4.4 Development of a conceptual and structural model and a canonical correlation model of the developed study*

The results obtained allow us to assent to the correlations of empirical relevance in the relational study of professionals in the automobile sector and the concepts of sustainable entrepreneurship, through the development of a conceptual and structural model and a canonical correlation model.

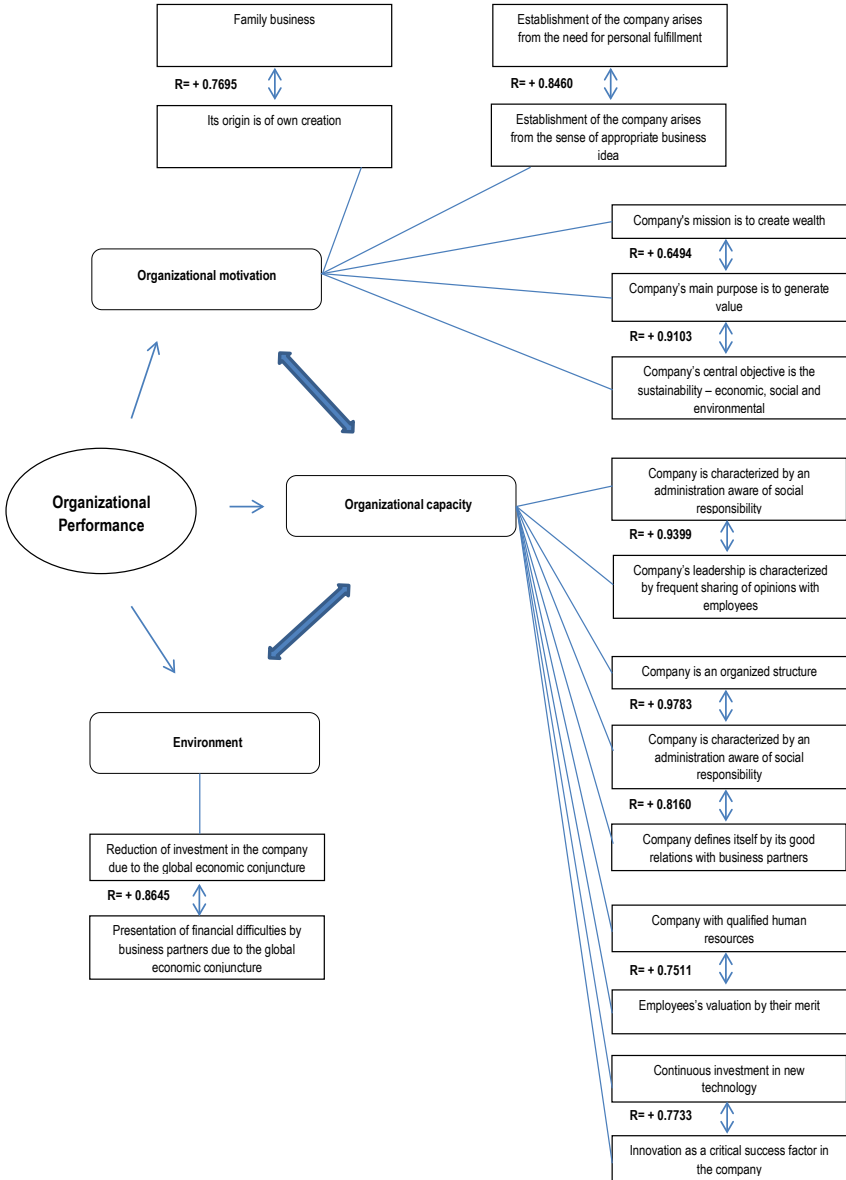
##### *4.4.1 Conceptual and structural model*

The interdependence of the different variables in the analysis, at its different dimensions, is first translated into a test of a conceptual structural model, illustrated below:

i) Behavioral profile (psychological / cognitions)

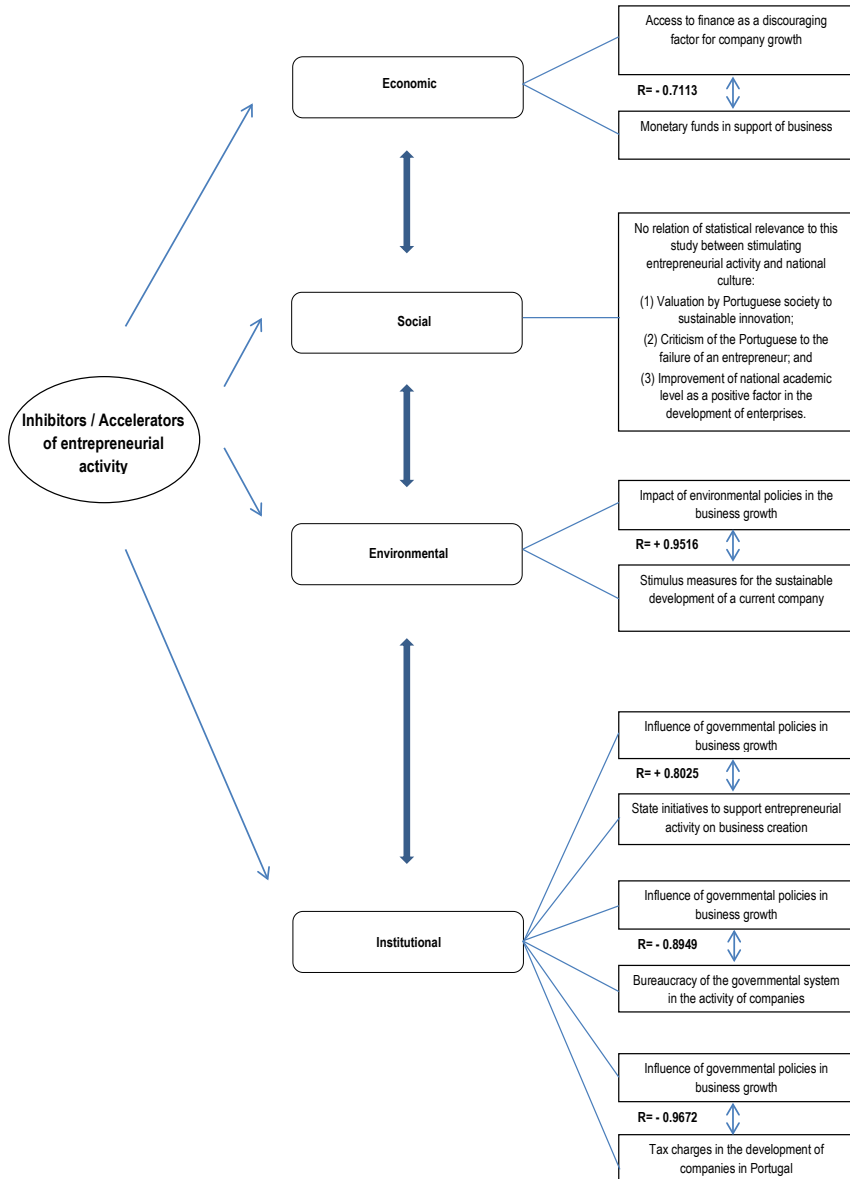


ii) Organizational performance

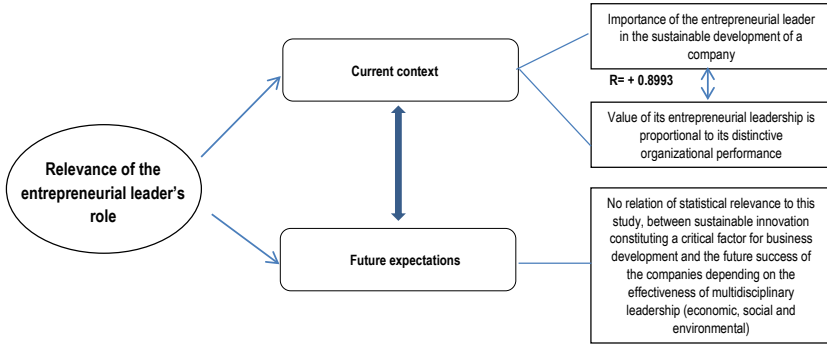




iii) *Inhibitors / Accelerators of entrepreneurial activity*



iv) *Relevance of the entrepreneurial leader's role*



4.4.2 *Canonical correlation model*

Given the nature of the qualifying data available, we proceeded to its processing through the nonlinear canonical correlation methodology that allowed the determination of the degree of similarity between two or more groups of variables. The objective aimed to represent the maximum variance of the inter-relations between groups of variables in a smaller dimensional space. The final results allowed us to group the variables into four distinct types (clusters):

**Table 2** – Relation between variables of cluster 1 associated with the centroids of the canonical solution

Cluster 1			
Variable		Dimension 3	Dimension 4
		-	
Comp21	Optimism about the future	1→5	1→5
Comp32	Resistance to possible rejection by others in the defense of their decisions	1→5	5→1
Comp52	Belief in luck and the help of others to achieve them	1→5	1→5
Comp81	Creativity	1→5	1→5
Empr61	Influence of governmental policies in business growth	5→1	1→5
Empr62	State initiatives to support entrepreneurial activity on business creation	1→5	1→5
Perf042	Establishment of the company arises from the sense of appropriate business idea	5→1	1→5
Perf061	Company's mission is to create wealth	105	105
Perf131	Continuous investment in new technology	105	105

Source: Own creation.

**Table 3** – Relation between variables of cluster 2 associated with the centroids of the canonical solution

Cluster 2			
Variable		Dimension 1	Dimension 2
		-	
Comp22	Predisposition to take risks	1→5	1→5
Comp31	Self-determination in the implementation of own actions	1→5	1→5
Comp41	Propensity to change something they do not like	5→1	1→5
Comp61	Practice of new ideas	1→5	1→5
Empr11	Access to finance as a discouraging factor for company growth	1→5	1→5
Empr51	Impact of environmental policies in the business growth	1→5	1→5
Empr52	Stimulus measures for the sustainable development of a current company	1→5	1→5
Lider2	Value of its entrepreneurial leadership is proportional to its distinctive organizational performance	1→5	1→5
Perf062	Company's main purpose is to generate value	1→5	1→5
Perf082	Company's leadership is characterized by frequent sharing of opinions with employees	1→5	1→5
Perf092	Company is an organized structure	1→5	1→5
Perf102	Employees's valuation by their merit	1→5	1→5
Perf182	Presentation of financial difficulties by business partners due to the global economic conjuncture	1→5	1→5

Source: Own creation.

**Table 4** – Relation between variables of cluster 3 associated with the centroids of the canonical solution

Cluster 3				
Variable		Dimension 2	Dimension 3	Dimension 4
Comp42	Certainty of completion of difficult tasks	1→5	1→5	1→5
Comp62	Interest in competing with others	1→5	1→5	1→5
Comp82	Interest in sharing ideas and beliefs	1→5	1→5	1→5
Comp92	Good coexistence with different opinions	1→5	1→5	1→5
Empr12	Monetary funds in support of business	1→5	1→5	1→5
Perf021	Family business	1→5	1→5	1→5
Perf022	Its origin is of own creation	1→5	1→5	5→1
Perf041	Establishment of the company arises from the need for personal fulfillment	1→5	1→5	1→5
Perf072	Company's central objective is the sustainability – economic, social and environmental	1→5	1→5	1→5
Perf081	Company is characterized by an administration aware of social responsibility	1→5	1→5	1→5
Perf132	Innovation as a critical success factor in the company	5→1	1→5	1→5
Perf181	Reduction of investment in the company due to the global economic conjuncture	5→1	1→5	5→1

Source: Own creation.

**Table 5** – Relation between variables of cluster 4 associated with the centroids of the canonical solution

Cluster 4			
Variable		Dimension 1	Dimension 2
Empr72	Bureaucracy of the governmental system in the activity of companies	1→5	1→5
Empr82	Tax charges in the development of companies in Portugal	1→5	1→5
Lider1	Importance of the entrepreneurial leader in the sustainable development of a company	1→5	1→5
Perf101	Company with qualified human resources	1→5	1→5
Perf142	Company defines itself by its good relations with business partners	1→5	1→5

Source: Own creation.

The inference obtained by the correlation of the different variables associated with the centroids of the canonical solution allows the construction of an interpretive synopsis, which epitomizes 4 typologies of entrepreneur and its environment, defined by the statistical analysis.

## **5. CONCLUSIONS**

The literary and empirical understanding of the different approaches addressed in the context of sustainable entrepreneurship developed in this case study, allow us to conclude:

1. A multidimensional hegemony pattern, based on 4 types of entrepreneurs and surrounding environment;
2. The afference of limitations to its study, at literature review and empirical research level;
3. The outlining of future development strategies of sustainable entrepreneurship, in its statistical and conceptual dimension.

The interpretive synopsis of statistical inference obtained by the canonical correlation model developed comprises the central relations between the different variables observed that attested relevance to this case study, illustrated in the following table:

**Table 6** – Interpretive synopsis of 4 entrepreneur typologies and surrounding environment.

Entrepreneur and Environment Type I	Entrepreneur and Environment Type II	Entrepreneur and Environment Type III	Entrepreneur and Environment Type IV
<p>I.I Behavioral Profile:</p> <ul style="list-style-type: none"> <li>– Motivation: Optimism.</li> <li>– Trust in their decision process: I.I.I Entrepreneurs who always stand up to their decisions; I.I.II Entrepreneurs whose power of decision is affected by the possibility of rejection .</li> <li>– Creativity: New ideas.</li> </ul>	<p>II.I Behavioral Profile:</p> <ul style="list-style-type: none"> <li>– Propensity to risk: Enjoys taking risks.</li> <li>– Trust in their decision process: II.I.I Entrepreneurs that change undesirable situations; II.I.II Entrepreneurs evidencing uncertainty in changing undesirable situations.</li> <li>– Perseverance and adaptability: Trust in luck and support of others in the accomplishment of difficult tasks.</li> <li>– Autonomy: Enjoy change.</li> <li>– Proactivity and initiative: Practice of new ideas.</li> </ul>	<p>III.I Behavioral Profile:</p> <ul style="list-style-type: none"> <li>– Internal control locus, planning, persistence, perseverance and adaptability: Certainty of accomplishment difficult tasks.</li> <li>– Competitive Aggressiveness: Enjoys competitiveness.</li> <li>– Sociability: Enjoys sharing ideas and different opinions.</li> </ul>	<p>IV.I Inhibitors / Accelerators of Entrepreneurial Activity:</p> <ul style="list-style-type: none"> <li>– Institutional: Excessive bureaucracy of the governmental system and high tax charges.</li> </ul>
<p>I.II Organizational Performance:</p> <ul style="list-style-type: none"> <li>– Organizational Motivation: I.II.I Entrepreneurs believe that the company's origin was based on an appropriate business idea; I.II.II Entrepreneurs consider that an appropriate business idea was not the reason for the company's origin.</li> <li>Both entrepreneurs consider that the company's mission is to create wealth;</li> <li>– Organizational Capacity: Continuous bet on technology.</li> </ul>	<p>II.II Inhibitors / Accelerators of Entrepreneurial Activity:</p> <ul style="list-style-type: none"> <li>– Economic: Difficult access to finance.</li> <li>– Environmental: Environmental policies are barriers to business growth.</li> <li>– Institutional: Measures to encourage sustainable development are positive.</li> </ul>	<p>III.II Inhibitors / Accelerators of Entrepreneurial Activity:</p> <ul style="list-style-type: none"> <li>– Economic: Insufficient monetary funds to support companies.</li> </ul>	<p>IV.II Relevance of the Entrepreneurial Leader's Role:</p> <ul style="list-style-type: none"> <li>– Current Context: Entrepreneurial leader 's role has a central importance in the sustainable development of a company.</li> </ul>

Entrepreneur and Environment Type I	Entrepreneur and Environment Type II	Entrepreneur and Environment Type III	Entrepreneur and Environment Type IV
<p>I.III Inhibitors / Accelerators of Entrepreneurial Activity:</p> <p>– Environmental: I.III.I Entrepreneurs believe that government policies do not encourage entrepreneurial growth; I.III.II Entrepreneurs believe that government policies do not influence entrepreneurial growth.</p> <p>Both entrepreneurs consider that state initiatives to support the entrepreneurial activity are important.</p>	<p>II.III Relevance of the Entrepreneurial Leader's Role:</p> <p>– Current Context: Value of entrepreneurial leadership is proportional to its differentiated performance.</p> <p>II.IV Organizational Performance:</p> <p>– Organizational Motivation: Main business purpose is to generate value.</p> <p>– Organizational Capacity: Participative leadership strategy, organized business structure, employee enhancement by merit and weakened economic situation of business partners.</p>	<p>III.III Organizational Performance:</p> <p>– Organizational Motivation: III.III.I Entrepreneurs which created their own company; III.III.II Entrepreneurs whose company was originated in its family predecessors;</p> <p>Family business, originated by the need for personal fulfillment and with the central goal of sustainability (economic, social and environmental).</p> <p>– Organizational Capacity: III.III.III Entrepreneurs consider that innovation is a critical success factor in the company; III.III.IV Entrepreneurs consider that innovation is not a critical success factor in the company;</p> <p>Administration aware of social responsibility.</p> <p>– Environment: III.III.V Entrepreneurs state that the global economic conjuncture led to a reduction of investment in the company; III.III.VI Entrepreneurs state that the global economic conjuncture did not reduce the investment in the company.</p>	<p>IV.III Organizational Performance:</p> <p>– Organizational Capacity: Human resources are qualified and the company is characterized by the good relations with partner companies of business.</p>

Source: Own creation.

The four entrepreneur typologies converge for a common meaning of sustainability.

In terms of limitations to this case study, with particular relevance for future research, the following are highlighted: 1) Exiguous empirical evidence related to the concepts of sustainable entrepreneurship and its applicability in organizations; 2) Dissimilarity of concepts and



approaches within the definition of entrepreneurship, organizational performance and sustainability.

Regarding future development strategies of sustainable entrepreneurship, the following are highlighted:

1. Statistical Dimension: Model deepening, intervening causal connection assumptions;
2. Conceptual Dimension: Confluence for the implementation of interventive measures adjusted in multiple fields of action: 1) Educational support programs, useful in policy and funding solutions, adjusted to market needs; 2) Simplification of the business legislative system bureaucracy; 3) Reduction of tax charges applicable to businesses; 4) Creation of an educational and organizational entrepreneurship plan; and 5) Promotion of an intra- and inter-organizational culture oriented to sustainable development.

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