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The internationalization paradigm and dynamic capabilities of Portuguese firms: Contributions from case studies in the Metallurgical and Metal-Mechanic Sectors

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RESUMO

Esta pesquisa mergulha na esfera microeconómica do setor secundário, visando iluminar os paradigmas de internacionalização das empresas Portuguesas. Um estudo de caso é conduzido nas empresas focais centrado no vértice estratégico. Uma revisão da literatura é realizada nos campos interdisciplinares das ciências económicas e da gestão, com uma focagem dualística no modelo processual de internacionalização de Uppsala e, comitantemente, na teoria das capacidades dinâmicas.

No contexto da indústria, o estudo centra-se no setor da metaurgia e metalomecânica. É seguido um design comparativo, com uma configuração de caso múltiplo e unidades de análise incorporadas. Este enquadra-se numa abordagem qualitativa e posição filosófica interpretativista, com uma orientação dedutiva. A análise de dados está enraizada num quadro metodológico triádico: o procedimento analítico geral de Miles e Huberman (1984), o protocolo de Weber (1990) e o quadro de referência de Gioia (2009).

Os casos exibem uma realidade de internacionalização multiparadigmática, com heterogeneidade entre si e sobreposição dimensional de alguns fenómenos, aderindo de forma distinta ao modelo de Uppsala e à teoria das capacidades dinâmicas. Em segundo lugar, os construtos seminais abordados na problemática de partida revelam efeitos distintos. Verificou-se uma relação positiva entre os paradigmas de internacionalização observados e os fatores de distância psíquica. Os fatores de distância geográfica, observam um efeito ambidexteriano (relação positiva e de espúrio). A última é causada pelo fenómeno contingencial de perificidade económica (com raízes nas teorias Ricardiana e Smithiana da competividade nacional e absoluta) revelando uma necessidade latente de polítcas públicas para restaurar o equilíbrio de forças com os outros mercados da UE e estimular os fluxos de investimento para o exterior. Terceiro, as capacidades dinâmicas (CDs tipo 1 e 2) revelam processos de reconfiguração orientados para a ambidexteridade internacional, porquanto as CD globais demonstram sinais de mutabilidade e transferabilidade bidireccional para múltiplos pontos de destino.

Palavras-chave: Internacionacionalização; modelo de Uppsala; capacidades dinâmicas (CD); capacidades dinâmicas globais (CDG); transferabilidade de CD; mutabilidade de CD.

Classificação JEL: D22; F14; F20

ABSTRACT

This research plunges into the microeconomic orb of the Portuguese economy of the secondary sector, aiming to illuminate the internationalization paradigms of these firms. A case research is conducted upon the focal firms focused on their strategic apex. A literature review is performed in the interdisciplinary fields of economics and managerial sciences, dualistically centered on the internationalization process model of Uppsala, and commitantly, at the dynamic capabilities theory.

In the context of the manufacturing industries, this study focusses on the sector of metallurgy and metal-mechanic. A comparative design is followed, with a multiple case setting and embedded hermeneutic units of analysis. It fits a qualitative approach within an interpretative philosophical stance with a deductive orientation. The qualitative data analysis process is rooted in a triadic methodological framework: the general analytical procedure of Miles and Huberman (1984), the Weber protocol (1990) and the framework of Gioia (2009).

The cases exhibited a multiparadigmatic internationalization reality, with heterogeneity among them although with some overlapping phenomena adhering differently to the U-model and to the dynamic capabilities doctrine. Second, seminal constructs addressed in the initial problematization revealed distintive relations. The psychic distance factors of the U-model were positively perceived as a true relation. The geographical distance factors observe an ambidexterian effect - true and spurious. The latter caused by the contingency phenomenon of economic periphery uncovers a latent need for public policies to retrieve the equilibrium of competitive forces with other EU markets and stimulate the outward flow of investment of the firms. Third, the DCs, both type 1 and type 2, exhibit processes of reconfiguration oriented towards international ambidexterity, while the GDCs evidence of DC mutability and indiscriminate bidirectional transferability.

Keywords: Internationalization; Uppsala model (U-model); dynamic capabilities (DC); global dynamic capabilities (GDCs); DC transferability; DC mutability

JEL Classification: D22; F14; F20

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To my parents.

To my wife (Julia Skov Abrantes), and my daughters.

"*What we can or cannot do, what we consider possible or impossible, is rarely a function of our true capability. It is more likely a function of our beliefs about who we are.*"

Albert Camus

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A-o-N – Activity on node

AA – Asset Abroad

AIMMAP – Associacao dos Industriais Metalúrgicos, Metalomecânicos e Afins de Portugal (Association of Metallurgical, Metal-mechanic and Related Industries of Portugal)

APA – American Psychology Association

BdP – Banco de Portugal (Bank of Portugal)

BG – Born Global

BLS – Business-level Strategy

BPDL – Bearable Public Debt Level

CA – Content Analysis

CAE – *Classificação das Atividades Económicas* (Economic Activities Classification)

CAGE – Cultural, Administrative, Geographic and Economic

CAQDA – Computer Assisted Qualitative Data Analysis

CC – Consolidation Capability

CGCE – *Classificao por grande categoria económica* (Classification by large economic category)

CLS – Corporate-Level Strategy

CMM – Capability Maximum Mutability

CMT – Capability Maximum Transferability

CNAE - *Clasificación Nacional de Actividades Económicas* (National Classification of Economic Activities)

COOC – Co-Occurrence

CQ – Cultural Quotient

CPLP – Comunidade de Países de Língua Portuguesa (Community of Portuguese Language Countries)

CSA – Country-specific Asset

CU – Coding Unit

DAC - Development Assistance Committee

DC – Dynamic Capability

DC-M – Dynamic Capabilities´ Mutability

DIC – Dynamic Internationalization Capability

DrC- Disruption Capability

DCT – Dynamic Capabilities´ Theory

DC-T – Dynamic Capabilities´ Transferability

DCV – Dynamic Capabilities View

DMC - Domestic Materials Consumption

EA – Employee Abroad

EBITDA – Earnings Before Interest, Tax, Depreciations and Amortizations

EC – European Commission

ECI – Economic Complexity Index

ELC – Entreprise-level capability

EM – Eisenhardt and Martin

EPRG – Ethnocentric, Polycentric, Regiocentric and Geocentric

ETPS – Economic, Technological, Political, and Social

EU – European Union

FDC – Fundação Dom Cabral

FDI – Foreign Direct Investment

FMO – First-Mover Opportunity

FF – Flagship Firm

FGC – Fast Growing Company

FSA – Firm-specific Asset

GCI – Global Competitiveness Index

GD – Geographic Distance

GDC – Global Dynamic Capability

GDP – Gross Domestic Product

GEM – Global Entrepreneurship Monitor

GF – Global Firm

H-O – Heckscher–Ohlin model

HQ - Headquarters

HE – Hermeneutic Unit

IA – International ambidexteriry

IB – International Business

ICMT – Individual Capability Maximum Transferability

IeiP – Internationalization Exploitation Process

IerP – International Exploration Process

IE – International Entrepreneurship

IEF – International Economic Freedom

IFE – International Fisher effect

IJV – International Joint Venture

ILC – Individual-level capability

INV – International New Venturing

INS – Itemised Numeric Scale

IPLC – International Product Life Cycle

IPPF – Internationalization Paradigm of the Portuguese Firms

ISIC – International Standard of Industrial Classification

ISC – Itemised Semantic Scale

MBV - Marketing-based view

MBE – Multinational Business Enterprise

Mc – Market Choice

MNC – Multinational Corporation

ME – Medium enterprise

MNE – Multinational Enterprise

NACE - Nomenclature Générale des Activités Économiques
(General Nomenclature of Economic Activities)

NCA – National competitive advantage

NCS – Non-comparative Scale

NMC – National Model of Competitiveness

NPD – New product Development

NUTS - Nomenclature of Territorial Units for Statistics

Oa – Ownership of Asset (advantage)

OC – Organizational Capability

OEC - Observatory of Economic Complexity

OECD - Organization for Economic Cooperation and Development

OI – Ownership of Institution (advantage)

OLI – Ownership, Location, Internalization

OP – Other Paradigm

PALOP - Portuguese-speaking African countries

PD – Psychic Distance

PE – Private Equity

POC – Private-owned Company

PoD – Point of Destiny

PoO – Point of Origin

Pr – Proposition

QDA – Qualitative Data Analysis

R&D – Research and Development

RA – Revenue Abroad

RBT - Resource-based theory

RBV – Resource-based View

RQ – Research Question

SBU – Strategic Business Unit

SDC – Semantic Differential Scale

SE – Small Enterprise

SEGIB – Secretaría General Ibero-Americana
(Ibero-American General Secretariat)

SS – Staple Scale

TA – Total Assets

TCE – Transaction Cost Economics

TC – Threshold Capability

TE – Total Employees

TEA – Total Entrepreneurship Activity

TNI – Transnationality Index

TPS – Teece, Pisano and Shuen

TR – Total Revenue

TrC – Threshold Capability

UA – Unit of Analysis

UM – Uppsala Model

VaC – Value-added capability

VRIN – Valuable, rare, inmitable, non-substitutable

WB – World Bank

WMS – World market share

1. INTRODUCTION

1.1. General Description

This research focuses on the phenomenon of internationalization of the Portuguese firms, as a changing state, of dynamic behavior towards the expansion of activities beyond its national market, either through a transactional mode of international trading and/or through an investment mode at foreign marketplaces (Johanson and Wiedersheim-Paul, 1974; Welsch and Luostarinen, 1988; Grant, 2010). The first type comprises the role of an exporting-firm; the later unveils the multinational enterprise (MNE) or multinational corporation (MNC), which coordinates activities within two or more markets, geographically dispersed, with goal-disparate, and composed of headquarters and national subsidiaries (Bartlett and Goshall, 1990; Collinson, Narula and Rugman, 2017).

The aims of the research exhibited in subsection 3.1. *Aims of the Research,* and its underlying research questions and propositions (subsections 3.4.1 and 3.4.2. respectively) guided the investigation through the conduction of the empirical tests at sectoral-level within the manufactory industries of the sector of metallurgy and metal-mechanic. The sample covers the segments of economic activities of metallic and electrical products, and transportation equipments (BdP, 2017). With foundations in social sciences, this study involved the coadjuvation of two interdisciplinary fields: economics and management sciences. Therefore, we have conducted a systematic literature review, articulating insights from neoclassical and contemporary literature in macro, micro, transactional cost economics, and evolutionary economics´ literature. This literature review was then combined with a literature review in management sciences, in the main theoretical fields of organizational structures and systems, strategy and behaviour, resource-based view (RBV), dynamic capabilities (DC), internationalization, international business (IB), international entrepreneurship, and national/corporate cultures. In addition, an examination of the background reality allowed the emergence of a problem statement (subsection 1.2.), which orientated the continuing of the research, as described below towards the accomplishment of the objectives.

The scope of chapter two focuses itself on the Uppsala process-model of internationalization, from the original version until the latest descending models, portraying the evolvement path of the Uppsala School. Furthermore, the chapter two addresses the firm´s capabilities, morphology, deployment, and strategy-building. Herein, we examine the roots of the model, addressing the resource-based view of the firm, and we proceed illustrating the state-of-the-art of the dynamic capabilities view. In chapter

three, we depict the methodology, employing a deductive approach of qualitative data research based on the reflection of theory of science philosophical stances. This empirical framework, uncovers critical aspects, such as the research objctives, research design, data collection methods, the data codification rationale, the coding system, the data mining, the structuring and analysis procedures, the testing propositions and their underlying constructs. Secondary-data gathers general insights from the global competitive index (GCI), transnationality index (TNI), and commitment (C) and uncertainty (U) ratios. Cumulatively, we gathered specific insights from the outward performance of the partaking firms involved in the research. The primary data has its origin in an embedded multiple-case research design, using four companies of the manufacturing industries held by Portuguese private equity. Within these firms, seven units of analysis are explored, corresponding directly to seven participants. In chapter four, the results of secondary and primary data are displayed and are addressed respectively in the two following chapters the findings and conclusions. These findings led us to reflect about the qualitative data analysis (QDA) outputs generated from the CAQDA (Computer-assisted qualitative data analysis), which led us to a critical position about the IPPF. The primary QDA tools were applied separately and triangulatively with secondary data. These tools account the word clouding, the frequencies of quotations, the semantic diagrammatic networks, and the crosstabs of co-occurrence matrices. Our conclusions led us, first, to the acknowledgement of both the existence of commonalities and divergences among cases. The commonalities are related to a paradigmatic multidimensionality of the IPPF and interdependencies among phenomena. Contrarily, a heterogeneity of patterns is observed among cases. All the partaking firms accommodate some phenomena related to the process model of internationalization depicted in chapter one, and cumulatively, are aligned with a capability-based international strategy. Yet the contours of the IPPF assume different shapes as the phenomena observed account for substantive differences. With disregard to the levels of risk perception, two firms exhibit an international entrepreneurial vein with a higher propensity for developing opportunity-seeking capabilities. One firm is clearly domestically oriented and making use of a current networking position as a main strategic outmaneuver for leveraging its business internationalization. All companies seem to be affected by the Ricardian theory of the relative national comparative advantage, but not due to the factor conditions of the Porter´s diamond. Here, it is emphasized that the geographical position of the domestic market uncovers not only the geographical periphery of the country to the markets in the rest of Europe, but also an economic periphery as well, which is materialized in a net loss of competitiveness in international trade. This paradigm is related to the logistic costs of accommodating a surplus of

expenses with the dispatchment of goods, and a loss of business opportunities related with the surplus of time on deliveries to the center and northern Europe, which is not compensated in other maritime shipping dispatchment to other continents. Our sample exhibit similar structure and governance configurations. The realized strategy (at corporate-level and business-level) indicate shortcomings in their formalization and communication, which is consistent with the typology of structures adopted. Consequently, the managerial systems reveal unequal strategic fitness across cases for the international markets, especially for approaching the European continent. The international coordination systems of the multinational firms (MNCs) reveal the adherence to adaptation and integration proxies, aligned with the Porterian principles of integration of the focus on differentiation/focus on cost leadership at business-level strategy, materialized in the portfolio and downstream alliances (fast-cycle alliances) with partners of research and development activities.

1.2. Background and Problem Statement

The studies on the international business research field focus mostly on three issues (Buckley and Ghauri, 1999). The first is related to the rate and direction of internationalization, the second with the form of foreign market servicing, and the last on the impact of cultural differences. Although our research aims to grasp a broad understanding of the contemporary internationalization paradigm of Portuguese firms (IPPF), we have therefore developed a cross-linked multi-field systematic literature review within interdisciplinary fields, including the aforementioned main issues. We begin with a conceptual distinction of exporting activity (transactional mode) and foreign direct investment (FDI) to avoid the emergence of rhetorical-type bias in this research.

Eurostat (1998:16) argues that exports are comprised of the following:

"*goods which leave the statistical territory of the Member State bound for a non-member country, having gone through: the customs export procedure (final export, export following inward processing, etc.); or the customs outward-processing procedure (usually goods destined to be processed, transformed or repaired for subsequent re-import).*"

While the OECD (2007, cited in Eurostat (n.d.) defines FDI as:

"a category of investment that reflects the objective of establishing a lasting interest by a resident enterprise in one economy (direct investor) in an enterprise (direct investment enterprise) that is

resident in an economy other than that of the direct investor. The lasting interest implies the existence of a long-term relationship between the direct investor and the direct investment enterprise and a significant degree of influence on the management of the enterprise. The direct or indirect ownership of 10% or more of the voting power of an enterprise resident in one economy by an investor resident in another economy is evidence of such a relationship. Some compilers may argue that in some cases an ownership of as little as 10% of the voting power may not lead to the exercise of any significant influence while on the other hand, an investor may own less than 10% but have an effective voice in the management. Nevertheless, the recommended methodology does not allow any qualification of the 10% threshold and recommends its strict application to ensure statistical consistency across countries."

The boundaries of both conceptualizations are clearly established. The exports relate to the dispatchment of goods and/or services to an external marketplace, while the FDI describes a deeper level of commitment overseas through either an introductory or continuous investment (self-investment or leveraged buyout investment). In the adoption of the latter concept (FDI) in our empirical study, a broader definition is adopted, which includes firms with less than ten percent of ownership in a third company abroad and/or with diminutive voting power and decisional influence. These (firms) were considered eligible for inclusion in the sample. Nevertheless, the partaking firms in this investigation rigorously fit the criteria of OECD´s (2007) classification.

This research begins drawing a background set-up of the evolvement of the national reality regarding foreign trade and investment built upon two (2) perspectives: a macro perspective at economic-level, and a micro perspective at firm-level. The latter, orientates the *locus* of our investigation towards the circumscription of the initial problematization, providing an insight for the delimitation of the problem statement, exploitation of a research gap, and guiding our research design and methodology rationale.

1.2.1. Economic perspective

A cross-analysis of economic data from official sources, combines datasets from international and national organizations, the World Bank (WB), the Organization for Economic Cooperation and Development (OECD), the Eurostat, the Observatory of Economic Complexity (OEC), the Statistics

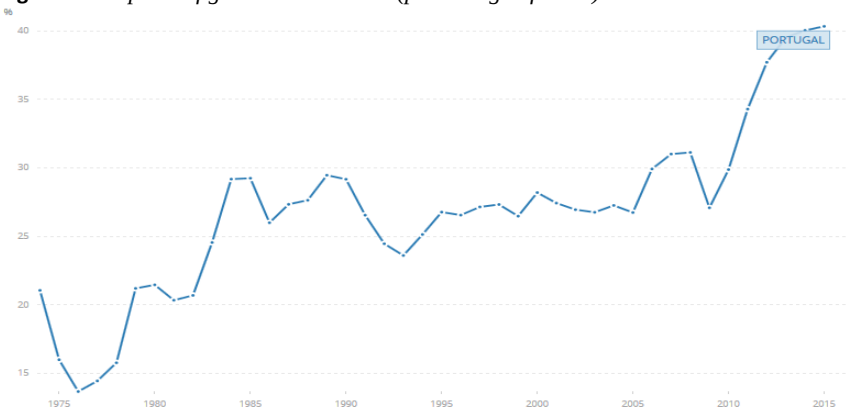
of Portugal and the AICEP Portugal Global – Trade and Investment Agency, aiming to describe the current competitive context of the Portuguese firms at the business ecosystems overseas.

Firstly, the country was not immune to the troubled moments related with global economic advancements (Bento, 2010). The phenomenon of globalization of markets has added more complexity to the existing issues of competitiveness among nations in the post-fall period of the Berlin Wall. Since that time, a new political and economic geography emerged, such as the obsolescence of central planning economies, and the evolution of new systems of state capitalism. Likewise, the emergence of new business paradigms, and the emergence of constant and successive technological innovations, challenge nowadays the global economy (Silva and Teixeira, 2013). Thus, is argued that the national competitiveness of Portugal in this contemporary globalized world it is intrinsically linked with the fulfillment of a set of criteria, which may leverage the exporting and outward investment capacity and the attraction of the FDI, and therefore, lead to a structural and strategic adaptation to a changing world (Silva and Teixeira, 2013). These prescriptive factors are as follows: the concentration of the transactional economy industries; the rise of sophistication and singularity of both businesses and products, including their technological content and further incorporation of knowledge, associated with the criticality of the national, corporate and products´ branding. Although, this so-called national model of competiveness (NMC) that is defended here above, is threatened as in economic theory, due to the sovereign debt level and loss of exchange rate (Stiglitz, 2002; Bento, 2010). The first indicates the lack of capacity indicated by the Portuguese economy to absorb the absolute level of the debt, materialized in the ratio of public debt over GDP, which is away above the 60 percent of bearable public debt level (BPDL). The latter is aggravated by the rigidity of the labor market and the increase of competition from the emergent economies. Furthermore, a recent continuous decline of the Portuguese domestic materials consumption (DMC) since 2009 until 2013 has been perceived as being only interrupted by a 2,00% upturn in 2014 (Statistics of Portugal, 2015). Second, it is perceived an accentuated tendency of growth in exports (Figure 1) has been perceived in the last decades, which is accompanied by an improvement in their performance. The GDP numbers are real inflation adjusted and are based on the seminal Keynesian model of GDP forecasting (Keynes, 1937):

$$GDP = C + I + G + (X-M) \qquad (1)$$

The formula illustrate the sum of yearly expenditures and accounts for the following elements: private consumption, business investment, government expenditure and net flow of inward/outward trade of exports against imports.

Figure 1 - *Exports of goods and services (percentage of GDP)*

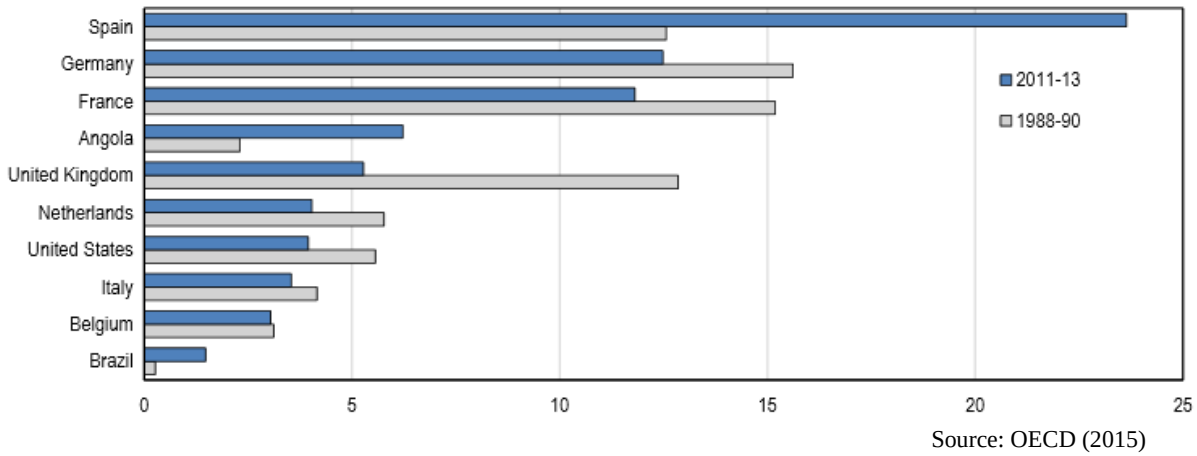


Source: World Bank (online)

Accordingly, the report "*Estatísticas do Comércio Internacional 2014*" (Statistics of international trading 2014) issued by the Statistics of Portugal (2015) is confluent with the previous sources (in the increase of exports) and it emphasizes a tendency of concentration towards markets of greater proximity. The Euro-zone destiny countries registers a growth of 2,7% overcoming the global average of 1,8%. Particularly, Spain and France, respectively, which are the first and second main clients in goods account for (together with Germany) 46,9% of the exports in 2014.

The OECD´s (2015) report "*Boosting Economic Performance in Portugal*" (Figure 2) corroborates the dependency of the Portuguese firms to compete in environments of great proximity.

Figure 2 – *The main host-markets*



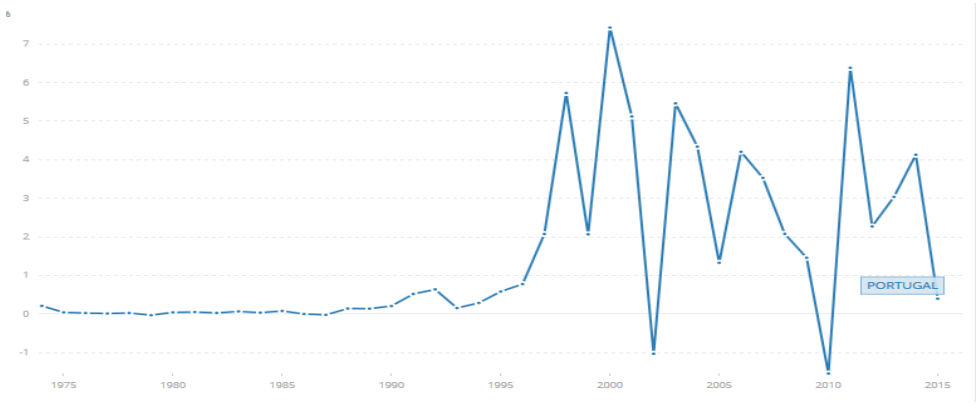
Source: OECD (2015)

Figure 2 above illustrates that within the ten most critical destiny markets, seven are EU state-members and two (Angola and Brazil) are Portuguese-speaking countries and these are cumulatively affiliated with the Portuguese-speaking African countries (PALOP) and with the Community of Portuguese Language Countries (CPLP), respectively.

The last report from the Statistics of Portugal emphasizes the upward trajectory of exports in 2016, registering an annual growth of 8.3% (excluding the oil and lubricant goods), with Portugal positioning itself at 50.290 Million Euros. Herein, the dependency to exports intra-UE is accentuated with its growth of 11.3%. The results of the secondary sector indicate for the industrial supplies not elsewhere specified in other category ("*fornecimentos industriais NE noutra categoria*") contained in the table Exports - Classification by Large Economic Category ("*Exportações por CGCE*") the results of the CGCE that account for this case study research in 2016 grew by 8.3% (INE, 2017:7).

Third, the net flows of foreign direct investment (Figure 3) indicates an intermittent behavior in the last decades.

Figure 3 - *Foreign Direct Investment (FDI) – Net outflows (% of GDP)*



Source: World Bank (WB)

Observing the evolvement of the phenomenon, it is acknowledged that the pattern followed towards the end of the 20th century has changed significantly to a scenario of greater volatility delineating a longitudinal trend of inconsistency in the first two decades of the 21st century, which is corroborated by the latest data updated until 2016 on the outward FDI (% of GDP).

Figure 4 – *Outward FDI 2016 (percentage of GDP)*

Source: OECD (n.d.)

(Red line (Portugal); Black line is the average of DAC (Development Assistance Committee) of Member-States at OECD)

According to the report of AICEP (2006), the Portuguese FDI is concentrated at the intra-community level with Netherlands and Spain, accounting for quotas of 40,4% and 17,6% respectively. Within non-EU countries, Angola and Brazil register, respectively, the highest investment quotas with 6,9% and 6,1% outwards flows.

In this sense, the patterns of exports and outward investment uncover remarkable similarities. In both, firms demonstrate a preference for entry into closer markets. Thus, the two most significant host-countries (Spain and France) are the ones of greater geographical proximity within the EU-Zone. Although, the Maghreb countries of North (West and East) Africa, despite their geographic proximity, do not display particular preferences for doing business, as the economic data does not demonstrate any evidence of notable results in exports or outward investment. Conversely, countries of higher geographical distance but which have Portuguese as an official language demonstrate significant figures and are perceived as being markets of high economic interest for Portuguese companies. Therefore, the OEC - Observatory of Economic Complexity (online) of the MIT Media Lab advocates (at the economic complexity index - ECI) of the country a greater propensity for a (geographical) proximity approach towards the EU neighbor economies (Spain, France, Germany, Italy and Netherlands).

1.2.2. Firm-level perspective

As a preamble approach to the economic-level, the content in subsection 1.1 acknowledges the existence of particularities related to the international of Portuguese firms either during transactional or investment modes, through their exports or FDI. Firms seem to target host markets accordingly to a duality of proximity factors. Those bifocal factor conditions categorizable as geographical and cultural factors, uncover an idiosyncratic market dependence to familiar economies. First, the international trade with the EU State-Members, particularly within the Euro-Zone, and more specifically, with the Spanish market (with whom Portugal share the closest geographical land borders) reveals a geographical predisposition towards host-markets of greater physical proximity. Then, it is verified that firms are attracted to marketplaces of cultural proximity, as prior secondary data demonstrates a greater outflow of trade and outward investment to the Portuguese-speaking countries (namely to the Portuguese-speaking African countries – PALOP; and/or other environments belonging to the Community of Portuguese Language Countries – CPLP). In this way, this phenomenon uncovers an *ex ante* preference for host-markets with linguistic proximity in the international venture.

Accordingly, the Portuguese firms appear to account for the selection of the destiny markets using a decisional algorithm that weights two components; physical distance, and psychic distance. These two components seem respectively to account for the geographical and cultural factors in the choice of markets (entry/expansion). This binary-based decisional process is perceived in the literature as a risk avoidance behavioral pattern, consubstantiated in *psychic distance factors* acknowledged primarily by the empirical research of Uppsala university (Uppsala model) (Johanson and Vahlne, 1977). Nevertheless, the geographic proximity does not seem to account for the internationalization pattern phenomena, sole and isolatedly as a cause-effect variable since, the business potential in the countries of greater proximity in North Africa seem to be neglected. Therefore, the cultural proximity may be argued to account also as a factor condition in the decision-making process of foreign market choice (Mc) in a rather singular manner. Thus, this dichotomic approach may be represented *ceteris paribus* as:

$$Mc = ((GD \times R) + PD) \qquad (2)$$

The GP and PD represent the factors accounting the decisions of internationalization at entry stage and the R the perception of the risk of the focal market. In this way, we argue that the Portuguese firms have a strict approach towards the markets overseas, which constrains the international venturing.

1.3. Relevance, Singularity and Research Gap

Considering the aforementioned at the background and problem statement section, this next section explicates an in-depth theoretical approach to both internationalization theory and resource-based theory (Chapter Two). This systematic literature review examines both bodies of theory to illuminate the comprehension of the IPPF. Therefore, in the next chapter, we depict the theoretical framework of *The Uppsala Model (U-Model)* in section 2.1., and additionally, in section 2.2 we address *The Dynamic Capabilities View (DCV).* In the latter, we review the literature from the resource-based view (RBV) and its evolvements through the marketing-based view (MBV) and dynamic capabilities view (DCV), focusing on the latter since, it is perceived in the literature as being a source of sustainable competitive advantage, when applied to international venturing. In addition, since the U-model is rooted in the RBV, as a capability-based framework to internationalization, we follow the capability-building process within its descending models to understand the proximity of the Uppsala School to the DCV in the timeline, and pinpoint the DCs incorporated in each model. Lastly, to comprehend the phenomenon of alignment/deviation of the internationalization paradigm of the firms under observation, with regard to the capabilities exhibited in foreign competition, we categorize their status according to the U-model, and revise the bundle of (combinative) capabilities demonstrated in overseas operations. Consequently, we focus our attention on the mobility of DCs from the domestic-market (headquarters) to host-markets (subsidiaries). Thus, we concentrate particularly on global dynamic capabilities (GDC), and on the comprehension of its transferability, dissemination and mutation process.

This research scope is related to the acknowledged information about the Portuguese foreign competition, and is due to the fact that the DCV is a growing field in the strategy theory, although, empirical research on DCs is advocated as scarce (Arend and Bromiley, 2009; Ambrosini, Bowman and Collier, 2009; Helfat and Peteraf, 2009). Moreover, despite the wide attention given to DC commonalities and deployment (addressed in section 2.2.4. *Deploying and hierarchizing Dynamic*

Capabilities) the DC mobility, transferability and transnationalization are perceived as overlooked issues and the GDC body of theory is newborn and undeveloped. The dynamic capabilities theory (DCT) advocates the capacity of DCs to duplicate (Eisenhardt and Martin, 2000), evolve (Ambrosini, Bowman and Collier, 2009), mutate (Wang and Ahmed, 2007) mobilize and transfer itself (Wang and Ahmed, 2007; Madhok and Osegowitsch, 2000; Luo, 2001), within an international context (Weerawardena et al. (2007). Although, the empirical research regarding GDCs is at a point of scarcity. The same happens with the development of measurement scales for DCs, despite the contribution of Helfat and Peteraf (2009). An interpretativistic research at the sectoral-level (and/or industry-level) of the international businesses (IBs) of the Portuguese firms regarding their internationalization stage and bundle of employed capabilities is unnoticed. This sets the scene of the individual interest, academic relevance, and uniqueness of the investigation, which is intended to fulfill the research gap aforementioned while pursuing the topic with this circumscription.

2. LITERATURE REVIEW

As the general research topic is centered towards the IPPF, and the general interest is narrowed to focus on the research problem described above, the review presented in this section addresses the topic in a dualistic mode, immersing into the literature related to internationalization to explore both the internationalization theory, and the resources and capabilities theory. The first, focusses on the exploration of literature related to the Uppsala School since it was perceived in the first chapter that the internationalization decision-making process in Portuguese firms largely accounts for the variables of geographical and psychic proximity, which were identified in their first academic papers in this field. In addition, we consider the firm´s fitness for marketing foreign destinies, and therefore, we address the resource and capabilities´ theory.

2.1. The Uppsala Model (U-Model)

2.1.1 The Original U-Model

Previous studies on the topic indicated a plethora of economic and business factors account on firm's internationalization decisions. With regard to international business (IB), researchers from the University of Uppsala developed a behavioral-based internationalization process model focused on empirical observations from the Swedish firm´s foreign experience (Johanson and Wiedersheim-Paul, 1974; Johanson and Vahlne, 1977). Considering the behavioral theory of the firm of Cyert and March, *1963), this identified common traits on decision-making situations on international operations. They observed that foreign market´s involvement is incremental and firms take small steps, in a certain pattern and pace, mitigating risk. They also found, market (experiential) knowledge as a keystone on internationalization success, arguing that it could be mainly acquired through operations abroad. Additionally, they assert that the lack of knowledge influences the commitment to the host country and the success of international expansion strategies. The awareness of the significance of market knowledge, unfolds later in multiple side considerations, as prior knowledge (Cohen and Levinthal, 1990); Ardichvili et al., 2003), international operations experience (1990), entry experience (Chang, 1995), foreign experience (Hohenthal, 2003), knowledge development (Gulati, 1999; Gulati and Gargiulo, 1999; Dyer and Hatch, 2006) and foreign business knowledge, foreign institutions knowledge and firm internationalization knowledge (Eriksson et al., 1997).

Therefore, the internationalization is assumed to be the product of a series of incremental decisions (and the internationalization process the sum of all the decisions), regarding variables as knowledge, commitment (C), perceived risk (R) and uncertainty (U), at a given time. According to this framework, the authors built a system of relationships between R, U and C variables to explain the firm´s scale-increasing decisions. They have drawn an imaginary boundary line determining the firm's decision situations whether to increase or decrease their operations. The line sets the "*maximum tolerable market risk*" (R^*) according to the perceived uncertainty (U) and firm´s commitment (C), through the following function:

$$R_{i^*} = f\,(\text{firm´s resources position x firm´s risk approach}) \qquad (3)$$

The firm´s existing market risk situation is represented by:

$$(R_{\text{market i}}) = U_i \,.\, C_i, \qquad (4)$$

Thus, the $R_{\text{market i}}$ varies as follows:

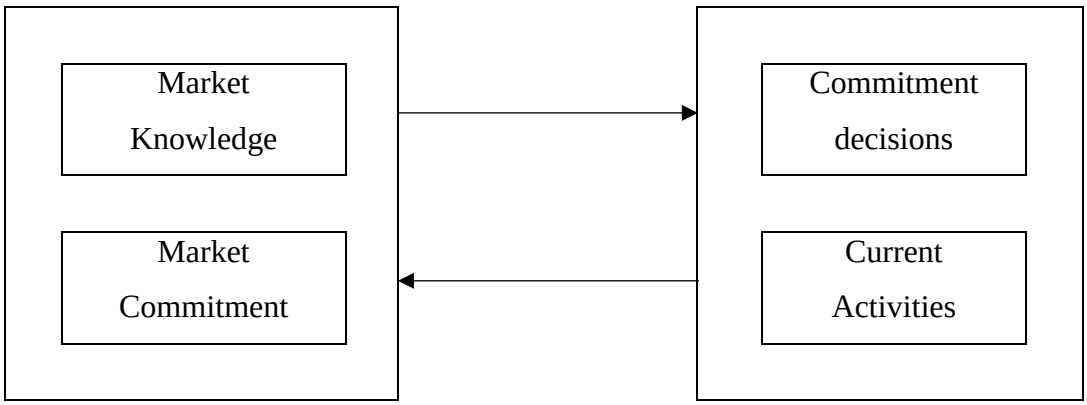
$$\Delta R_i = \Delta U_i (C_i + C_i) + \Delta C_i \,.\, U_i < 0 \qquad (5)$$

Typically, the firm's entry in foreign markets assumes a low commitment mode and its integration is gradual, in order to reduce risks and losses. Firms start exporting to a certain market, occasionally and then permanently. Later, the activities get stabilized or increased, so as the commitment. Firms under study seemed to follow this similar pattern of establishing operations to which the authors called the *establishment chain*. This is a scaling up chain of business commitment following a certain sequential order – (i) no regular export; (ii) independent representative (agent); (iii) sales subsidiary; and (iv) production subsidiary. Complementarily, Johanson and Vahlne (1977) argue that the time order of the establishment steps is intrinsically linked to the *psychic distance* between home and the import/host country. Firms usually go abroad to close and familiar markets and extent gradually their operations to more distant and unfamiliar markets. The authors affirm that there is no optimum allocation of resources strategies, because of the gap between psychic and geographical distance. The psychic distance factors were defined as the sum of all (factors) preventing or disturbing the flow of information from and to the market. It could be the language, education, business practices, culture and industrial development (Johanson and Vahlne, 1977); political systems, communications

systems, trade and other social exchange (Johanson and Wiedersheim-Paul, 1975) and knowledge about laws or rules (Johanson and Vahlne, 2009).

The Uppsala internationalization process model´s main structure is given by the distinction of *state* and *change* aspects. For the authors, the basic mechanism of internationalization is the combination of both (state and change) through a repeating cycle of events, in which, the outcome of a decision (or set of decisions) represents an input of the next. This dynamic model considers state aspects as the existing internationalization features (scenario) gathering two components: (i) (the type and size of the) resources investment (reflecting the degree of commitment); and (ii) the knowledge about the foreign market and operations. While the change aspects are the dynamic response (to the state aspects) and are comprised of: (i) decisions to commit resources; and (ii) performance of current activities. The U-model´s basic mechanism of internationalization is then illustrated in Figure 5:

Figure 5 - *The Basic Mechanism of Internationalization – State and Change Aspects*



Source: Johanson and Vahlne (1977)

The basic mechanism of the Uppsala´s internationalization considers two types of variables, as the characteristics of the phenomenon that can be observed (Collis and Hussey, 2014). The state and change variables and contains an underlying relationship system between both. First, there is a direct relation between the two state aspects´ variables. *Market knowledge* is itself an (external) resource. Thus, the better the (market) knowledge, the more valuable the resources get. The current activities are also a prime source of experience (regular market experience and firm experience), however, firm experience is acquired, consisting in hiring personnel with market experience and/or advisory from experienced professionals. There is also a connection between market experience and commitment decisions. The model considers business activities as a source of market knowledge growth, and

market knowledge is a driver for further opportunities and problems perception, and consequently, a guideline for decision-making orientation. So, Johanson and Vahlne (1977) converge with Penrose (1959) study, emphasizing the role of opportunities and problems uncovering the needs for further business actions (commitment decisions)

It would be worth mentioning that the model focus on psychic distance factors (considering others immutable), although it is acknowledged (and overlooked) that other factors may have a large impact on operations, such as the firm's technology. Second, each firm has a different strategy on establishing their own operations with respect to risk (high-risk level, moderate-risk level and low-risk level) due to their state aspects: resources and knowledge.

The authors concluded that commitment decisions are likely to follow a pattern, starting from low-risk modes of internationalization, and scaling up through the establishment chain, unless the firm holds very large resources and/or the host country offers stable and homogeneous market conditions. The Uppsala model also underpins the role of experience (market-specific knowledge) added to general (objective) knowledge, and how it affects the export and foreign investment behavior.

2.1.2. The Evolutionary Path – Criticism and Descending Models

2.1.2.1. Main critiques

Based on the observation that organizational behavior has changed, there are some critics of the Uppsala model, directing their considerations to the incremental design, the establishment chain and psychic distance factors. The most common remarks are as follows: firms sometimes leapfrog over stages; disregard the profile of the entrepreneurs; the internationalization process has different velocities (according with the stage it is; more advanced stages have a more rapid process), the order firms´ choose markets are no longer related to psychic distance, and firms are using alternative modes, such as joint-ventures, strategic alliances and acquisitions (Johanson and Vahlne, 2009).

Most of the criticism about the incremental designs, towards a general consensus among businessmen and academics that the internationalization process models (Uppsala and Innovation-related) is due to the fact that it does not respond entirely to the challenges of globalization and the accelerating technological development (e.g. Sullivan and Bauerschmidt, 1990; Melin, 1992; Anderson, 1993; Oviatt and McDougall, 1999; Madsen and Servais, 1997; Zahra et al., 2000; Moen and Servais, 2002). Similarly, Weerawardena *et al.* (2007) criticized the gradualist view of the Uppsala model which is

based on incremental and sequential learning and is therefore deterministic and path dependent. In addition, the authors state that the U-model does not recognize the role of other firm profile factors such as path-breaking strategic choices and also the will of internationally-oriented business-owners and managers for accelerated internationalization Thus, they state the gradualist view is not consistent with the accelerated internationalization of the born global (BG) firm; and despite the U-model´s empirical verification (and its application over the years), several studies propose a different approach with regard to a firm´s requirements for a rapid internationalization.

2.1.2.2 The Uppsala School - Descending Models

2.1.2.2.1. The Business Internationalization Process Model

The common trait of alternative studies is the attention given to network-based patterns of internationalization (e.g. Johanson *et al.*, 1988; Coviello and Munro, 1995; Holmlund and Kock, 1998; Forsgren, 2002; Coviello, 2006; Holmlund *et al.*, 2007). In this way, the two approaches (the network-based models and the process models) assume an antagonistic and confrontational positioning towards each other. However, an integrative perspective suggested its complementarity and proposes its coexistence (Johanson and Vahlne, 2003; Gemser *et al.*, 2004). Corroborating this hybrid, and inclusive, third alternative (the integrative perspective) two lines of advocacy give it ground. First, similarities are perceived between both, as the two approaches are behavioral-based and value experiential knowledge and learning. The second, advocates that the business network-view due to its acceptance of interactivity, is complementary to the stage process model, because it expands the scope of the latter and breaks its boundaries (Sørenson, 1997) focusing on additional conceptualizations such as, relationship, trust, social capital and intellectual capital. This stage process model also considers business networks as being transnational while the U-model emphasizes that business strategies are country-specific. Thus, the networking approach has a broader view and internationalization is defined as the general expansion of a business firm regardless of the country borders (where the only existing barriers are associated with the establishment and development of business releationships). International expansion is assumed as the outcome of a relationship´s development (Johanson and Vahlne, 2003).

Despite the theoretical positing of the both perspectives, it is reasonable to combine a network model with a process model because of their common need for (experiential) knowledge capital for the

resolution of two kinds of constraints: business´ relationship-specific problems and country-specificity and cultural barriers (Johanson and Vahlne, 2003). The first one (the network model) requires market experience to face relationship-specific psychic distance and the other one (process model) requires institutional experience to overcome country-specific psychic distance. Furthermore, it is recognized that business relationships are multi-dimensional (technical, legal, economical and human) and have a two-way function of social interaction, which means they receive and give back, and also provide and generate new knowledge (Dahlqvist, 1998; Håkansson and Ford, 2002; Johanson and Vahlne, 2003).

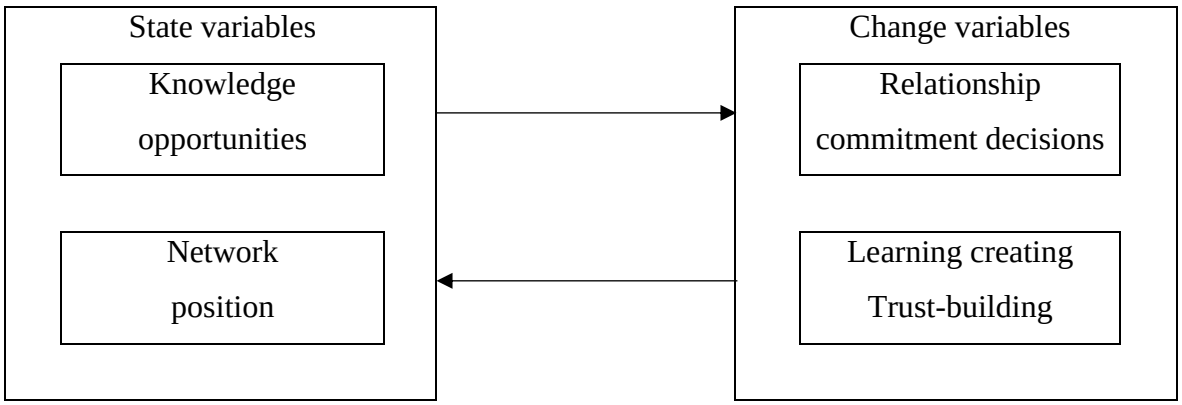
Another fact that should be taken into account is that network relationships also have implicitly embedded, the concept of commitment (as the original U-model) though with a different outline. Whereas the original Uppsala model´s conceptualization of market commitment (and degree of commitment) is related to the amount of resources and their allocation process, the network model emphasizes the commitment role as an explicit willingness to act, to maintain, develop and strengthen relationships and institutional trust, as being the spark for social and intellectual capital (Morgan and Hunt, 1994; Johanson and Vahlne, 2006). Social capital refers to the strong and long-term networking relationships constituting the foundation for trust, cooperation and collective action whereas intellectual capital arises as the new knowledge derived from social capital. It appears there are bridges approaching the two commitment´s standpoints. The U-model originally posits that market knowledge and risk assessment are critical to reduce uncertainty and (re)define the level of (market) commitment and future activities. From the network´s point of view, the relationship commitment also assumes an underlying determination of the focal firm to reduce uncertainty, acquire new knowledge (intellectual capital), gain more control over the environment and experiment an entrepreneurial discovery of the hitherto unknown (market opportunities) for further exploitation and exploration (Kirzner, 1973; March, 1991; Johanson and Vahlne, 2006).

Part of the criticisms around the original Uppsala model are due to the considerably changes in the world as already mentioned in a previous section. The motion and complexity of the economic and regulatory environments forced companies to respond reactively and adaptively to new stimuli. Business research boundaries were widened and further contributions came from other areas for instance international marketing provided a business network view (Johanson and Vahlne, 2009). Based on network-thinking, researchers from the University of Uppsala developed an internationalization model, underpinning that firms establish and develop positions in relation to

counterparts in foreign markets. The model of industrial markets (Johanson and Mattson, 1988) describes industrial markets as networks of relationships between firms. In this model, the role of customer and supplier within the relationship are mutually important for knowledge acquisition and development about price, quality, and service issues. Johanson and Mattson (1988) define relationships as cumulative processes continually established, maintained, developed and broken to give short-term returns, to create network positioning, and to ensure the long-term survival and development of a firm. This approach considers internationalization may be carried out through three different pathways: international extension (establish positions - micro positioning - in relation to counterparts in national nets), penetration (developing network positions – macro positioning - and increasing resources in those nets), and international coordination (managing positions among the different national nets).

Johanson´s and Vahlne´s (2009) research focus on business networks as market structures and corresponding business network structures to develop a general business network model. Their research differs substantially from Coviello´s (2006) model which morphologically analyzes the development of networks during the early stage (of internationalization); therefore narrowing his research to the international new ventures (INVs) and born global firms (BG). Likewise, this model is also quite different from the original Uppsala model in its ontological nature and structure (as illustrated in Figure 6).

Figure 6 – *The Business Internationalization Process Model*



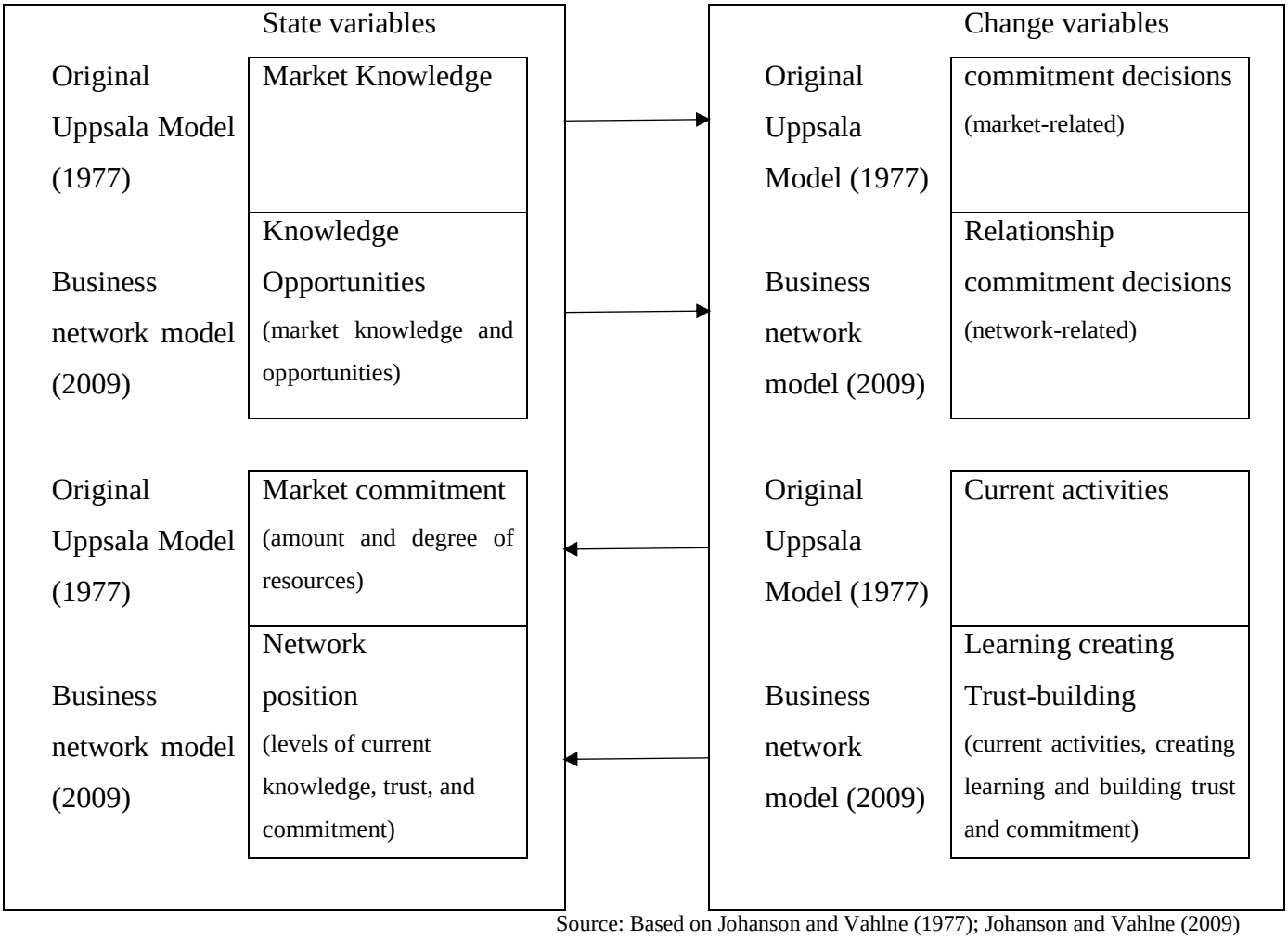
Source: Johanson and Vahlne (2009)

The main similarity is keeping the two structural aspects (state and change) despite changes in their content. The 2009 version added (the previously overlooked) "recognition of opportunities" to the "Market knowledge", changing its name to "Knowledge opportunities" to emphasize these

opportunities as the most important component of knowledge. Market commitment (the second state variable) was replaced by a broader element "Network position" which gathers three subsets: relationships interplay and learning (within the network), trust and commitment.

With regard to the changed aspects the "Current activities" were converted into "Learning creating and Trust-building". The authors acknowledge that the "Current activities" in the original model lacked experiential learning and building trust and commitment; hence its replacement. Finally, the second change variable is "Relationship commitment decisions" which was adapted from "Commitment decisions" to clarify that commitment is assigned to business networking relationships, to develop new relationships, build rapport to new networks, and to protect the existing network (strategic relationships). The illustration below (Figure 7) represents the changes in the original model:

Figure 7 - *The Stage Process and Network-based Internationalization Theorizations (the Original U-Model (1977) Vs. the Business Network Model (2009))*



Source: Based on Johanson and Vahlne (1977); Johanson and Vahlne (2009)

The further development of 2009´s revised model is based on the core argument that markets are networks (of various and complex) relationships where firms get connected to each other. Thus, insidership in relevant markets is a prerequisite for the success of internationalization. The original U-model sustains the argument that foreign investors are needed in order to give a firm-specific advantage due to its liability of foreignness, which is closely related to psychic distance factors. Conversely, the business network model demonstrates the liability of outsidership as being the lack of market-specific knowledge constituting the major impediment to IB. According to the network view, the markets are the business environments where its actors become engaged in interdependent relationships through social exchange processes, leading the firm to knowledge acquisition and development, organizational (experiential) learning, building trust and commitment and strengthening its network position (Johanson and Vahlne, 2009). The authors also advocate the correlation of outsidership with foreignness stating that market membership is a prerogative to lock the liability of foreignness. Moreover, they posit that the role of internationalization as being the means to enhance the relationship´s development (Johanson and Vahlne, 2003), while converging to the assumption that internationalization is the outcome of the intentions (and efforts) to expand internationally (Welch and Luostarinen, 1988) and a by-product of the firm´s effort to improve its network position and also the result of the entrepreneurial action to identify and develop business opportunities (Schweizer *et al.*, 2010).

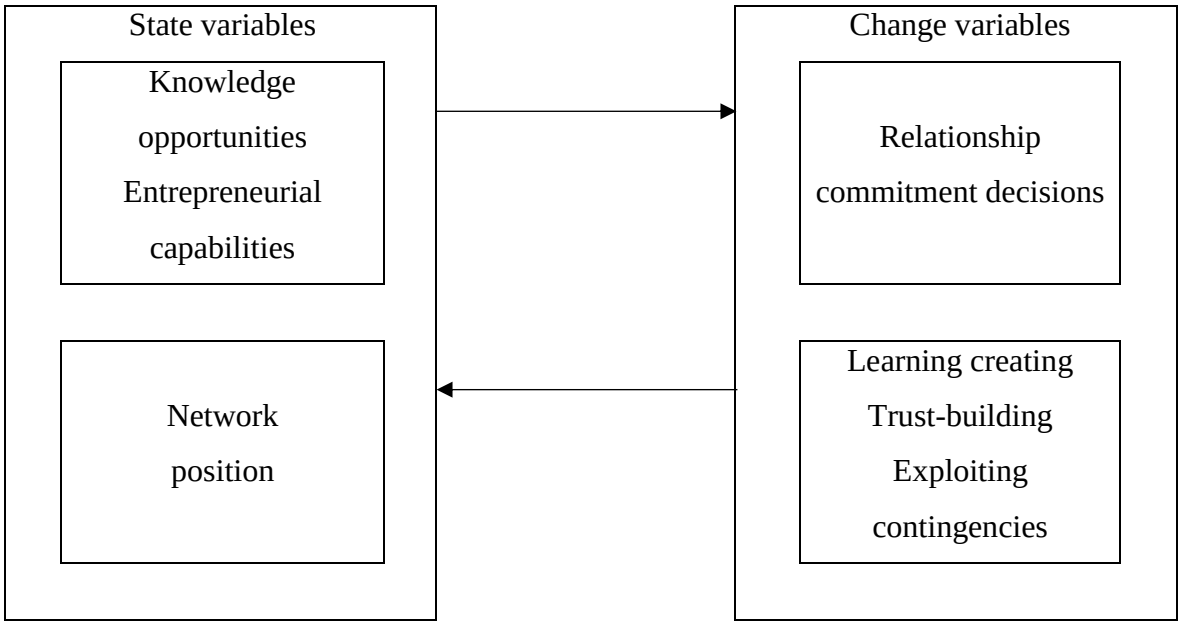
2.1.2.2.2. The Entrepreneurial Process Model

In order to confirm the validity of the business network internationalization process model of Johanson and Vahlne (2009), Schweizer *et al.* (2010) confronted the theoretical framework with empirical data measuring continuously the fit between model and reality and developing an alternative archetypal approach - an entrepreneurial internationalization process model. This model has implied structural similarities with the business network model.

Both comprise the environment as dynamic and non-linear where its actors are laced within networks, and the (state and change) variables are also interconnected and mutually affected by one other. The main conceptual difference is that the Johanson´s and Vahlne´s (2009) model focusses on business effectiveness and growth through a business network-view, while Schweizer *et al.* (2010) have a broader outlook about international entrepreneurial action, and their model is like a hat that covers different subtopics (by-products and other actions): international business (efficiency and expansion),

opportunity identification, development and exploitation, dynamic capabilities and entrepreneurial capabilities, organization learning, Knightian uncertainty, risk-taking and affordable loss, networks, business relationships, and trust and commitment.

Figure 8 – *The Entrepreneurial Process Model*



Source: Schweizer *et al.* (2010)

On the upper left box (Figure 4) of state variables, the authors gather specific market knowledge with general entrepreneurial capabilities which they relate to activities of launching born global (BG) firms and international new ventures (INV), as well as actions taken to internationally develop an existing foreign business (activities of entrepreneurial change). Schweizer *et al.* (2010) emphasize knowledge as the drivers of an entrepreneurial activity process; therefore stressing the significance of individual knowledge and intangible resources to enlarge the body of knowledge – especially the knowledge of opportunities – and disseminate it through an organization, so that the dynamic capabilities may evolve, and optimize the exploiting contingencies (Sarasvathy, 2001), which ultimately depends on the state variables as seen in the upper left box of the model.

In the entrepreneurial process model the authors maintain that the key dynamic capabilities are the ability of the entrepreneurs to build and sustain the foremost relationships and to make use of the contingencies to evolve in those relationships and networking positioning. Unlike the models from 1977 and 2009, this one focusses on business opportunities. First, is asserted that bumping accidently

(serendipity) into existing opportunities and their recognition (Kirzner, 1973) from perception to discovery, to creation (Ardichvili *et al., 2003*) is not related to a systematic search process, stating that entrepreneurs assume a passive search mode, like a state of entrepreneurial alertness instead of diving into an active search. However, the authors recognize the value of new information and ideas (Koller, 1988) and believe that solo entrepreneurs are not so effective in identifying opportunities as network-entrepreneurs who have wider access to extended information obtained throughout social exchange processes. Although they consider personality differences, prior market knowledge, marketing processes and customer problems establish a set of features that might hinder opportunity creation (Ardichvili *et al.*, 2003).

As an entrepreneurial behavior model which appraises internationalization as a by-product of network positioning, the authors also address decision-making, in the upper right box of change variables, which is intrinsically connected to knowledge, risk, commitment and network positioning (which includes the market operations). Thus, the authors are aligned with Sarasvathy (2001), an effectual reasoning supporter of entrepreneurial thinking. In fact, the author also distances herself from the country-specificity of the original U-model stating that effectual entrepreneurs are not tied to a pre-conceived market universe and tend to search for new customers within their immediate vicinity, no matter whether it is within their geographical vicinity or within their social network (network vicinity). The effectuation process is based on two principles: the affordable loss principle and the strategic partnerships principle, which share basic similarities with Schweizer *et al.* (2010). Both are uncertainty reduction concerned (as is the original U-model) and network-orientated to building partnerships rather than doing systematic competitive analysis which is a causal reasoning of managerial and strategic thinking (less entrepreneurial). Hence, Schweizer *et al.* (2010) are supportive of a shift from the reflexive causation process to a dynamic effectuation process through the action and interaction with others, in which firms deal a priori with environmental contingencies, instead, of reacting to the dyad cause-effect circunstancialism.

Yet, we have noted that the entrepreneurial process model corroborates the business network model, defending the relationship-specificity rather than country-specificity accentuating the disruptive standpoint with some features of the original U-model: incrementality of the process, the establishment chain, the psych distance factors and the liability of foreignness. This model also strengthens some gaps of the original model: network insidership, business opportunities (identification and exploitation), the entrepreneur´s role, the firm´s dynamic capabilities, and the

aprioristic uncertainty control, topics who were initially addressed superficially or overlooked. However, it must be emphasized that Uppsala´s original model incorporates a risk reduction model which relates to: risk, commitment and uncertainty (Figueira-de-Lemos *et al.*, 2011). In fact, the formula (Ri = Ci x Ui), addressed in a previous section, is a mathematical expression translating the maximum tolerable market risk (R) despite not mentioning explicitly its nature whether it´s *ex ante* or *ex post*, which means it is not clearly understood if its purpose is to support decision-making on market entrance and expansion issues, or if its purpose is to assess a firm´s performance. However, Figueira-de-Lemos *et al.* (2011) state that the risk mitigation approach of the original U-model is consistent with the Sarasvathy model (2001) in which affordable loss of the effectuation process is due to its contingency process view of continuous risk variation assessment which relates to both variables (uncertainty and commitment) that have an inverse proportional relation and wherein the risk follows an hyperbolic convex function according to uncertainty variation (ΔUi) and commitment variation (ΔCi).

In short, uncertainty (Ui) is a subject that has remained on the agenda of researchers of the Uppsala school. However, the approach to commitment (Ci) has changed from markets to business networks. Also knowledge was previously considered as a unilateral learning process, and the 2009 and 2010 versions assume that knowledge is a bilateral or multilateral development process. The early version is process-oriented and later versions are relationship-oriented. The early version considered the liability of foreignness as being the main obstacle to market entry and expansion while later versions, assume that the liability of outsidership is the main obstacle when entering business networks. The early version considers the internationalization process as a goal and later versions consider internationalization as an outcome of the action (or joint action) that implements the strategic development process of the focal firm (Johanson and Vahlne, 2011).

2.1.2.2.3. The Globalization Process Model

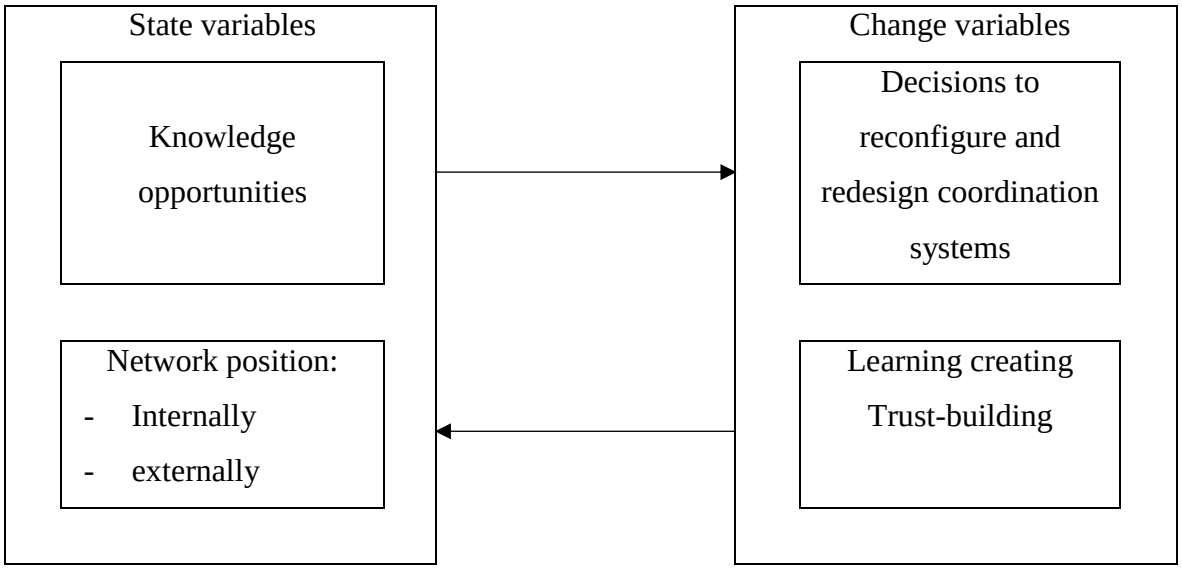
The behavioral approach of the state process models and interaction models from the Swedish school, implicitly overlap two process which co-exist in parallel: the internationalization process and the globalization process. Internationalization precedes globalization (Gabrielsson *et al.*, 2006); however, there is no clearly defined line demarcating the two processes. For Porter (1986) it is about developing and implementing a strategy on a global scale. Thereby, Vahlne *et al.* (2011) developed a globalization process model variant of the Uppsala internationalization process model to explain these

phenomena. They claim that the internationalization process is a transition process from national to international, and the globalization process an evolving shift of the focal firm from multinational (MNC) to global. They assert that the internationalization features are bi-dimensional: the geography and the mode of operation. While globalization is four-dimensional: geography, mode of operation, configuration and coordination. This configuration has to do with the design and redesign of the value chain and its coordination is the system of adjustment of roles and functions of the interdependent units of the group.

The globalization process model is also a state process model similar to the establishment chain (of the U-model). According to Ohmae (1985) globalization is a walkthrough typology pattern that starts with a focal firm operating in its domestic market and getting involved in arm´s-length export activities, then moving into new markets overseas that are linked to local dealers and distributors. Afterwards, globalization takes over their local activities and carries out marketing and sales, and later on manufacturing activities consolidating its full insider position, then moving towards a global-oriented model of operation that denationalizes the operations and builds-up a system of values shared by managers worldwide replacing the nation-based orientation. Although Vahlne *et al.* (2011) do not fully subscribe to the Ohmae (1985) incremental typology, because of its last step of implementing the global coordination mechanisms and tools.

The authors believe that the role of entities are differently organized regionally and group-wide to satisfy specific local demands and ensure efficiency and effectiveness at a global level and the accomplishment of global objectives.

Figure 9 - *The Globalization Process Model*



Source: Vahlne *et al.* (2011)

As shown in the illustration (Figure 9), the nature of context (left quadrants) affects the change processes (right quadrants) keeping the structural feature of a dynamic dyad between the state and change variables as the original 1977, U-model. The first state variable (marketing knowledge on the original model or knowledge opportunities on the 2009 and 2011 versions) remains intact without any changes since the 2009 version of the Uppsala model. The second state variable (network position) on the lower left quadrant is unchanged regarding the firm´s external commitment to third outside parties within the networking. From the headquarters´ point of view an internal perspective is also applied to the subsidiaries due to the inter-organizational network where the entities are units engaged in social exchange relationships occupying an internal group-wide network position. The upper right quadrant of the change variables (decisions to reconfigure and redesign coordination systems) includes changes. These variables are modified to ensure the unit's coordination in compliance with its headquarters (HQ) wishes, adding also the reconfiguration of the value chain and redesign of coordination mechanisms. The lower right quadrant of the change variables (learning, creating and trust-building) additionally includes the internal units of the focal MNC.

2.1.2.2.4. The Uppsala model adjusted to the HQ – Subsidiary Issue

In addition, Vahlne *et al.* (2012:224) developed a model with the purpose of decreasing the uncertainty and improving HQ management and the efficiency in the coordination of a global firm.

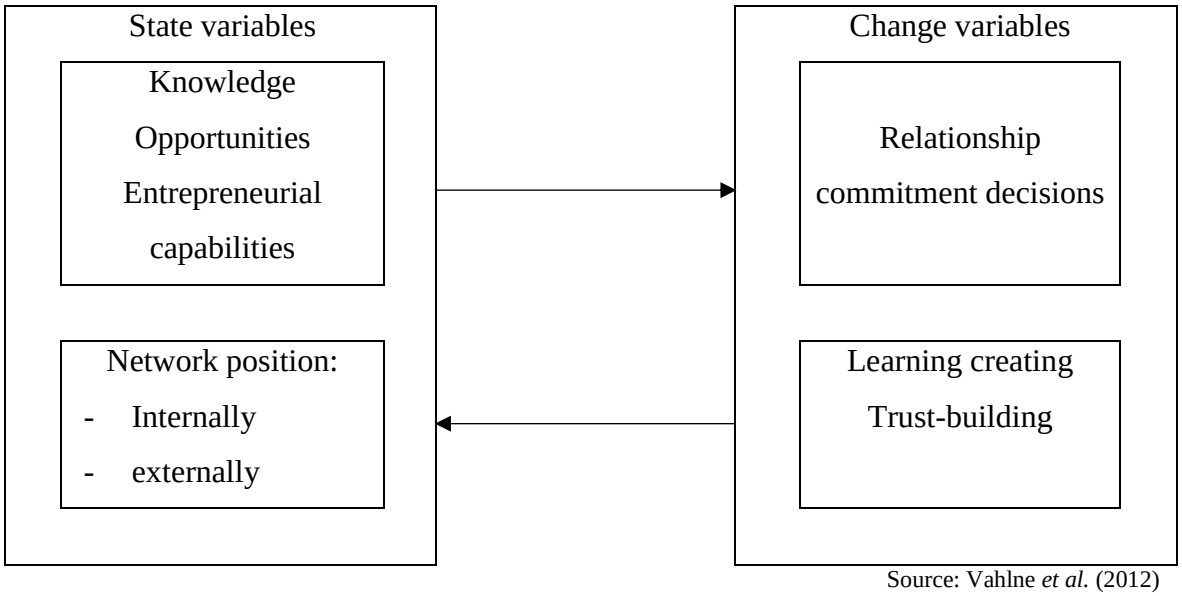
They started by defining the global firm as a "*loosely coupled network of far-flung subsidiaries with hierarchically acting headquarters (HQ) that design a global organization to ensure support of its global strategic agenda"*. They believe that the process of HQ management in the global firm is characterized by uncertainty (U) and the source of uncertainty is the liability of outsidership due to the lack of knowledge of the parent company about the networks and activities of its subsidiaries. Thus, this model focusses on the HQ´s coordination activities which is more complex and requires further analysis. However, it overlooks the configuration activities that are relatively well understood to be the challenges global firms seem to face to keep competitive: (i) new knowledge acquisition is a subsidiary activity and it derives from clusters affiliation rather than in-house innovation (ii) firms need to take their activities closer to customers and manufacturing where the environment is best appropriate to those activities and as a consequence value chains are increasingly being divided and located in different places far away from each other.

The coordination challenges are closely related to uncertainty, or the likelihood of an event to be miscalculated because of its uniqueness in a given environment (Knight, 1921). The uncertainty derives foremost from the impossibility to calculate the risk of opportunity identification when considering the relationships of the subsidiaries within their local context, and some leeway of interpretation and initiative of the subsidiaries with respect to the ambiguity of HQ goals. Therefore, this model aims to be useful for HQ to manage uncertainty which has its origin on the liability of outsidership and on the lack of knowledge about the far-flung subsidiaries' networks and activities (Vahlne *et al.*, 2012).

Before we look in more detail at this model, we must first understand what motivates the MNCs to become transnational. The bottom line question to be asked is, why do companies shift from international to global? The answer lies in how the business can change the reality through the pursuit of economies of scale and scope with the need to respond to the local conditions of each market (Vahlne *et al.*, 2012) and take local advantages (Porter, 1986). However, a global firm has an underlying series of subsidiaries, of whom we briefly mentioned before in relation to its relationships with HQ; however, clearly stating the role of these subsidiaries in a corporation´s global strategy. Vahlne *et al.* (2012) consider subsidiaries as a set of allocated resources, which may individually have a certain degree of autonomy and entrepreneurial activity that to some extent on their own initiative assume differentiated roles in the overall strategy of a loosely coupled system (global firm).

Managing distinctive subsidiaries in different environments across the globe and undertaking different roles are high uncertainty processes. Therefore, the Uppsala adjusted model for HQ management of subsidiaries, illustrated below, highlights two main coordinating aspects: the HQ-subsidiary relationships and the HQ liability of outsidership in relation to subsidiaries, particularly to their activities and networking.

Figure 10 – *The Uppsala model adjusted to HQ-Subsidiary issue*



Source: Vahlne *et al.* (2012)

The right-hand boxes (change variables) are the sub-processes that shape the HQ management of subsidiaries. The lower box describes the knowledge acquisition through learning and creating, which is often an interaction process with or from partners, external to the global firm or internal, i.e. the focal subsidiary. The newly generated knowledge is about the subsidiaries´ activities and resources and about external actors´ activities and resources in the local network. Trust-building is merely a precondition required to leverage the learning and creating processes. The upper right-hand box of commitment decisions may be separated by tangible/intangible and positive/negative. For example, the HQ contribution with financial resources for a subsidiary-born new venture is an example of tangible and positive, whereas verbal disagreements about a subsidiary´s project outline or even cutting funds, are reverse or negative decisions, successively, with intangible and tangible nature. The original Uppsala model also considered commitment but with a different design. Despite considering resources allocation reflects a certain type and size of commitment; however it is exclusively a market

commitment and not relationship commitment, lacking the business networking relationships and the social exchange process. Thereby, the original U-model also did not include the new knowledge creation originated from relationships because of its focus on market experiential knowledge. The left-hand boxes are a snapshot of a moment in time.

2.1.2.2.6. The MBE Evolution Model

The MBE evolution model (Vahlne and Johanson, 2013) has implied a different theoretical approach, bridging up the behavioral-based theory with the neoclassical economic theory of the eclectic paradigm (Dunning, 1980). This archetype extended the spectrum of analysis by enlarging the MNE (Multinational Enterprise) concept into the MBE´s (Multinational business enterprise) new concept, widening also the state and change variables (into capabilities, processes, decisions and positions). In the MBE (Multinational Business Enterprise) evolution model (Vahlne and Johanson, 2013) the mechanism of internationalization (Johanson and Vahlne (1990) is refined through the evolutionary path of the U-model, and therefore the variables (state and change) are wider theoretical constructs, incorporating findings of the last descendant models. Compared with the original and other versions of the U-model, the MBE evolution model analyses thoroughly the object of study (the organization and its activities) according to the behavioral theory, adding elements from the evolutionary theory of the firm, entrepreneurship theory, dynamic capabilities theory and the theory of the management of uncertainty. As stated by the authors, "*the Uppsala model originally was meant to explain the characteristics of the process whereby firms internationalize*" while currently the Uppsala paradigm is "*to explain how the individual MNE evolves over time"* (Vahlne and Johanson, 2013:191). Therefore, the 1977 internationalization process is circumscribed to a series of incremental decisions for doing business outside the domestic market, regarding the variables knowledge, commitment (C), perceived risk (R) and uncertainty (U) at a given time. While the MBE evolution model postulates that the internationalization process consists of two intertwined sub-processes (learning and commitment) with roots in business networks and dynamic capabilities (DCs) theories, which are based on dyadic relationships of the focal firm with other actors, where the firm´s strategy towards international operations is not independent, but relies on the exercise of mutual influence (focal firm-partners) where the individual firm engages in non-risk free relationships, exchanging resources (products, services, knowledge and information) both ways. Thus, in the MBE model, the network

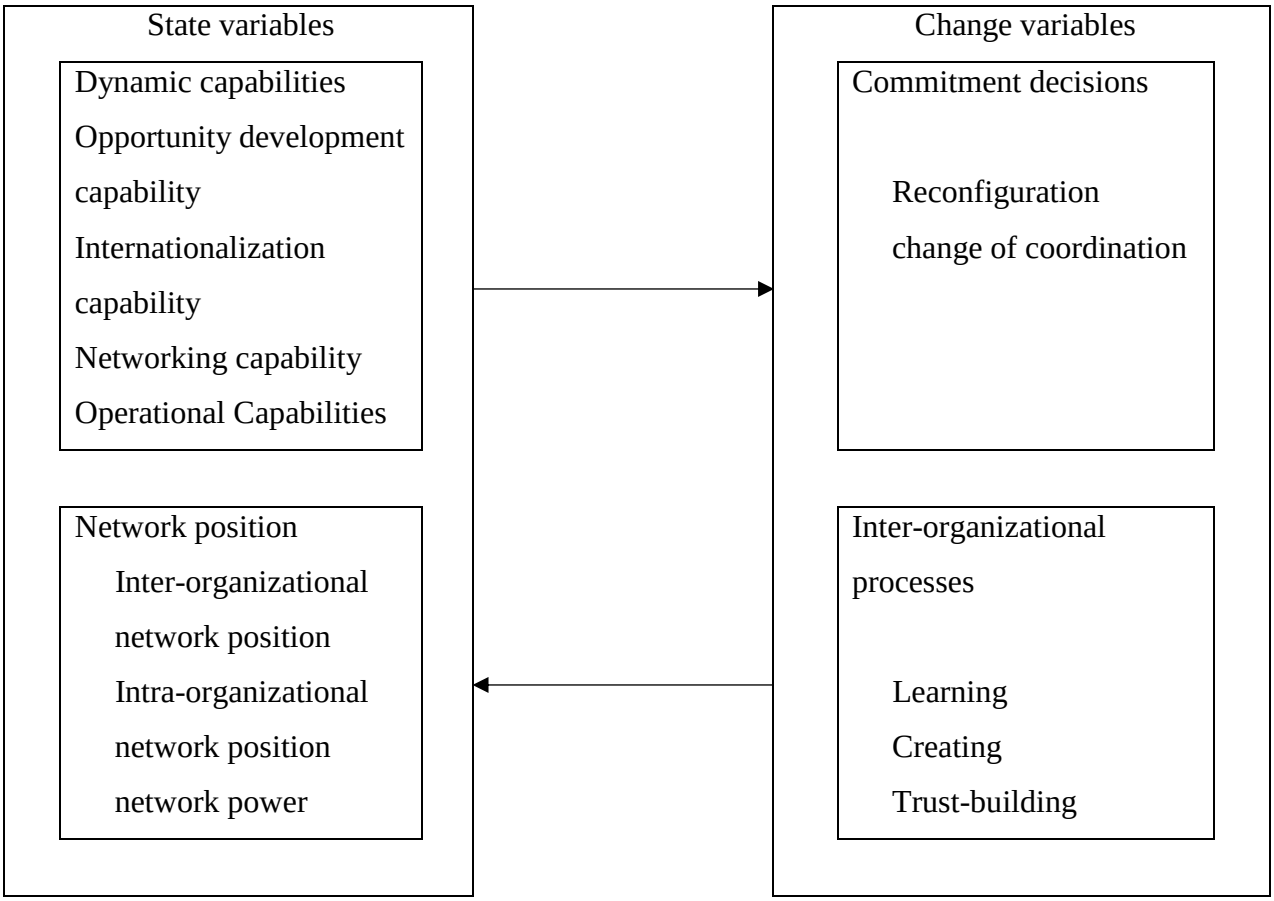
structure, comprising several dyadic relationships connected to each other, represents a crucial investment for international business development that may constitute an organizational or ownership advantage (Vahlne and Johanson, 2013; Vahlne and Johanson, 2017) versus the liability of outsidership (Johanson and Vahlne, 2009). In contrast to the original Uppsala model (Johanson and Vahlne, 1977), the MBE evolution model also makes clear that some resources are a public good as experiential market knowledge, but other resources are available only to the network members (network advantage).

It is noteworthy that the MBE model besides highlighting networks, it also attaches great importance to the DC theory, recording both concepts (networks and capabilities) as enhancers of competitive advantage in IB. The authors examined the resource-based view (RBV) and investigated the role of organizational business processes when adjusting to the changing environment and they then divided the DC concept into entrepreneurial and operational capabilities. The authors also dismantled the entrepreneurial capabilities into "opportunity development capability", "networking capability", and "internationalization capability", underpinning that "…*firms are not just passively adjusting to the environment but actively seek to transform the environment*" (Vahlne and Johanson, 2013:198) underlining their effort to explore contingencies (Sarasvathy, 2001), dealing with uncertainty (Knight, 1921), ambiguity and complexity and act as a network itself (Bartlett and Goshal, 1989).

The authors also assert "*(corporate) entrepreneurship is to a large extent what management is about*" (Vahlne and Johanson, 2013:199), stressing that, according to the Jamesian theory of action, human action enhances the reduction of Knightian uncertainty, and manages to change the current state, due to an in-built will that, when combined with experiential knowledge (path dependency), triggers innovation processes and emerging changes.

The MBE evolution model (Vahlne and Johanson, 2013; Vahlne and Johanson, 2017) interplays state and change variables (Figure 7) and explains how the MBE evolves as a network of relationships in a continuously dynamic interaction process with other actors, given the firm current´s network position, DCs, exogenous knowledge inputs (depending on absorptive capacity) and internal commitment decisions regarding the firm management strategy.

Figure 11 – *The Uppsala Model of MBE Evolution*



Source: Vahlne and Johanson (2013)

The inter-organizational processes (change variable) operates in a direct dependency of knowledge learned (social capital) and new knowledge created (intellectual capital) through a social exchange process with other parties that impacts future knowledge acquisition, therefore influencing the forthcoming decision-making processes, and redundantly, the upcoming inter-organizational processes and environment perceptions. However, the state variables describe the current status of the firm at a certain moment (the degree of internationalization, capabilities, trust and commitment for and from network partners, and finally, the network power-dependence relationship with other members).

The upper left-hand box of the Uppsala model that was adjusted to the HQ–subsidiary issue (Vahlne and Johanson, 2012) was replaced in the MBE model, giving place to dynamic capabilities and operational capabilities, and moreover, the model gave room to the theory of organizational path dependence (Teece *et al.*, 1997; Sydow *et al.*, 2009) due to historical organizational learning. The

role of the firm towards the opportunities identification is also amended from a passive search mode (Schweizer *et al.*, 2010) or sense of alertness, to an active posture to explore contingential contexts. In a dynamic and evolutionary process, operating in both directions, network-positioning (lower left-hand box) conditions learning and commitment, and subsequently the purpose of improving efficiency and promoting growth, but in turn, the last affects the management of uncertainty. Likewise, capabilities (upper left-hand box) also condition commitment (C) which the authors describe as the sum of tangible and intangible investments.

$$Ci = \sum (Ti + Ii) \qquad (6)$$

The authors state moreover that the size of tangible commitment (STC) or tangible investment as a combination of volume (VC) and degree (DC) of tangible commitment.

$$\Delta\, STCi = (VCi * DCi) \qquad (7)$$

The DCs comprise three different categories: opportunity development capability (to identify opportunities and underlying mobilization of resources), internationalization capability (to approach different markets and locations) and the ability to coordinate relationships in a network context. Vahlne and Johanson (2013) also assert commitment decisions lead to new decision-making dynamics and enhance knowledge development processes. They share the view that learning is a cumulative process, of transferring tacit or explicit knowledge to others members of the firm, through a mechanism of search, imitation, of internationalization and dissemination.

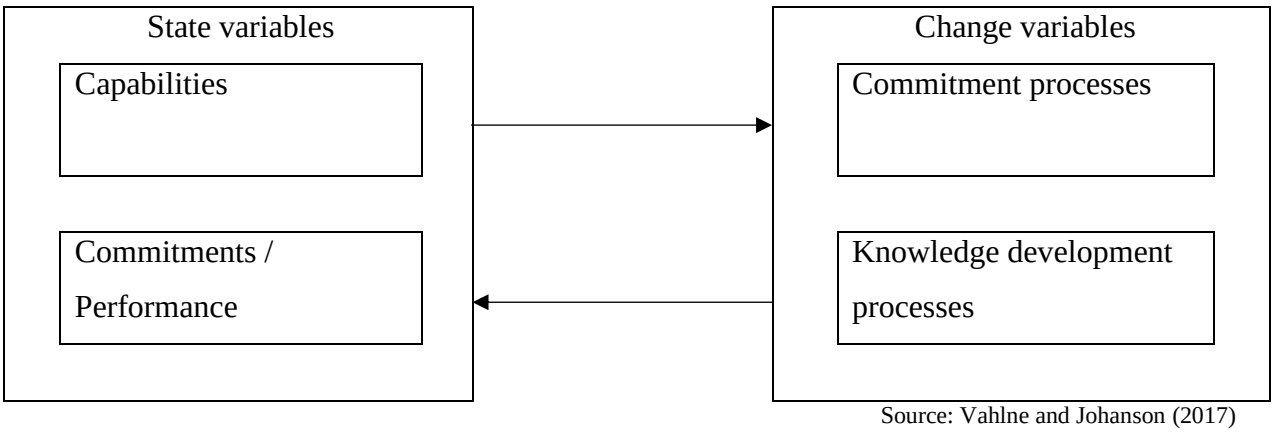
As a final point, it is noted the effort of the researchers to keep the model parsimonious and maintain the structural representativeness of the original U-model and other subsequent versions is noted. In fact, the MBE evolution model, contains four variables, including the two change and the two state variables. However, the data structure that is represented graphically in the model does not demonstrate the multi-relational completeness among variables, neglecting the mediating role of the influential variable on the influenced variable, and vice-versa. As a result, intra and inter variable relationships are partially displayed and not consistent with theoretical alignment.

2.1.2.2.7. The General Model of Evolution of the MBE

The *General Model of Evolution of the MBE* focuses on the field of strategy evolution intending to portray the evolvement of the international firm from early steps abroad to a global firm (GF) breadth

(Vahlne and Johanson, 2017). The model is set upon the Pitelis and Teece (2011) concept of MBE and it opposes to the MNE/MNC (Bartlett and Goshall, 1990). The MBE diverges from the MNE/MNC since the MBEs are claimed to be the modern firms of process-orientation rather than structure-orientation; network players instead of solo players, exchanging businesses rather than production, with inherent pro-activity and entrepreneurship (not passivity) and the governance is heterarchical (not hierarchical). The focal model has roots on the previous framework refered at the latter subsection (Vahlne withand Joahnson, 2013) claiming that the capability-creation processes as generators of MBE capabilities of firm-specific advantages. The model attempts to integrate two different views (processes and content) as two intertwined dimensions of the strategy evolution, anchored on the process ontology then discussed. The model values the process-based view over the economic-based view of the multinational activity since, the latter only allow the comprehension efficiency properties of discrete decisions and resources combinations, while the the process view evaluates the interaction of decisions at micro level (individual firm), mille-micro level (individuals and sub-groups within the organization) and resources recombination over time, being therefore more consistent with longitudinal studies of the resource-based and capability-based views of MBEs (Barney, 1986, 1991, cited in Vahlne and Johanson, 2017).

Figure 12 – *The general model of evolution of Multinational Business Enterprise (MBE)*



Source: Vahlne and Johanson (2017)

Despite being process-centric the latter archetype reinforces the holistic view of the original Uppsala model to the explanation of the firm internationalization and MBE evolution and augments the theoretical perspective of the latter model (Figure 12). It is argued a clear heterarchical (descentralized) organizational structural approach aligned with the governance typology of

descentralized federation of European MNCs, though making the apology of the transnational global strategies positioning the networks as pivotal and the markets as interdependent (Bartlett and Goshall, 1990). The model immerses entirely into the capability-creation/building and its process view on the one hand towards the leveraging of market commitment through the subsets of reconfiguration and coordination (of commitment processes), and on the other through the knowledge development process, consider the historical dependencies of the firm and centered on governance efficiency and economies of scale (Vahlne and Johanson, 2017).

At the end of this section we would like to make a remark upon the casino model of internationalization as a contemporary alternative framework attempting to balance two opposing microeconomic-level perspectives along the continuum of internationalization decision-making stances: the U-model (the risk avoidance gradualistic perspective of internationalization) and the BG firm (the risk taking rapid international expansion) (Håkanson and Kappen, 2017). The casino model postulates an alternative approach on the theoretical fields of behavioral economics and internationalization theory to illuminate the decision-making patterns of practitioners at the corporate scope of the organizations. Using a cox proportional hazard model to empirically analyse longitudinal data of past internationalization decisions of four companies with diverse economic activities the model advocates that the internationalization decisions are contigent to the resource-bases, structure configurations and activity knowledge. Commitment decisions account for both, market specific and general market attractiveness with regard to and the overall portfolio of countries of engagement or interest.

Sharing with the U-model the same etimology, the casino model contains vast resemblances to the first. We have not epitomized it as a descendent model of the Uppsala School since the authors of the casino model claim its function as an additional and complementary framework to the Uppsala and BG. Yet, its morphology uncovers a multi-tier process model of internationalization with three phases (agent phase, establishment of sales and subsequent production units coordination) with risk analysis and commitment decisions based upon market knowledge, which clear similarities with the basic mechanism of internationalization of the original Johanson and Vahlne´s (1977) state and changes variables of the Uppsala model. In parallel, it exhibits the adherence to other descending models of the Uppsala School, with relation to business networks and international venturing theories. The casino model data analysis, findings and conclusions may be criticized for the thinness of its inductive contribution to the the internationalization theory as it does not enlarge at great extend the body of

theory in the field. Nevertheless, its approach reveals distinctive features from the U-model. First, the casino model´s rationale considers that the decisions of the firms account simultaneously for market-specific and general markets´ attractiveness, is grounded on empirical validity (despite the size and heterogeneity of the sample) and is congruent with the concepts of scarcity and validity in the taxonomies of Barney (1986) and Grant (2010) for testing resources and capabilities bundles with regard to relatedness to industry´s competition. Rooted in the RBT, the model recognizes the criticality of capabilization; however without referring explicitly to the seminal dynamic capabilities theory (DCT) and to its influence to industry´s competition as addressed in-depth in the next section. Although, the casino model suggests a wave-like pattern logic of internationalization for foreign establishments based on the tripartite contingency of resources availability, organizational structure and activity knowledge. A last mention to the logic of waves of the model that does not establish an adequate bridge to the organizational theory despite acknowledging structure variances among firms and idiosyncratic characteristics and interculturality and cross-cultural management issues. Thus, the model requires further grounding, on RBT/DCT and organizational theory (namely organizational structure´s configurations and international coordination systems), cross-cultural theory and strategy theory (corporate and business-level strategy, cooperative and innovation strategies) in order to comprehend and contextualize the empirical testing of the model within a wider body of theory.

2.2. Organizational Capabilities (OCs)

2.2.1. The OCs and the U-Model

The strategy and internationalization-related literature widely recognizes the prominence of organizational capabilities (OC) as seminal factor conditions for the internationalization processes and their underlying international success of the firm (Bailie, Bowden and Meyer, 2013; Gassman and Keup, 2007; Prange and Verdier, 2011). The established link (internationalization - capabilities) arguing the virtues of capabilities (possession and usage) in the (industry) competition triggered the exploration of the capability-related theories. Therefore, in subsection 2.2. Dynamic Capabilities View (DCV) we explore the realm of the OCs (within the RBT - resource-based theory), focusing on a specific subset of OCs, the dynamic capabilities (DCs) as prior studies advocate these as a prerogative for attaining long-term/sustainable competitive advantages (Barney, 1986, 1991; Collis,

1994; Teece *et al.*, 1997; Thomas and Pollock, 1999; Audia, Locke and Smith, 2000; Zahra and George, 2002;Wang and Ahmed, 2007).

In the aforementioned subsection, we began with an etymological approach to the foundations of OCs. Thus, a contextualization of the topic was undertaken within the resource-based view (RBV) focusing on the DCs and particularly on those leveraged internationally as global dynamic capabilities (GDCs) (Griffith and Harvey, 2001; Luo, 2001; Madhok and Osegowitsch, 2000). Additionally, we explore conceptualizations to disclose the evolvement of this research field, the configuration of its capabilities, and the deployment of its processes, which comprise functional and geographical mobility, international transferability and mutability characteristics - between headquarters (H) and subsidiaries (S). Likewise, we address the capabilisation process and capability-building strategies of the firms, unveiling empirical studies (and evidences) of DCs and GDCs. As the comprehension of the morphological composition of the capabilities determines the illumination of its international trajectories (and their role), the configuration of capabilities encompasses aspects such as the hierarchies, categories, properties and allows for the reflection upon intra-capability commonalities.

It is noteworthy to mention the ambidexterian relation between international processes and capabilities deployment. The latter influences and is influenced by the first, and moreover, blend as capability-building strategies are combined with internationalization strategies, generating (second-order and third-order) dynamic internationalization capabilities (Teece, 2016; Beer, 2013; Prange and Verdier, 2011). Here it is compelling to return to the U-model due to its decisive contribution for the clarification of its dyadic relation brcause the U-model is an upholder of the capability-building strategies in international business context since the basic mechanism of internationalization by Johanson and Vahlne (1977) where the marketing capabilities evoked by Prange and Verdier (2011) are ancestrally advocated for (or more recently, the entrepreneurial capabilities, equivalent to the organizational capital construct in economic theory) (Teece, 2016; Schweizer et al., 2010; Prescott and Visscher, 1980). Most specifically, the market knowledge (MK) capability, which assumes a central position in the original model. The U-model draws attention to this dyad, and introduces remarks concerning the capability-building process, which are embodied in three seminal constructs, core-rigidity, path dependency and absorptive capacity, as addressed in the subsection 2.1. *The Uppsala Model (U-model)*. First, this model considers the importance of the interfaces of a firm with the overseas environments, and the internal dynamism to accommodate internally leveraged or

externally leveraged new or adaptive competences, as a process and outcome of attaining social and intellectual capital. Complementarily, refers to the risk of the core-competences focus, turning into a static behavior pattern, which can lead to institutional isomorphism, where the core-competences may transform into core-rigidities, frozen in time and consequently, lacking adequacy and utility to sustain the focal host-markets (Leonard-Barton, 1992; Prahalad and Hamel, 1990; Grant, 2010). Second,this model considers that the capabilisation process begins not in current time, been previously determined by the route that the company crossed until the present that built its identity. Therefore, that path molded the bundle of capabilities, and the current capabilisation process depends on the historical evolvement of the firm, comprised in the path dependency concept (Zahra and George, 2002; Kraatz and Zajac, 2001). Finally, the absorptive capacity of the firm, accounts for the promptitude to cope with the incoming flow of stimuli to be individually apprehended and systematized across the organization, and materialized into organizational learning. In this sense, the constructs rooted in the Uppsala model, abortive capacity and organizational learning are capabilities themselves that determine the capability building strategies, which the University of Uppsala foresaw in advance, and which the empirical studies since presented on the DCV corroborate (Wang and Ahmed, 2007; Weewardena et al., 2007).

2.2.2. The Dynamic Capabilities View (DCV)

The emerging changing patterns in international competition (Porter, 1986a), and the proliferation of contemporary accelerated modes of international entrepreneurship and venturing are acknowledged, as global start-ups (Oviatt, McDougall and Loper, 1995), born-globals (Gabrielsson *et al.,* 2008) and gazelles firms (Acs and Mueller, 2008). The effects of economic globalization (Held *et al.*, 2000) and market dynamics – hyper-competition and hyper-velocity (Grifith and Harvey, 2001) is a topic that defy the firm´s cognitive and managerial abilities (Nielsen, 2006) as a business quandary requiring a state of awareness and preparation to deal with such imperative challenges. So the fundamental question that the organizations ought to raise themselves is, which competences should hold to face the market´s behaviour and dynamics, and subsequently, how to establish and manage these competences. A primary assumption shall be set forth. Proprietorship of resources and capabilities is beneficial (whether local, regional or global), conferring a competitive tools package in international markets that issuppoted by several scholars, ensuring a correlation of organizational resources and capabilities with superior rent-generation and financial fruition (Zahra and George, 2002),

deployment of performance (Audia, Locke and Smith, 2000), and obtainment of competitive advantage (Wang and Ahmed, 2007; Eisenhardt and Martin, 2000; Thomas and Pollock, 1999; Teece *et al.*, 1997; Barney, 1991, 1986). The latter is justified due to its VRI characteristics (McGrath, MacMillan and Venkatraman, 1995; Cardeal and António, 2012) of resources, processes, assets and capabilities conferring a unique source of competitive advantage. Furthermore, some authors advocate for dynamic capabilities (e.g. Teece, Pisano and Shuen, 1997; Eisenhardt and Martin, 2000) as the sub-set of organizational capabilities generators of long-lasting competitive advantage in global market competition (Cepeda and Vera, 2007).

Our research is based on two major areas: organizational resources and international competition. Under these categories, we explore, the organizational resources/capabilities theory and international competition theory. We revisited the resource-based view (RBV) and proceeded to the dynamic capabilities view (DCV) one that is pointed as the ultimate source of sustainable competitive advantage. In parallel, we applied the most frequently cited internationalization model of the Swedish school, from Uppsala University, known as the Uppsala model (U-model) as an observational platform for DCs (Forsgren, Holm and Johanson, 2015; Oviatt and McDougall, 1994; Andersen, 1993). Following the lead of the RBV we followed the Penrosian and Barney´s role in the U-model as theoretical grounding for the dynamic capabilities view (DCV) and, specifically, for the design of the Teecian seminal definition. We reviewed the etymology of the DCV since its RBV roots, exposed the myriad of DC definitions in the bibliometric analysis of DiStefano, Peteraf and Verona (2014) and identified the two main streams in the literature of Teece, Pisano and Shuen, (1997) and Eisenhardt and Martin (2000) familiarly knowned as TPS and EM, to build our theoretical underpinning, following the TPS reasoning for continuing our research. We identified commonalities, hierarchization and deployment in the DC literature, and proceeded to the revision of evidence of transnational mobility of DCs as a testimony to prior empirical research on the existence of transferability of DCs, and the applicability of DCs in multiple markets, so that they can be classifiable as global dynamic capabilities (GDCs). Simultaneously, we analysed the U-model to examine the applicability of GDC**s**. Therefore we looked into the basic mechanism of internationalization of both the initial U-model (Johanson and Vahlne, 1977), and further descending models of the Uppsala school, such as, the model of industrial markets (Johanson and Mattson, 1988), the business network model (Johanson and Vahlne, 2009), the entrepreneurial process model (Schweizer *et al.*, 2010), the globalization process model (Vahlne *et al.*, 2011), the Uppsala adjusted model for HQ management of subsidiaries (Vahlne *et al.*, 2012), and the model for multinational

business enterprise (MBE) evolution (Vahlne *et al.*, 2013). Through the cross-analysis of DCV/U-model, we realized that, despite the growing attention to this field as, materialized in an increasing number of publications, empirical research on DCs at the firm-level is still scarce and the field lacks scales of measurement for DC observation. Given this background, the research of Helfat and Peteraf (2009) add a contribution to the advancement of this area of investigation, while focusing on the development of metrics. However, the field of GDCs remains fairly unexplored, and sensitive aspects of DC trans-nationalization lack attention, so building up GDC theory is dependent on the development of further research in the topics of cross-cultural and intercultural settings, ecosystems and national comparative positioning, and DC features such as mobility, transferability and mutability. Our study clearly points out two gaps in the DCV. The first is related to the development of metric tools for the development of empirical research (on measurement scales and levels of observance), and the second, on theory building, particularly, GDC theory, while research into the processes of the international mobility of DCs remain unexplored. Despite that many commonalities are highlighted in the DCV literature, such as flexibility, mobility, transferability and mutability; however, the comprehension of the occurrence of those features and their morphological changes continues to remain unmapped. Finally our study while bridging DCV/U-model pinpoints GDCs in the U-model, and reveals, a capability-based model strategy that is diversified and intensified over the descendant models.

2.2.2.1. The Micro-foundations of Dynamic Capabilities (DCs)

One particular focus on dynamic capabilities research appears to meet in a group of seven (the most) influential theoretical perspectives in this field: (i) the resource-based view; (ii) the knowledge-based view; (iii) the behavioral theory; (iv) the evolutionary economics; (v) the network theory; (vi) the transaction cost economics; and (vii) the positioning view (DiStefano, Peteraf and Verona, 2014). Although, there is perceived a bifurcated dominance of the evolutionary economics accompanied uniquely by the resource-based theory revealing "preferences regarding the most promising theories for developing the dynamic capabilities construct further" (DiStefano, Peteraf and Verona, 2014: 311). With foundations built upon the resource-based view (RBV) of the firm (Peteraf, 1993; Barney, 1986, 1991; Wernerfelt, 1984; Penrose, 1959), as described below, the notion of dynamic capabilities (hereafter DC), considered the ultimate source of competitive advantage, has been catapulted to the forefront of strategy research (Cepeda and Vera, 2007), while the theorization about the dynamic

capabilities view (DCV) seems to extend and revitalize the organizational capabilities research (Wang and Ahmed, 2007; Teece, Pisano and Shuen, 2007; Eisenhardt and Martin, 2000; Cepeda and Vera, 2007), establishing itself as the touchstone of firm-based performance-focused theory (Arend and Bromiley, 2009). The resource-based theory, grounded on the Ricardian and evolutionary economics (Helfat and Peteraf, 2009), aims to explain how firms achieve and sustain competitive advantage based on resources (possession/control) and capabilities (capacities to deploy the performance of the firm) (Audia, Locke and Smith, 2000), advocating the idiosyncratic and difficult-to-imitate resources, processes, assets and capabilities as the source of competitive advantage, (Wang and Ahmed, 2007; Eisenhardt and Martins, 2000; Thomas and Pollock, 1999; Teece et al., 1997; Barney, 1986, 1991). Despite its significance, the RBV gathered some criticism, as the resources are static (and dependent on market inertia and tautological, being deterministic of competitive advantage, without clarifying the mechanism of transforming resource-advantage into competitive advantage (Priem and Butler, 2001; Barney, 2001; Eisenhardt and Martin, 2000; Williamson, 1999; Mosakowski and McKelvey, 1997). Thus, resource-based theory fails to address, environmental changes, market dynamism and firm evolution over time, due to its simplified strategic analysis, which is based on the immobility of product markets and the immutability of the demand (Wang and Ahmed, 2007). The dynamics of change and the path-dependent evolution of resources and capabilities are central concerns of contemporary strategic management (Pettus, Kor and Mahoney, 2009), and the DCV aims to comprehend their role in the sustainable capture and maintenance competitive advantage of the firm (Teece, 2007), as the most central and difficult question in strategy research (Cheng and Jaw, 2009; Helfat and Peteraf, 2009), while addressing wide threads rooted in organizational and behavioral theory, comprising the managerial decision-making, routines and processes, and organizational learning and growth (Helfat and Peteraf, 2009; Teece, 2007; Zollo and Winter, 2002).

Some scholars endeavoured to integrate both conceptualizations (RBV-DCV) considering the evolutionary nature of resources and capabilities (Zahra and George, 2002; Makadok, 2001; Eisenhardt and Martin, 2000; Helfat, 1997; Teece Pisano and Shuen, 1997). The RBV emphasizes that the competitive advantage is characterized by resources and capabilities that cannot be easily imitated or substituted, and therefore, are valuable and rent-generating assets, while the DCV pinpoints the management of a firm´s capabilities for attaining a sustainable competitive advantage for changing ecosystems (Lawson and Samson, 2001; Amit and Schoemaker, 1993; Hamel and Prahalad, 1994; Barney, 1986, 1991). Pro-integrationists postulate the complementarity of RBV-DCV is based upon a common research ground, spanning market competitiveness and the business

environment. Both perspectives address competitive differentiation and market dynamism issues. In this sense, early definitions of dynamic capabilities, were considered prescriptive of RBV limitations, as a remedy to the business competitiveness of rapidly changing markets, hypercompetitive (or next-generation competitive) and high-velocity environments (Teece and Pisano, 1994). The rationale is that resources ownership, per se does not adequately explain the sustainable competitiveness advantage, at unstable and unpredictable environments, even holding VRIN (valuable, rare, inimitable, and non-substitutable) attributes. Firms are dependent on their own adaptive changing features (organizational structure, and firm dynamism) to produce competence-generating strategic processes (McGrath, MacMillan and Venkatraman, 1995) and adjust to the competitive environment. Complementarily, a recent study asserts that the firm´s organizational ("O") resources of VRIO (valuable, rare, inimitable, organization) core-features, originates VRI capabilities (contradicting the inertia of institutional capabilities advocated by Lieberman and Montgomery (1988). In contrast, same authors emphasize that current VRI capabilities, are dynamic capabilities in themselves which do not require a VRIO resources to persevere in a certain environment (Cardeal and António, 2012). In summary, long-lasting competitive advantage through VRI+N/VRI+O resource possession, is conditioned to low efficiency markets, which is akin to low market dynamism and change. Henceforth, in a dynamic market's environment, VRIN/VRIO resources are not durable and therefore are not a source of sustainable competitive advantage since that role is transferred to the dynamic capabilities, as suitable competences to Schumpeterian regimes of rapid change (Lee, Lee and Rho, 2002).

2.2.2.2 Dynamic capabilities: Main critics and open-questions

Significant contributions were made to the advancement of the DC theory, mostly regarding its conceptualization, nature, morphological characterization, and symbiotic relationships and thresholds. Hence, the hermeneutical and positivistic approaches of some authors focused rather on extending the knowledge of the DC features and commonalities, as follows: typology (strategic/operational), mobility (global/non-global), hierarchy (dynamic and operational), activity-level (incremental, renewing and regenerative), internal processes (reconfiguration, leveraging, learning and integration) (Wang and Ahmed, 2007; Ambrosini, Bowman and Collier, 2007; Cepeda and Vera, 2007; Zahra, Sapienza and Davidsson, 2006;Winter, 2003; Bowman and Ambrosini, 2003;

Danneels, 2002; Collis, 1994), and practicalities, as innovation capability (Lawson and Samson, 2001), entrepreneurial capability (Arthurs and Busenitz, 2006; Weewardena et al., 2007), learning capability, networking capability and marketing capability (Weewardena et al., 2007), adaptive, absorptive and innovative capability (Wang and Ahmed, 2007), and R&D capability (Rothaermel and Hess, 2007). Nonetheless, a lack of consensus seems to exist regarding the circumscription of the definition of dynamic capabilities. Thereby it is perceived the criticality of the emergence of a universal agreement on the construct for the advancement and enlargement of the scope of research.

In parallel, some criticism emerges regarding its contribution and practical implications. The main critiques and open-questions were related to construct utility and meaning (Winter, 2003; DiStefano, Peteraf and Verona, 2010); teleological stance (Arend and Bromiley, 2009); literary immaturity (Ambrosini, Bowman and Collier, 2009; Cepeda and Vera, 2007; Priem and Butler, 2001; Williamson 1999); inconsistencies in DCV theory (Zahra, Sapienza and Davidsson, 2006); lack of empirical grounding (Williamson, 1999); disconnected findings (Wang and Ahmed, 2007); lack of empirical research at the firm-level (Wang and Ahmed, 2007) and empirical research of longitudinal time series data (Arend and Bromiley, 2009). Furthermore, it is considered an abstract and intractable conceptualization (Daneels, 2008) and an "elusive black box" (Pavlou and Sawy, 2011:239) with the following features: tautology (Priem and Butler, 2001); prescriptivism (Teece, Pisano and Shuen, 1997); idiosyncrasy (Wheeler, 2002); volatility/mutability, enhanced by geographical location) (Cepeda and Vera, 2007), dependency (on the firm´s absorptive capacity, historical path, and business environment´s geographical location (Dierickx and Cool, 1989; Teece, Pisano and Shuen, 1997; Ambrosini, Bowman and Collier, 2009; Eisenhardt and Martin, 2000; Deed, DeCarolis and Coombs, 1999), complexity and tacticity (Dierickx and Cool, 1989); ambiguity (Williamson, 1999), and opacity – difficult to observe/hidden or invisible (Simonin, 1999; Itami, 1987). Other authors pinpoint that the core rigidities of the DCs are related to changing resources value over time (Lawson and Samson, 2001), and they question their role in sustaining competitive advantage, advocating that DC does not guarantee organizational success or survival, creating uniquely indirect value (Zahra, Sapienza and Davidsson, 2006), without producing goods or provisions (Helfat and Peteraf, 2003). It is also comprehended one dichotomous position (enabler vs. outcome) towards sustainable competitive advantage (Helfat and Peteraf, 2009), is also understood, and the indefiniteness of which DC theory contributes to the company's performance (Lawson and Samson, 2001), due to the breadth, interdisciplinarity and complexity of the issues addressed (Helfat and Peteraf, 2009), covers most of the main areas of business administration - specifically, marketing, human resources management,

international management, operations management, information management, and entrepreneurship (Barreto, 2010) - being elusive, evasive and resistant to observation and measurement (Kraatz and Zajac, 2001). Yet, Arend and Bromiley (2009) emphasize the lack of coherent theoretical foundation of the DCV, unclear added-value to existing concepts, weak empirical support, unclear practical implications and lack of longitudinal time series data, being aligned with Zahra and George (2002) remarking that the lack of research about performance - as an outcome measurement of DC effectiveness. The negative side of path dependency is also highlighted as, hindering the creativity and improvisation while firm rely on organizational memory, as a knowledge base for future ventures (Moorman and Miner, 1998).

2.2.2.3. Conceptualization and Theoretical Framework

Reflecting on the DCV, and theorizing about DC as construct, some scholars perceived the phenomena of conceptual redundancy, and terminological heterogeneity, acknowledging in the literature some ambiguities, inconsistencies, contradictions, overlapping definitions, and misperceptions with other tangent conceptualizations (Easterby-Smith and Prieto, 2008; Cepeda and Vera, 2007; Zahra, Sapienza and Davidsson, 2006; Winter, 2003; Salvato, 2003; Thomas and Pollock, 1999). Furthermore, the DCV is criticized for the lack of coherent theoretical foundation, unclear added-value to existing concepts, weak empirical support and unclear practical implications (Arend and Bromiley (2009). In this manner, scholars allege that the theme is at a very early stage of literary ripeness, and empirical work is still scarce (Ambrosini, Bowman and Collier, 2009; Helfat and Peteraf, 2009; Cepeda and Vera, 2007; Priem and Butler, 2001; Williamson, 1999). Thus, the absence of a universal definition for dynamic capabilities is verified (DiStefano, Peteraf and Verona, 2010), and findings remain disconnected (Wang and Ahmed, 2007). Nevertheless, as the theoretical framework keeps evolving, more recent studies acknowledge a converging path that bridges different conceptualizations (Cepeda and Vera, 2007; Easterby-Smith and Prieto, 2008; DiStefano, Peteraf and Verona, 2010).

Reviewing the DCV literature from its foundations, and covering the most cited papers presented in recent bibliometric analysis (Di Stefano, Peteraf and Verona, 2010) and historiographic analysis (Peteraf, Di Stefano and Verona, 2013) and further contributions, Table 1 exhibits a chronological

evolvement of the DC definition, while Table 2 shows an inventory of the core features for an *ex post* cross-comparison and clarification of the construct.

Table 1 - *Chronology and Evolvement of the DC construct*

Author	Definition
Kogut and Zander (1992)	Organizational processes by which firms synthetize and acquire knowledge resources, and generate new applications for the resources
Pisano (1994); and adopted by Grant (1996)	Organizational and strategical routines by which managers acquire, integrate and recombine resources to generate new-value creating strategies
Teece and Pisano (1994); and adopted by Lawson and Samson (2001)	Subset of the competences/capabilities which allow the firm to create new products and processes, and respond to changing market circumstances
Teece, Pisano and Shuen (1997); and adopted by Zahra and George (2002); Wheeler (2002); Zott (2003); Oliver and Holzinger (2008); Pavlou and Sawy (2011)	Firm´s ability to integrate, build and reconfigure internal and external competences to address rapid changing markets
Helfat (1997)	Subset of the competences/capabilities which allow the firm to create new products and processes and respond to changing market circumstances
Zollo and Winter (1999); and adopted by Rindova and Kotha (2001)	A learned pattern of collective activity through which the organization systematically generates and modifies its operational routines
Eisenhardt and Martin (2000); and adopted by Wheeler (2002); King and Tucci (2002); Blyler and Coff (2003); Weerawardena et al. (2007);	Organizational and strategic routines by which companies achieve new resource configuration, according to market dynamism
Griffith and Harvey (2001)	Creation of difficult-to-imitate combinations of resources
Edwards (2001)	Ability to sense opportunities and threats, to make timely decisions, to make oriented decisions, and change the firm resource-base
Luo (2001)	ability to create, deploy, and upgrade organizationally embedded and return-generating resources in pursuit of sustained competitive advantages
Lee, Lee and Rho (2002)	A newer source of competitive advantage in conceptualizing how firms are able to cope with environmental changes

Zollo and Winter (2002)	Learned and stable pattern of collective activity through which the organization systematically generates and modifies its operating routines in pursuit of improved effectiveness
Winter (2003)	Those (capabilities) that operate to extend, modify, or create ordinary capabilities
Jantunen *et al.* (2005)	Assets, processes and structures that enable them to sense and seize new opportunities and renew their asset base
López (2005)	Dynamic capabilities are complex high order organizational process, which provide adequate conditions for the modification and renewal of the firm´s stock of business assets
Zahra, Sapienza and Davidsson (2006)	Abilities to reconfigure a firm's resources and routines in the manner envisioned and deemed appropriate by its principal decision-maker(s)
Cepeda and Vera (2007)	Process to reconfigure a firm´s resources and operational routines, providing a change on how organizational members do things
Wang and Ahmed (2007)	Behavioural orientation to integrate, reconfigure, renew and recreate its resources, capabilities and upgrade and reconstruct its core capabilities in response to the changing environment to attain and sustain competitive advantage
Helfat *et al.* (2007); and adopted by Ambrosini, Bowman and Collier (2009)	The capacity of an organization to purposefully create, extend or modify its resource base
Barreto (2010)	The firm´s potential to systematically solve problems, formed by its propensity to sense opportunities and threats, to make timely and market-oriented decisions, and to change its resource base
Teece (2010)	The ability to sense and seize opportunities quickly and proficiently
Teece (2012)	Higher-level competences that determine the firm´s ability to integrate, build and reconfigure internal and external resources/competences to address, and possibly shape, rapidly changing business environments
Teece (2014)	Are undergired by processes (routines) and resources (positions) and rely not just on best practices but on signature practices, not just on any resources but on VRIN resources
Al-Aali and Teece (2014)	Higher-order capabilities that govern how the organization´s ordinary capabilities are developed, augmented, winnowed and combined.
Lessard, Teece and Leih (2016)	Adjustment and recombination of existing resources as well as the development of new ones

Source: Own elaboration

The perception of conceptual diversity surrounding DC seems to derive from its interdisciplinary nature within social sciences, and breadth and complexity of the topic, spanning the domains of strategy process and content, involving multiple levels of analysis, from managerial decision-processes, to organizational routines, to competitive interactions and environmental change (Helfat and Peteraf, 2009); thereby, generating the misperceptions, and semantic blurriness explained by the indiscriminate misuse of constructs and subsequently, leading to terminological heterogeneity.

Bringing together the DC conceptual diversity, we systematize the components and features of each definition for an ensuing systematic cross-analysis in an attempt to comprehend the academic stances of the cited authors, displaying their components to obtain an anchor definition for further research. Table 2 accounts for the elements contained in the various definitions, in order to register patterns, distinctiveness, similarities, and chronological evolvements. These were considered the papers with the highest number of citations in the field and the main theorists on DCV who either set the basis for DC theory development and/or are most commonly identified in the literature.

Table 2 – *Commonalities in DC definitions*

Authors	Commonalilities											
	A	As	Ac	C	Co	D	Ep	P	R	Ro	S	So
Kogut and Zander (1992)						√		√	√			
Pisano (1994)						√			√	√		
Teece and Pisano (1994)				√	√	√						
Grant (1996)						√			√	√		
Teece, Pisano and Shuen (1997)					√	√						
Helfat (1997)				√	√	√						
Eisenhardt and Martin (2000)						√			√	√		
Griffith and Harvey (2001)						√			√			
Zollo and Winter (1999)			√			√				√		
Edwards (2001)						√						
Luo (2001)	√					√			√			
Lee *et al.* (2002)						√						√
Zollo and Winter (2002)			√			√				√		
Winter (2003)			√			√						
Blyler and Coff (2003)						√			√	√		
Zott (2003)					√	√						
López (2005)						√		√				
Jantunen *et al.* (2005)		√				√		√			√	
Zahra, Sapienza, Davidsson (2006)	√					√			√	√		
Teece (2007)						√	√					
Wang and Ahmed (2007)				√		√	√	√	√			
Helfat et al. (2007)						√			√			
Cepeda and Vera (2007)						√			√	√		
Weerawardena et al. (2007)						√			√	√		

Ambrosini, Bowman, Collier (2009)				√				√		
Barreto (2010)				√	√					
Teece (2010)				√	√					
Teece (2012)			√	√	√					
Teece (2014)							√	√	√	
Al-Aali and Teece (2014)		√		√						
Lessard, Teece and Leih (2016)				√			√			

Source: Own elaboration

(A – Abilities; Ac- Activities; As – Assets; C - Capabilities; Co – Competences; D – Dynamism; Environment perception; P - Processes; R – Resources; Ro – Routines; S – Structures; So – Sources)

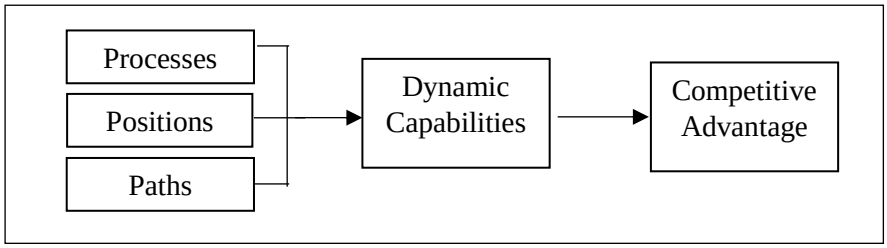
Two common features in total definitions presented in Table 2 are observed: it accounts the dynamic capabilities components (morphology) and activity - internal or market-oriented (behavior). The subliminal acceptance of dynamism while conceptualizing DC is unanimous among the theorists, in contrast to the heterogeneity of the proposals about the etymological composition, revealing a divergence at a morphological level when explaining the nature of the formation of a dynamic capability. The D (dynamism) and R (resources) are unifying characteristics, and the remaining components share different levels of acceptance. Ro (Routines) collects partial acceptance of numerous authors, occasionally being deprecated by P (Processes) while Ep (Environment perception) seems to be capturing growing interest in recent definitions (Teece, 2007; Ambrosini, Bowman and Collier, 2009; Barreto, 2010). Other components are more scarce (A – Abilities; As – Assets; C - Capabilities; Co – Competences; S – Structures; So – Sources).

With respect to the exposed definitions, two stand out, with far more citations at ISI Web of Science, as two clusters of authorship, which are seemingly complementary and mutually exclusive theoretical streams of literature, although being asserted as separate and contradictory visions - the Teecian (TPS) approach and Eisenhardtian (EM) approach (Peteraf, DiStefano and Verona, 2013). The first under the influence of the seminal paper of Teece, Pisano and Shuen (1997) focused on a firm´s sustainable competitive advantage in rapidly changing markets, and the second by Eisenhardt and Martin (2000), reconceptualizing its boundaries and mechanisms for enhancing market competitiveness at a high velocity and uncertain conditions.

We adopt the seminal definition of Teece, Pisano and Shuen (1997:516) "the firm´s ability to integrate, build and reconfigure internal and external competences to address rapidly changing environments" which is considered, the most influential in DC literature (Di Stefano, Peteraf and Verona, 2010), although embedding in the disagregation of capabilities of Teece (2007, 2010) on

sensing/shaping opportunities and threats, seizing opportunities (quickly and proficiently), and maintaining competitiveness through enhancing, combining, protecting and reconfiguring intangible and tangible assets. The TPS model of Teece, Pisano and Shuen (1997) explains competitive advantage through organizational and managerial processes, shaped by the positioning of assets and path availability (Figure 13).

Figure 13-*The TPS Model*

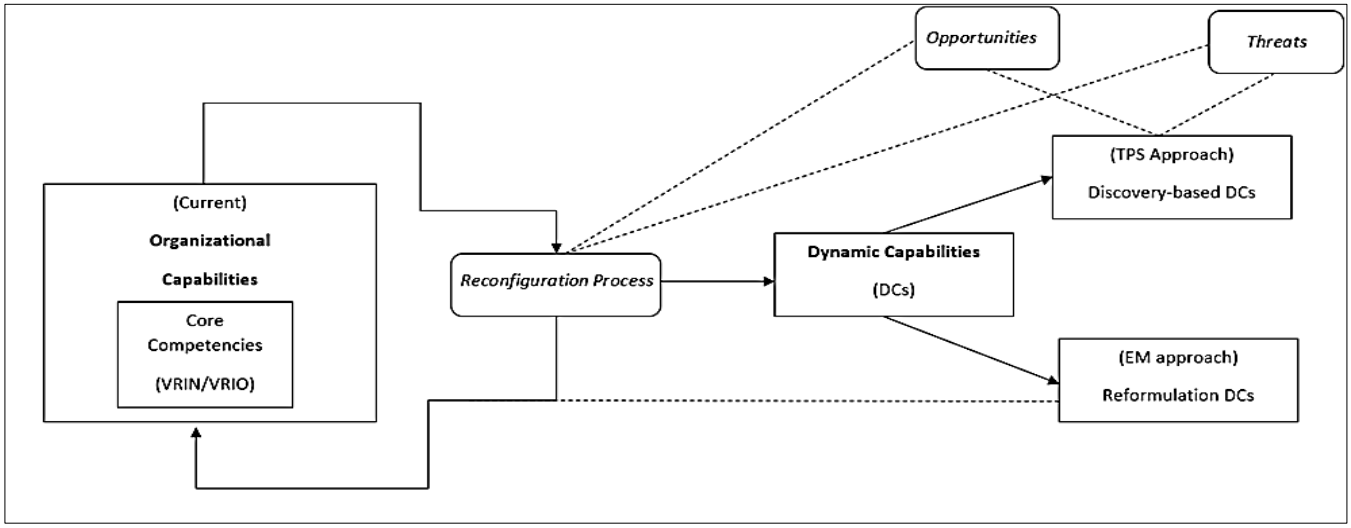


Source: Arend and Bromley (2009)

The aforementioned is a definition with a theoretical underpinning covering nature, role, context, creation, development, outcome and heterogeneity (Barreto, 2010), and its scope comprises DC components contained in other definitions. Rooted in the concept of core competency (Leonard-Barton, 1962; Hayes, Wheelwright and Clark, 1988; Prahalad and Hamel, 1990), similarly named as distinctive competency (Snow and Hrebiniak, 1980; Hitt and Ireland, 1985), the authors underpin that core competencies are enhanced through the combination of appropriate complementary assets. They argue that the existence of firm-specific assets are hardly imitable (i.e. resources), and they acknowledge the organizational and managerial processes, positions and paths, assuming an evolutionary economics perspective, while enunciating the role of routines, path dependencies and organizational learning. This definition focused on the external context of the firm, addressed market dynamism, and environment change issues, constituting an extension of the RBV towards rapid changing markets for attaining and sustaining a competitive advantage. Furthermore, the focal definition of Teece et al. (1997) is aligned with the notion of Kogut and and Zander (1992) of combinative capabilities in such as, the competences of the firm consist of sets of combined competences at any given moment, which may be changed into new applications, and altered the bundle of assets (resources). Yet it should be acknowledged that the complementarities in the TPS and EM approaches. The core intellectual structure of the TPS definition ascertains that the reconfiguration of organizational competencies, such as a DC. Symmetrically, the EM approach builds its underpinning upon the outcome of the reconfiguration process. Both subliminally recognise

that successful reconfiguration-based processes of organizational capabilities lead to DC formation (Figure 14).

Figure 14 – *The Reconfiguration Process: Converge of the TPS-EM in DC formation*



Source: Own elaboration

The TPS perspective outlooks a category of DC (type 1), underlying the reconfiguration capability itself. The EM perspective also acknowledges the reconfiguration design, though advocating that capabilities emerge from the reconfiguration process (DC type 2), through the instrumentalist practice of organizational and strategic routines. Likewise, the Teecian perspective accepts this DC - type 2, the renewal phenomenon and the new DC formation. Moreover, these follow a convergent path, as Teece (2010) acknowledges the Type 2 category of DCs of newly formed discovery-based DCs emerging from sensing and seizing new opportunities and threats. The DC type 2 seems to gather a dual etymology, a Teecian discovery-based, while the EM´s approach a reformulation-based. DC type 2 is a category that directs both conceptualizations to a convergent path. Our underlying assumption is that the TPS-EM approaches duality, arise as a result of symmetrical understanding of the process of reconfiguration of organizational capacities, which is itself a DC and leads to DC formation. Thus, it is adopted an ambidextra acceptance of the phenomenon explained in both theoretical underpinnings (Figure 2).

Nevertheless, a seminal difference is accounted for. While the TPS focusses on competences and dynamism, the EM sub-stream of the DCV is centered on routinization. Though, Wohlgemuth and Wenzel (2016) argue that both perspectives support routinization; however at different tiers: highly

routinized processes and reduced routinized processes. They claim that the EM assume routines as stable entities, which are susceptible to higher-level of routinization to reconfigure the lower-level capabilities (non-DCs).

2.2.2.4. Deploying and hierarchizing Dynamic Capabilities

The DC deployment is seen as a stochastic nature process for reconfiguration and renewal over time (Teece, Pisano and Shuen, 1997), and accumulation of capabilities (Dierickx and Cool, 1989). For comprehending the nature of dynamic capabilities and its boundaries, several authors explored the differentiation of dynamic and non-dynamic capabilities, and categorization of DCs, proposing that the typification of routines and process (Cepeda and Vera, 2007), which accordingly, to Teece, Pisano and Shuen´s (1997) definition, are devised as structural components included in the notion of core competences and lastly comprise the resource ownership as sets of tangible and intangible assets. Collis (1994) distinguishes (DC and non-DC) organizational capabilities according to their purposes, as first and second category capabilities. The first category (non-DCs) are the abilities related to the execution of basic functional activities (e.g. plant layout, distribution logistics, and marketing campaigns), while the second category it refers to the dynamic improvement of the activities. Thus, the first category (non-DCs) maintain the operationality of the firm´s activities and the organizational functionality, while the second category concerns the leveraging of dynamic changes on business development and management systems. In this sense, Zollo and Winter (2002) and Winter (2003) considered non-DCs the firm´s operational capabilities (zero order capabilities) geared towards operational functioning, including staff and line activities, and the DCs (first order activities) are those pursuing the modification and improvement of operational capabilities (OpC). The later, were also dually (and similarly) distinguished as ordinary capabilities and dynamic capabilities (Teece, 2014). The empirical study of Cepeda and Vera (2007) on 107 firms on IT and communications industry models separates the (non-DC) operational capabilities construct in five categories: regulatory, functional, cultural, positional and (knowledge-based) value creation capabilities and demonstrate a positive relationship between OpC-DC, evidencing a mediating effect (direct and partial) on DC formation and deployment, which is described as an evolution cycle (Zollo and Winter, 2002) of the pursuit of greater rents, whereby firms change their operational routines and upgrade existing DCs, through a four phases sequence of generative variation, internal selection, replication and retention. Similarly, Pavlou and El Sawy (2004) argue that deployment of dynamic capabilities

lead to the configuration of new functional competences, thereby, expanding the understanding of the scope and directionality of the relationships between OpC-DC, in accordance with Kogut and Zander (1992) who describe the changes in resources applicability, as a reconfiguration of the firm´s combinative capabilities. Further research on DC hierarchies comprising their formation and development reveal that the set of combinative capabilities may change, since a DC may evolve and/or be reformed by a new one. Ambrosini, Bowman and Collier (2009), suggest that the environment dynamism triggers the change capability, as the function of managerial perceptions of the need to change. The authors argue that changes in DCs vary from minor (incremental) to major (regenerative capabilities). Therefore, the authors propose the decomposition of the evolutionary process of a dynamic capability into two (motion-intensity) hierarchical levels, incremental and renewal, and introduce a third category, the regenerative. With incremental dynamic capabilities, the pace of change is slow and the adjustment of resources or improvements are limited. The renewal of dynamic capabilities "are utilized to sustain a stream in changing environments; they refresh and renew the nature of the resource stock, rather than incrementally adapt it" (Ambrosini, Bowman and Collier, 2009:14). These regenerative dynamic capabilities are required when the DCs are insufficient (even through transformation into renewing dynamic capabilities) and are likely to be deployed by firms perceiving a turbulent environment and where external changes are non-linear and discontinuous. This reasoning is implicitly based on the assumption that, the higher the change (scope and velocity), the larger the future architectural difference will be in the same dynamic capability. Thus, the authors argue that, an existing DC may evolve, or be exchanged. DCs are leveraged by external factors related to environment dynamism pressing to emergent change, while reconfiguring and/or recombining the resource base (Simon and Hitt, 2003). The reformulation of set of dynamic capabilities is externally dependent on market dynamism and, internally grounded in internal factors, as (the level of) change capability (Ambrosini, Bowman and Collier, 2009) and learning capability (Teece, Pisano and Shuen, 1997; Eisenhardt and Martin, 2000; Zollo and Winter, 2002). The learning mechanisms simultaneously comprise the passive experience accumulation and the deliberate cognitive processes of apprenticeship – knowledge articulation and codification, which are driven towards the reshaping of operational routines and the evolution of OC and DC, and are perceived as being second-order dynamic capabilities (Zollo and Winter, 2002). Thereafter, learning capabilities are subdivided into two categories, market-focused dynamic capabilities and internally-focused dynamic capabilities (Weerawardena et al., 2007:300). The first is characterized by the acquisition and dissemination of market information, and the second is characterized by the acquisition and

dissemination of technological and non-technological information produced within the firm. In parallel, the study of Zahra, Sapienza and Davidsson (2006) underpins that the organizational learning mechanisms are firm-specifically adjusted according to their intellectual foci and organizational type (new venturing or established corporation), while arguing that organizations have different requirements for capabilities.

The amalgamation of capabilities categorized in DC and non-DC, or OpC, seem to be further accompanied by the hybrid notion of substantive capabilities introduced by Zahra, Sapienza and Davidsson (2006:921), as "the ability to solve a problem", although they do not clarify whether its because of its morphology, rather than its operational functions are those fitting the category of an OC, or rather a subset of dynamic capabilities. Furthermore, this typification requires further comprehension of how substantive capabilities adjust the high-order dynamic capabilities, as the latest are perceived as "the ability to change the way the firm solves its problems". Problem-solving is a capability which may be addressed in an experiential/practical mode of operational functioning, as well as, as a cognitive process of knowledge articulation and codification at the DC level.

The hierarchization of DC, which is implicitly assumed in the literature as being a collective capability at the firm-level, is perceived also at the individual capability level as being largely unexplored (Eggers and Kaplan, 2013). Although Helfat and Peteraf (2015), based on the previous study of Adner and Helfat (2003) recognize the managerial cognitive capabilities of individuals with managerial-positions as an emerging topic in the literature on the microfoundations of DCs, pointing to DCs as being built, integrated and reconfigured. Those capabilities, either at the individual and/or collective-level, fit the four key-dynamic capabilities (reconfiguration, leveraging, integration and learning) of Ambrosini, Bowman and Collier (2007), acting to change a current dynamic capability, or a mix of DCs (combinative capabilities) as a change capability. The authors approach is noteworthy towards the leveraging capability, adding the underlying idea that a DC may have features such as, mobility and transferability at intra-firm level, between a Strategic Business Unit (SBU), although without explaining the directionality phenomena (single, bidirectional, multi-directional) and explaining whether the SBU concept comprises the headquarters (HQ), or if the DC suffers a partial or total mutability towards the destiny SBU, in the transference process (SBU1-SBU2 +…n; SBU1/HQ). In tandem with the DC development issue, we will later address the topic of firm-level mobility and intra-transferability. Mort and Weerawardena (2006) and Weerawardena et al. (2007), in a converging path with the internationalization and international competition literature, refer to the

existence of intra-individual/intra-collective capabilities (networking capabilities) interacting with marketing capabilities and a learning capabilities (the last are sub-categorized into market-focused learning capabilities and internally-focused learning capabilities) in a clear approach to the concept of global dynamic capabilities (GDC) through the study of born global (BG) organizations, as a subset of DCs. Although, it is critical to distinguish network capabilities (NC) and global dynamic capabilities (GDC) because their intervention in the strategic management field is quite distant. Both possess three essential ingredients: the capacity possession, deployment and the upgrading of features in their DNA (Luo, 2001). Although the NCs drive goes towards "the discovery of opportunities, to the testing of ideas, and to the garnering of resources for the formation of the new organizational structures" (Aldrich and Zimmer, 1986; in Weerawardena, and Mort, 2006) while the GDCs focus on the creation and preservation of resources with VRIN/VRIO features that are, difficult to imitate, promoting a firm´s competitive advantage, for replication in a global basis in response to high-competitive markets (Griffith and Harvey, 2001). In a complementary approach to the NC concept, Wang and Ahmed´s (2007) research asserts that a firm capitalizes on market opportunities according to its possession (level) of two other DCs - the adaptive capability and the absorptive capability. The first is defined as the ability to identify and capitalize on emerging market opportunities, and the second, relates to the ability to evaluate, and utilize outside knowledge, and recognize the value of the identified opportunity. These capabilities are corroborated by the definition of entrepreneurial capabilities of Arthurs and Busenitz (2006) who consider the identification of a new opportunity, and the subsequent investment in the enlargement of its resource base. Adaptive and absorptive capabilities are critical for international networking, and business development at multinational/global operations are needed as enhancers of competences, according to Teece et al.´s (1997) definition, permitting, respectively, the acquisition of direct market knowledge from the competing environment, and as network-players who demonstrate the ability to learn through their partners. The sphere of organizational capabilities also incorporates managerial capabilities (Helfat and Peteraf, 2015), R&D capabilities (Rothaermel and Hess, 2007), and innovation capabilities (Lawson and Samson, 2001).Those last two, underpin the key-role of cognition in the analysis of microfoundations of DC and are deployed in a triparty way - sensing, seizing and reconfiguring the DC components (Teece, 2007: 1319). These capabilities recall the importance of individual-level "managerial cognitive capabilities" as "the capacity of individual managers to perform mental activities" (Helfat and Peteraf, 2015: 832) at top-management, impacting on the enterprise level of sensing, seizing and reconfiguration capabilities, as an explaining variable of firm´s performance and

strategic change, and summarizing the impact of cognitive capabilities (e.g. reasoning, language, communication, and problem-solving) in asset orchestration. Agglomerating the DC typologies, Collis (1994: 148) argues that a firm may develop a superior capability (not a first or second-order capability; DC-Non-DC) that is "the capability to develop the capability to develop the capability", which enters a third category of meta-capability, where a DC acquires flexibility, a higher-velocity of development and mutability, becomes faster than competitors, is able to respond efficiently to radical and rapid change circumstances, The author states that the meta-physical strategic insights of those capabilities rely on the capacity to recognize the "intrinsic value of other resources or to develop novel strategies" (Collis, 1994:145). This phenomenon reveals the importance of the interaction of capabilities, first and second-order (Daneels, 2002), operational and dynamic (Zollo and Winter, 2002; Winter, 2003), named also as substantive and dynamic (Zahra, Sapienza and Davidsson, 2006), for deploying the current set of combinative capabilities (Ambrosini, Bowman and Collier, 2007), typified on individual and group capabilities, cognitive and managerial (Teece, 2007; Helfat and Peteraf, 2015).

As entered the theorization of DC (features, commonalities and deployment), and as we attempt to prevent the misleading reasoning and underlying assumption of a positive correlation between DC ownership/exploitation, and a firm´s success, the key-paradox of the contradiction pointed out by other scholars should be emphasized (Quin and Cameron, 1988). Capabilities may enhance, but simultaneously, inhibit a firm´s development. The Leonard-Barton´s (1992) empirical research pinpoints a correlation of capabilities possession (core-capabilities) and development practices, grounded in a knowledge system of four pillars: skills, technical systems, managerial systems and normative systems. Similar underpinning is followed by Mitchell (1989) who argues argues that industry-specific competences may lead to capabilities development. Contradictorily, Lieberman and Montgormer (1988) argue that institutional capabilities may lead to incumbent inertia in the face of environmental changes. Recent empirical research analyses the mediating effect of DC in a firm´s performance in technology-based companies (Wu, 2007) and the direct effect of DCs on firm performance and competitive advantage (and indirect effect through resource reconfiguration) (Helfat and Peteraf, 2007, 2009) the latter focused on the development of metrics (technical fitness and cost capability) to corroborate their reasoning, which was further applied by Hess and Rothaermel (2008). Recalling Teece´s (2007) role of cognition structures in DC deployment, and considering the path dependencies notion of Teece, Pisano and Shuen (1997:522), we may argue that despite the lack of general agreement of the interrelationship between the capabilities articulation and performance and

market competitiveness (although some industry-level studies confirm a positive interdependence pattern), it can be recognized that a firm´s historical path shapes its the managerial behaviour and governance (disregarding the polarity of casuistic change: positive or negative), including, marketing activities of value identification and developing attractiveness flows.

2.2.2.5 Global Dynamic Capabilities (GDCs)

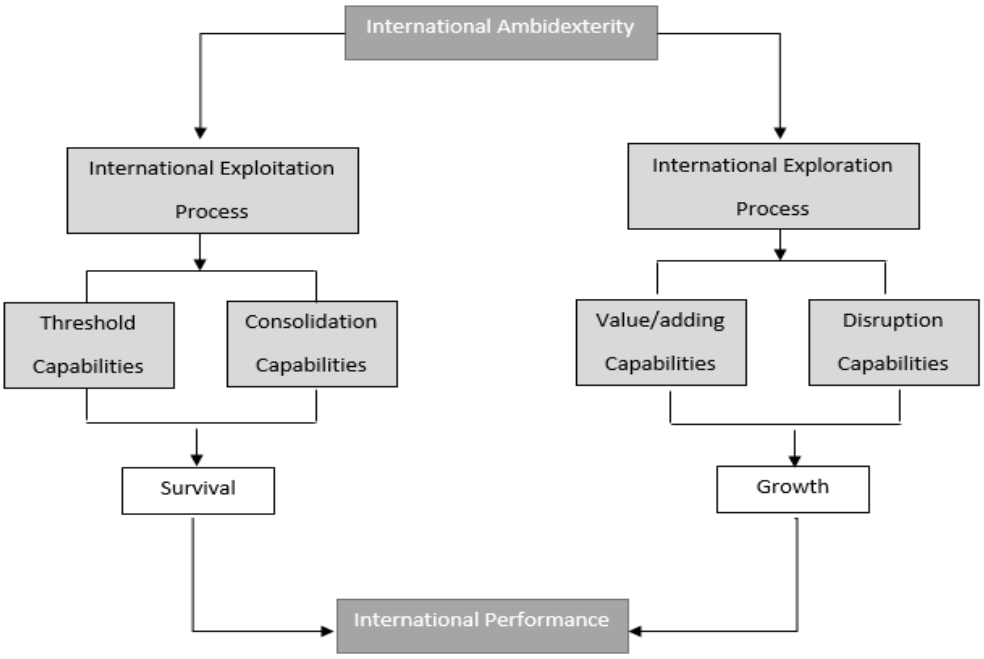
In the previous section the microfoundations of organizational capabilities were reviewed, along with the underpinnings of various scholars in this field. The deployment of commonalities and DCs were typified, categorized, and this hierarchizing revealed a Darwinian evolutionary cycle from the creation until reformation, crossing development and mutability. Gathering a plethora of theoretical and empirical studies we exposed dynamic capabilities such as, knowledge creation (Verona and Ravasi, 2003; Nielsen, 2006); knowledge recombination and knowledge usage (Nielsen, 2006), product development; strategic decision-making; alliance management; patching (Eisenhardt and Martin, 2000); organizational learning (Collins, 1994; Teece, Pisano and Shen, 1997; Buckley and Carter, 2002; Cepeda and Vera, 2007; Weewardena et al., 2007) and the usage of improvisation and creativity (Cepeda and Vera, 2007; Zahra, Sapienza and Davidsson, 2006). Other DCs were exposed such as, the coordination (of inter-organizational-relationships) (Griffith and Harvey, 2001) and exercise of power (in global relationships) (Oliver and Holzinger, 2008; Griffith and Harvey, 2001); absorptive capacity (Wang and Ahmed, 2007; Zahra and George, 2002); innovation (Wang and Ahmed, 2007; Verona and Ravasi, 2003; Lawson and Samson, 2001); IT processes and net-enablement (Wheeler, 2002); entrepreneurial capability (Arthurs and Busenitz, 2006; Weewardena et al., 2007; Teece, 2016); networking capability and marketing capability (Weewardena et al., 2007); adaptive, (Wang and Ahmed, 2007) and R&D capability (Rothaermel and Hess, 2007).

Prior research also postulates the pivotal role of DCs in the creation of new ventures (Newbert, 2005), discovering and exploiting opportunities (Hamel and Prahalad, 1994; Miller, 1983; Sathe, 2003; Davidsson, 2004) and facilitating successful entry and survival in international markets (Sapienza et al., 2006, in Zahra, Sapienza and Davidsson, 2006). Similarly with entrepreneurial capabilities (Dess et al. 2003) for which further studies posit the virtues of DC in the competition of foreign markets, such as creativity, R&D, and innovation capabilities. Zahra and George (2002: 262) argue that "firms that internationalize their operations in innovative and creative ways stand to achieve significant gains

that go beyond superior financial performance". Similarly, it is acknowledged that dynamic capabilities can be duplicated (Eisenhardt and Martin, 2000) and may evolve (Ambrosini, Bowman and Collier, 2009), to become mobilized and transferred (Wang and Ahmed, 2007; Madhok and Osegowitsch, 2000; Luo, 2001) within MNEs at a global scale (Weerawardena et al. (2007), adapting to environments characteristics (Griffith and Harvey, 2001) and mutating their characteristics (Wang and Ahmed, 2007) while transferring or adjusting the destiny market. Global DCs, are distinguished from general DCs; firstly, due to the diffusion process occurring at a wider geographical range, interplaying the organizational form and geographical flows as two key-aspects of the phenomena in various business environments (Madhok and Osegowitsch, 2000), and secondly, due to foreign entry barriers (Bain, 1956) and mobility barriers (Caves and Porter, 1977) that counter-play against the inner transferability traits. As a first-order capabilities, GDCs are foreseen as a set of abilities of the multinational enterprise (MNE) "…*to create, deploy, and upgrade organizationally embedded and return-generating resources in pursuit of sustained competitive advantages in the global marketplace*" (Luo, 2001:355), and as "*the creation of difficult-to-imitate combination of inter-organizational relationships on a global basis that can provide a firm competitive advantage*" (Griffith and Harvey, 2001:598). GDCs virtues comprehend the flexibility to transform and facilitate customization at each individual market, and the capacity to adapt, integrate and reconfigure internal and external (market-based) assets, while the assets provide the power basis for global competitive advantage (Griffith and Harvey, 2001). However, the critical role of individual-level capabilities should not be overlooked among a myriad of DCs, including the global ones, namely, the cognitive and managerial capabilities, as top-management plays a decisive role in a firm´s future direction, exercising the responsibility of taking internal strategic decisions on capability building (Eisenhardt and Zbaracki, 1992; Carpenter et al., 2001). Although the process of strategic decision-making is itself a dynamic capability (Eisenhardt and Martin, 2001), due to the waving effects of the output, as organizational routines and/or resources are transformed it into new future inputs (Makadok, 2001; Zack, 1999). Global dynamic capabilities are embedded in transnational exchange processes, grounded in network insidership, which in turn, enhance the firm´s power in its global relationships, enabling it to coordinate inter-organizational activities and respond rapidly, and flexibly to global competitors (Grifith and Harvey, 2001; Eisenhardt and Martin, 2000; Teece et al., 1997). Consecutively, GDCs are perceived as network power generators, providing the basis for developing strategies for a global competitive advantage. A deviating approach was followed by Lawson and Samson´s (2001) model. Instead of considering GDCs as any general DC (although with the ability

to operate at a transnational geographical range), the authors, postulate GDCs as a combinative capability (a set of DCs) with seven components: vision and strategy; a harnessing of the competence base; organizational intelligence; creativity and ideas management; organizational structure and systems; culture and climate, and technology management. Nevertheless, three of the components of Lawson and Samson´s model were previously identified by other scholars as being explicitly identified as dynamic capabilities with transnational geographical scope: managerial systems (Helfat and Peteraf, 2015), creativity (Cepeda and Vera, 2007; Zahra, Sapienza and Davidsson, 2006) and technology management (Wheeler, 2002). Therefore GDCs may be categorized, not merely as first-order, but second-order (Meta) capabilities (Collis, 1994), recalling that a second-order capability is a generator chain (a capability developing other capabilities, consequently leveraging third capabilities) (e.g. international networking; above refereed as global relationships), that consequently promotes new ones - e.g. organizational learning (Collins, 1994; Teece, Pisano and Shen, 1997; Buckley and Carter, 2002; Cepeda and Vera, 2007; Weewardena et al., 2007), knowledge recombination (Nielsen, 2006), patching (Eisenhardt and Martin, 2000), and/or of improvisation and creativity (Cepeda and Vera, 2007; Zahra, Sapienza and Davidsson, 2006). These second-order and third-order DCs, with regard to the GDCs, are identified in Figure 29 as dynamic internationalization capabilities (DICs) related to the internationalization process (Tallman and Fladmore-Lindqvist, 2002; Pranger and Verdier, 2011).

Figure 15 - *Second-Order and Third-Order DC of Internationalization*



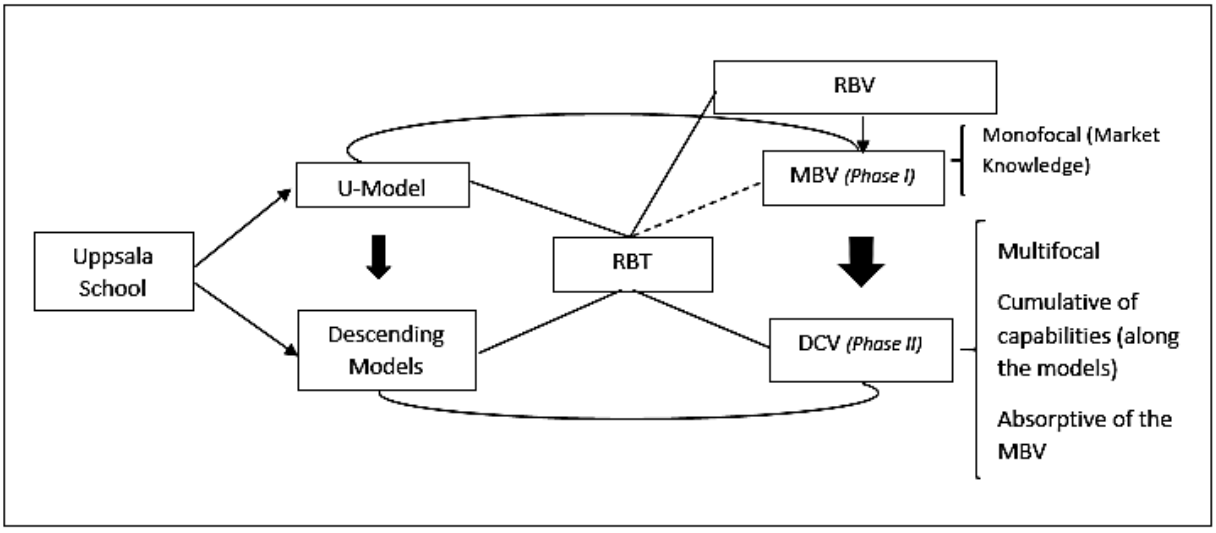
Source: Prange and Verdier (2011)

The DICs presented by Prange and Verdier (2011) are not representative of the whole panoply of GDCs, as these are merely centered on the marketing capabilities type regarding the internationalization process (Weewardena et al., 2007). Thus, the classification of second-order GDCs as threshold capabilities and consolidation capabilities (on the international exploitation process) and value-added capabilities and disruption capabilities (on the international exploration process), plus its recombination as third order capabilities (of international ambidexterity), is merely circumscribed to the clarification of the phenomena of growth and survival in overseas markets, neglecting the interface of the firm with strategy. Moreover, the strategic fitness process (SFP) to the external environment (Beer and Eisenstat, 2004; Beer (2013). Teece (2016:203) refers to the international ambidexterity phenomenon as "*encompassed within a larger framework known as dynamic capabilities that emphasizes the flexibility and adaptability of the organizations and their efforts to act strategically, embrace new opportunities, and even shape the business environment."* In this sense, we argue that the international ambidexterity (third-order capability) does not represent all of the GDCs and/or GDC properties and does not illuminate the GDC construct in *latum sensum*. Therefore, this research adopts (as an epistemological assumption) the GDC concept of Luo (2001) as indicated above.

2.2.2.6. Evolvement of the U-model towards the DCV

With reference to the internationalization theory, the empirical research of the Uppsala University (associated with Swedish corporations at foreign markets) had a primary design built upon four key-variables - status and change variables - recomending a model that contains a basic mechanism for internationalization (Hornell, Vahlne and Wiedersheim-Paul, 1972; Hornell, Vahlne, and Wiedersheim-Paul, 1973; Johanson and Wiedersheim-Paul, 1974; Johanson and Wiedersheim-Paul, 1975; Johanson and Vahlne, 1977), which is grounded in a capacity-based strategy (Sapienza et al., 2006). Its connection with the RBT is exhibited below in figures 16 and 17.

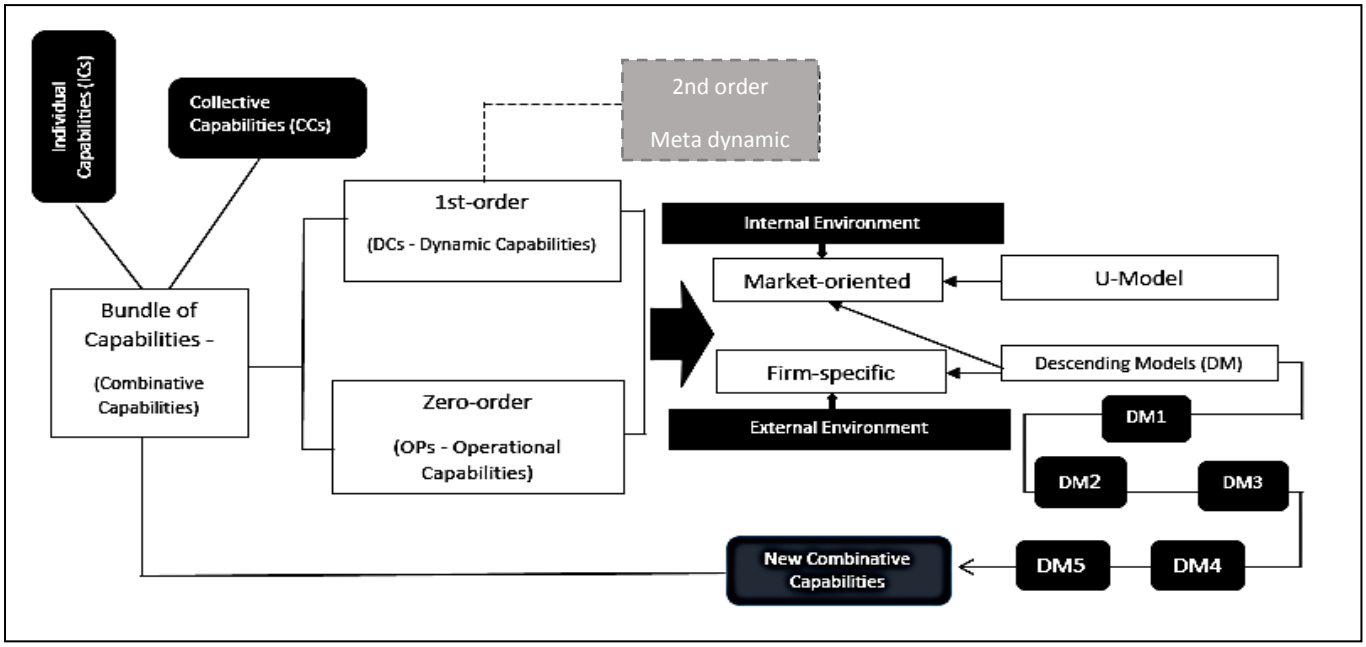
Figure 16 - *Uppsala School in the RBV: The evolvement from a MBV (marketing-based view) to a DCV (dynamic-capability view)*



Source: Own elaboration

Here is shown that the original U-model adopts a focus on standing, centered in the acquisition of an asset (market knowledge) that is consistent in the literature with the MBV within the RBV (Srivastava *et al.*, 1998; Griffith and Harvey, 2001). At this stage, the model is uniquely centered in external environment capabilities (Collins, 1994; Teece, Pisano and Shen, 1997; Buckley and Carter, 2002; Cepeda and Vera, 2007; Weewardena et al., 2007). As this model evolved, it became regarded as the requirement for exploiting outer capabilities, and, in a complementary way, the identification and exploration of a firm´s own capabilities; therefore strengthening and updating the set of combinative capabilities. The descending models have the virtue of complementing the previous ones acquiring from those capabilities that then became incorporated in the later theorization (Figure 17).

Figure 17 – *Uppsala School: A capability-centric approach*



Source: Own elaboration

As the descending models aggregate previous capabilities from either the U-Model and others DMs, first, an evolving positioning towards the capabilities within the firms to succeed in the internationalization can be demonstrated, and finally, a constructivistic approach towards the capabilities can be observed, which, in addition, as a shift between a MBV to a DCV, as portrayed in Figure 18.

Figure 18 – *Capability-constructivism towards the DCV*

Theorization	RBT Position	Focus	Organizational Capabilities (OCs)
U-Model	MBV	Market-orientation (external environment)	marketing capabilities (Weewardena et al., 2007); knowledge creation (Verona and Ravasi, 2003; Nielsen, 2006); knowledge recombination, knowledge usage (Nielsen, 2006)
Descending Models(DMs) The Business Internationalization Process Model	MBV	Market-orientation (external environment)	(OCs from the U-Model, and the following ones): learning capacity (Ambrosini, Bowman and Collier, 2007; Collins, 1994; Teece, Pisano and Shen, 1997; Buckley and Carter, 2002; Cepeda and Vera, 2007; Weewardena et al., 2007); absorptive capacity (Wang and Ahmed, 2007; Zahra and George, 2002); networking capability (Weewardena et al., 2007); alliance management (Eisenhardt and Martin, 2000); adaptive capability (Wang and Ahmed, 2007)
The Entrepreneurial Process Model	MBV	Market-orientation	(OCs from U-Model, from the previous DMs, and the following ones): entrepreneurial capability (Arthurs and Busenitz, 2006; Weewardena et al., 2007); improvisation

		(external environment)	(Cepeda and Vera, 2007; Zahra, Sapienza and Davidsson, 2006); patching (Eisenhardt and Martin, 2000)
The Globalization Process Model	MBV / DCV	Market-orientation (external environment) / Firm-specific (internal environment)	(OCs from U-Model, from the previous DMs, and the following ones): leveraging (Ambrosini, Bowman and Collier, 2007); patching (Eisenhardt and Martin, 2000); reconfiguration, leveraging, integration and learning (Ambrosini, Bowman and Collier, 2007)
The Uppsala model adjusted to the HQ - Subsidiary issue	DCV	Firm-specific (internal environment)	(OCs from U-Model, from the previous DMs, and the following ones): coordination (of inter-organizational-relationships) (Griffith and Harvey, 2001); managerial capabilities (Helfat and Peteraf, 2015); strategic decision-making (Eisenhardt and Martin, 2000)
The MBE Evolution Model	DCV	Firm-specific (internal environment)	(OCs from U-Model, from the previous DMs, and the following ones): exercise of power (in global relationships) (Oliver and Holzinger, 2008; Griffith and Harvey, 2001); reconfiguration, (Ambrosini, Bowman and Collier, 2007); innovation capabilities (Lawson and Samson, 2001; Wang and Ahmed, 2007; Verona and Ravasi, 2003; Lawson and Samson, 2001); IT processes and net-enablement (Wheeler, 2002) product development (Eisenhardt and Martin, 2000) R&D capabilities (Rothaermel and Hess, 2007)

Source: Own elaboration

In fact, the Uppsala of the internationalization process of a firm (hereafter typified as U-Model) is a theoretical framework of reference most frequently cited in literature within the field of strategy research, internationalization and foreign venturing (Forsgren, Holm and Johanson, 2015; Langhoff, 1997; Oviatt and McDougall, 1994; Andersen, 1993), and is deeply rooted in the RBV. In the original model, the main issues of knowledge (possession) is viewed as an asset, and markets are viewed as webs of relationships and organizational power. Thus, the original U-model may be argued as a capability-based internationalization model.

The starting point for developing a research design towards the U-Model was the intellectual acknowledgment of the limited knowledge of host countries´ environments, requiring experiential knowledge of their business and social contexts (Carlson, 1966). Thus, the U-Model´s outset, as a behavioral-based gradualist process model founded on marketing knowledge, relates a firm to business ecosystem, interplaying three factors: knowledge development, uncertainty perception and commitment (Forsgren, Holm and Johanson, 2015). It should be mentioned that the U-Model shares with the DCV a similar root on resource-based theory, building up the model on experiential

knowledge, a Penrosian concept with roots in the RBV. The knowledge ownership is regarded as a core-asset placed in the centre of the model, as is attested by the DCV as an organizational resource (Kogut and Zander, 1992), while the application of the resource, is comprehended as a dynamic capability, such as knowledge creation (Verona and Ravasi, 2003; Nielsen, 2006), knowledge recombination and knowledge usage (Nielsen, 2006). The initial design gathered some criticism due to its gradualist view. One incremental and design dependent on market learning is identified as being deterministic and path dependent (Weerawardena et al., 2007), lacking on the ability to respond entirely to the challenges of globalization and the accelerating technological development, while neglecting the existence of path-breaking strategies and the accelerated internationalization phenomena (Sullivan and Bauerschmidt, 1990; Melin, 1992; Anderson, 1993; Oviatt and McDougall, 1999; Madsen and Servais, 1997; Zahra et al., 2000; Moen and Servais, 2002). Yet, an evolvement of the Uppsala´s reasoning can be observed because it adjusts to market dynamism and a firm´s new competition modes. The U-model reveals a paradigm shift from a heuristic to a humanistic-view, which is reflected in descending models, as follows: the model of industrial markets (Johanson and Mattson, 1988), the business network model (Johanson and Vahlne, 2009), the entrepreneurial process model (Schweizer et al., 2010), the globalization process model (Vahlne et al., 2011), the Uppsala adjusted model for HQ management of subsidiaries (Vahlne et al., 2012), the model for multinational business enterprise (MBE) evolution (Vahlne et al., 2013), which The U-model (evolvement), thereby, preconizing a wider understanding of business complexity, acquiring a global mindset (Harvest, Kedia and Davis, 2000) which encompasses explicitly the rapid changing, hypercompetitive and high-velocity environments and dynamic capabilities view (Teece and Pisano, 1994). Examining the model under the scrutiny of the DCV approach, firstly, a design strategy, can be shown, respectively, related to the pursuit of its goals of (foreign) market entry and/or expansion. This model relies on an organizational management system which is capability-based with a central market-pulled asset (knowledge) claimed as the core competence in international competition in the focal market, that is triggered by dynamic capabilities described in DC literature as knowledge creation (Verona and Ravasi, 2003; Nielsen, 2006), knowledge usage and knowledge recombination (Nielsen, 2006), according to their applicability in a formation stage or changing stage (of regeneration or reformation). Although the possession of the previous capability, highlights others, intrinsically valued in the 1977 model, the marketing capability and the learning capacity (Collins, 1994; Teece, Pisano and Shen, 1997; Buckley and Carter, 2002; Cepeda and Vera, 2007; Weewardena et al., 2007). The latter is deeply empowered by the authors as a market-focused learning capability

while simultaneously underestimating its internally-focused counterpart (Weerawardena et al., 2007). In parallel, underlying the original U-model is the absorptive capacity of the firm (Wang and Ahmed, 2007; Zahra and George, 2002) to decode market intelligence, disseminating it through the firm to formulate adaptive activities through the practice of a third DC, the adaptive capability (Wang and Ahmed, 2007). Descending theorizations extend the necessity of DCs with the business network model (Johanson and Vahlne, 2009) integrating the networking capability (Weewardena et al., 2007), the entrepreneurial process model (Schweizer et al., 2010) to incorporate the entrepreneurial capability (Arthurs and Busenitz, 2006; Weewardena et al., 2007) as well as accepting the alternative forms of competition, as international new ventures (INVs) and born global (BG) firms. In addition, the latter defends that firms should hold an entrepreneurial alertness mindset for serendipity, thereby, revealing a tacit advocacy of the innovation capability (Wang and Ahmed, 2007; Verona and Ravasi, 2003; Lawson and Samson, 2001) and the R&D capability (Rothaermel and Hess, 2007). It may be argued that the networking capability implicitly covers the alliance management capability (Eisenhardt and Martin, 2000). The globalization process model (Vahlne et al., 2011), and the Uppsala adjusted model for headquarters (HQ) management of subsidiaries (S) (Vahlne et al., 2012), reveal an underlying coordination capability (Griffith and Harvey, 2001) applied to HQ-S global relationships and the exercise of the power capability (Oliver and Holzinger, 2008; Griffith and Harvey, 2001) within the internal network (of the global corporation) or external network (of affiliated agents) regarding network membership relationships, social exchange processes, common exploration and exploitation of opportunities, and shared resources. In those DCs the globalization process model´s multidimensional existence in various business ecosystems with a transnational geographical range is implicitly perceived as a global dynamic (Grifith and Harvey, 2001). In addition, the empirical research of King and Tucci (2002), exhibits a positive correlation between capability ownership and top-management decision-making processes towards foreign investment in a market entry phase. Another feature of the Uppsala model is the tacit observance of both, individual cognitive and managerial capabilities which is coincident with the stimuli of the behavioral theory of Cyert and March´s research (1963) and also, DC deployment through the reconfiguration of the current set of combinative capabilities. The model for multinational business enterprise (MBE) evolution of Vahlne et al. (2013) unveils vis-à-vis another DC, the absorptive capacity (Cohen and Levinthal, 1990) and gave room to o the theory of organizational path dependence - as a first-order capability (Teece et al., 1997) while addressing the issue of the apprenticeship of the firm, associated

with the practice of (combined) capabilities, such as entrepreneurship, marketing and learning capabilities.

As distinctive streams of the firm´s strategy research thar are derived from the organizational capabilities and international competitiveness fields, the DCV and the U-model share an etymological path to the RBV, and a similar interdisciplinary nature. The research seems to demonstrate that these bodies of theory share common practicalities, such as geographical range, the characteristic of the ecosystems (agents, relationships, dynamism, positioning and competition), and both seem to be dependent on the cognitive reasoning of the behavioral-based decisions of top-management. Although in the U-model GDCs nature and commonalities remain unexplored, as well as the formulation/regeneration of their combinative capabilities (Ambrosini, Bowman and Collier, 2007). Thus, we believe the U-model acknowledges the value of DCV development for comprehending corporate strategies in global markets, especially in high competition and low stability markets, that exploit the individual benefits of GDCs in the U-model, which account for singular GDC benefits, but with no particular interest in observing the combinative capabilities as a phenomenon establishing a general picture of DCs and intra-DCs interdependencies and relationships. Thus, the U-model may be described as neglecting the hierarchization of dynamic capabilities (first and second-order), disregarding meta-capabilities, and their Darwinian evolutionary process, changing features from HQ-S, and intra-subsidiaries, and overlooking the mobility, transferability and mutability process of DCs as a single DC and as a component of a combinative capability or set of capabilities.

2.3. Summary of literature review

As the IPPF phenomenon is at the epicenter of this research, we have initiated this thesis to expose the figures of internationalization in the transactional and investment mod, by looking at the official datasets of the country outward flows of international trade and FDI. In this sense, we have explored longitudinal primary data related to the GDP, net outflow of exports (and its relative weight on the previous), investment per markets and respective quotas, and overall data variations. The initial data which are disclosed opened horizons for the perception of seminal facts. Portuguese companies seem in general to be oriented towards host markets of high geographical proximity, or with which they maintain an historical and cultural bond. The initial readings done in the field of internationalization theory allowed us to identify the latter phenomenon as a construct known as psychic distance which

was widely studied by the University of Uppsala in a theoretical archetype named the Uppsala model (U-model). In addition, the archetype also considers the behavioral pattern of internationalization through geographical proximity, claiming that both share a similar root namely, the determination of these firms to avoid risk and uncertainty in the business environment, which is postulated as a gradualistic approach of incremental international commitment dependent on the understanding of the marketplaces through the possession of market knowledge. To this end, the literature review explored the original U-model and all its descending models until the MBE evolution model (Vahlne and Johanson, 2013) and its evolvement towards the global fim conceptualization (Vahlne and Johanson, 2017).

While depicting the internationalization theory centered on the evolving path of the U-model the central role of knowledge (at the state and change variables) in the decision-making of market commitment overseas was shown. Our initial literature search on knowledge captured numerous articles postulating the adherence to the dynamic capabilities view of the firm. Thus, this construct triggered the continuity of the literature research focused on the winding curve of the capabilities, the capabilities microfoundations, identifying dynamic capabilities (DCs) at previous empirical studies and comprehending their application in the international business ecosystems, and most specifically illuminating the patterns of the IPPF.

The literature review section proceeded to unpack the intricacies of the U-model and the DCT and, subsequently, their seminal and interrelated taxonomies. The cross-observation of these two bodies of theory from the distinctive theoretical fields (internationalization theory and resource-based theory) led us to the gathering of a bundle of theoretical concepts and frameworks, and to a critical reflection upon its thresholds, intersection points and to the extrapolation of some to the empirical part of the study. The literature review extracts some of its primary conceptualizations from each component (U-model and DCs) and the ones portrayed simultaneously at the U-model and DC theories, as addressed at the the subsection 2.2.2.6. *Evolvement of the U-model towards the DCV*.

In this context, this literature review on the U-model and on the resources and capabilities view has leveraged the comprehension of the IPPF which was triggered by the initial problematization, and then materialized (see chapter three methodology) in the identification of the research objectives and the research design. Moreover, it allowed the researcher to sift through the conceptualizations, filtering the further pursued ones and the abandoned ones during the empirical part of this study.

3. METHODOLOGY

This chapter encompasses the development of the empirical pathways of our research. Here, we further consider the initial problematization presented in chapter one, as well as the theoretical description of internationalization and resource-based theory. Moreover, these two aspects are focused specifically on the U-model since the problematization has identified traits ancestrally assigned to this model, which cumulatively places attention on the DCs. Both the U-model and the RBT are primary dimensions under (hermeneutical) analysis concerning the IPPF patterns, as discussed in chapters three and four.

In this methodology, the whole concepts addressed in chapters one and two are scrutinized to determine their prominence concerning how the IPPF can be understood, since a concepts is "*an approach to the process of the research encompassing a body of elements* which will determine the research paradigm. Thus, is a "*framework that guides how research should be conducted, based on people´s philosophies and their assumptions about the world and the nature of knowledge* (Collis and Hussey, 2014:10).

The conceptualizations addressed in this thesis have been selected through a sifting process where some have been discarded, and others have been reused and tested. However, this selection process has preserved the hermeneutical interdisciplinarity of those concepts and their underlying connection to the theoretical frameworks, and the concepts excluded from testing, will be in the future still referred to.

Analogously, the methodological chapter makes use of the representative models of these concepts and their taxonomic application, such as the U-Model and (the Teecian approach to) the DC phenomenon (TPS), which, as mentioned above, are two of the three dimensions analyzed in this study. The third dimension is the OP (Other paradigms) and comprises the remaining phenomena that have been identified and fit in other archetypal formulations.

This chapter contains eight sections, commencing with a general overview and then honing in on specificities. Firstly, the statement of the research objectives and their roots (subsection *3.1. Aims of the Research*, and *3.2. Rationale of the Investigation*, respectively) is presented. Second, these objectives are related to the philosophical foundations of science (in subsection *3.3. Philosophy of Science*). Thirdly, the research design (*3.4. Research design – Strategy and methods*) is described,

which encompasses the description of the research questions (RQ) and their underlying propositions (Pr) in response to the previous aims statement. Then, after unveiling the paradigmatic approach, specific aspects of the research design are explored, as business case research (*3.5. Case study research*), along with the issues of data collection and data exploration, to address the methods, sources, assumptions, typologies, and bias of the data (*3.6. Data Collection*). The ethics in research theme then follows (in *3.7. Research Ethics*) to explain the adherence to the code, style, and format. Furthermore, the applied referencing system will be identified, and exhibits the human participation and the subsequent agreement documents signed with all (see appendices 9 to 15). This chapter also addresses the linguistic issues of retroversion (Portuguese-English) and the subsequent proof-reading work by English native speaking academics required to eliminate issues of miscomprehension and bias in this research thar are due to culturally distinctive interpretations, directly connected to language differences. The chapter ends with subsection *3.8. Data Analysis Rationale*, which depicts the mechanisms for treating data; namely the data structuring framework of Miles and Huberman (1994), and the instruments for data codification - the Gioia framework (2009) and Weber protocol (1990). The collective outcome of the methodology is presented in chapter 4 where the data outputs and displaying formats are demonstrated after a previous manipulation of data.

3.1. Aims of the Research

For the purpose of our research, a general aim (referred bellow as Aim1 or A1) is related to the general understanding of the Portuguese firms´ internationalization process and their behavior in an international competition context, which can be summarized as follows:

> Aim 1 (A1): To comprehend the Portuguese firms´ internationalization patterns within the observed industry

The other aims (specific aims), consider the amalgamated of combining features composing the A1 that are associated with the part played by the (psychic) distance factors and the set of combinative capabilities (possessed and allocated to the foreign markets). These other aims can be further described as follows:

Aim 2 (A2): To observe the compliance with a psychic distance phenomenon

Aim 3 (A3): To perceive (the occurrence of) a capability-based internationalization strategy

Aim 4 (A4): To identify the first order organizational capabilities of the firms´ under analysis – their dynamic capabilities (DCs) – in the domestic markets

Aim 5 (A5): To analyze the international transferability of DCs/global dynamic capabilities (GDCs) from the domestic to foreign markets (where the firms operate)

Aim 6 (A6): to comprehend the mutability/reconfiguration process of a GDC (from the point of origin (PoO) to the point of destiny (PoD))

These aims (A1-A6) were formulated according to the background description, problem statement and the theoretical approach to the problematization. Their delimitations are therefore rooted in the researcher´s assumption that these are both feasible and suitable to conduct the investigation into the IPPFs.

3.2. Rationale of the investigation

The current research on the theme of the IPPF is triggered by an initial problematization regarding the perceived patterns of internationalization of the Portuguese economy both, at transactional and investment mode described at subsection 1.2. *Background and Problem Statement*. This phenomenon is revealed in two ways. Firstly, the corroborating secondary data evidences emphasizes the evidences, which is based on the official data-sets of national and international organizations. Secondly, the secondary data and primary data collected from the partaking firms research.is manipulated.

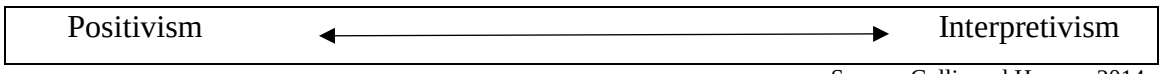
The research paradigm unveiled in the chapter is supported by the qualitative evidence gathering on the human behavior in the field (Belcher, 2009), and its primary design is dependent upon the description of its ontological and philosophical foundations, which are intrinsically related to the contribution of this investigation (as presented in the R*elevance, Singularity and Research Gap* section).

The development of our methodologic process critically relied upon an investigation into the philosophical assumptions and underlying typologies of the various views that social scientists hold, which is presented in subsection 3.3. *Philosophy of Science*.

3.3. Philosophy of Science

The research design is rooted in the philosophical framework that guides how the research should be conducted (Collis and Hussey, 2014), encompassing the two main approaches – positivism and interpretivism (Figure 19).

Figure 19 – *Continuum of paradigms*



Source: Collis and Hussey, 2014

These two main outlooks are identified as being two opposing points on a continuum (Figure 19 above) because they represent the philosophical polarities of thinking in the philosophy of science, although there are various paradigms in between them. Before addressing a wide-ranging view of paradigms, it is first relevant to clarify that our research adopts a broad sense approach to the paradigm construct (Kuhn, 1970) comprising the three paradigmatic levels (Morgan, 1979).

Table 3 –*Overview of paradigmatic levels*

Level	Description
Philosophical	Beliefs about the reality
Social	Guidelines to the researchers' endeavors on how to conduct his research
Technical	Application of methods and techniques.

Source: Morgan, 1979

Prior to the presentation of the research design, the philosophical assumptions grounding the two main paradigms are depicted due to their influence on the outcome of the research. The set of (organizational and/or individual) assumptions (Bryman and Bell, 2011; Gioia, Corley and Hamilton, 2013) comprise the following categories (of assumptions).

Table 4 - *Classification of philosophical assumptions*

Categories	Description
Ontological	Concerned with nature of the reality
Epistemological	Related with the acceptance of validity
Axiological	Regarding the researcher´s values
Rhetorical	Concerned with the language of the research
Continuum of paradigms	The distribution of the typology of thinking along the two main paradigms

Source: Collis and Hussey, 2014

Table 4 - *Classification of philosophical assumptions* illustrates the categories (of assumptions) that influence the discernment of the researcher. The first (ontological assumption) concerns the category of assumptions built upon the nature of the phenomenon under analysis, while the epistemological ones relate to the self-interpretation of the nature of the analyzed object. The axiological assumptions are the ones dependent on the cultural background of the researcher and his perception of the phenomena under study according to the system of values that orients his behaviour. The rhetorical assumptions is related with the use of language. The researcher argues peremptorily the avoidance of subjective writing comprised in the use of polysemic language to not distort the sources´ original designs. Moreover, the manipulation of primary data interprets language as a sign system where the participants deliver content (signified) which is codified according to existing seminal literature (signified), as explained in section 3.8.1. *Data Structuring*. The last category of assumptions are related to the perception of the distribution of the philosophical paradigmatic perspectives along the continuum of paradigms as shown in Figure 19 - *Continuum of Paradigms - Perspectives and Assumptions.* Here, the positivistic and interpretativistic paradigms are applicable to the theory of science by intermediate perspectives and models of thinking (Hirschman, 1986; Guba, 1990; Burrel and Morgan, 1994; Arbnor and Bjerke, 1997; Morgan and Smirchich, 1980).

Figure 20 – *Continuum of Paradigms - Perspectives and Assumptions*

Positivism						**Interpretivism**
(Arbnor and Bjerke, 1997)		Objective perspective	Mechanical perspective	Biological perspective	Self-organizing perspective	Value-added perspective	Social linguistic perspective
	Ontological assumption	Objective	Objective	Objective	Objective	Objective	Subjective
	Epistemological assumption	Objective	objective	Objective	Objective	Subjective	Subjective
	Research methods	Objective	Objective	Objective / Subjective	Subjective	Subjective	Subjective
	 *Analytical thinking*  *System thinking*  *Actor Thinking*						

(Bøgetoft Christensen, 1997)		Positivism		Neopositivism			Hermeneutic	Phenomenology
(Burrel and Morgan, 1994)		Functionalism				Radical structuralism	Radical humanism	Interpreting sociology
(Guba, 1990)		Positivism		Neopositivism		Critical theory	Constructivism	
(Hirschman, 1986)		Positivism (realism/objectivism)					Humanism (relativism /subjectivism)	
(Morgan and Smircich, 1980)	*Ontological assumption*	Reality as a concrete structure	Reality as a concrete process	Reality as a contextual field of information	Reality as a realm of symbolic discourse	Reality as a social construction	Reality as a projection of human imagination	
	Epistemological assumption	To construct a positivist science	To construct systems, process, change	To map contexts	To understand patterns of symbolic discourse	To understand how social reality is created	To obtain phenomenological insight revelation	
	Research methods	Experiments, surveys	Historical analysis	Interpretive contextual analysis	Symbolic analysis	Hermeneutics	Exploration of pure subjectivity	

Sources: Morgan and Smircich (1980); Hirschman (1986); Guba, 1990; Burrel and Morgan (1994); Arbnor and Bjerke (1997)

Figure 20 illustrates how the scholars grasp different understandings of the polarity of the continuum of paradigms, as two main approaches are advocated in literature. The first, a stricter outlook of the interpretivism construct, is considered to be a pole of sociological analysis of reality and its constructivism (Guba, 1990; Hirschman, 1986). Conversely, Morgan and Smircich (1980) and Arbnor and Bjerke (1994) have a wider comprehension of interpretivism. In the latter perspective, the hermeneutics fit the value-added perspective (and a systematic thinking mode), while pure interpretivism is reserved for phenomenological events purely on human imagination, which matches the actor thinking rationale. However, a hybrid and third option blends these previous ones, pulling to pure interpretative pole to the hermeneutical approach, while still considering this subset of phenomenology as extreme (Bøgetoft Christensen, 1997; Burrel and Morgan, 1994). The next subsection presents an overview of the ontology and epistemology.

3.3.1. Ontology and Epistemology

The current study is rooted in a set of organizational and individual assumptions and their inherent views about the wo types of paradigmatic assumptions: ontological and epistemological. The axiological and rhetorical are considered subtypes of the epistemological because of both, individual values and how language is used, are intrinsically related to this broader category (i.e. the epistemological assumption), which comprises the general perception of reality (including the individual values). Thus, the first category of assumptions, ontological, is related to how the business world is organized and implies the acceptance of its social construction, as well as, the belief that the participants (Pn) in the study are knowledgeable agents who are committed to describing their thoughts, intentions and actions according to their experiences and interpretations of the world. The second category of assumptions is the self-awareness of the researcher as a knowledgeable individual with the ability to perceive patterns in the collected data, enabling concepts to surface and relationships that may be formulated within theoretically relevant terms (Gioia, Corley and Hamilton, 2013). The axiological assumption is thoroughly addressed in the research ethics subsection. Herein, it is important to note that the rhetorical assumption is necessary to show that the researcher is aware of the importance of the avoidance of polysemic and idiomatic language that may bias or falsify the results (Hill and Hill, 2012) and cumulatively the technicalities of the *Saussurean* semiology (Shank, 1995).

The three (sub) categories of the aforementioned assumptions are intrinsically connected, so the acceptance of one within a particular paradigm influences the others as they are complementary (Collis and Hussey, 2014). Therefore, the combination of these ontological and the epistemological considerations are the research settings orienting this investigation towards the paradigm delimitation, one that considers the construct (paradigm) as a cluster of beliefs that orients scientists in a particular discipline towards what should be studied, how their research should be conducted, and how their results should be interpreted (Kuhn, 1979; in Bryman and Bell, 2011). Our research approach is exhibited in the Table 5.

Table 5 - *Paradigm delimitation*

Dimensions	Research Paradigm
Continuum´s polarity	Interpretivism/Constructivism
Paradigmatic stand	Neo-positivism
Paradigmatic rationale	System thinking
Paradigmatic outlook	Value-added perspective
Philosophical assumptions	Ontological: Social constructionism; and naturalistic approach to the phenomenon Epistemological: Participants are knowledgeable agents, committed to the explanation of reality (according to their experience and interpretation); researcher self-awareness as a knowledgeable individual; data-mining should not be the meaning system of the research Axiological: Basis of one´s own set of values and beliefs Rhetorical: Endeavor to attain an unbiased study, through the avoidance of polysemic and idiomatic language
Ontology of the phenomena	Objective: international markets of the firms Subjective: rationale for market commitment in those markets
Research methods	Subjective / hermeneutics
Observation	Objective; naturalistic; interactionism
Primary evidence(s)	Qualitative data
Researcher´s agents	Insider-researchers (firm´s participants); Outsider-researcher
Approach to theory development	Deductive

Source: Own elaboration

Yet, if the current research paradigm fits the quadrant of an interpretative paradigm (Burrell and Morgan, 1979), the ontology proclaimed above is objective (i.e. as international markets where the Portuguese firms under analysis are objectively observable). However, the rationale for entering these markets is therefore not acknowledged as being subjective. Thus, it may be claimed that the nature of this research is also subjective, which is in alignment with the Weber´s notion of *Verstehen* based on hermeneutical-phenomenological philosophical tradition and symbolic interactionism where the subjective reality is relativistic, and dependent on the researcher´s inductive reasoning for its social constructivism (Stokes, 2014) and researcher-participants may create or alter the symbolic order in

social interactions (Silverman, 1993). Taking this one step further, an alternative perspective can be constructed by blending the two aforementioned approaches that posits social constructivism as an *intersubjective* social construction of the world that is based on the shared meaning-making of the researcher and the participants (Warner and Karner, 2005).

The interpretivist stance is the epistemological foundation of this study, one which observes the world through an objective position to interpret social phenomena by examining how people´s thoughts and actions subjectively construct reality (Descombe, 2014). This approach builds on the straightforward assumption of social constructivism in which human understanding of information and events, is dependent upon grasping the nature of these phenomena through the establishment of a meaning system (Gioia and Chittipeddi, 1991; Miles, Huberman and Saldaña, 2014). Therefore, it may be argued as naturalistic (Saunders, Lewis and Thornhill, 2015) since the researcher operates within the natural setting of the observed reality to obtain thorough access to meanings and in-depth understanding of it through a close interaction with the study‘s participants.

Regarding the categorization of the typology of researchers in the investigation, a dual-researcher approach is employed (Glaser and Strauss, 1967) as it combines the insider-researcher stance (providing a bona fide insight of the partaking firms) with the objective analysis of the outsider-researcher (Evered and Louis, 1981; cited in Gioia and Chittipeddi, 1991). The insider-researcher is based on collaboration with key participants from the partaking firms, and the outsider-researcher role is comprised by the PhD candidate and his supervisory committee because the research design requires a dual-researcher approach for collecting informant-centric and researcher-centric content (Eisenhardt and Graebner, 2007), as thoroughly justified in the subsection 3.8.1. *Coding System*.

The interpretivist paradigm that was followed was guided by a deductive approach to theory development using empirical observation where particular instances were deduced from general inferences about the actual causal relations among the variables under investigation (Collis and Hussey, 2014; Denscombe, 2014).

3.3.2. Approach to theory development

This section acknowledges the researchers´ objectives and rationale (in sections 3.1. and 3.2.), which are further contextualized in the philosophical foundations of the theory of science (see section 3.3), fitting the interpretative paradigm quadrant (Burrell and Morgan, 1979) of subjectivity ontology and

interpretivist epistemology. This research paradigm aims to create an accurate model for observing reality to best orientate the researcher towards attaining the goals of this study. In parallel, with this aim, this research paradigm may constitute a logical model of proof at the researcher´s disposal to draw inferences about the reality related with causal relations between variables under investigation (Frankfort-Nachmias and Nachmias, 1996).

First, the classification of our research is comprise of four parameters, according to the basis of classification and type of research (Table 6)

Table 6 - *Classification of main types of research*

Basis of classification	Type of research
Logic of the research	Deductive or inductive
Process of the research	Quantitative or qualitative
Outcome of the research	Applied or basic research
Purpose of the research	Exploratory, descriptive, analytical or predictive

Source: Collis and Hussey (2014)

This section further describes the logic of the research, since it was adopted a deductive stance for this study (addressed summarily at the end of subsection 3.4.2. *Ontology and Epistemology*). Here, is illustrated further how our rationale relates to the process and purpose of the research (identified in the section 3.2. *Aims of the Research*). The outcome is an applied-research approach that applies its findings to solve an existing problem (presented in section 1.2. *Background and Problem Statement*) and to support the partaking firms with the adjustment of their governance policies and management practices under investigation (Collis and Hussey, 2014).

Our investigation is co-substantiated by a mono-method research approach that adopts a qualitative process. This qualitative research is defined as an interpretative, naturalistic and subjective approach that addresses questions about social reality in order to understand its origins and meanings, and characterized by being descriptive and focused on social constructivism (Denzin and Lincoln, 1994; Gephart, 2004).

Our qualitative research follows a combinative design of an exploratory study, a descriptive study, and an analytical/evaluative study because these combined studies are recommended for a qualitative mono-method choice for a deep comprehension of the phenomenon under study (Frankfort-Nachmias and Nachmias 1996; Collis and Hussey, 2014; Saunders, Lewis, and Thornhill, 2015).

This combinative design takes advantage of the three complementary purposes of the research. First the exploratory purpose that is conducted towards the research problem, and in a context where there

are few studies in the field. Thus, the aim here is to look into patterns and to develop an understanding of the observed phenomena, rather than merely test a hypothesis. The second, is the descriptive purpose that characterizes our specific propositions under analysis, exploring the first purpose. Finally, the analytical purpose uncovers and measures casual relationships among all three (Collis and Hussey, 2014).

Our preference for this research strategy is to fashion a combinative design that is a mono-method qualitative and intrinsically connected to our research aims (A1-A6) - with the aspiration to answer our research questions since our research strategy is a plan of action to achieve specific goals (Denscombe, 2014). Moreover, our choice of strategy is interconnected with the initial problematization that is grounded in the philosophical foundations of our study, which includes the combined methods employed. Furthermore, we considered how the research design critically influences the typology of our data collection and the quality of logical testing (Yin, 2009). Thus, the options for our research strategies for the chosen methodology, the in-depth case-study research, identifies the phenomena observed to obtain a thorough understanding of the real conditions being studied (Saunders, Lewis, and Thornhill, 2015).

The five mandatory components of a research design were not neglected in this study, which identifies: the research questions (RQ); the propositions (P); the units of analysis (UA), the explanation of the logic linking the data to these propositions; and the criteria for interpreting the findings, which will be described in later sections of this thesis (Yin, 2003).

3.4. Research design – Strategy and Methods

The five components of our research design (Yin, 2003) are presented as follows: the research questions (RQ) are identified in subsection 3.4.1, the propositions (P) in subsection 3.4.2., the units of analysis (UA) in the subsection 3.5.5.3, the explanatory logic linking the data to the propositions presented in the subsection 3.6. *Data collection*; and the criteria for interpreting the findings, which are addressed, cumulatively, in the subsections 3.7. *Research Ethics* and 3.8. *Data Analysis.*

3.4.1. Research Questions (RQs)

The questions bellow present an explicit statement about what is to be investigated, with their formulation being intrinsically linked to the subsection 3.1. *Aims of the Research.*

RQ1: What is the internationalization paradigm of Portuguese companies in the manufacturing industry?
RQ2: Are the firms under analysis compliant with a psychic distance phenomenon?
RQ3: Do the firms under analysis follow a capability-based international strategy?
RQ4: What are the 1st-order organizational capabilities (OC)/DCs of the firm under analysis in the domestic market?
RQ5: Which DCs were transferred, from the domestic market, to the foreign markets (where the firm operates) (GDCs)?
RQ6: Which mutability(ies)/reconfiguration processes suffer a GDC (from the point of origin - PoO - to the point of destiny - PoD)?

3.4.2. Propositions (Pr)

Below are a list of study´s propositions, which were created in order to test these reasoned statements under investigation (RQs). These RQs were created to facilitate our capacity to analyze the outcomes of our research goals, and furthermore to, orientate the conclusions of the QDA results and findings, with our primary research aims.

Proposition 1 (Pr1): The firm under analysis follows a pure gradualistic internationalization archetype comprised in the original U-model

Proposition 2 (Pr2): Psych distance factors constrain the internationalization strategy of the firm

Proposition 3 (Pr3): The firm follows a capability-based internationalization strategy

Proposition 4 (Pr4): The firm develops ordinary capabilities (OrC) and/or dynamic capabilities (DCs) in their domestic market

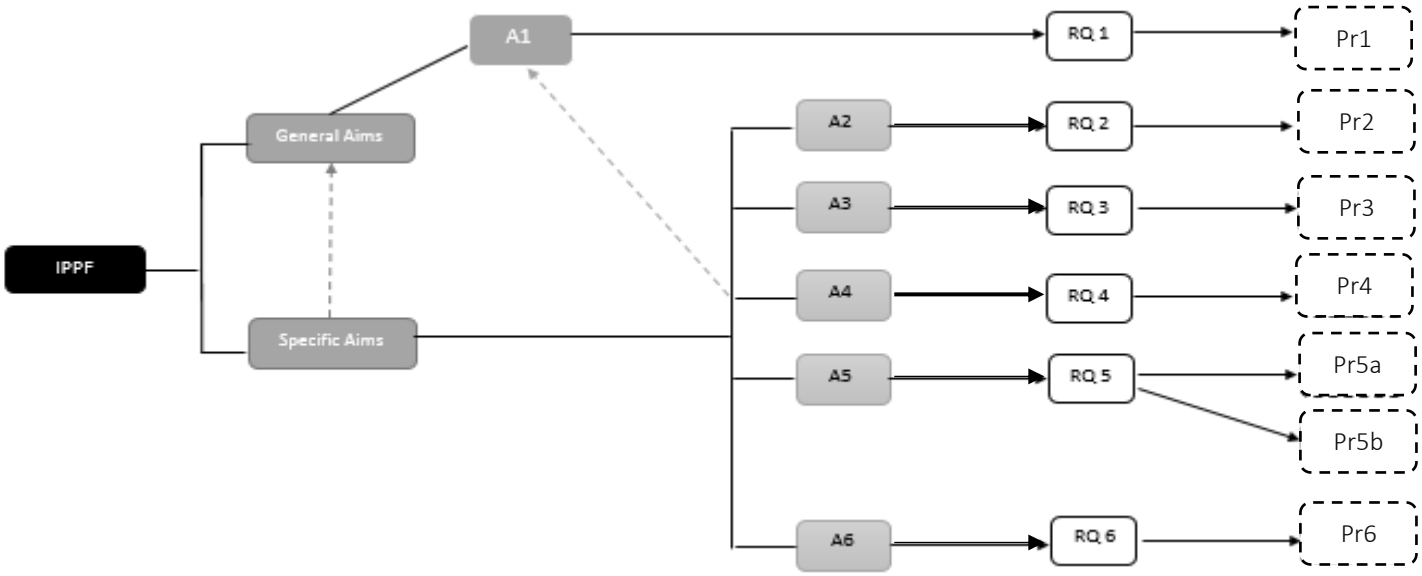
Proposition 5a (Pr5a): DCs are transferred to foreign markets where the firm operates

Proposition 5b (Pr5b): GDCs assume heterogeneous directionality patterns of integration

Proposition 6 (Pr6): A GDC suffers mutability/reconfiguration (from PoO to PoD)

These elements of the research design above (signified as RQ and Pr) are exhibited in Figure 21, subsection 4.2.2. *Empirical model – IPPF testing* and represented in a diagrammatic network, according to the methodological framework of Miles and Huberman (1984) within the data displays phase.

Figure 21 - *Research Paradigm of the IPPF*



Source: Own elaboration

(A1 – Internationalization patterns; A2 – Psych distance (PD); A3 - Capability-based strategy; A4 – Dynamic Capabilities (DCs); A5 – Global dynamic capabilities (GDCs) – transferability; A6 – GDCs – mutabilities)

Here, the relationships between aims, research questions (RQ) and propositions (Pr) are demonstrated in terms of their interrelations within the research paradigm. What can be noted is that A1 is addressed by RQ1, and tested by Pr1, A2 is addressed by RQ2 and tested by Pr2 and so forth. An exception exhists in A5, which is addressed by RQ5; however, this RQ is tested by Pr5a and by Pr5b. The A2 fits the U-model theorization while the A3-A6 relates to the DCV. The A1 comprises the U-model and the DCV and gives room for further developing a theoretical framework, as some phenomena of the IPPF observed in A1 might not fit entirely within aforementioned U-model and DC dimensions. Therefore, this research exposes three dimensions of analysis: a dimensions containing constructs

related with the U-model, a second dimensions related with the dynamic capabilities, and a third dimension of analysis that is releated to encompassing the observed phenomena without complying to the previous dimensions. These three dimensions of analysis are below refered to as UM (U-model), DC (dynamic capabilities) and OP (other paradigms).

The Pr5a focuses on the concept of the DC transferability (DC-T) – potencial or effective - to perform geographical mobility actions from a domestic market to other external markets. The Pr5b is related with the typology of transferability´s directionality (Td), while Pr6 on DC mutability (DCM). Thus, the concept of DC-T may be represented by the following algebraic expressions:

$$DC\text{-}T = (DC_{(PoO)} \,.\, m) \qquad (8)$$

Where PoO and PoD represent the point-of-origin and point-of-destiny and *m* represents the changes in place (*p*) and time (*t*) variables.

$$m = \sum (p \,.\, t) \qquad (9)$$

The Td concept considers the transferability options between headquarters (HQ) and Subsidiaries (S) regarding directionality (d): *d1 = HQ→S; d2 = S→HQ; and d3 = S1 →S(2, 3, 4, …)* representing the single directionality from a PoD (either HQ or S) to a PoD (either (HQ or S). Thus, a case-studied firm with one subsidiary only (s==1) has only maximum two directionality options (max-d=2; *d1 = HQ→S; d2 = S→HQ)* while a firm with two or more subsidiaries (s>1) may have three directionality options (max-d =3; *d1 = HQ→S; d2 = S→HQ; and d3 = S1 →S(2, 3, 4, …)).*
So we may argue that if *s > 1 => d⇔ 3; and s==1 => d⇔ 2)*

In this context we introduce the concept of capability maximum transferability (CMT) and individual capability maximum transferability (ICMT) represented by the following expressions:

$$ICMT_{(DCi)} = (DC_{(PoO)} \,.\, (m \,.\, d); \quad CMT_{(\sum DC)} = n(DC_{(PoO)} \,.\, (m \,.\, d) \qquad (9)$$

The variable n represents the number of DCs at the PoO.

The Pr6 focusses on the mutability of capabilities (DC-M) and therefore assumes the pre-existence of DCs at the PoO and recognizes the Teecian perspective on capability development. Here, we

advocate that companies reconfigure their DCs partially - simple reconfiguration (*r*) - or total reconfiguration - renewal (r_e) as intrinsic characteristics of mutability. In parallel, we consider that the mutability process may incorporate opportunity development (*o*) as addressed in the TPS perspective which recognizes the existence of DCs that we´ve identified as type 1 and type2 relatd with *r* and *o*. The DC-M is represented in the following algebraic expression:

$$DC\text{-}M = DC_{(PoO)} + \Delta\,(DC_{(PoD)}) \qquad (10)$$

Where, $\Delta\, DC_{(PoD)}$ and $DC_{(PoD)}$ are represented as follows:

$$\Delta\, DC_{(PoD)} = DC_{(PoD)} - \qquad (11)$$

$$DC_{(PoD)} = DC_{(PoO)} \,.\, (r \,.\, o) \qquad (12)$$

Alternatively, the DC-M may be represented as follows:

$$DC\text{-}M = DC_{(PoO)} + (DC_{(PoD)}\,(r \,.\, o) - DC_{(PoO)}) \qquad (12)$$

Regarding the DC-M, the capability maximum mutability (CMM) concept addresses the potential optimization of change regarding the firm´s ability to flexibilize their DCs within their bundle of combinative capabilities up to a maximum potential ability of total reconfiguration (renewal) as demonstrated below:

$$CMM_{(\sum Dc)} = n.\,\big((DC_{(PoO)} + (DC_{(PoD)}\,(r \,.\, o) - DC_{(PoO)})\big) \qquad (13)$$

3.5. Case Study Research

The case method has a heuristic etymology, a self-guided learning that employs analysis to support the researcher to draw conclusions (Ellet, 2007). Thus, this methodology adjusts to the aims of the research (and consecutively to the research problem), and the research design. Thus, the research

strategy fits the qualitative process, the deductive logic and the combinative research design (explorative, descriptive, and analytical).

This case study research focuses on "*understanding the dynamics present within single settings*" (Eisenhardt, 1989:534), and is posited as being a research strategy that entails the detailed and intensive analysis of one case, or more for comparative purposes (Bryman and Bell, 2011). Furthermore, we argue that this study can be best described "*an inquiry that investigates a contemporary phenomenon within its real life context, especially when the boundaries between phenomenon and context are not clearly evident*" (Yin, 2003:13).

The relevance of this approach is related to the capacity to bridge the richness of qualitative data to mainstream deductive research (Eisenhardt and Graebner, 2007), using retrospective and real-time cases (Leonard-Barton, 1990) in a theoretical sampling, either of single or multiple cases.

Thus, the methodological choice for this research strategy is related to its capacity to fit an interpretivist philosophical assertion, while allowing the development of an in-depth inquiry to a reflexive comprehension of the reality "*to identify what is happening and why, and perhaps to understand the effects of the situation and implication for action*" (Saunders, Lewis and Thornhill, 2015:185).

The research potential is recognized within single-case designs for exploring unusual revelatory, rareness, or extreme circumstances (Yin, 1994). However, in the current investigation a multiple-case design is applied. "*The choice is based less on the uniqueness of a given case, and more on the contribution to the theory development within the set of cases*" (Eisenhardt and Graebner, 2007:27), and because it enables a comparison of cases, the detection either of an idiosyncrasy (in a single-case) or consistency (replication) among several cases. Furthermore, the capacity of the multiple-case design is acknowledged to deliver a more robust theory, as it is supported in a larger body of empirical evidence that enables the determination of further accurate definitions and appropriate levels of construct abstraction. This multiple-case design also facilitates a broader exploration of research questions and theoretical elaboration, and therefore, significantly affcets the quality of the emergent theory (Eisenhardt, 1991).

While conducting multiple-testing we embraced a theoretical replication logic (Eisenhardt, 1989b) to address the research problem through the observation of the instances where the sampled firms (cases)

are similarly analyzed through an embedded approach of multiple units of analysis (within each firm), categorized as a Type 4 according to Yin´s (2009) basic types of designs for case studies.

A comparative design was applied to the multiple cases (Bryman and Bell, 2011) to the manufacturing industry, which used identical methods on the contrasting cases through an idiographic approach where the cases were selected to provide an in-depth comprehension of the observed reality and a representation of the population of the industry in the Portuguese business ecosystem.This case study also falls into the "*evaluation*" typology of case research, as described by Ellet (2007), where the evaluations *"express a judgment about the worth, value or effectiveness of a performance, act, or outcome."* (Ellet, 2007: 23).

The selection of the case-studies follows a typical instance (Denscombe, 2014) as the set of firms are homogeneously, and cumulatively, characterized by foreign investment internationalization, private equity ownership, headquarters settlement in Portugal (main land) and business competition in the manufacturing industry. Moreover, the selected firms, fit into the "*evaluations*" category of a case-study because the *"unit of analysis of an evaluation can be an individual, a group, a department, an entire organization, a country or a global region*." (Ellet, 2007: 23) Hence, this perspective should be advocated for because the accuracy of the information of the analytic generalizations of this investigation are dependent upon the extension of this study to other economic activities.

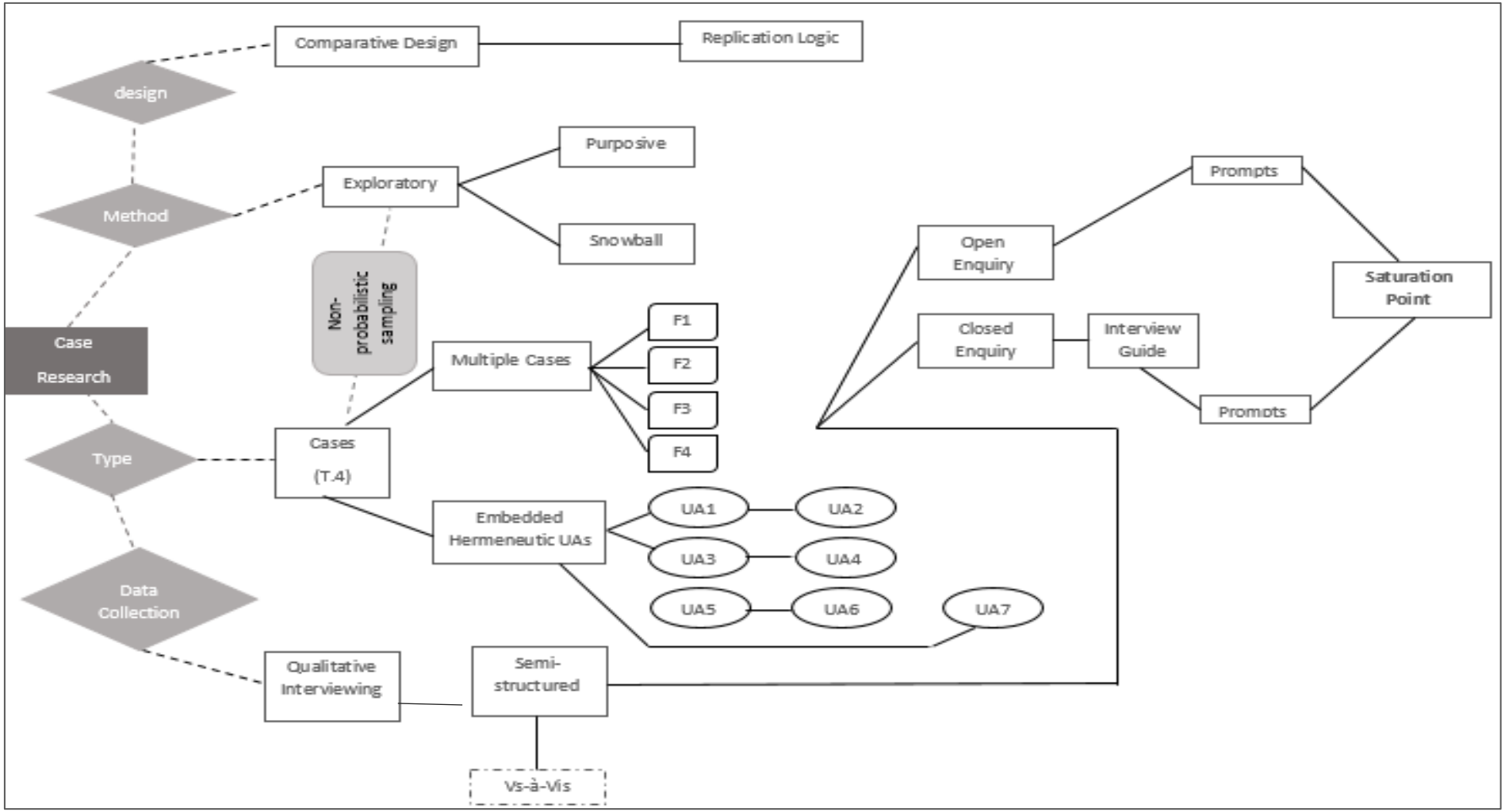
Four (4) firms participated in this investigation (as identified in the sub-section 3.5.2. *Sampling*) in which primary data was collected regarding their internationalization paradigms. At the same time, secondary data was also gathered from each entity, and cross-analyzed with the official data provided by AICEP concerning the outward flows of investment from the Portuguese economy.

Following an embedded approach, the four methodological contexts each are comprised of more than an hermeneutic unit of analysis. The research object of in these units of analysis is analogous, which is the vis-à-vis interview of an executive officer in headquarters (HQ) of the organization in order to allow the researcher to achieve the point of saturation (Glaser and Strauss, 1967; Strauss and Corbin, 1998; Mason, 2010; Myers, 2013) regarding the phenomena under analysis. The (primary) data collection followed non-probabilistic sampling methods, the purposive and snowball techniques, making use of an exploratory sample to gather our data (Miles, Huberman and Saldaña, 2014; Denscombe, 2014), as argued in the subsection 3.5.2.1. *Sampling approach, method and technique*.

It should be clarified that the obtained sample fits within the non-probabilistic sampling category. Herein, the sampling typology adopted is both, purposive and snowball. The first, the purposive sampling due to the adequacy of this typology to exploratory studies, and considering that this study intends to emerge into a exploratory and analytical reflection of the cases selected within the sample frame, in order to describe their paradigm of internationalization. However, the sample also fits the snowball technique as the selection of the cases and the formation of the sample were obtained through an escalated process that began with the selection of the first firm, which then led to the selection of the subsequent firm and so on and so forth.

The next figure summarizes the content of the case study research of the IPPF, through the description of its design, method, cases, and data collection.

Figure 22 - *Case research of the IPPF*

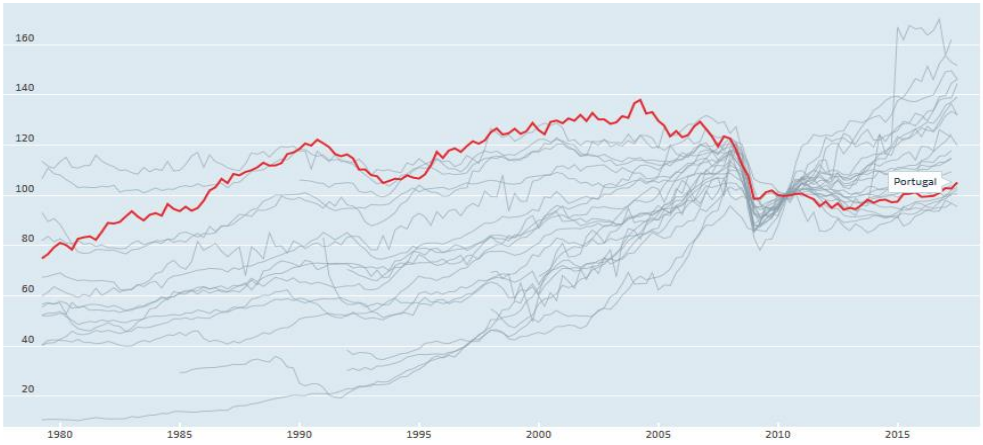


Source: Own elaboration

3.5.1. Research population

The observed universe or population, as the body collection of items under consideration (Collis and Hussey, 2014), is categorized according to the Statistics of Portugal (2007) in the standard industrial classification (SIC - revision 3) within the section C as affiliated to the manufacturing industries, which represents the population or universe of units under analysis (Bryman and Bell, 2011). The rationale for the focus on this typology of economic activity is the historical influence of the Portuguese industrial production activity on the aggregate of exports and outwards foreign investment.

Figure 23 – *Intra-EU industrial production comparison*



Source: OECD (2017)

The industrial production refers to the output of industrial establishments and covers sectors such as mining, manufacturing and public utilities (OECD, 2017). The industrial segment currently accounts for 13,91% of the entirety of external activities in 2016 (within the second most significant category of FDI - Industry, Construction, Energy and Water) and contributed 22,40% according to the report *Principais Indicadores Económicos* (Main Economic Indicators) of AICEP (2017). Moreover, industrial production accounted for 26,08% of the total active population employed in the year 2016 (Table 7) (INE, n.d.).

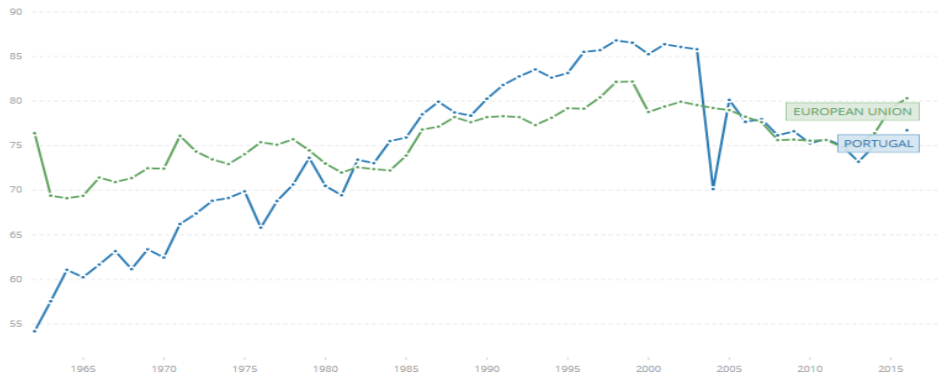
Table 7 - *Active population per Economic activity (2016)*

Year	Active population per Gender and Economic activity (CAE Rev. 3)											
	Gender											
	Total (M+F)				M				F			
	Economic activities (*Códigos de atividade económica* - CAE Rev. 3)											
	Total	Agriculture	Industry	Services	Total	Agriculture	Industry	Services	Total	Agriculture	Industry	Servces
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
2016	3787,2	86,5	987,6	2713	1843,9	57,7	668	1118,1	1943,3	28,8	319,6	1594,9
2015	3710,6	79,5	968,2	2663	1804,3	52,6	653,7	1098	1906,3	26,9	314,5	1564,9
2014	3611	84,6	935,8	2590,7	1754,9	57,3	631,6	1066	1856,1	27,3	304,2	1524,7
2013	3457,5	84,7	906,8	2466	1690	59,5	614,5	1016	1767,6	25,1	292,3	1450,1
2012	3542,6	82,9	984,8	2474,9	1739,7	57,1	685,6	996,9	1802,9	25,8	299,2	1478
2011	3719,1	82,5	1097,6	2539	1854,7	55,9	765,5	1033,3	1864,4	26,6	332,2	1505,6

Source: INE (n.d.)

The sector under study, has its *locus* of attention on the manufacturing activities within the industrial production segment due to its historical contribution to the national GDP (Figure 24).

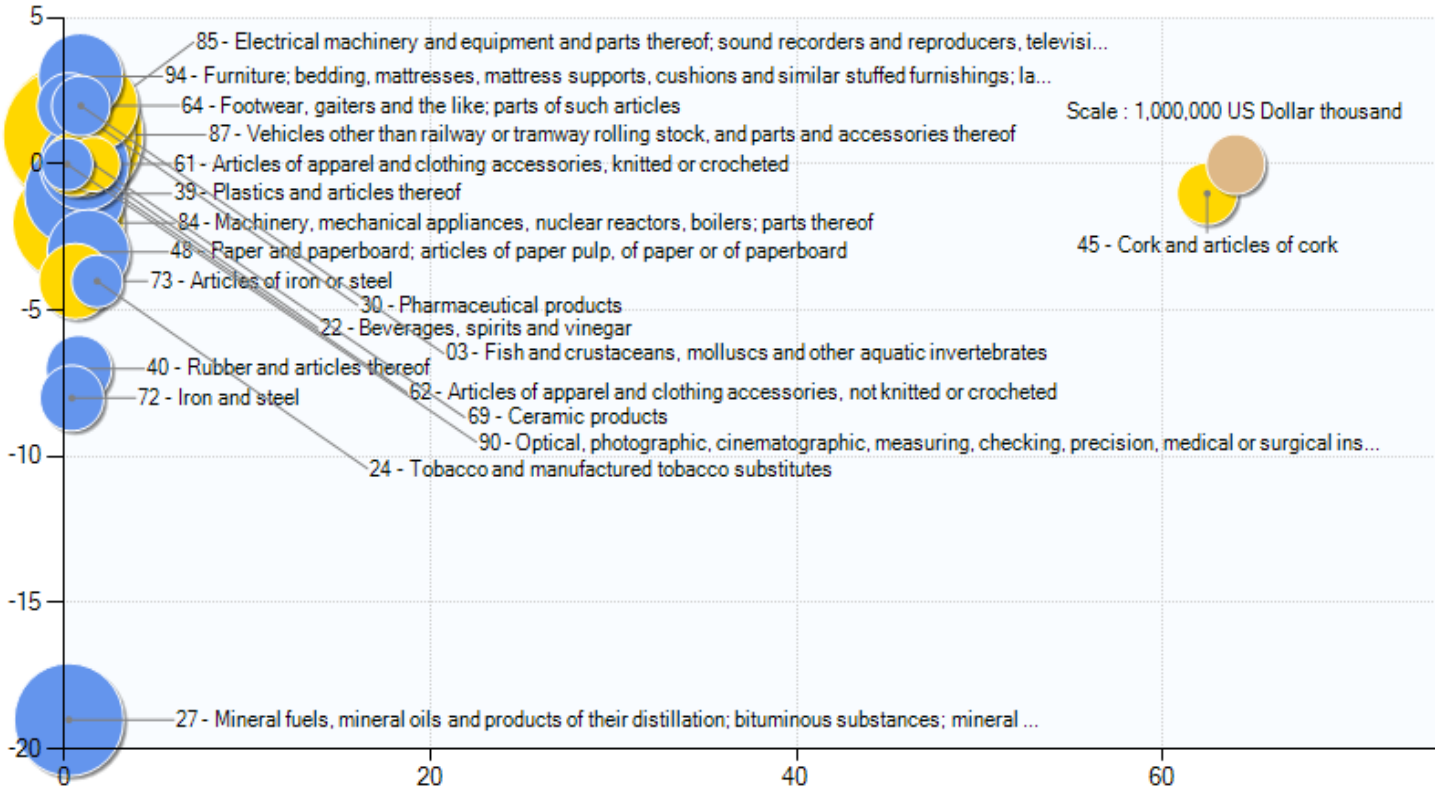
Figure 24 - *Manufacturing industries evolution (1962-2016)*



Source: World Bank (n.d.)

As it can be clearly illustrated here, manufacturing industries encountered a continued, steady increase since 1962 that was only interrupted by the economic crisis in 2008 (illustrated by the blue slope of the graph above). Therefore, this evolution constitutes a matured economic sector for testing the IPPF, containing long-lasting established firms such as the partaking firms that constitute our sample and are consequently noteworthy of our attention for the purpose of this investigation. Likewise, the analysis of subsets of economic activities in Figure 25, which cross-reference the outflow of the supply per product categories with the international demand, some heterogeneity within the world market share (WMS) fluctuations can be shown, with a noteworthy feature, the remarkable fact that the partaking firms in this study fit within the category of products of increased international demand for national supply.

Figure 25 – *Exports (2016) –WMS per category*



Source: ITC (n.d.)

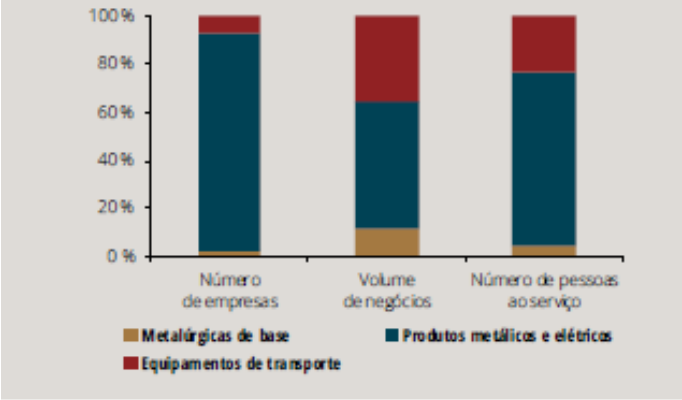
(Yellow bubble – loss of WMS; blue bubble – increased WMS; value size proportional to export value)

Therefore, the population as the "*universe of units from which a sample is to be selected*" (Bryman and Bell, 2011:726) requires that the composition of our sample must be made up of the *"segment of the population that is selected to be studied"* (Bryman and Bell, 2011:728). Within the manufacturing industry its scope focusses on the sector of metallurgy and metal-mechanic which comprises three main categories of segments: (i) basic metallurgies, metallic and electrical products and transportation equipments. (BdP, 2017). In the year 2016, the sector grew 0,2% totalizing an annual turnover of 14.596 million euros and being the largest exporter of the domestic products (AIMMAP, n.d.). The sector encompasses 9,7 thousand companies, which in its majority are are micro and small companies (72%) and accounts for 2% of the universe of the organizational ecology of the country. In the year 2015, with a gross revenue of 14,53 million euros the sector represented already 7% of the all turnover generated in the secondary sector employing 6% of the total active population in the country and weighted one forth of the aggregate of the manufacturing industries. The variation of the number of companies remains almost unaffected (grew by 0,1%) and since the difference between the birth and

death rates continued below 1%, which is in line with all the manufacturing industries. The sector is already the main

Data from BdP (2017) exhibits the distribution of companies, revenue and employees per segment of economic activity (Figure 26).

Figure 26 - *Structure of the sector (per segments of economic activity)*



Source: BdP (2017)

(the colums represent the "*Número de empresas*" – number of enterprises; "*Volume de negócios*" – total revenue; "*Número de pessoas ao servico*" – number of employeed people; the colors correspond to segments within the economic activity: the brown color relates to "*Metalurgia de base*" – basic metallurgy; the blue color "*Produtos metálicos e elétricos*" – metallic and electrical products and the red color "*Equipamentos de transporte*" – transport equipments)

The segment of metallic and electrical products representing 90,2% of the all firms in the sector account for 53% of the turnover and 72% of the total employment in the sector. The transport equipment segment represent 6,8% of the sector and account for 36% of the sector revenue and 23,2% of employability (BdP, 2017).

The sector exhibits a clear positive evolution with the earnings before interest, tax, depreciations and amortizations (EBITDA) observing a 28% rise from 2011 to 2015 with the exports representing in total 62% with a 8% upturn from the previous report ("*Análise setorial da indústria metalomecânica*" – Sectoral Analysis of the Metalomecanic Industry).

3.5.2. Sampling

The reason for constituting a sample in this research concerns the large number of firms (Collis and Hussey, 2014) within the organizational ecology of transactional economy within the manufacturing industry. As explained in the literature review, the collection of data from a large population offers a

methodological trap to researchers, hindering the data collection and measurement (Provost and Murray, 2011).

The selection of the subset of the population under the interpretivist paradigm, is circumscribed to a sampling frame that uniquely accounts for the presence of the firms in international markets within the industry under analysis. "A sampling frame provides a basis for selecting a sample." (Denscombe, 2014:34). In this sense, the sample formation aimed to target firms belonging to the set of Portuguese MNCs of the manufacturing industry competing on the sector of metallurgy and metal-mechanic, in order to fit the sampling frame and test the phenomena illustrated in the background description of the reality and problem statement, which revealed a generalized propensity of the firms to expand their business operations at host-markets of higher geographical proximity and/or psychic distance. The sample of partaking firms exhibited in the subsection 3.5.2.2. *Sample – size and identification* is compliant to this criteria and comprises the segments of, metallic and electric products and transport equipments (BdP, 2017).

We have separated the Portuguese MNCs of the secondary sector into two categories: the ones in scope and the ones out of the scope. The criteria for filtering them is presented in the paragraph above. Accordingly, we considered the first ones as potential entrants in the forming sample, as the all the organizational ecology inside the sample frame. In order to proceed with the filtering of the firms we gathered appropriate supporting data *(*from the *"IDPE - Investimento Directo Português no Estrangeiro – Angola; and IDPE - Investimento Directo Português no Estrangeiro – Brazil*") from AICEP Portugal Global – Trade and Investment Agency and from the RIEP report (2014) (*Ranking de Internacionalizacao das Empresas Portuguesas* or IRPC – Internationalization Ranking of the Portuguese Companies). It should be emphasized that the IDPE datasets focused on the markets of Brazil and Angola (as explained at the background contextualization) due to the fact that these (markets) are ranked in the top-ten markets for business preferences of the Portuguese MNCs to invest in and that these are the only Portuguese-speaking countries (adherent to the psychic distance phenomenon) positioned in the ranking. Moreover, these markets demonstrate a rising capacity of attraction for Portuguese investment. Therefore, other IDPE-related datasets of other PALOP and CPLP countries were not included for this purpose.

The criteria for filtering the population constitutes the *sample frame* in which the selection of cases will take place (Collis and Hussey, 2014), and its typology and selection is further addressed in the subsections 3.5.2.1. *Sampling´s Approach, method and techniques*, and 3.5.2.2. *Sample Size,*

Identification and representativeness. In the latter, the selected cases are submitted to *contextualization* (Collis and Hussey, 2014) as the qualitative data (inherent to an interpretivist methodology) is considered transient and therefore understood only within context; thus, requiring the collection of background information (Collis and Hussey, 2014). These cases are heuristic with conclusions drawn upon a reflective rationale (Ellet, 2007) in a social constructionism process, to accomplish the comprehension of the phenomena (sense making) and develop a meaning system of sense giving (Gioia, Corley and Hamilton, 2013).

Our (purposive) sample selection is based on the suitability of potential cases to illuminate and extend the relationship and logic among constructs, without incurring the faulty aim of achieving representativeness of the population (Eisenhardt and Graebner, 2007).

As this investigation fits Yin´s (2009) the category of Type 4 of the case study research, it adopts a theoretical multiple-case sampling format with an embedded design, where the number of units of analysis (UA_n) is larger than the number of partaking firms (F_n). Although the number of participants is approximately equivalent to the number of UAs.

3.5.2.1. Sampling approach, method and techniques

As the constitution of a sample involves the decision-making of the typology and volume of data to be collected (Provost and Murray, 2011), its relatedness with the interpretative paradigm is accounted for. Therefore, we proceed with a non-probabilistic sampling approach which comprises the use of an exploratory sample due to its appropriateness to small-scale data collection and directionality to the use of qualitative data (Denscombe, 2014). This research blends two sampling techniques: snowball sampling and purposive sampling. The snowball sampling technique occurs due to the referencing process among the partaking firms, and consequently due to the initial contact established with companies and industrial associations (Bryman and Bell, 2011; Denscombe, 2014). The purposive sampling "*is particularly well suited for creating an exploratory sample*." (Denscombe, 2014:41), as the discretionary selection of the participants (in the units of analysis) assists the researcher to reach the theoretical point of saturation of data (Glaser and Strauss, 1967; Strauss and Corbin, 1998; Mason, 2010; Bryman and Bell, 2011; Myers, 2013).

3.5.2.2. Sample – size, identification and representativeness

For clarifying the cognitive design underlying the formation of the sample, the diagram below exhibits the critical steps of reasoning followed to accomplish this purpose.

Figure 27 – *Sample identification process*

Source: Own elaboration

Figure 27 above identifies the events that, were selected, and describes the sample identification process. First, it was necessary to consider the research population thresholds. Second, the potential avenues for the constitution of the sample were considered, and it was decided (with the supervisory commitee) to contact the national authority for the monitoring of external trade and investment (AICEP Portugal Global – Trade and Investment Agency) in order to obtain official statistics (information of the main firms per economic activity and the market related figures). In parallel, were contacted other sources such as, the national sectorial association (AIMMAP) and collected further national and international industry-related data with other national and international organizations such as, the WB, OECD, ITC, OEC, MIT Media Lab, Heritage Foundation, Statistics of Portugal and BdP. In this context, national organizations provided critical country-focused industrial data, namely BdP (sectorial data) and AICEP (host-markets data). The latter, provided detailed datasets regarding two specific markets (Angola and Brazil), which were requested since these are categorized within the ten larger outflow marketplaces for the Portuguese exports and investment and, simultaneously fit within the theoretically addressed phenomenon of the psychic distance construct.

AICEP Portugal Global – Trade and Investment Agency, provided two datasets identified as *IDPE – Investimento Directo Português Estrangeiro – Lista Indicativa de Empresas Angola; IDPE – Investimento Directo Português no Estrangeiro – Lista Indicativa de Empresas Brasil* (Portuguese Direct Investment Abroad – List of Companies Angola; Portuguese Direct Investment Abroad – List of Companies Brazil). The companies were filtered as being either eligible or non-eligible, according to their compatibility to the research population criteria.

Several eligible firms were contacted, and asked to participate in our research. The first entity that triggered the formation of our sample it was the first entity that replied positively to our enquiries, and is identified below as *Firm 1* (F1). The remaining part of the sample adheres to the application of the snowball technique (Miles, Huberman and Saldaña, 2014; Denscombe, 2014) since, each entity was subsequently indicated by the previous one.

The segment of the population selected for the research, as a subset of the universe under analysis approximates itself in relation to the ranging of the sample size (between 5 and 20 units of observation) from the recommendations of Saunders, Lewis and Thornhill (2016). Furthermore, the size of our sample adjusts to the recommendations advocated by Guest *et al.* (2016), who state that a smaller-sized sample (then the aforementioned thresholds) are suitable for fairly homogenous groups, a fact that is observed in this investigation.

The sample is composed of four (4) adherent firms (identified in Table 8), numerically ordered (descending).

Table 8 – *List of partaking firms*

No.	Location/Headquarters (NUTSIII)	Foundation	Social Capital	NACE (Rev. 2)
F1	PT112 – Cávado Region	1997	12,5 M€	C27.32
F2	PT112 – Cávado Region	1968	30 K €	C27.32
F3	ES300 – Madrid Region	1994	17,99 M€	C27.32
F4	PT112 – Cávado Region	1997	60 K €	C30.99

Source: Own elaboration

(The nomenclature for territorial units for statistics (NUTS) used follows the classification of the NUTS III subregions (Eurostat, n.d; Eurostat, 2008; NSD, n.d.; INE, 2015); K (thousands); M (Millions); Nomenclature statistique des activités économiques dans la Communauté européenne (NACE) – Revision 2)

According to the sectoral data from BdP (2017) the partaking firms F1, F2 and F3 match the larger segment of economic activity in the sector (metallic and electrical products). F4 fits within the segment of transportation equipments. Thus, the sample covers the segments that account for 97% of the total of firms in the sector. Moreover, the sample is composed of two companies matching the category of small-enterprise (SE) (F3 and F4) and two the category of medium-enterprise (F1 and F2).

These partaking firms (F1-F4) represent 0,04% of the organizational ecology of the sector in the three segments, employing an aggregate of 350 people which account for 1,10% of the total active

population (employed in the sector). Their total revenue of 134,91 million Euros gathers 0,92% of the revenue of the sector The sample is composed of fifty percent of firms with transtionality index included in the RIEP report of INDEG-ISCTE Executive Education and Fundação Dom Cabral (FDC). This data corroborates the previously indicated sectorial data of the Bank of Portugal (BdP), which is indicative of a marked concentration of the sector's turnover around medium and large companies, in a sector that is highly pulverized by micro and small enterprises.

Ttwo hermeneutical units of analysis (UAs) are studied per firm (Fn) related to the numbers of participants. One per each UA from the top-management and from the middle-management. The collection of data from two participants per UA, fits within the sampling size of a Type 4 case research (Denscombe, 2014; Yin, 2009). A distinction at F4 may be noted on the number of participants that compose the UAs consubstantiating an embedded study, within a multiple case frame. In F4, the two UAs are observed (the collection of data from a top-management and a middle –management source) as in the other firms. However, in F4 the UA is centered in a single participant as thoroughly described below. Its rationale is clear, as the data collection method aims to achieve the saturation point of data. Thus, the F4´s Type 4 design, is explained further ahead (in subsection 4.2.1 demographic profile), how the embeddedness of the case is maintained with one participant and, moreover, is also explained how the point of saturation can be reached. Furthermore, it should be noted that is used a pure sampling method approach - use of a single type of case research - which is consistent with a the qualititative research design approach that, fits small-scale sampling, and allows for a progressive adding of UAs until obtaining the saturation point of information.

Moreover, secondary data was gathered in Table 9 to illustrate the general internationalization patterns (of each of the indicated firms) to the current stage for further cross-interpretation with primary data (collected with the four UAs).

In parallel with this, further information was gathered within the partaking firms to illustrate their commitment to the internationalization. Using the RIEP report (2014) (*Ranking de Internacionalização das Empresas Portuguesas* or IRPC – Internationalization Ranking of the Portuguese Companies) as a framework for observing the current commitment of the firm towards internal markets, the TNI (Transnationality Index) created by the UNCTAD - United Nations Conference on Trade and Development for the calculation of the current commitment of the F(n) to the foreign markets, was applied. This research considers for the TNI, the financial statements of the firms of the year 2016.

The TNI formula applied is the following:

$$TNI_{(Fn)} = \frac{(Aa/Ta) + (Ra/TR) + (Ea/TE)}{P} \quad (14)$$

The TNI weights the *Actives abroad* (Aa), the *Total Active* (TA), the *Revenue abroad* (Ra), the *Total Revenue* of the firm per year (TR), the number of *Employees abroad* (Ea) with a permanent offshore work location, and the *Total Employees* (TE) of the firm, and the number of parameters (*p*) of analysis being measured. For measuring the three parameters of the TNI calculation we used the data from the last civil year of 2016, taking into account the active, the operational cash-flows and employees. Furthermore, the maximum tolerable risk (R) profile of the U-model was applied:

$$R_{(Fn)} = C \,.\, U;\ where\ C_{(Fn)} = ((Aa/A)+(Ea/TE));\ and\ U_{(Fn)} = \sum(GPr + PPr)*n \quad (15)$$

Thus the internationalization profile according to the risk perception profile of each firm, is determined by the following:

$$R_{(Fn)} = [((Aa/A) + (Ea/TE)) + \sum(GPr + PPr)* n] \quad (16)$$

The market commitment (C) is measured by articulating the four variables of the TNI formula: the Aa, the TA, the Ea and the TE. The uncertainty (U) perception of the firm combines the risk approach profile of the firm, accounting for all markets where the firm is positioned and combining it with both the geographic proximity risk approach (GPr) with the psych proximity risk approach (PPr). The results are exhibited below with respect to the risk level scale and measurement of the U-model, corresponding to the following results: $\geq 0{,}66$ *(high-risk);* $\leq .0{,}66 \geq 0{,}33$ *(moderate-risk); and* $\geq 0{,}33$ *(low-risk).*

The outcome of the secondary data related to the current TNI and risk-profiling of the partaking firms is exhibited in the subsection *3.5.2. Secondary Data*.

3.5.5.3. Units of Analysis

Table 9 summarizes the structuring of the units of analysis (UAs):

Table 9 –*Structuring of the UAs*

Firm	UAs		Primary technique		Participants/per firm		
	Id	UA/firm	Id	No.	Id	No.	Position
F1	UA1	2	I	T7	P1	2	Chief Executive Officer
F1	UA2	2	I	T2	P2	2	Account Manager
F2	UA3	2	I	T6	P3	2	Director
F2	UA4	2	I	T1	P4	2	Account Manager
F3	UA5	2	I	T3	P5	2	Chief Executive Officer
F3	UA6	2	I	T4	P6	2	Account Manager
F4	UA7	1	I	T5	P7	1	Director/Chief Financial Officer

Source: Own elaboration

The firms (Fn) and unit of analysis (UAn) that compose the sample were identified above in the subsection 3.5.2.2. *Sample - size and identification*. The technique employed (T1) is an interview, and the data collection method is identically applied across the partaking firms through a vis-à-vis contact with the representative of each firm that voluntareed to collaborate in this research. As the challenge of the interviews' data collection is to assume an approach that may limit bias (Eisenhardt and Graebner, 2007; Eisenhardt, 1989), each participant (Pn) is acknowledged as a highly knowledgeable individual with insightful information about the focal firm that he/she represents. No limitations were self-imposed in regard to the inclusion of organizational actors from several hierarchies, as the aim of our research is to obtain the saturation point of information (Glaser and Strauss, 1967; Strauss and Corbin, 1998; Mason, 2010; Myers, 2013). In fact, the data collection process went beyond the boundaries of the cases. The hermeneutic units above referred (UA1-UA7) corresponded to the sources of primary data collection. However, the remaining sources are illustrated below.

Table 10 – *Sources of Data*

Data Sources	Cases				Description
	F1	F2	F3	F4	
Interviews	2	2	2	1	At the strategic apex and middle management
Archival documents	4	4	4	4	Balance-sheet statement, catalogue/brochure, internationalization markets data
Technical reports	4	4	3	3	BdP, AICEP, AIMMAP, RIEP

Source: Own elaboration

The number of interviews at the case F4 is different due to the fact the UA occupies a double position at the strategic apex and as a middle manager (director and chief executive officer). The item technical reports exhibits less data for the cases F3 and F4, since the respective companies are not ranked in the RIEP index, so the RIEP (2014) report only contains exclusively data of the cases F1 and F2. The rest of the indicated technical reports content sectoral data. Other generalistic data was gathered at the manufacturing industry from the WB, OECD, ITC, MIT Media Lab, Statistics of Portugal and PorData.

The mitigation of bias in the data collection of primary data (interviews) presupposed the acceptance of two types of ground assumptions - organizational and individual origin. The first is related to the organizational world and implies the acceptance of its social construction, and the belief that the participants (Pn) are knowledgeable agents who are committed to the explanation of their thoughts, intentions and actions, according to their experiences and interpretations of the reality. The second is then a self-awareness of the researcher as a knowledgeable individual with the ability to establish patterns in the collected data, enabling concepts and relationships to surface that may be formulated within theoretically relevant terms (Gioia, Corley and Hamilton, 2013).

3.5.3. Quality of the case research design

The case design was tested within a framework beyond the standard notions of validatity and reliability. Therefore, it were utilized four measures commonly applied in social sciences (Yin, 2003). These four measures (units of test) related to the strength of the research in terms of validity within three categories (construct validity, internal validity and external validity) plus its reliability. Table 11 indicates the testing descriptors.

Table 11 – *Summary of quality of research measures*

Measures	Application of Measures
	Descriptors
Construct Validity	- Prior signification of the operational events - Avoidance of subjective judgments - Use of multiple sources of evidences; - Use a chain of evidences; - draft of the case study reviewed by key informants
Internal validity	- Identify true/spurious relationships - Pattern-matching logic

	- Explanation-building - Time series analysis
External validity	- Analytical generalization - Replication logic (from UA1 – UAn)
Reliability	- Formal documentation of procedures - Follow a case design protocol

Source: Own elaboration

The next subsections describe how the research addresses each of the descriptors, while exposing the implication and characteristics of the tests, and demonstrating how these were accommodated in this research.

3.5.3.1. Construct Validity

The first, construct validity, is addressed in a thorough and explicit manner in chapter two to avoid the bias of subjective judgments. The Uppsala process model of internationalization (that caught the observed phenomena in the background description of the Portuguese reality portrayed in the initial economic data collection) depicted 40 years of this archetype´s evolutionary path and exposed (and defined) its constructs. Moreover, our summary of the literature review emphasizes the fact that some of these constructs are pursued in subsequent chapters while some are abandoned. Similarly, the DCV theory, as an in-depth collection of definitions, main perspectives (TPS and EM), sub-concepts (such as the GDCs and DICs – which the former is core for this research) was explained along with its linkage to the empirical part of the study in chapter 3 – *Methodology*. In order to avoid bias, our case research exhibits an explicit description of the philosophical assumptions under the categories of ontological, epistemological, axiological, rhetorical and continuum of paradigms (Collis and Hussey (2014).

In this context, the prior signification of the operational events that constitute the phenomena under study (construct validation) was pursued in two steps: (i) the selection of the events, and (ii) the demonstration of the adequacy of the selected measures for the phenomena under analysis.

Moreover, the recommended three tactics of construct validation were all applied to this study: (i) the use of multiple sources of evidences; (ii) the chain of evidences; and (iii) to have a draft of the case study reviewed by key informants.

The first two tactics (the selection of the events and the demonstration of the adequacy of the selected measures) are cumulatively used in both, the theoretical and in the empirical part of this study. In the theoretical part, is applied a myriad of literary sources; moreover, the commonalities and interlinks of constructs are followed), and in the empirical part (with an embedded multiple case design - Type 4; and following a chain of evidences in the data collection - and using semi-structured interview method) (Yin, 2003; 2009). First, numerous conceptualizations were appraised through a plethora of different scholars from multiple perspectives, including the criticisms around the contemporaneity of the U-model as an internationalization framework and the DCs contribution for advantage-generation in the context of industry competition. The third tactic, about of key informants, was ensured through the constant link with the top apex of the partaking firms (F1-F4) to guarantee the acceptability and suitability of the design to hermeneutic units regarding to the validations of the verified conceptualizations; and, through the pilot testing of the interview guide, which is described in sections 3.6.1.2 *Interviews – Groundwork and protocol/guide*, 4.2. *Primary Data* and Appendix 1 – *The Manual of the Interview Guide*. Moreover, it should be noted the use of triangulative approach (4.3. Triangulation – Mapping) to the verification of frequencies of coding of the multiple sources of data.

3.5.3.2. Internal Validity

The second test deals with the generalization of the study and its explanatory purpose. In this sense, chapters 5 and 6 aim to distinguish between the true relationships and spurious relationships. Going back to the initial problematization at the beginning of the study, initial constructs were popped up (as the psych distance phenomenon) and seemed intrinsically related to the IPPF, and these are then clarified in the sections addressing the findings and results. However, internal validation requires that the researcher follows a pattern-matching logic, an explanation-building and a time series analysis. These three tactics are followed in this research; and are, linked to the dual rationale of sense-making and sense-giving that is thoroughly addressed in section 3.8.2. *Data mining and codification* (Gioia, Corley and Hamilton, 2013).

Pattern-matching logic is used in the QDA methodology which cross-references the information from the informants (as a first-order coding process of data) connecting the informants words with previous concepts that is matched to set within upper constructs and theoretical frameworks (as a second-order coding process). The explanation-building and time series analysis are portrayed in the data treatment methods and tools employed in the data analysis and findings chapters. A triadic strategy for handling

the collected data was used, the content analysis framework of Miles and Huberman, (1994) with the data codification method of Gioia (2009) and protocol of Weber (1990) for avoiding bias in data manipulation. The first-order and second-order codification processes follow the codification system (Appendix 2) and data outputs that are generated through a QDA process of word crunching, frequency analysis and diagrammatic network representation of semantic linkages between constructs (data displays).

3.5.3.3. External validity

In the external validity, the test concerns the findings of our study as its purpose is related to the propensity of its generalization beyond the spectrum of the focal cases. A myth related to the generalization is that this restrictive perception is merely an inference to a broad sample dimension (and that survey methods as a more suitable approach than case studying). This refers to statistical generalization. However case studies as experiments rely on analytical generalization (Yin, 2003) in which the researcher strives to generalize a set of results and apply these to a broader theory. In this sense, analytical generalization is be constructed within the interpretativistic realm of our qualitative approach to theory development; and, therefore, our inductions are not a simplistic and automatic generalization of datasets applied to larger samples sizes, to achieve representativeness. Furthermore, these case studies apply a replication logic exactly like that used in natural sciences experiments, allowing for generalizations from one experiment to the other (experiments), or from one hermeneutic unit to another hermeneutic unit (within case studies). This research is a Type 4 case research with a multiple case design and with embedded units of analysis, the replication logic is followed because the theoretical principles of construct validity and internal validity were analytically generalized among the UAs within all the firms (F1-F4). Moreover, the similarity of environmental conditions of the collection of data were considered; such as the ethical research conditions.

3.5.3.4. Reliability

In order to ensure the reliability of the research, the underlying accuracy of the process and a wide-ranging authenticity of our investigation, we have followed a prerequisite for attesting the reliability of our study, which consists of formal documentation of the procedures followed, the clear exhibition

of data and results as recommended in literature and the adoption of a case design protocol (Yin, 2003). First, the formal procedures were undertaken as follows: by obtaining the formal concession of consent by the informants; by explaining the research project and the interview procedures to all of the participants; and by creating the signature of agreement documents among all of the the parties identified in the appendices. All the information from the participants were recorded and transposed into manuscripts, translated from Portuguese to English language; and then, reviewed by a native English-speaking proofreader. The coding of the transcripts is also demonstrated, along with the codification dimensions and their results.

Likewise, the case design protocol is thoroughly explained and may be revisited in the Figure 21 – *Case research of the IPPF* and in the table of contents in subsection 3.5. *Case study research.*

The methodological framework explained in the internal validity section was supplemented with the creation of a codification system and a manual for the interview guide to ensure that formal procedures for data collection and data mining and structuring and followed the QDA unbiasing protocol, and that all data collection intervenients (the researcher and the participants) signed ethical agreements (Apprendix 9 – 15). The data was reversed from PT-EN and manipulated by a CAQDA, using the analytical procedures of the Atlas.Ti software for crunching the coding categories (words, sentences and paragraphs), interpreting data, and generating data outputs and displays. In this context, this investigation could be repeated as the procedures are clearly defined and the outcome ought result in equivalent findings. In addition, it is also claimed that the reliability of our results can be achieved due to the case study protocol that was followed during the case design, which developed in stages (Miles and Huberman, 1994; Weber, 1990).

3.6. Data Collection

Data relates to the set of known facts or things used as a basis for inference or reckoning which conveys evidence. Subsequently, empirical evidence is the data log based on observation or experience (Collis and Hussey, 2014). The primary empirical sources employed in this research fit a qualitative evidence typology, which is a category that relies extensively on sources such as interviews, archival data, survey data, ethnographical data, and data direct observation (Belcher, 2009; Eisenhardt and Graebner, 2007).

As qualitative-based evidences is complex, rich, holistic (Miles, Huberman and Saldana, 2014), and subjective (Arbnor and Bjerke, 1997), the paradigm of this research is straightforward although pending towards the polar-side of interpretivism.

We have applied a mono-method of data collection, as we are using interviews. In the next subsection (*3.6.1. Interview - Method*) both the logic of qualitative inquiry and the epistemological assumptions, of the specificities of the interview method will be explored.

3.6.1. Interview Method

A plethora of different interview types are accounted for here, as these kind of interview arrangements commonly occur in social life and may undertake different forms: medical, selection, psychiatric, therapeutic, journalistic/media, police, appraisal, market research and other type of research interviews (Gillham, 2004; Warren and Karner, 2005; Bryman and Bell, 2015). The applicability of these is guided by their purpose (Silverman, 1993), arguing that the exercise of interviewing is either, a technique or interview as a local-accomplishment. In this thesis, we focus simply on the instrumentalized use of the research interview as a prominent data collection strategy in both qualitative and quantitative research. Nevertheless, the commonly shared features that different forms of interviews possessed should be noted as follows: the extraction of information from the interviewee and the operation of rules according to the level of formality or explicitness used while conducting the interview (Bryman and Bell, 2015).

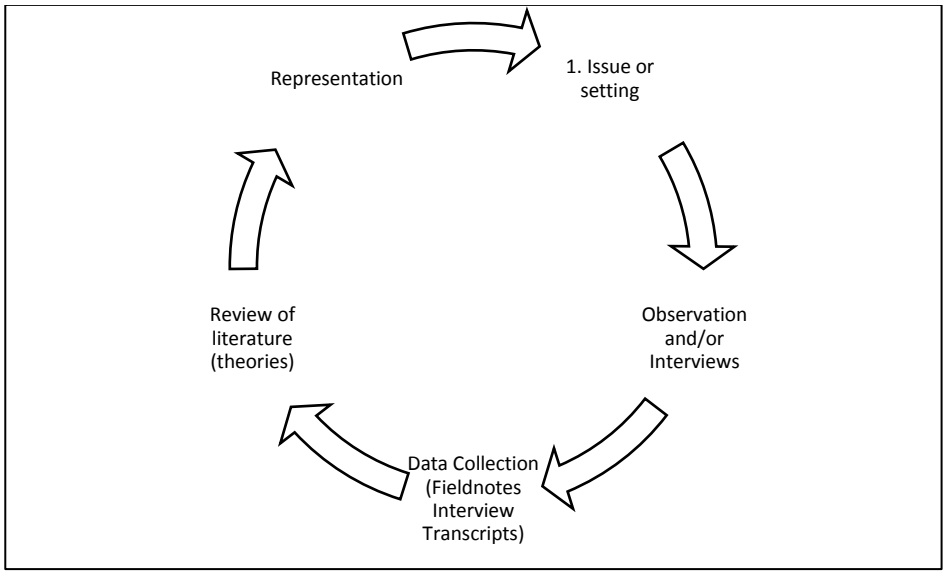
3.6.1.1 Research Interviews – Philosophical assumptions and Logic of inquiry

The roots of the research interview can be traced back to its development as a method to the Chicago School (Warren and Karner, 2005). The contribution of the Chicago School resulted in an increase of the current understanding of the distinction between qualitative interviewing, and the interview done via a questionnaire or schedule (Platt, 2002). The development of the interviewing method illuminates the contrast between the quantitative and qualitative logic of inquiry, associating it with the philosophical stand of our research. Thus, the logic of inquiry is directly associated with the epistemological assumptions of the interpretativistic methodologists, since the qualitative inquiry identifies itself with the social constructivism and presupposes that the researcher has a close

(experiential) social interaction with the observed people and social settings, and shall therefore be an integral part of the conducted as part of the research design (Warren and Karner, 2005). In this context, the researcher develops fieldwork and interviews, and the latter is ideally conducted through a face-to-face interaction. In addition, Silverman (1993) argues that the use of interviews as a technique for data collection in qualitative research is most adequate when using small samples and its most suitable application is as a sole method (Warren and Karner, 2005).

The status of data collection about behaviours and attitudes is factual, about behaviors and attitudes, for the positivistic methodologists. Conversely, for the social constructivists it is a collection of authentic naturalistic experiences (of interactionism), which Platt (2002) refers to as the rapport and mutual discovery of the actors giving an account of events and processes beyond the mere identification of behaviors and phenomena, where the first adopts random samples, standardized questions and tabulations and the latter, unstructured open-ended interviews. Thus, the role of the interviewer and interviewee is dichotomic for both actors, objective (in positivism) and subjective (in interactionism). The objective interviewer follows a research protocol, while the other creates an interview context and makes use of the guidelines. The objective interviewee position is to reveal items relevant to the research protocol, while the other is to comply with the resisting definition of the situation (Silverman, 2001). However, a commonality between both can be demonstrated such as the claim of reliability of standardization in the protocol (the positivistic) to ensure unbiased measurement and the intersubjective depth of the open-ended interview (plus the elucidation the general properties of human interaction). The logic of qualitative inquiry is then represented below (Figure 28):

Figure 28 – *Logic of Qualitative Inquiry*



Source: Warren and Karner, 2005

In the Figure 22 it can be shown that the qualitative researcher uses the observation/interviews to extract information, which is transformed into oral reporting or written representation of the social phenomena under study. In this research we yield written reports in the form of an interview transcript, for further development of the analytical focus.

As previously discussed, a backward interdependence of the data collection exists with the epistemological positioning (and the research design) of the research. However, figure 19 illustrates that the data collection phase has a forward interconnection with the analytical research phase as it influences the content, which represents the units of analysis for the researcher and the outcome of the representation of the social reality being observed. In the following subsections, we explore the characteristics of different groundwork interviews and their protocol/guidelines.

3.6.1.1. Conceptualizing the research interview

A broad contemporary definition of the term interview can be described as a common occurrence in social life that consists of a dialogue between two parts (interviewer and interviewee) in which these actors play different roles in an event accounting for a particular purpose that may differ in form and style, according to its goals and ability of the participants (Gillham, 2004; Bryman and Bell, 2015). Yet, a research interview is also a method for collecting data in which a sample of interviewees are asked questions to find out what they think, do, or feel (Collis and Hussey, 2014), and data collection

is comprised of using the information provided by the participants to answer the research questions (Denscombe, 2014). Likewise, Warren and Karen (2005) claim that an interview can be defined as a special kind of conversation where the interviewer asks questions on a topic of interest to the respondent, and of some relevance to the interviewee. The interview is further connoted as a purposeful conversation between two or more people, requiring the interviewer to establish rapport and ask concise and ambiguous questions that the interviewee is willing to collaborate on by listening and responding actively, and these are most commonly conducted within a dyadic or triadic conversation (Saunders, Lewis and Thornhill, 2016; Warren and Karen, 2005). Kvale (1983) argues that the purpose of qualitative interview research is to gather from the interviewee descriptions of their life-world with respect to their interpretations of the described phenomena.

3.6.1.2. Interviews - groundwork and protocol/guide

The morphology of the interview method vary according to a combined set of factors: structure, flexibility, accessibility (to the interviewees), environment, and the size of the sample (Gillham, 2004). The structure accounts for two poles in which the conducted interview may vacillate in between: unstructured and structured models. The flexibility of the interview relates to the category of questions, their levels of openness and closeness, leading to different data outcomes, regarding the achievement of the specifications, and (unexpected) serendipitious discoveries. The accessibility to the interviewees is demonstrated by their participation and time availability. The latest two factors and the environment settings determine the outcome of the data that will be collected. The verbal data dimension framework of Gillham (2004) illustrates the bipolarity of the data along the continuum structure of the interview method:

Figure 29 – *Type of data – interview method*

Unstructured	◄				►	Structured
Listen to a dialogue (direct observation)	Natural conversation	Open-ended interviews	Semi-structured interviews	Recording schedules	Semi-structured questionnaires	Structured questionnaires

Source: Gillham (2004)

The structured interview (or standardized interview) entails the administration of the interview schedule by the interviewer, in which the interviewees are provided the same context of questioning, and answers are aggregated for achieving reliability in identical cues (Bryman and Bell, 2015). Questions are specific and often given a fixed range of answers. These are often categorized as closed, close-ended, pre-coded, or fixed choice answers. The semi-structured interview complies with a general interview schedule that consiste of a series of general questions, which may vary in sequence. The interviewer has some latitude to ask further questions to respond to what are considered to be significant matters within the same frame of reference. During an unstructured interview, the interviewer possesses merely a list of covered topics or issues (the interview guide or *aide-mêmoire*). The interview is conducted rather informally and the questions sequence and its formulation may vary from interview to interview.

The qualitative inquiry, also called the intensive interview or in-depth interview is associated with the unstructured mode or semi-structured mode, and it comprises an oral history approach where the interviewees narrate their individual experience of historical events, where the preliminary pre-testing of the questions to be asked is essential for the admeasurement of its validity (Silverman, 2003). The insights expected from the interviewees are both *prompts* and *probes*. The prompts match the received information with the development of questions. At this point, the interviewer ensures that the research elements under analysis are included. The probes are related to the supplementary questions that may expand the observed components and increase the ballast of incoming data. The probing technique comprises different enhancers of content delivery (or subsets of probing) such as the reflection, clarification, appreciation and understanding, justification, relevance (within elliptical narratives), and exemplification (Gillham, 2004). The interviewees are the key-informants (as considered in the epistemological assumptions of the research), as they convey relevant knowledge about the phenomena under study and might accumulate a gatekeeping role when the tacit information lies exclusively within the individual, which assumes a gatekeeper position of control, granting or denying access to a setting (Warren and Karner, 2005). In this context some scholars advise preparation and training prior to conducting the interview, since establishing rapport with the interviewee is critical. Rooted in the study of kinesis, proxemics and semasiology that are associated with the posture and body language and body intelligence (of the interviewer) and his/her action signing, these factors have both an impact on the predisposition of the key-informant/gatekeeper to divulge information and on the type of delivered content (Farnell, 1999; Warren and Karner, 2005). The utilization of the interview as a key method in this research is portrayed in this frame (Table 14):

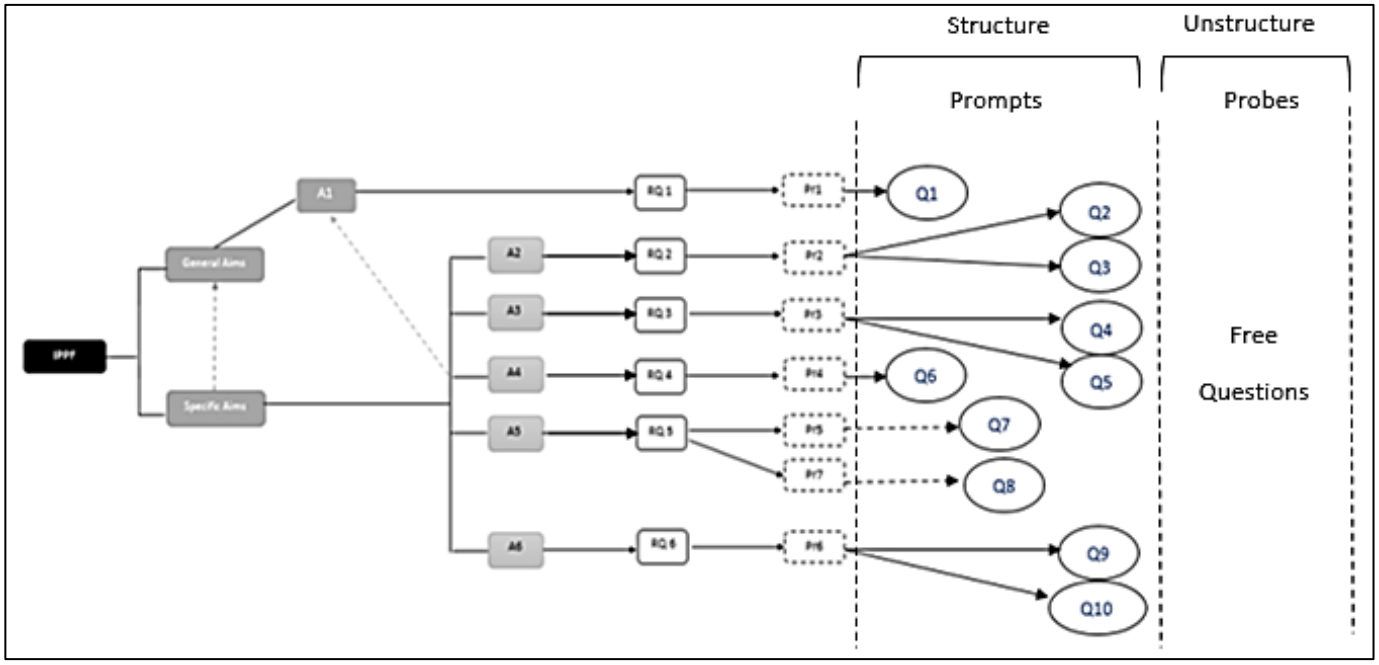
Table 14 – Research interview design

Basis/dimensions	Identification
Organizing phases	Preparation, pre-test, conduction and data-mining
Conducting phases	Pre-introductory, introductory, opening development and substantive content, and closure
Approach	Qualitative inquiry
Type	Research interview
Interaction	Dyadic (two actors)
Style	Non-directive
Focus	Management of insights
Objective	Synchronization of meaning
Insights	Prompts and probes
Actors	One interviewee; One interviewer
Inquiry	Intensive / in-depth interview
Tools and resources	Interview guide, demographic questionnaire, List of questions, interview agreement form, laptop computer, sound-recording device, and notebook
Paperwork - idiom	Portuguese (PT)
Spoken Idiom	Portuguese (PT)
Language	Formal
Formality-level	Medium/high
Timeframe	Not limited
Schedule	Working hours
Date	July 2017
Assumptions	Interviewees as key-informants and gatekeepers
Format	Semi-structured interview
Process	Dual non-standardization (on the sequence of questions, and phrasing)
Questions	General questions and supplementary questions; non standardization on its sequence
Questions-metrics	Not applied (N.A)
Ethics	Described in the interview agreement form
Mode	Vis-à-vis
Validity	Pre-testing of questions (Jun-17)
Environment	Chosen by the interview
Location	Workplace of the participants
Output	Transcripts

Source: Own elaboration

Considering the prompt content of the interview guide, whose design is referred to above in Table 14, the following linkage of the questions (Q) with the research paradigm can be shown here:

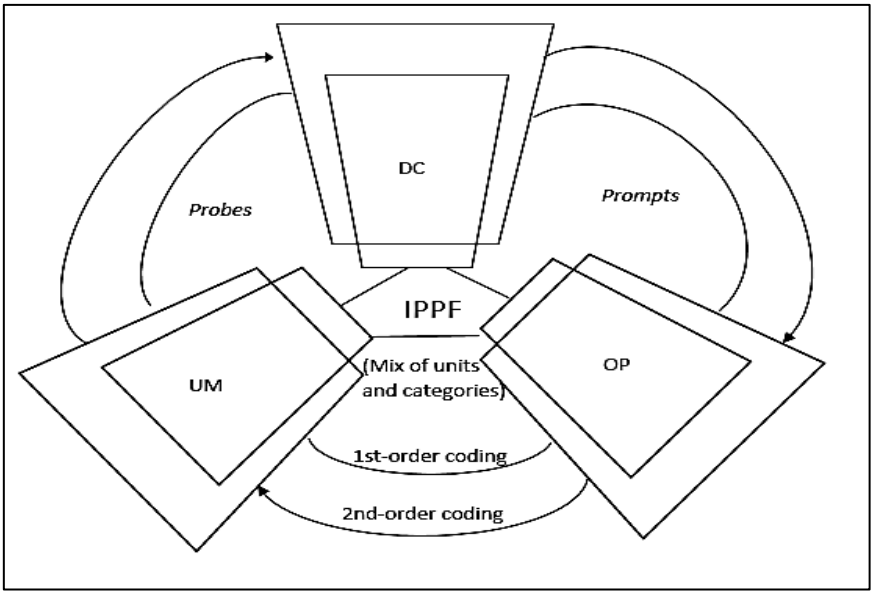
Figure 30 - *Prompts of the interview guide and research paradigm*



Source: Own elaboration

Figure 29 exhibits the correlation of the prompts as pre-conceived questions contained in interview the guide and the research paradigm, demonstrating the visual link of the propositions (Pr) with the Q (1-10). Although, it is possible to observe that the outsider-research gives space for the unstructured periods during the interviews as this study aims to achieve the point of saturation of information; therefore, the probes as an emergent source for richer synchronization of meaning are recognized as being connected to the first and second order coding. However, Figure 29 exposes the dynamics of the utilization of prompts and probes in the context of the codification system (Appendix 2).

Figure 31 – *QDA inputs and the triple helix*



Source: Own elaboration

The inputs (probes and prompts) are centrifuged in a QDA process resembling a triple helix, as the coding categories within the second-order coding are three (DC, UM and OP) that contain its respective (dimensional) themes and concepts. These inputs in the form of coding units derived from the informants or gatekeepers are processed according to the coding categories. First, the inputs are associated with concepts (first-order coding) and then the initial codified information is grouped up into themes and dimensions of constructs (second-order coding). The informant-centric interaction with the participants uses a semi-structured form, containing a protocol of interaction dependent on the interview guide and its pre-formulated questions (adjusted during the pilot testing phase) and on the assumptions addressed in subsection 3.7. *Research Ethics*, allowing the dynamics and unstructure to emerge during the context of face-to-face interaction and reducing bias on the investigation.

3.6.2. Problematization of data bias – sources, and assumptions

The accessibility (to the interviewees), environment, and the size of the sample may constrain the outcome of data. (Gillham, 2004). Nevertheless, flexibility should be stressed, as Silverman (1993) argues because open-endedness or non-directive interviewing (as a feature of interviews as opposite to questionnaires) is a form of social control that shapes the insights of the interviewee. Moreover, a minimal presence (asking questions/inquiring) may generate an interpretative problem to the

interviewee about what (content) is relevant, and the passivity of the interviewer may constraint the interviewee to talk. Thus, Gillham (2004) argues that control, as the sense of management of the interview, is fundamental to skilled interviewing, to keep track of the reliability of data. Conversely, the anxiety and over-controlling of the interviewees stall them.

The lack of ability and untrustworthiness of both (bad interviewers/interviewees) may bias the data from the interview, such as the unpredictability of highly flexible interviewing structures may give rise to distorted contents (Gillham, 2004; Silverman, 1993). The research of Silverman (1993, 2001:98) emphasizes that methodologists, researchers and interviewers are all uniformly engaged in the *synchronization of meaning*. Here, the management of the distinctive role of one before the other is blurred by common sense devices for making sense of the environment, considering however the equivalent relevancies, stocks of knowledge, typifications, recipes and rules. Moreover, the interviewer should bear in mind that pre-conceived notions of reality hinder the expert openness required to conduct the research interview (Gillham, 2004).

As the main challenge of the interviews' data collection is to assume an approach that mitigates biases (Eisenhardt and Graebner, 2007; Eisenhardt, 1989), each participant (Pn) is perceived as being a highly knowledgeable individual with insightful information about the focal firm that he/she represents. No limitations were imposed with regard to the inclusion of organizational actors from several hierarchies, as the aim of the research is to obtain the saturation point of information (Glaser and Strauss, 1967; Strauss and Corbin, 1998; Mason, 2010; Myers, 2013). Yet, it should be noted that despite the assumptions about the participant being defined as a key-informant and gatekeeper, no preconceived notions about the research interview should exist in the qualitative inquiry design beceause these may restrict the view of the interviewer and blur the expert key skill of openness that is required (Collis and Hussey, 2014; Gillham, 2004).

3.7. Research Ethics

The thesis follows the conventional writing format of the American Psychology Association (APA) guidelines as a referencing system, commonly designated as APA format, (Schwartz, Landrum, Gurung, 2016). The structure and presentation of this thesis follows the APA format and the general behavior towards the presentation of the contents, writing style, use of the literature and methodological development of the research is also conducted in accordance to APA style. The latter

has a larger scope that embodies three components: objectivity, credibility of the sources, and an evidence-based approach. Objectivity, is related to the commitment to test the research questions and propositions, to the detachment of formality in language to the benefit of an effective communication of the research, and to comply with the research-centric distance concerning the universe under investigation, using a theoretical ground for the empirical testing. The second component, the credibility of the sources, is related to the preservation of the chain of evidence, the non-adulteration of the contents, that build on previous findings and use citations to corroborate one´s own claims, while crediting the key sources reviewed to avoid practices of plagiarism.

Both APA format and style, are used according to the five principles for research ethics postulated in APA code of ethics (Smith, 2003). In turn, the code of practice of this research complies with these by: defending the intellectual properties; taking on a conscientious and responsible role while conducting the investigation; following informant-consent rules; respecting the confidentiality and privacy of the participants; and tapping into ethics resources.

The thesis therefore complies with the code of ethics of APA, adopting these as a self-imposed code of practice, and cumulatively, as an ethics statement, of the researcher to high academic writing standards, as the aforementioned principles are strictly respected in this thesis. First, the researcher bad academic practices related to the misuse of intellectual properties, and abusive practices of plagiarism. Furthermore, with the approval of the supervisor committee the researcher distributed an interview agreement form to all the participants in the primary data collection to attest to their voluntary accession, confidentiality, anonymity, data security and the non-harmfulness of the research to be conducted. The appended document was read and signed by both the interviewees and the researcher. All sessions were audio recorded, using a *Phillips voice tracer* with previous authorization and agreement of all the interviewees. Finally, the research conducted follows an ethical framework for human participation, with no physical or psychological intrusion in the health and well-being of the participants. Moreover, the resources and tools used to conduct the interviews were harmless to their integrity and did not violate any human rights conventions, such as the regulations of the Belmont report, regarding the ethical framework for human participation in research.

3.8. Data Analysis Rationale

In the interpretivist paradigm the collection of qualitative data is not detached from the analysis as an iterative process of data collection and theory building (Collis and Hussey, 2014). The analytical process used to handle the primary data from the interviews in this research is content analysis (CA). A qualitative CA is applied because it is an accepted method of textual investigation for analyzing written, verbal and/or communication content (Silverman, 1993; Elo and Kyngäs, 2008), and to condense raw data into categories and themes (Zhang and Wildemuth, 2005). The CA "*views data representations not of physical events but of text, images and expressions that are created to be seen, red, interpreted and acted on their meaning"* (Krippendorf, 2004:18). Discourse analysis was totally discarded as a methodological option. Despite the use of verbal language and written texts in CA approach, the CA analyses the use of the language in a social-psychological context, focusing on the study of the rhetorical and argumentative organization (of talks and texts) to identify the particular strategies used into a particular outcome (Silverman, 2001; Collis and Hussey, 2014).

Looking at the two main approaches of CA, the mechanistic and interpretative (Collis and Hussey, 2014), and its subsets (the form-orientated CA and the meaning-orientated CA), our approach towards the refinement of the analytical method relied on the adequacy of the theoretical alternatives to this research. Therefore, it oriented towards the interpretative approach. The mechanistic approach lacks appropriateness, as the focus of the form-orientated CA relies merely on frequency analysis of the accounted words or expressions, and the meaning-orientated CA on underlying themes in the text. The interpretative CA demonstrates a higher level of adequacy when disaggregating text into parts and describing each part to gain a broader understanding of the whole.

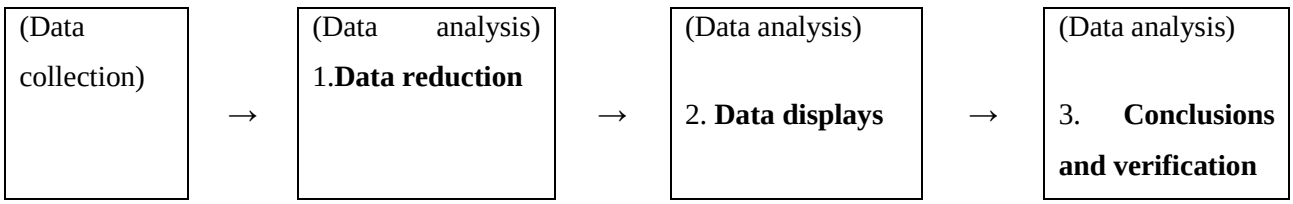
The structure of the qualitative (interpretative-based) CA considered in this thesis is deductive, as the deductive CA is contigent upon the basis of previous knowledge due to the existence of applied and basic research (academic and practitioner-based) studies in the field and market under analysis, although, not with the same paradigmatic stances. The deductive CA accounts for any prior knowledge of the field and cumulatively, any attempts to test theories, in different conditions and timeframes (Elo and Kyngäs, 2008).

Thus, we pursued a deductive approach to theory development, through an iteractive deductive (data) interpretativist exercise of content analysis that is represented in three main phases: preparation, organization and reporting (Elo and Kyngäs, 2008). The preparation phase starts with the selection of

the units of analysis (UAs) related to the interview protocol (or observation protocol) and analytical methodology decision-making. Subsequently in the organization phase a systematized categorization of the language is undertaken (Burnard, 1996; Weber, 1990; cited in Elo and Kyngäs, 2008), which includes the choice of the type of content to analyze - manifest or latent content (Burns and Grove, 2005, Catanzaro, 1998, Morse, 1994, Robson, 1993, cited in Elo and Kyngäs, 2008). In this thesis, we circumscribed ourselves to the manifest content as the non-verbal language (such as silent pauses, sighs, laughter and/or the posture of the interviewees) is not relevant for the aims of the research. The manifest content considered is solely the verbal testimony of the participating interviewees. The audio-recorded data collected throughout the interview is transposed to a written transcript, on which is the interview data is manipulated. Finally in the reporting phase, we strove to generate a double outcome from the analytical practice (in order to perceive the phenomena to make sense of the data and to obtain a better overall understanding (Burnard, 1991; Tesch, 1990; cited in Elo and Kyngäs, 2008).

For the application of the CA method in the thesis, we followed the general analytical procedure of Miles and Huberman (1994) since this procedure prescribes to a systematic treatment of qualitative data that is not tied to any data collection technique (Collis and Hussey, 2014). The framework is based on the content analysis framework of the concurrent flows of activities (Miles and Huberman, 1984), and it involves three simultaneous flows of activities. These overlapping activities are illustrated below in figure 30.

Figure 32 – *Overlapping stages in Qualitative data analysis*



Source: Miles and Huberman (1994, 1984)

The data reduction identifies "*the process of selecting, focusing, simplifying, abstracting and transforming data that appear in written-up field notes or transcriptions*" (Miles and Huberman, 1994:10) and it is the first stage in the data analysis process. Furthermore, data reduction unfolds through three main particularities: the selection of data (according its relevance), the restructuring of data (fitting the data in a theoretical framework) and the detextualizing of data (through a diagrammatic summarization).

Table 12 – *Main features of data reduction*

Main Features	Description
Reducing	Continuous data reduction
Restructuring	Anticipatory data reduction
Detextualizing	Diagrammatic transformation

Source: Miles and Huberman (1994)

The first is the continuous data reduction that accounts for the separation of data according to its relevance for the study, removing the non-relevant parts and giving order to relevant content according to its relations of interest (Collis and Hussey, 2014). The second, anticipatory data reduction, implies the usage of theory to restructure data and order it into categories. The last (detextualizing data) implies the diagrammatic transformation of verbal/written format evidences of relevant content, and its categories using networks (a series of labelled nodes that link to representing the type of relationships between constructs) or matrices (displaying in chronological sequence, in a table format a set of events), and charts and or graphs. In this thesis, networking diagrams are used as described in subsection 3.8.1. *Data Structuring and Codification*. The data display stage is intrinsically related to the detextualizing process as it provides an outcome to the dematerialization of the transcripts (word-based evidence) in the previous data reduction part, summarizing data in a decomplexed format with a systematic order that exhibits the foundation for a diagrammatic analysis of the information for extrapolating further conclusions. In summary, the analytical procedure applied is presented (Table 13):

Table 13 – *Analytical procedure: Method and Framework*

Basis of analysis	Type of analysis
Data - source:	Transcripts (of interviews)
Type of data:	Manifest content
Type of method:	Content Analysis (CA)
Phases of the method:	Preparation, organization, reporting
Method - category:	Qualitative Content Analysis (QCA)
Method - subcategory:	Interpretative QCA
Methods approach:	Deductive QCA
Theoretical framework:	General analytical procedure (Miles and Huberman, 1994)
Framework - activities:	Data collection; data reduction, data displays, and conclusion and verification
Sub activities (of the data reduction activity):	Reducing data, structuring data, detextualizing data
Sub activities of the data display analysis:	Generation of the coding map; and diagrammatic analysis
General data Structuring / coding - description:	Indicated in subsection 3.8.1. data Structuring and Codification

Source: Own elaboration

As the theoretical framework is thoroughly exhibited and advocated for in this section and synthesized in Table 15, it is unveiled within this outline, the data manipulation structuring and its underlying codification.

3.8.1. Data Structuring

Devising an approach that allows a bona fine systematic presentation of qualitative data is at the roots of our structuring and coding methodological process, which is in opposition to the classic skepticism towards qualitative research (Gioia, Corley and Hamilton, 2013). First, we have considered the roots of the language coding systems (in semiotics) that are encompassed on the the models of Saussure (1959) and Peirce (1955) (Bryman and Bell, 2015). Language as an overall system comprised in the *Saussurean* model (semiology) supports the prominence of a sign system based on codes that consider the role of the signifier (a proper sign) and the signified (concept triggered by the signifier). This sign system, it is argued, is based on the link between both the signifier and signified, and the formation of networks and patterns of significance. The key part of the legacy of Saussure (1959, cited in Shank, 1995) is the notion of code, currently perceived as a *"word and short phrase that symbolically assigns a summative, salient, essence-capturing and/or evocating attribute for a portion of language-based or visual data*" (Saldaña, 2015:3). This system fits the *thirdness* of the triadic theory of reality of Peirce (1955) of Aristotelean etymology (of notion of potency and act) where the world deals with laws, rules and habits and contains systems comprised of *firstness* (pure potency – issues of possibility) and *secondness* (pure action-reaction relationship). The model of Peirce (1955) supports both this contextualization and the epistemological and axiological assumptions (related to the participants) about the informant-centric language and commitment to the explanation the reality. Cumulatively we applied the Weber protocol (1990), which refers to a coding scheme for avoiding a biased codification of data, based on eight steps for creating, testing and implementing the coding system.

Secondly, we followed the general analytical procedures of Miles and Huberman (1994, 1984) for analyzing qualitative data, as described in subsection *3.8. Data manipulation and analysis*. Finally, the framework of Gioia (2009) is used to manipulate the qualitative data of a dual first-order and second order coding. Thus, the design of our codification system is based on, the *Saussurean* model

encompassing the primary notion of code, signifier-signified binomial, on first-order and second-order codification, and finally, on the *Weber Protocol* (Saussure, 1959; Weber, 1990).

3.8.2. Data-mining and codification

The Gioia framework (2009) is similar to other twofold systems such as first and second cycle coding (Saldaña, 2009) and/or open and axial coding (Strauss and Corbin, 1998). Even though these taxonomies share commonalities since they interrelate two separate levels of content, although Gioia (2009) exhibits a ductile application, as the remaining focus is hitherto in the grounded theory method.

The Weber protocol (1990) is followed in this research due to its eight step structure that outlines the use of a coding scheme that is perceived as an avoider of the rater bias. The role of the rater is played by the outside-researcher who accumulates the conducted interviews codification testing and implementation.

Table 14 - *Codification System (CS) - Weber Protocol*

Steps	Description
I	Definition of the coding units
II	Definition of Coding Categories
III	Testing the coding (on a sample text)
IV	Assessment of the accuracy on the sample coding
V	Revision of the coding rules
VI	Repetition of testing (until achieving the suitable reliability)
VII	Coding all text
VIII	Assessment of the accuracy and reliability

Source: Weber, 1990

The coding protocol used connects informant-centric insights from the participants with researcher-centric analytics, according to the ground assumptions related to both parts (Eisenhardt and Graebner, 2007), using a *coding frame* linking both tiers (Collis and Hussey, 2014) and the introduction of a pre-testing phase for measuring the reliability of the code (Bryman and Bell, 2015).

The first, informant-centric insights, refers to the practitioner-based language, and terminology conveyed in the words, phrases, sentences and paragraphs verbalized by the participants (Pn). The second, research-centric analytics, exhibits the manipulation (that the outsider-researcher does) of the data from the informants, and its subsequent labelling in *coding units* (Collis and Hussey, 2014); coding categories and rules (Bryman and Bell, 2015). This data manipulation accounts for the concepts, themes, and dimensions (Van Maanen, 1979) in order to reach a wide-ranging body of

evidence that adequately justifies the assertions of this research and fulfills the attributes of sensemaking/sensegivng (Gioia, Corley and Hamilton, 2013). From the amalgamation of informant-centric insights, and a myriad of terms and codes that earlier emerged from the interview protocol the researcher sought similarities/differences and formulated the initial germane categories that will evolve into a more manageable number of categories through a sorting/vetting process. During this stage, the outsider-researcher categories´ data inputs are bifocally manipulated in a methodologically and theoretically manner. The methodological manipulation of data embodies a "gestalt analysis" (Gioia, Corley and Hamilton, 2013; Gioia and Chittipeddi, 1991) consubstantiated in the creation of a first tier of data structuring. The focus is *sensemaking*, through the (re)construction of an explanatory framework (of the meaning system). The second, theoretical manipulation of data, is a sensegiving focus with the aim to capture the relationships among the second order (themes and aggregated dimensions) and to influence sensemaking through the social (re)construction of the observed reality revealed in the interviews. In parallel with this, it should be stressed for the sake of the insusceptibility of this investigation that the (outsider) researcher was aware of the risk of *confirmation bias* in the manipulation of the data, due to the acknowledgement of critical literature in the field (Alvesson and Karreman, 2007; cited in Gioia, Corley and Hamilton, 2013) related with the anticipatory data reduction (Miles and Huberman, 1994). In this way, the first order coding, stages and their characteristics are presented in Table 15.

Table 15 – *1st Order Coding Method*

Phase	Stage	Main features
I	Continuous data reduction	Reducing data –selection and separation of relevant data
II	Anticipatory data reduction	Restructuring data – synchronize informant-centric insights with pre-existing theoretical frameworks and initial germane categorization

Source: Miles and Huberman (1994)

The last feature of the data reduction phase (detextualization), and the third stage (data displays) of the general analytical procedure of Miles and Huberman (1994) for qualitative data analysis are not identified in table 14. The detextualization of data, and subsequently its visual diagrammatic representation are clear research-centric analytical tasks that belongs to the second order coding process, related with the representation of constructs and their interrelations. The second order coding of data accounts for the following order of actions/steps suggested by Gioia and Chittipeddi (1991):

Table 16 - *Second Order Coding Method*

Phases	Description
Phase I	Examination of the insider-researcher contribute, via a content analysis (CA) using the framework of Miles and Huberman (1984).
Phase II	Comparative analysis of data across informants to determine, patterns of convergence/divergence and extrapolate the themes or processes
Phase III	Extract the theoretically explanatory dimensions of the emergent patterns of data
Phase IV	Integrating patterns into a conceptual/theoretical framework represented in a cognitive mapping

Source: Gioia and Chittipedi (1991)

Assuming the form of a diagram that visually represents the observed reality, the cognitive mapping attempts to provide a structure to the testimonies of the participants, representing their verbal contributions (Collis and Hussey, 2014). Subsequently, the verbal information is manually typewritten, and therefore, transformed into a written format evidence (transcript), which is the primary element of data manipulation. Thus, this cognitive mapping reflects our outcome of the assignment of second order data manipulation. The personal network diagram of theoretical constructs, which is generated with the cognitive mapping is a problem-oriented sensegiving purpose (Gioia, Corley and Hamilton, 2013; Gioia and Chittipeddi, 1991).

The use of the cognitive mapping technique, instead of the repertoire grid technique for data structuring of our primary qualitative data is related to the limitations of the latter framework to establish comparisons and interrelations among constructs (Collins and Hussey, 2014).

The principle underlining our process of data structuring and codification is grounded in the fact that the intensive text-mining should not destroy the meaning of it (Miles and Huberman, 1984). Its systematic treatment intends merely to instrumentalize the use of the codification process in order to achieve further comprehension of the reality in a double sense (make/giving), utilizing "gestalt analysis" (Gioia, Corley and Hamilton, 2013; Gioia and Chittipeddi, 1991) and building up a meaning system. While uncovering the major features of the collected qualitative data, we take advantage of its richness and holism (Miles, Huberman and Saldana, 2014), complexity and "thick descriptions" as the researcher interprets an observed setting (Geertz, 1973; cited in Miles, Huberman and Saldana, 2014; Warren and Karen, 2004) and its capacity to explain real life (the naturally occurring ordinary events). In this sense, well-collected and treated data, buttressed by *local groundedness* enables an

understanding of latent, underlying, and nonobvious phenomena (Miles, Huberman and Saldana, 2014) with a greater potential of social construction (Gioia and Chittipeddi, 1991). Summarily, the data structuring and coding system accounts for the following components (in Table 17):

Table 17 - *Morphology of data manipulation*

Components	Phase	Levels-analysis	Levels - description	Codification basis	Purpose - Coding	Agents
Data structuring/ Coding	continuous data reduction	1st-order coding	informant centric	Germane categories	Sense-making (gestalt analysis)	Insider/outsider researchers
Data structuring/ Coding	anticipatory data reduction	2nd-order coding	research centric	Themes and dimensions	Sense giving (meaning system)	outsider-researcher
Cognitive mapping	data display	coding system	diagrammatic	Construct/ semantic interrelations	Sense-giving / Problem-solving	outsider-researcher

Source: Own elaboration

As the coding system above mentioned in Table 17 reflect the whole data structuring, coding attributes, and the cognitive mapping, in subsection 4. *Data Results and Displays* the separate (and aggregated) diagrammatic analysis of the four case studies and of each instance (Figure 23, 24, 25 and 26) can be found here. The underlying codification system is exhibited in appendix 2 and entails the design, rationale, coding frame, units and categories, the coding scheme, and the coding rules.

3.8.3. Measurement Units and Scales

The scales are acknowledged as instruments of measurement and evaluation, self-constructed by the researchers to quantify the responses obtained to a particular variable (Freixo, 2012). Considering the type of data in which the measurement of the phenomena is a reality in this study (secondary data), this section intends to clarify the methodological options with regard to the scrutinized constructs. Therefore, the levels of measurement, the categories, and techniques that were employed are discussed below, along with the underlying rationale for both their selection and relatedness to the aims of our research and research questions. (Table 18).

Table 18 - *Classification of scaling categories and tecnhiques*

Classification	Phenomenon	Data type (P/S)	Aims (An)	R. Questions (RQn)
Scalling technique(s)				
Staple Scale (SS)	Geog. Distance	S	A2	RQ2
Staple Scale (SS)	Psyhic Distance	S	A2	RQ2

Source: Own elaboration

The use of the Stapel scale (SS) is used due to its adequacy for measuring directionality and intensity, instead of applying the SDS fitting the classification of a non-comparative-scale (NCS) type of technique within the subset of itemized rating scale (IRS). The SS comprises five (5) points, due to the appropriateness to measure direction and intensity, as well as its fitness to test either pair adjectives or singular adjectives in a bipolarity or unipolarity mode.

Yet, it should be mentioned that the selection of the scaling technique did not circumscribe itself to the problem definition under investigation, the type of data collected nor to the choice of the type of scales. The choice of the latter accounted for other factors, such as the number of categories, the ordinal and interim properties of the scale, the transivity principle between categories, the type of category labels, and the balancing of the scale (Yusoff and Janor, 2014; Moreira, 2009; Matheson, 2006; Stevens, 1946). The ordinal-level scaling property refers to the transitivity principle of the scale where category A is bigger than B, B is bigger than C, and so forth, so that A is bigger than C.The interim-level indicates the existence of different grades in the scale that account for a constant magnitude along the whole scale (Moreira, 2009).

4. RESULTS

In this chapter, secondary and primary data are combined, respectively, in sections 4.1.and 4.2. First, the secondary data identifies the industrial classification of the (businesses) of the partaking firms (Table 19 and 25). Second, the general characteristics of the firm are described the general characteristics of the firm (Table 20), internationalization profiles (Tables 21, 22, 23 and 24). Conversely, the features of the presence of each firm at overseas markets are mapped (Tablse 25, 26, 27 and 28) and classified the firms in terms of GD and PD according the scaling selection (Table 18) and its corresponding descriptors of the measurement unit of the Staple scale (SS) that are presented in Appendix 3. In parallel, internationalization is outlined within three parameters (assets, revenue and employees) and referred to in terms of each firm´s transnationality position (Table 30 and 31) and risk-perception profile (Table 32).

4.1. Secondary Data

We initiate the approach to secondary data, through a systematic manipulation of data, an overall description of the characteristics of the industry and the partaking firms addressing their strategic business units (BU) and economic classifications, and internationalization features (Table 17).

Table 19 – *Industry-level characterisation (of economic activities)*

SBU	Activity	Sector	Economic Family	Technological Intensity	Internationalization	
					Pattern	Type
1	Manufacturing industries	Secondary	Transactional	Medium-high tech industries	Trade and direct investment	Global

Source: Own elaboration

(Compliance with the ISIC and NACE classifications; Sources: Eurostat, 2008; INE, 2007; Hatzicronoglou, 1997; Grant, 2010; SBU – Strategic Business Unit)

Some commonalities can be observed among the four firms. First, all are private equity (PE) held firms, fitting the classification of a private-owned company (POC) unquoted in the stock markets and with the majority of its social capital detained by Portuguese investors; therefore, adjusted to the 10% threshold of equity and voting power of OECD´s (2007) definition of international investor. Second, they all compete within local and external markets and fit into a pattern of global industries (Grant, 2010). Three cases (F1, F2 and F3) pursue a hybrid model of transactional and investment mode of

internationalization mode, and only one (F4) fits within the pure model of the transactional paradigm. One (F3) possesses headquarters overseas (Spain). Third, these cases exhibit a low level of diversification in their competition patterns, since their activities are concentrated in a sole business archetype; therefore, the observation of the levels of relatedness among businesses inside each case is not applicable. Ergo, they are all congruent with low-level of diversification strategies that are recognized by a dependence of 95% or above, on a single business (Rumelt, 1974; cited in Volberda et al., 2011). In addition, the businesses belong to the transactional economy paradigm, fitting the secondary sector, within the industrial classification of industrial manufacturing firms (INE, 2007). All of these cases are capital-intensive firms that are categorized as industries of medium-low technology (MLT) - F1, F2 and F3 - and low tech (LT) (LT) - F4 - according to the technology intensity classification (Starbuck, 1992; Hatzichronoglou, 1997; OECD, 2011).

Table 20 shows the codes of economic activity where the firms compete, and their current data related with total Assets (A), Revenue (R) and Employees (E).

Table 20 – *General characteristics of F1-F4*

Firms	Assets (A) (M €)	Revenue (R) (M €)	Employees (E) (No.)	ISIC (CAE Rev. 3) / CNAE 2017
F1	38,88	33,44	122	(CAE Rev. 3) 24420 - Production and Transformation of Aluminium
F2	89,28	94,18	185	(CAE Rev. 3) 27320 - Manufacture of other electrical and electronic wires and cables
F3	10,91	4,7	3	(CNAE) C243 - Manufacture of other first class steel products
F4	3,04	2,59	40	(CAE Rev. 3) 16420- Manufacture of wooden articles

Source: Own elaboration

(The total of assests and revenue is expressed in the Millions of Euros (M. €) and is related with exercise of the year 2016. The International Standard Industrial Classification is transposed for the Portuguese as CAE - *Código de Actividades Económicas* (INE, 2007) and to the Spanish law as CNAE - *Clasificación Nacional de Actividades Economicas* (CNAE) where the companies have their headquarters. The CAE revision 3, and CNAE 2017, are the vigent versions.)
(F1, F2 and F3 – code 27; F4 – code 22 for technology intensity classification - Eurostat (n.d.); high-tech (HT); medium-high tech (MHT); medium-low tech (MLT); low-tech (LT)

Using the accounting data of the firms from the year 2016, the table above compares the general characteristics of the four partaking firms, uniquely considering that period (civil year) with inward data provided voluntarily provided by the participants. The results demonstrate a clear supremacy of

F2 in all three parameters A, R and E, and similarly, a clear position of F1 with second highest results. The results of F3 and F4 are intermittent, because F3 holds a third place in the A and R parameters while F4 holds the same place in the E parameter.

4.1.1. Host-markets

To comprehend the internationalization patterns of each case, the foreign market´s implantion are analyzed (Table 19, 20, 21 and 22). Therefore, the total number of markets were identified, showing where each firm is currently settled, its starting point, the longevity, the typology of the markets and the generated revenue.

Table 21 – *Case-study: Internationalization profile of F1*

Factor	Entry (Year)	Longevity (Year)	Exit (Year)	Revenue (2016)	GCI Ratio	GCI Level
Internationalization				15,78		
Spain	1995	12	-		4,7	3
England	2001	16	-		5.5	3
France	2006	11	-		5,2	3
Italy	2008	9	-		4,5	3

Source: Own elaboration

(The revenue is expressed in the Millions of Euros (M. €) aggregated of all markets. The GCI (Global Competitive Index) level is 3 (innovation-driven), level 2 (efficiency-driven), level 1 (factor-driven) and in transition (1-2; and 2-3). The economies not classified appear with "n.d." (Not defined).)

In case F1 that the firm focusses its attention towards the European markets, centered in the EU Zone. It operates in a restricted group of four countries of greater geographical proximity. The firm´s internationalization is in an adult phase since it started in 1995, and the firm reveals an average presence of twelve years per market. The markets exhibit some similarities, which is a high global competitive ratio in the global competitive index (GCI), all of which are classified as innovation-driven economies (level 3).

Table 22 - *Case-study: Internationalization profile of F2*

Factor	Foreign Markets					
	Entry (Year)	Longevity (Year)	Exit (Year)	Revenue (2016)	GCI Score	GCI Level
Internationalization				57,94		
Cape Verde	1985	22	-		3,8	2
Spain	1995	12	-		4,7	3
England	2001	16	-		5.5	3
Germany	2004	13	-		5,6	3
Belgium	2005	12	-		5,3	3
Netherlands	2005	12	-		5,6	3
S. Tome & Prince	2005	12	-		*n.d.*	-
France	2006	11	-	57,94	5,2	3
Italy	2008	9	-		4,5	3
Switzerland	2010	7	-		5,8	3
Chile	2012	5	-		4,6	3
Hungary	2013	4	-		4,2	2
Morocco	2015	2	-		4,2	2
Jamaica	2015	2	-		4,1	2
Czech Republic	2015	2	-		4,7	3
Mauritania	2016	1	-		2,9	1

Source: Own elaboration

The revenue is expressed in the Millions of Euros (M. €). The GCI (Global Competitive Index) level is 3 (innovation-driven), level 2 (efficiency-driven), level 1 (factor-driven) and in transition (1-2; and 2-3). The economies not classified appear with "n.d." (Not defined).

The F2 case discloses substantial differences compared to the first (F1). First, the number and type of markets where it operates since it is present in sixteen different countries, in three different continents (Europe, Africa and America). In Europe its presence is observed in the Euro-zone, in other EU State-Members (Euro28) and in other non-E.U. nations. Outside this region, the firm is also represented in the African continent belonging to the CPPL-Member countries and to the Magrebe in North Africa, and in America to Central and South American countries. The firm´s internationalization started previously (than F1) and exhibits an average longevity per market of 8,88 years.

This case reveals a higher level of greater market diversification. The competitive scope is spread across a broad number of geographies and encompasses countries within the GCI levels 1, 2 and 3.

Table 23 – *Case-study: Internationalization profile of F3*

Factor	Foreign Markets					
	Entry (Year)	Longevity (Year)	Exit (Year)	Revenue (2016)	GCI Score	GCI Level
Internationalization						
Chile	2012	5	-		4,7	3
Colombia	2012	5	-		4,3	2
Paraguay	2015	2	-	6,39	3,7	2
Uruguay	2015	2	-		n.d.	-
Honduras	2016	1	-		4,0	2

Source: Own elaboration

(The revenue is expressed in the Millions of Euros (M. €). The GCI (Global Competitive Index) level is 3 (innovation-driven), level 2 (efficiency-driven), level 1 (factor-driven) and in transition (1-2; and 2-3). The economies not classified appear with "n.d." (Not defined)).

Case number 3 reveals substantive differences compared to the previous firms. First, this firm is in an early-stage of internationalization, which began in 2012; therefore with a lower longevity per each host-market. Second, this firm is registered with an altered orientation with regard to the host markets, demonstrating a clear preference for the South American region towards Spanish-speaking countries with a GCI level 1 and 2. Notably, what these firms have in common is a non death-rate regarding the abandonment/loss of external positions. The revenue of F3 is also significantly lower than from F1 and F2. F3 annual revenue in the civil year of 2016 represents 40.49% of F1 and 11.03% of F2´s figures for the same indicator and time period.

Conversely, we may emphasize on this data that F2 occupies one hegemonic leadership among the other cases in terms of revenue, seniority and longevity in foreign markets and market heterogeneity (expressed in the GCI scores) with geographical dispersion through three different continents. In addition, is the only case maintaining a position at the markets of the CPLP; however, both cases F2 and F3 exhibit the presence at Portuguese- speaking and Spanish-speaking markets. Yet, data reveals that the international exploration/exploitation processes at Hispanic markets is more pronounced in F3. Thus, the F1 and F2´s internationalization model might be guided by cultural proximity comprised in the U-model´s psychic distance factor conditions, which will test in primary data.

Table 24 – *Case-study: Internationalization profile of F4*

Factor	Foreign Markets					
	Entry (Year)	Longevity (Year)	Exit (Year)	Revenue (2016)	GCI Score	GCI Level
Internationalization						
Cape Verde	1985	22	-		n.d.	2
Spain	1995	12	-		4,7	3
England	2001	16	-		5.5	3
Germany	2004	13	-		5,6	3
Belgium	2005	12	-		5,3	3
Netherlands	2005	12	-		5,6	3
S. Tome & Prince	2005	12	-		*n.d.*	-
France	2006	11	-		5,2	3
Italy	2008	9	-		4,5	3
Switzerland	2010	7	-	2,1	5,8	3
Chile	2012	5	-		4,6	3
Colombia	2012	5	-		4,3	2
Hungary	2013	4	-		4,2	2
Morocco	2015	2	-		4,2	2
Jamaica	2015	2	-		4,1	2
Paraguay	2015	2	-		3,7	2
Uruguay	2015	2	-		n.d.	-
Czech Republic	2015	2	-		4,7	3
Honduras	2016	1	-		4,0	1-2
Mauritania	2016	1	-		2,9	1

Source: Own elaboration

(The revenue is expressed in the Millions of Euros (M. €). The GCI (Global Competitive Index) level is 3 (innovation-driven), level 2 (efficiency-driven), level 1 (factor-driven) and in transition (1-2; and 2-3). The economies not classified appear with "n.d." (Not defined)).

Looking at case F4 some distinctive features are acknowledged, through a dyadic comparison with the other firms. First, it encounters the widest market diversification among the case studied firms. Second, the fact that these markets, and respectively the firm´s entry-dates into these markets, rigorously correspond to the data observed in cases F1, F2 and F3. Hence, an assumption can be raised regarding the rationale of these figures, which is the claim that the IB of F4 is leveraged by interaction with F1, F2 and F3, given the acknowledged fact that they belong to the same corporation. This issue is, further examined in subsection 4.3 *Triangulations´ mapping*, and at section 5. *Findings*. Table 25 synthesizes the cases.

Table 25 - *Case-study: Aggregated data (F1~F4)*

Factor	Foreign Markets				
	No. Markets	Longevity (*n* years)	Revenue Abroad (RA) (2016)	RA/TR (%)	GCI Score ($\bar{x}$)
Internationalization					
F1	4	22	15,78	40,59%	4,98
F2	16	32	63,90	64,90%	2,68
F3	5	3	57,94	58,55%	4,18
F4	20	7,6	2,10	40,86%	4,32
F1-F4	*20*	*7,67*	*34,93*	*51,23%*	*4,29*

Source: Own elaboration

(*TR* represents the Total Revenue of the firm in the year 2016. RA is revenue of international operations. Both express the mean of the instances (in F1-F4), in Millions of Euros (M) for the year 2016.)

From the observation of the figures above it is clear that the firm with the highest market diversification inversely exhibits the lowest RA. Paradoxically, the one with the second lowest diversification demonstrates the highest RA. Conversely, F1 and F2 exhibit higher longevity rates. The opposite phenomenon is observed in F3 (the one with second lowest number of foreign markets), which accounts for the singularity of being the one focused in the American continent, within Spanish-speaking countries and the only one who possesses headquarters outside Portugal being located in Spain (Madrid) . The figures accounted for in the number of markets and the longevity phenomenon, when compared, do not account for any specific pattern. This is similar for the ratio RA/TR, and the market presence with RA/TR. The GCI indicators reveal a diametrically opposite approach of F2 (compared with the others) because as it is oriented towards efficiency-driven economies (GCI level 2). In a cross-analysis of the GCI and GEM (Global Entrepreneurship Monitor) that measures the total entrepreneurship activity (TEA) of the nations, it was observed that the F3 host-markets (efficiency-driven) are inventoried among the stage 2 countries, with an efficiency-drive (GEM, 2017). In addition to the analysis of the profile of the industry and the company (and its host market preferences), we also analyzed the relationship of the latter with the geographical position of Portugal. In this context, we have taken into account the phenomenon identified above in Chapter 1. Introduction, and we considered, in parallel (to the geographic distance - GD - of Portugal to the external markets), a second factor, its psychic distance (PD). Thus, we analyzed the GD and PD factors according to geographic and psychic peripheral measurement scale of business. For this purpose, an SS (Staple scale) was used as described in subsection 3.9.3 *Measurement Units and Scales*, and according to the measuring unit´s developed in conformity, and in attachment, to the SS which is exhibited in Appendix 3 – Measurement Units and Scales of secondary data. The results are presented below in Table 26, 27, 28 and 29.

Table 26 - *F1: Current external markets and perception of GD/PD*

Market(s)	Entry year	GD[1]	PD[2]
Ireland	1993	L	H
Spain	1995	VL	H
England	2001	L	H
France	2006	L	H
Italy	2008	L	H

Source: Own elaboration
([1]; [2] -The GD and PD scales are exhibited in Appendix 3)

F1 observes the adherence to the host markets of geographic peripheral proximity and symmetrically the disregard of PD.

Table 27 – *F2: Current external markets and perception of GD/PD*

Market(s)	Entre year	GD[1]	PD[2]
Cape Verde	1985	M	VH
Spain	1995	VH	H
England	2001	H	H
Germany	2004	H	H
Belgium	2005	H	H
Netherlands	2005	H	H
S. Tome & Prince	2005	M	VH
France	2006	H	H
Italy	2008	H	H
Switzerland	2010	M	VL
Chile	2012	L	M
Hungary	2013	H	H
Morocco	2015	H	VL
Jamaica	2015	L	VL
Czech Republic	2015	H	H
Mauritania	2016	H	VL

Source: Own elaboration
([1]; [2] -The GD and PD scales are exhibited in Appendix 3)

With respect to F2, a symbiotic market presence was observed comprising a positive sensitivity to both GD and PD factors. Although, it should be noticed that most market belongs to the EU. However, the exposure to the GD factors will be under radar when manipulating and analyzing the primary data to comprehend how the Portuguese-speaking markets demonstrate either a true or spurious relation with the internationalization model of the firm.

Table 28 – *F3: Current external markets and perception of GD/PD*

Market(s)	Entre year	GD[1]	PD[2]
Chile	2012	L	M
Colombia	2012	L	M
Honduras	2016	L	M
Panamá	2015	L	M
Uruguay	2015	L	M

Source: Own elaboration

([1]; [2] -The GD and PD scales are exhibited in Appendix 3)

A peculiar feature is evident in the F3 case. First, the circumscription that is unique to the Central and South American host-markets can be observed. Second, those that belong to the Organization of Ibero-American States, Mercosul are all Spanish-speaking nations (SEGIB, n.d.). Third, both Spain (where the headquarters are settled) and Brazil (as Portuguese-speaking country) are members of the Organization of Ibero-American States, which may be indicative of the adherence to the PD factor; however the scale is not demonstrative of the phenomenon (as the SS was built on the assumption of analyzing GD/PD to/from Portuguese territory´s realm). Yet, primary data analysis will clarify if it exists either, a true or a spurious relation, between IPPF (in F2) and the GD phenomenon.

Table 29 – *F4: Current external markets and perception of GD/PD*

Market(s)	Entre year	GD[1]	PD[2]
Cape Verde	1985	M	VH
Ireland	1993	M	H
Spain	1995	VH	H
England	2001	H	H
France	2006	H	H
Germany	2004	H	H
Belgium	2005	H	H
Netherlands	2005	H	H
S. Tome & Prince	2005	M	VH
Italy	2008	H	H
Switzerland	2010	M	VL
Chile	2012	L	M
Hungary	2013	H	H
Morocco	2015	H	VL
Jamaica	2015	L	VL
Czech Republic	2015	H	H
Colombia	2012	L	M
Honduras	2016	L	M
Panamá	2015	L	M
Uruguay	2015	L	M
Mauritania	2016	H	VL

Source: Own elaboration

([1]; [2] -The GD and PD scales are exhibited in Appendix 3)

The results of F4, as above explained, as leveraged, with regard to the international operations, by the F1, F2 and F3. The firm exhibits a mature presence at the host-markets, triggered by the sales performance of other sister companies within the corporation. Moreover, the interpretation of this data does not signal in F4 any GD or PD propensity towards external markets and primary data it is critical for the comprehension of the IPPF4.

4.1.2. Transnationality Indexes (TNIs)

In the subsection 4.1.1 *Host-markets*, we have immersed into the observation of the external markets of the partaking firms. In an aggregate (F1-F4) and isolated way (F1, F2, F3 and F4), the germane issues were addressed as follows: number and identification, competitiveness ratios (using the GCI and GEM), generated-revenues, and addressing seminal distance factors (GD and PD), referred in literature, in line with the problem statement presentd in Chapter 1 (Johanson and Vahlne, 1977; and Ghemawatt, 2008). We recall that this data came after, a previous quantification of the markets of competition, a description of the seniority in these markets and longevity and death rate in these markets.

Table 30 – *Transnationality Index (TNI) – Analysis of sample results and the RIEP*

	Sample				RIEP	
Factors	F1	F2	F3	F4	∑ (μ)	10 (x̄)
TNI						
F(n)	0,14	0,22	0,53	0,26	-	-
Mean			0,29		0,33	0,73

Source: Own elaboration

(Based on the technical report of RIEP for the year 2016. The μ represents the Population of firms assessed in RIEP´s ranking. The "10 (x̄) the average result of Top-ten companies with highest TNI)

Looking at the TNI ratios, the results are demonstrated as being quite balanced. First, the mean (F1-F4) of TNIs registers at a result bellow 42.42% of the average of the RIEP universe of 2016. Second, F1 accounts a ratio below the barrier of 0.20. This is an indicator of a low external market drive because the TNI ratios that are equal or below 0.20 uncover a domestic market-orientation (Collinson, Narula and Rugman, 2017). Second, the cases F2 and F4 exhibit a TNI ratio of 0,22 and 0,26 respectively that is 10% and 30% respectively higher than the minimum breadth of 0,20. Third, F1 reveals a TNI of 0,14 which is 30,00% below the thresholds of 0.20 (which divides the low and

moderate international orientation) and 57% below the average of the RIEP. Thus, despite the RA figures of F1, and its presence in four different markets, the TNI indicator prescribes a sintomic procrastination of its external commitment. Therefore, it is critical to comprehend why the F1 with a high exposition and dependence on the external markets in its TR results is above 40 percent, may score low in TNI. A similar reflection can be extended to the other partaking firms.

An interpretation of the TNI results presupposes an initial apprehension of its dimensions and parameters. The TNI accounts for the firms´ assets (A), the revenue (R) that we have already explored above, and employees (E). The index weighs the relative international positions of these dimensions on the overall of the firm, according to the algorithm presented in subsection 3.5.2.2. *Sample size and identification*. The parameters considered are the assets abroad (AA), the total assets (TA), the revenue abroad (RA), total revenue (TR), the employees abroad (EA) and total employees (TE). All parameters are quantitative measures of the numbered units.

Table 31 – *Transnationality index (TNI) – Overview of parameters*

	Active		Revenue		Employees		Parameters	TNI
Factor	Aa	Ta	Ra	TR	Ea	TE	*n*	
TNI (Fn)								
F1	-	33,44	15,78	38,88	-	122	3	0,14
F2	-	94,18	57,94	89,28	-	185	3	0,22
F3	4,7	4,7	6,39	10,91	-	3	3	0,53
F4	-	2,59	2,1	3,04	3	40	3	0,26

Source: Own elaboration

(The unit of measure in the parameters was the Million Euro (M €); Data rounded to decimals and based on information provided by the firms (for the year 2016))

Accounting these six parameters, and relating it with these previously collected data from F1-F4 distinctive features among cases can be observed. In F1 the results are quite evident of an accentuated adherence to the transactional mode of internationalization due to null AA and EA results and simultaneously the lowest RA/TR of 40,59% (as exhibited in Table 23). The other two cases (F2 and F4) reveal low levels of investment abroad in AA and EA indicators, although the indexes are above the barrier of 0,20 due to a higher dependence of RA/TR.

F3 distances itself from the other partaking firms. It is the only firm above the sample average and the national average of the RIEP index. Second, it has the highest score of the sampling firms, and finally, its TNI difference to the other partaking firms is above 50%.

4.1.3. Internationalization risk-level profile (C and U ratios)

The market presence of F1-F4, which is shown in Tables 24, 25, 26 and 27, have been cross-referenced with the SS scale (Table 18) and measurement units of scaling (Appendix 3). This made it possible to track the risk profile of the firms as described in literature where the internationalization decisions are based on GD and PD factors are acknowledged as intrinsically connected to sensitivity to risk (Johanson and Vahlne, 1977; Johanson and Wiedersheim-Paul, 1974).

Table 32 – *Classification of market-risk perception (GD/PD)*

Factor	Geo distance (GD)				Psychic distance (PD)				Scale
	F1	F2	F3	F4	F1	F2	F3	F4	GD/PD
Risk-level									
Very-high (VH)	-	1	-	1	-	2	-	2	5
High (H)	-	3	5	5	5	11	-	11	4
Medium (M)	-	1	-	1	-	1	5	5	3
Low (L)	4	10	-	10	-	-	-	-	2
Very low (VL)	1	1	3	4	-	3	-	3	1

Source: Own elaboration

(The classification of the markets per risk-level accounts for the provided information of the firms (of their foreign markets and the date of entrance). No ponderation applied to the level of market commitment or antiquity per market. The GD and PD contains the counting of firms fitting the category. The scale is identical for GD and PD.)

The results reveal that F1 gives preference to markets of high geographical and proximity, while F2 falls under the category of mostly low proximity but with a high psych distance. Inverselly, F3 reveals no dependence whatsoever on GD and a moderate PD, and F4 reveals a predominance of L in GD and H in PD. The whole sample illuminates that the four cases fit the L tier in GD, and the H in PD, which means that companies give higher importance to markets of relative proximity and account for, at a moderate-low level the historical, cultural and linguistic connectivity to their host-markets.

Moreover, we have correlated the market-risk perception using the GD and PD, and the TNI scores of the parameters AA, TA, EA and TE to obtain, respectively, an uncertainty (U) and a (market) commitment (C) ratio of the firms, following the U-model. For this purpose, we have used the results

of the scale SS (as summarily displayed in Table 32), considering the GD and PD of each market (according to the scale) and obtained the follow results:

Table 33 - *Market Commitment, Uncertainty and Max. Tolerable Risk (C, U and R) - Sample Results*

Factor	Ratio				Units of Measurement	
	F1	F2	F3	F4	Central tendency($\bar{x}$)	Dispersion Var. ($\sigma 2$)
Commitment (C) ratio	0,41	0,65	1,59	0,69	0,83	0,28863
Uncertainty (U) ratio	0,58	0,66	0,7	0,65	0,65	0,00251

Source: Own elaboration

First, it is worth mentioning that the revenue dimension (and the two parameters of RA and TR) was excluded, as the revenue does not account for the determination of commitment or uncertainty in the U-model. Second, the zero scoring parameters were removed, due to the absorbent property of the null values. Third, uncertainty perception is, according to the U-model *moderate* according to the U-model descriptors of risk ($\geq$ 0,66 - high-risk); $\leq$ .0,66 $\geq$ 0,33 (moderate-risk); and $\geq$ 0,33 (low-risk), presented previously in subsection 3.5.5.2. The U variance is almost incipient. However, the commitment ratios exhibit a high variance increased by F3 results in comparison to the remaining firms. The clear distinction in the assets abroad leveraged the results of the firm.

4.2. Primary data

The data collection occurred subsequently between the period of 6th of July and 11th of July 2017, after the pre-testing phase of the pilot testing of the questions in terms of their validity, suitability and acceptability. The pre-testing was conducted in March 2017 between the period of 15th and 17th of March, where the top-management were provided with access to the interview questions of the interview guide, and discussed the probes as extra-guide content. The primary data collection is consubstantiated in vis-à-vis interviews with the participants (P1-P7) accounting for two hundred and ninety minutes (292 minutes) of sound recorded content. The observed material resulted from the verbal contributions of the interviewees. The completion of the task of data collection required the use of the following instruments: the demographic profile questionnaire and the interview guide and interview agreement form. For this purpose the interviews with middle and top managers of the partaking firms (F1-F4) in the study were previously arranged. The tables below contain the general characteristics of the interviewees and the demographic profiling of the interviewees.

4.2.1. Demographic Profiling of the Participants (P1-P7)

The Table 32 exhibits the general characteristics of each UA. First, its correspondence to the firms, the contextualization of the participant with a managerial tier, and the contributions portrayed in the number of questions answered and the total duration of the interviews.

Table 34 - *General characteristics of the interviews*

	No. of UAs/firm (Fn)				No. of participants per Hierarchy		Questions		Idioms	
UA(n)	F1	F2	F3	F4	Top Mang.	Middle Mang.	No.	Time (min.)	Interview/ Transcription	Retroversion
F(n)	2	2	2	1	4	3				
UA1	x				X		10	25		
UA2	X					X	12	39		
UA3		X			X		8	39	PT	PT-EN
UA4		X				X	10	65		
UA5			X		X		9	52		
UA6			X			X	12	37		
UA7				X	X		9	36		
Aggregate							*70*	*293*	*PT*	*EN*

Source: Own elaboration

The order of the application of the interviews is identified in Table 8, according to the participants´ availability. Each UA was transcribed in Portuguese (PT) language and translated into English (EN) language. In total seven UAs were investigated, corresponding to the same number of participants, as each vis-à-vis unit of observation encountered a single participant. The average contribution per interviewee comprises the responses to ten questions in a total time of 42 minutes. The participants occupy managerial positions at top and middle management levels. The hierarchical range of interviewees varied from the Chief Executive Officer (CEO) to the Head Account Manager for International Markets, and their functions restricted to the functional areas of the Board of Directors, the Finance Department, and the Marketing and Sales Department. The variation observed in the questions complies with an adaptation to the design of the interview guide, as explained in subsection 3.6.1 *Interview Method,* as the data collection method applied contains variations (to the interview guide) to allow a further in-depth approach towards the achievement of the point of saturation of data.

The interviewees´ profiles are shown below (Table 35) because the demographic profile of the sample accounts for the data on each individual with regard to gender, age, education level and seniority in

the firm. The level of hierarchy in the organizational structures is shown in Table 35, while the identification of the participants is addressed in Table 9, at subsection 3.5.5.3 *Units of Analysis*.

Table 35 - *Demographic Profile of Participants (Pn)*

	Gender		Age group			Seniority			Education	
F(n)	M	F	35-45	45-55	55-65	<10	≥10 ≤20	>20	Level	Type
F1	2	-	-	1	1	-	1	1	Bac. degree	B. Administ.
F2	2	-	-	1	1	-	1	1	Bac. degree	Eng.; Law
F3	2	-	-	2	-	-	-	2	Bac. degree	Engineering
F4	1	-	1	-	-	1	-	-	Bac. degree	B. Administ.

Source: Own elaboration

Some commonalities are recognized in the profile of the participants. First, in gender, as it is acknowledged that they are all male. Second the age level accounts for a mean of 50,43 years. Likewise, the seniority registers an average rate of 20 years of permanence at the company (average starting year of 1997). All possess higher education at the bachelor degree, within three fields, business administration, engineering, and law. Therefore, a rhetorical assumption may be raised regarding the link of the profile of the participant and the importance of their profile for the collection of thorough and assertive information. It may be argued that general profile of the participant, which demonstrates the combination of higher education, high seniority, and high responsibility at middle/top-level positions may be decisive for attaining the saturation point of information required to comprehend the IPPFs.

The profiles of the participants are derived from the application of demographic profiling questionnaires, complementarily to the interview guide (Appendix 1) and the interviews agreement forms.

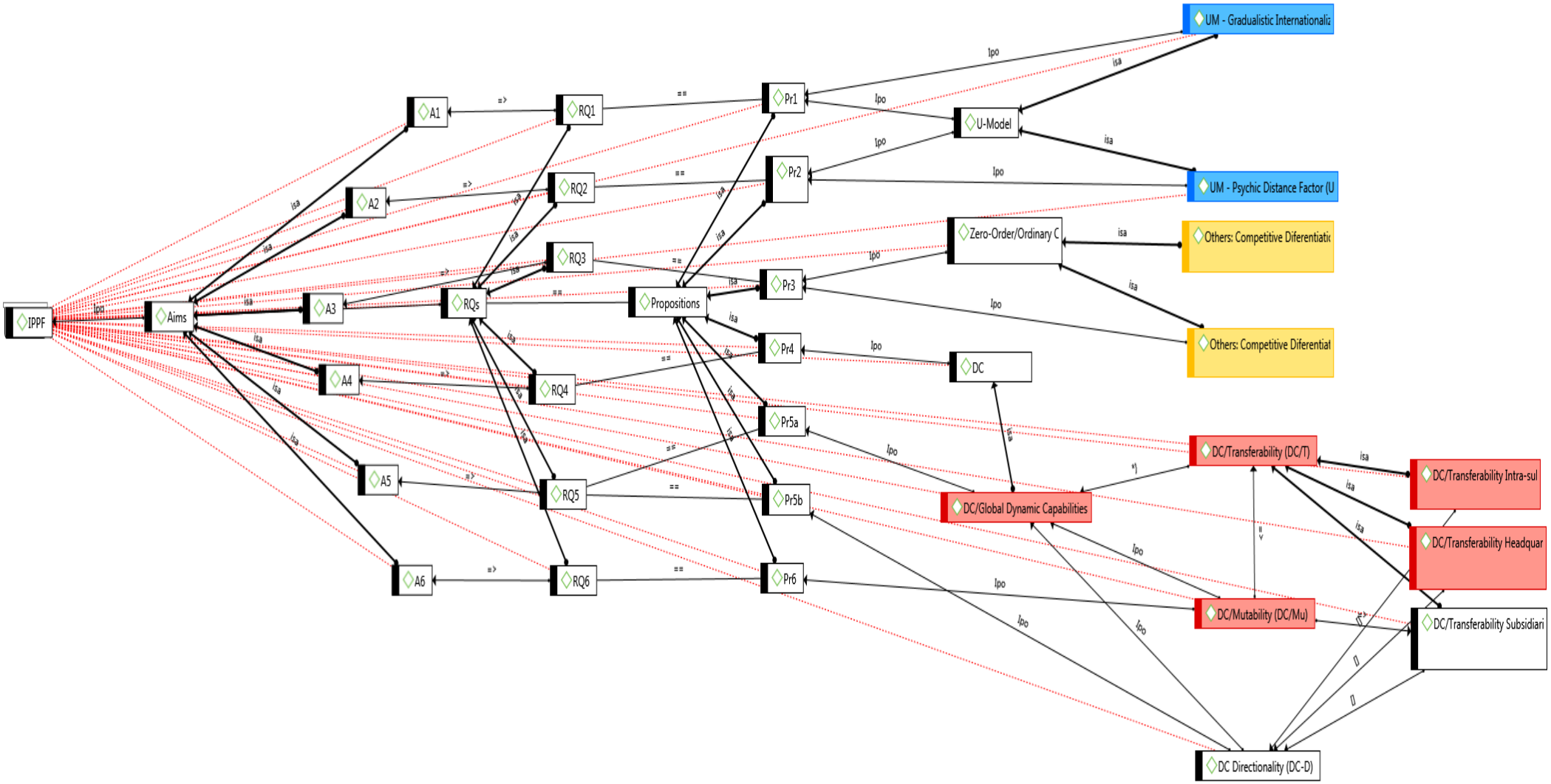
4.2.2. Empirical model – IPPF Testing

The collected data was manipulated according the coding system, through the usage of a CAQDA software (Atlas.Ti version 8). The manipulation process implied the articulation of numerous elements: First the transcripts (stored in word document format files), especially, the retroversion PT-EN part of the text; second the structure of this thesis, encompassing the aims, research questions and propositions underlying this research design. The codification system was used as a methodological tool that was applied according to the theoretical framework that followed. Here, we focused on the

coding units and frames because our data are CAQDA manipulated and other elements are accounted for, one QDA project and seven hermeneutic units (HUs) which were generated from each transcript, with the equivalent of one HU per UA. The codifiable parts of the text became the quotations in the codification system, which were codified according to the coding units of the Appendix 2. The connection between the codes and the quotations (as interviewees' codifiable content) is obtained through a set of relations and rules of the coding links and hyperlinks that are, thororoughly explained in the coding system guidebook (Appendix 2). These connections follow our assumptions, such as, the rhetorical assumption that the verbal language used by the participants is a sign system that contains two components: the signifiers (information passed by the participants) and signifieds (parts of the language from participants - quotations - codified by the outsider researcher.

The data manipulation process allowed the empirical testing of propositions (Pr1-Pr6) in order to address the RQs (RQ1-RQ6) and subsequently answer the research aims (A1-A6) according to the empirical testing model, represented below in the semantic diagrammatic network (Figure 33), with an orthogonal-tree shape.

Figure 33- *Empirical model of the IPPF Testing*



Source: Own elaboration

Figure 33 exhibits a dependency logic between the constructs applying the activity-on-node (A-o-N) method (Maylor, 2010). The colored nodes indicate that the phenomenon is positively observed in the transcripts and it contains first-order codes. Each color belongs to a distinctive theoretical family. The blue, red and yellow nodes determine, respectively, that the constructs belong to different dimensions of analysis (U-model, DC and OP) as identified in the codification system (CS) guidebook.

All the links between nodes are composed of both signs and arrows. The signs indicate the nature of the relations (R) between these nodes. The arrows expose the directionality of the interdependence of the nodes. The symbology of the relationships between the nodes in CAQDA applied in the empirical model is described below:

Table 36 - *Coding relations symbology*

Name	R symbology			
	Identification	Description	Symbol	No.
Contradicts	symmetric	Contrary argumentation or advocacy of concepts at the same abstrational level	< >	0
Is a	transitive	The ISA relation links specific concepts to general concepts	isa	32
Is a property of	asymetric	A meta relation between a concept and its attributes	Ipo/*)	21
Is associated with	symmetric	Relates concepts without subsumption.	= =	8
Is a cause of	transitive	Used for representing causal links, processes, and other heuristic representation forms	= >	9
Is opposite of	asymmetric	Incompatible rationale between attributes, and/or constructs	Is op of	1
Is part of	Transitive	The part-of relation links objects, not concepts of different abstractional level (as does ISA)	[ ]	4

Source: Own elaboration

The symmetric type of relations indicate a unidirectionality of the code links and hyperlinks, and the asymetric a bidirecionality, while the transitive relations denote a cause-of relation. No intransitive relations were pinpointed.

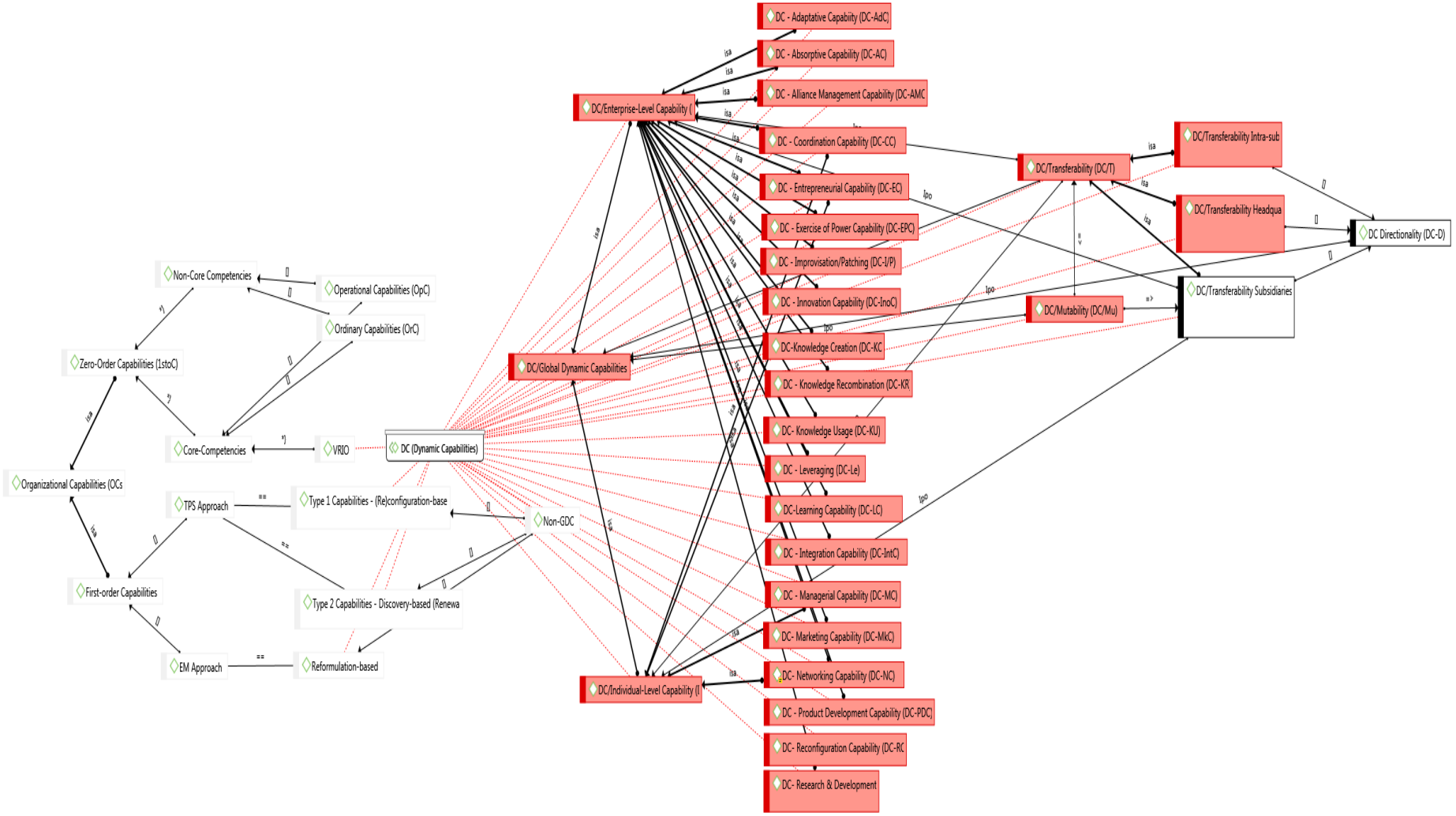
The second-order analysis unfolds three different families of main codes (dimensions): the DC (dynamic capabilities), the UM (U-model) and the OP (Other paradigms), which account for 3 themes in the dimension DC, 2 themes in dimensions (UM) and 5 themes in dimension OP.

These themes correspond to aggregative sub-families of concepts within each dimension, as explained in the coding system in appendix 2. The DC dimension (and respective themes), account 25 coding units, while the OP 23 and the UM 13, as indicated in Appendix 2. The coding units are string variables because the content relates to text or theoretical constructs manipulated through the usage of qualitative data.

The semantic diagrammatic networks below expose the aggregate of each one, while accounting for the first-order codes, and exhibit in parallel the phenomena observed in the first-order according to the informant-centric insights (Figures 23, 24 and 25).

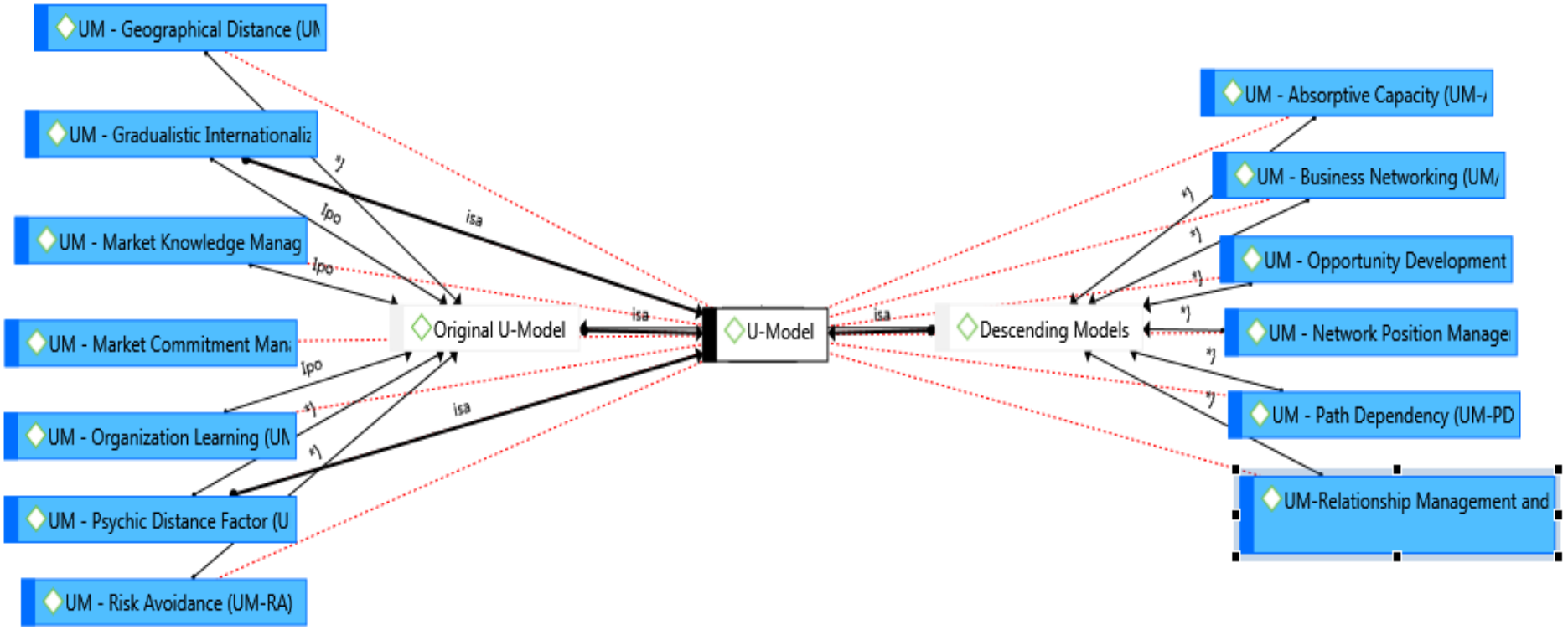
The non-colored (or white) nodes correspond to components of the research paradigm that are not codified within the three dimensions above mentioned (DC, UM and OP), taking into it, for example the node of ordinary capabilities. It is shown as one element in Figure 34, although operational/ordinary capabilities are zero-order capabilities that do not belong to the DC – dynamic capabilities dimension and are therefore not included in the inventory of references of coding units.

Figure 34 - *2nd-order coding of dynamic capabilities (F1-F4)*



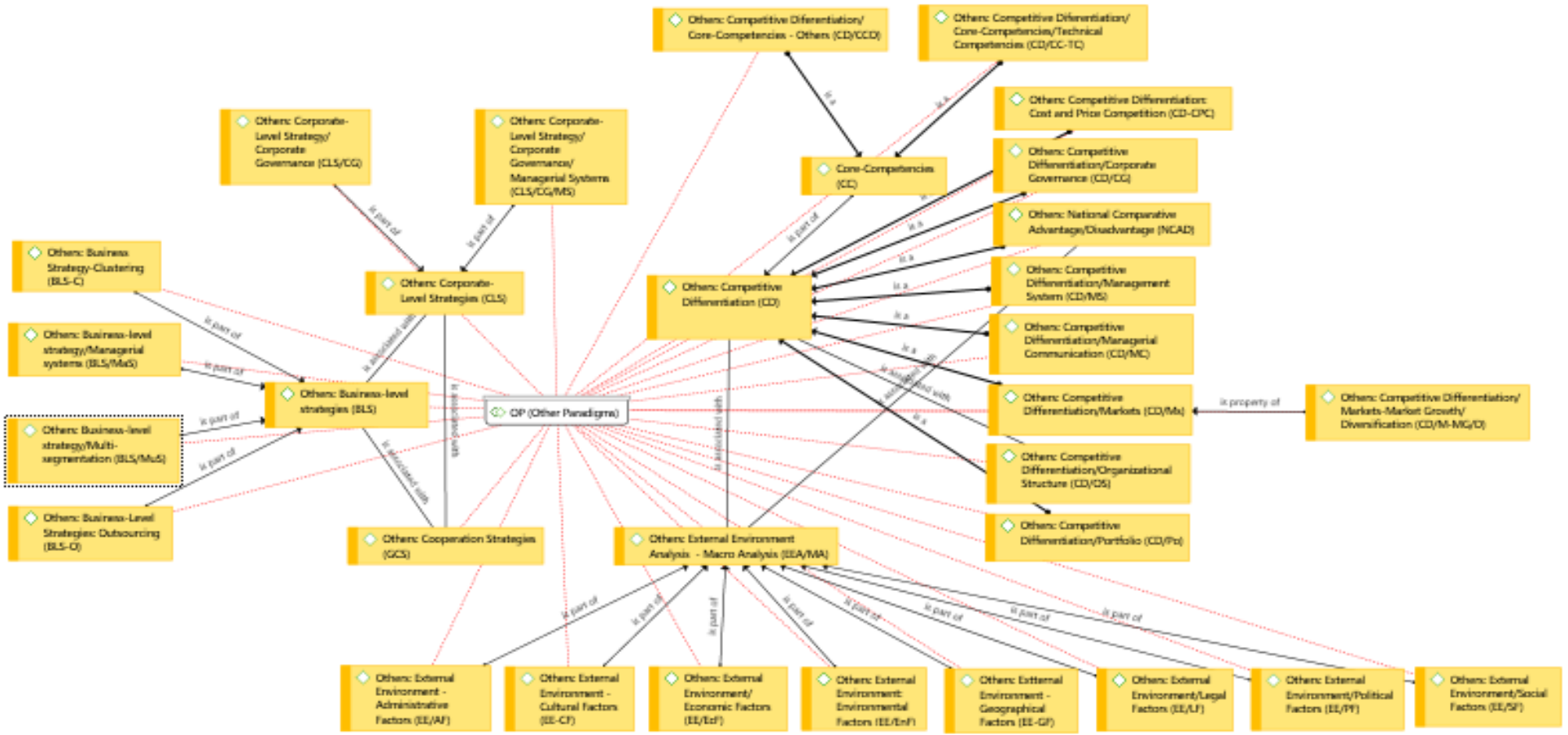
Source: Own elaboration

Figure 35 - *2nd-Order Coding - U-Model (F1-F4)*



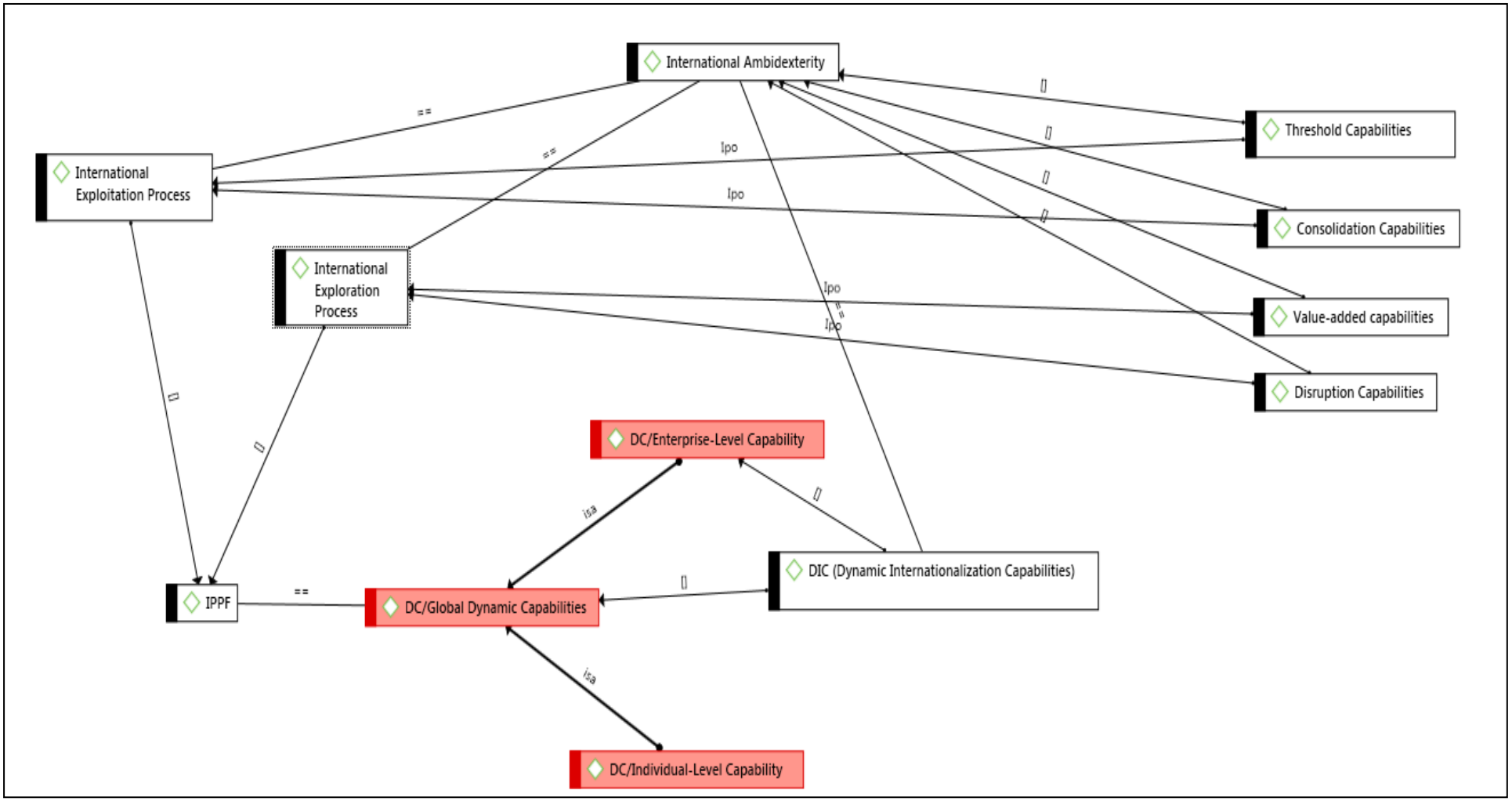
Source: Own elaboration

Figure 36 - *2nd-order coding - Other Paradigms (F1-F4)*



Source: Own elaboration

Figure 37 - *GDCs and DIC (Dynamic Internationalization Capabilities)*



Source: Own elaboration

Figures 34, 35 and 36 exhibit a holistic semantic diagrammatic representation of the coded quotations at the first and second-order coding levels of all the partaking firms. Therefore, an aggregated network does not encompass the specificities of each firm and the relations across the three coding dimensions (DC, UM, and OP). For this purpose, the methodology will proceed in subsection 4.2.3. with a separate analysis per firm.

4.2.3. Primary QDA Results

For delivering the primary QDA results, it should be refered that the manuscripts were object to manipulation, identifying the codifiable quotations with the informed insghts of the participant that match the first-order codes and then these codes were applied to a second-order coding process of the researcher, where these initial codes are matched to the dimensions and themes of the constructs, identified by the literature review. The tools for exposing the QDA results comprise the frequencies of codified quotations, the rastreability of the coding links and hyperlinks, the semantic diagrammatic networks, and the crosstabulation of co-occurrences in the Cooc matrices. Together these will allow the patterns of intra-construct and intra-coding to be traced. Although, for the second-order coding to occur, the first-order coding is organized into second-order coding categories - themes and dimensions - as exhibited in Appendix 2. The tables of frequencies indicate both the word clouding technique, but also the relative results of the quotations. The word clouding presupposes a prior identification of keywords. The keywords utilized are the ones that compose the coding units of the coding system. However, it should be noted that the results of word clouding are deprived of sensemaking *per se* because are not contextualized in quotations, therefore, they do not allow for a sense-making of the informant-centric content (Gioia, Corley and Hamilton, 2013). As the crosstab (see Table 17) comprises the two tools (word clouding and the quotations query), it is also divided per partaking firm (F_n).

Table 37 - *Cross tabulation - 1st and 2nd order coding (Dimensions)*

Firms		Word Cloud(s)		Quotations Query	F(x)/d	d/∑Q
		(criteria = c.unit)[1]	(%))[2]	(c. unit/dimension)	(%)[2] [3]	
F1						
	DC	303	53,35%	264	29,04%	14,72%
	UM	272	51,32%	148	30,77%	8,50%
	OP	223	49,56%	104	25,74%	5,80%
F2						
	DC	119	20,95%	218	23,98%	12,15%
	UM	124	23,40%	89	18,50%	4,96%
	OP	105	23,33%	101	25,00%	5,63%
F3						
	DC	109	19,19%	354	38,94%	19,73%
	UM	90	16,98%	196	40,75%	10,93%
	OP	89	19,78%	136	33,66%	7,58%
F4						
	DC	37	6,51%	73	8,03%	4,07%
	UM	44	8,30%	48	9,98%	2,68%
	OP	33	7,33%	63	15,59%	3,51%
Overall						
	DC	568	-	909	-	
	UM	530	-	481	-	
	OP	450	-	404	-	

Source: Own elaboration

([1] The criteria for word clouding is the use of first-order codes´ name contains in the coding rules (Appendix 2); [2] Represents the figures of the firm per dimension (d) over the aggregate result (F1-F4) within the dimension; [3] relative weight of the dimension on the overall quotations (Q)).

The figures in F4 are generally lower both in word clouding and at the quotation query as the firm accounted uniquely for a unit of analysis (UA7) of the participant P7. The world clouding demonstrates a partial decontextualization of the word counters in relation to the quotations. The percentages vary randomly when the words are crunched into the queries of quotations, demonstrating an arbitrary pattern of variation of word cloud percentages towards quotations frequencies per dimension, justified as mentioned above due to the lack of a context (sense-making) on how the participants utilize the words. A thorough approach to the word clouding technique is exhibited in Appendix 4, where the word crunching decomposed into dimensions per firm is presented (Table 45). Contrarily to F4 it is observed that the transcripts of UA5 and UA6 corresponding to the F3 case, were the ones who contained a larger number of quotations (38.24% of the total figure), which indicates that a larger volume of information was codified due to its adherence to the first-order codes indicated in the coding rules. This emphasizes a higher yield of information from the participation of interviewees. Moreover, a pattern is definitely observed in the quotations per case. The second larger contributor is F1 with 28,77%, which indicates that two cases F1 and F3 (comprising the UAs, UA1,

U2, U5 and UA6) contributed with two thirds of the overall amount of codified data. Most peculiar is the fact that these two cases are the ones where the two CEOs were interviewed. Therefore, based on an epistemological assumption of the researcher the collection of data suggests that it may have reached its saturation point.

In table 35 (above), apart from the perception of the quantitative contribution of the UAs/firms to the overall collection of codifiable content, these quite accentuated features are shown. The UM is high on F3 (0,407484407), opposing to F2 (0,185031185) and F4 (0,0997921), which illustrates the dependence of the firms with regard to the phenomena of comprised gradualistic internationalization. The DC is high in F1 (0,247525) and F3 (0,260726), as opposed to F4 (0,073707).

Tables 39, 40 and 41, show a similar procedure of disaggregation of whole quotations (in the transcripts) into dimensions and themes, such as we did for the word clouding in Table 45 in Appendix 4. Although, the quotations (unlike the word clouds) are manipulated within a sense-making framework, where all coding categories are used (of the coding system in Appendix 2) to generate a first-order codification and pull up the previous one into second-order results. The word clouding is applied to isolated words; however we combined it with a stemming data analysis of the word clouding to broaden the span of results, therefore we used the truncation of words. This truncation focussed on the elimination of variations in words, such as grammatical morphemes (affixes – prefixes and suffixes) and the quantitative flexion (singular/plural) and the stemming data serach and subsequent analysis was centered on the core parts of the truncated substantantives. The results of our analysis of the quotations account for the number of observations (n) and deliver the relative frequency of dimensions and themes (f) and the frequency (of themes) within the dimension (f ´).

The aggregation of codes into dimensions reflects the interviewees' stimuli in the three dimensions of theorizations: the U-model (UM), the dynamic capabilities (DC), and the other paradigms (OP) observed in the IPPF. The first two dimensions were addressed in the first and second chapters of this thesis. The other paradigm (OP) dimension, which was registered in the transcripts, aggregates all the phenomena observed that do not fit the DC and/or UM and are consistent with other theorizations. Thus, the empirical testing of the constructs from the literature review conducted as addressed in chapters one and two, are here demonstrated according to the results of the OP in Chapter 5. *Findings* because as these phenomena are contextualized within adequate literature to portray the adherence of the firm to a particular phenomenon.

Table 38 - *Summary of Quotations (Q) - F(x), HE and n*

	Aggregate[1]	Q/F(x)	Q/HE[2]	Q/Page/HE	*n*[3]
Quotations	1794	448,5	256,29	35,18	51

Source: Own elaboration

([1] represents: ∑ (F1-F4); [2] accounts seven Hermeneutic Units; [3] indicates the number of pages of the transcriptions that were effectively codified (51 pages out of 102) as the remaining ones were in PT)

Before providing an in-depth overview of the primary data that focusses on the content of the codified quotations, the general figures of the codification process with the seven hermeneutical units will be addressed. The seven interviews generated an equal number of transcriptions, which account for 102 pages of text (51 for the original transcription and 51 for its retroversion PT-EN). Each transcript (T) contains on average 7,29 pages of original/translated data (14, 57 pages in total per transcript). The application of the coding process was particularly penetrating, as the interviews revealed a density of codifiable content with a large quantity of chunks of text, sentences, and paragraphs that simultaneously matched one or several coding units. The result of the coding process is the codification of 35.18 observations per page, per HU, as indicated in Table 38. The relative frequencies of the aggregative dimensions and themes are then presented in Table 39. The table exhibits the relative frequency of themes within their dimensions (f ´) and each dimension within the overall of dimension (f). Tables 40, 41 and 42 exhibit the figures of the relative frequencies per coding units (f ´) and the relative frequencies of the themes within its dimension (f).

Table 39 – *Cross tabulation - 1st and 2nd order coding (Dimensions and Themes)*

Categories	F1			F2			F3			F4			F1-F4		
	n	*f´*	*f*	*n*	*f´*	*f*	*n*	*f´*	*F*	*n*	*f´*	*f*	*n*	*f´*	*f*
DC	264	-	51,16%	218	-	53,43%	354	-	51,60%	73	-	39,67%	909	-	50,67%
DC - ELC	208	78,79%	40,31%	201	92,20%	49,26%	256	72,32%	37,32%	58	79,45%	31,52%	723	79,54%	40,30%
DC-GDC	38	14,39%	7,36%	17	7,80%	4,17%	70	19,77%	10,20%	15	20,55%	8,15%	140	15,40%	7,80%
DC- ILC	18	6,827%	3,49%	0	0,00%	0,00%	28	7,91%	4,08%	0	0,00%	0,00%	46	5,06%	2,56%
OP	104	-	20,16%	101	-	24,75%	136	-	19,83%	63	-	34,24%	404	-	22,52%
OP-BLS	27	25,96%	5,21%	21	20,79%	5,15%	40	29,41%	5,83%	19	30,16%	10,33%	107	26,49%	5,96%
OP-CD	68	65,38%	13,18%	62	61,39%	15,20%	61	44,85%	8,89%	31	49,21%	16,85%	222	54,95%	12,37%
OP-CLS	1	0,96%	0,19%	0	0,00%	0,00%	0	0,00%	0,00%	0	0,00%	0,00%	1	0,25%	0,06%
OP-CS	0	0,00%	0,00%	9	8,91%	2,21%	10	7,35%	1,46%	3	4,76%	1,63%	22	5,45%	1,23%
OP-EE	8	7,69%	1,55%	9	8,91%	2,21%	25	18,38%	3,64%	10	15,87%	5,43%	52	12,87%	2,90%
UM	148	-	28,68%	89	-	21,81%	196	-	28,57%	48	-	26,09%	481	-	26,81%
UM-DM	83	56,08%	16,09%	58	65,17%	14,22%	145	73,98%	21,14%	15	31,25%	8,15%	301	62,58%	16,78%
UM-OM	65	43,92%	12,60%	31	34,83%	7,60%	51	26,02%	7,43%	33	68,75%	17,93%	180	37,42%	10,03%
T*otal (N)*	516	-	100%	408	-	100%	686	-	100%	184	-	100%	1794	-	100%

Source: Own elaboration

(*n* represents the numbers of observed quotations, *f´´*the relative frequency of the themes in its dimension, the *f* the relative frequency of among the observations *N)*

Table 40 – *Frequencies of 1st-Order Coding (Concepts) – the Dynamic capabilities (DC) dimension*

Category	F1			F2			F3			F4			F1-F4		
	n	*f´*	*f*	*n*	*f´*	*f*	*n*	*f´*	*f*	*n*	*f´*	*f*	*n*	*f´*	*f*
DC – ELC	225	-	71,66%	124	-	85,52%	237	-	64,40%	67	-	81,71%	653	-	71,84%
DC - AC	0	0,00%	0,00%	0	0,00%	0,00%	10	4,22%	2,72%	0	0,00%	0,00%	10	1,53%	1,10%
DC - AdC	8	3,56%	2,55%	12	9,68%	8,28%	6	2,53%	1,63%	7	10,45%	8,54%	33	5,05%	3,63%
DC-AMC	34	15,11%	10,83%	6	4,84%	4,14%	25	10,55%	6,79%	0	0,00%	0,00%	65	9,95%	7,15%
DC-CC	10	4,44%	3,18%	0	0,00%	0,00%	14	5,91%	3,80%	0	0,00%	0,00%	24	3,68%	2,64%
DC-EC	6	2,67%	1,91%	4	3,23%	2,76%	0	0,00%	0,00%	0	0,00%	0,00%	10	1,53%	1,10%
DC – EPC	6	2,67%	1,91%	0	0,00%	0,00%	0	0,00%	0,00%	3	4,48%	3,66%	9	1,38%	0,99%
DC-ELC	49	21,78%	15,61%	20	16,13%	13,79%	21	8,86%	5,71%	12	17,91%	14,63%	121	18,53%	13,31%
DC-I/P	3	1,33%	0,96%	0	0,00%	0,00%	0	0,00%	0,00%	0	0,00%	0,00%	3	0,46%	0,33%
DC-InoC	8	3,56%	2,55%	5	4,03%	3,45%	16	6,75%	4,35%	9	13,43%	10,98%	38	5,82%	4,18%
DC-IntC	4	1,78%	1,27%	0	0,00%	0,00%	14	5,91%	3,80%	0	0,00%	0,00%	18	2,76%	1,98%
DC-IC	8	3,56%	2,55%	5	4,03%	3,45%	20	8,44%	5,43%	9	13,43%	10,98%	42	6,43%	4,62%
DC-KC	9	4,00%	2,87%	18	14,52%	12,41%	3	1,27%	0,82%	0	0,00%	0,00%	30	4,59%	3,30%
DC-KR	0	0,00%	0,00%	0	0,00%	0,00%	3	1,27%	0,82%	0	0,00%	0,00%	3	0,46%	0,33%
DC-KU	9	4,00%	2,87%	12	9,68%	8,28%	3	1,27%	0,82%	0	0,00%	0,00%	24	3,68%	2,64%
DC-Le	0	0,00%	0,00%	0	0,00%	0,00%	3	1,27%	0,82%	0	0,00%	0,00%	3	0,46%	0,33%
DC-MaC	23	10,22%	7,32%	12	9,68%	8,28%	21	8,86%	5,71%	9	13,43%	10,98%	84	12,86%	9,24%
DC-NC	20	8,89%	6,37%	0	0,00%	0,00%	45	18,99%	12,23%	3	4,48%	3,66%	68	10,41%	7,48%
DC-PDC	22	9,78%	7,01%	14	11,29%	9,66%	13	5,49%	3,53%	10	14,93%	12,20%	59	9,04%	6,49%
DC- R&D	6	2,67%	1,91%	16	12,90%	11,03%	20	8,44%	5,43%	5	7,46%	6,10%	47	7,20%	5,17%
DC-GDC	38	-	12,10%	17	-	11,72%	71	-	19,29%	15	-	18,29%	141	-	15,51%

GDC	38	100,00%	12,10%	17	100,00%	11,72%	71	100,00%	19,29%	15	100,00%	18,29%	141	0,06%	15,51%
DC – ILC	51	-	16,24%	4	-	2,76%	60	-	16,30%	0	-	0,00%	115	-	12,65%
DC-CC	10	19,61%	3,18%	0	0,00%	0,00%	14	23,33%	3,80%	0	-	0,00%	24	20,87%	2,64%
DC-ILC	33	64,71%	10,51%	4	100,00%	2,76%	32	53,33%	8,70%	0	-	0,00%	69	60,00%	7,59%
DC-MC	8	15,69%	2,55%	0	0,00%	0,00%	14	23,33%	3,80%	0	-	0,00%	22	19,13%	2,42%
T*otal (N)*	314	-	100%	145	-	100%	406	-	100,00%	82	-	100%	909	-	100%

Source: Own elaboration

Table 41 – *Frequencies of 1st-Order Coding (Concepts) – The Other Paradigms (OP) dimensions*

Category	F1			F2			F3			F4			F1-F4		
	N	*f´*	*f*	*n*	*f´*	*F*	*n*	*f´*	*f*	*N*	*f´*	*f*	*n*	*f´*	*f*
OP– BLS	21	-	19,63%	11	-	9,40%	28	-	21,05%	7	-	9,59%	67	-	16,58%
BLS	2	9,52%	1,87%	6	54,55%	5,13%	21	75,00%	15,79%	3	42,86%	4,11%	53	79,10%	13,12%
BLS-C	3	14,29%	2,80%	3	27,27%	2,56%	0	0,00%	0,00%	0	0,00%	0,00%	15	22,39%	3,71%
BLS-MaS	13	61,90%	12,15%	0	0,00%	0,00%	5	17,86%	3,76%	0	0,00%	0,00%	24	35,82%	5,94%
BLS-MuS	0	0,00%	0,00%	2	18,18%	1,71%	2	7,14%	1,50%	4	57,14%	5,48%	8	11,94%	1,98%
BLS-O	3	14,29%	2,80%	0	0,00%	0,00%	0	0,00%	0,00%	0	0,00%	0,00%	5	7,46%	1,24%
OP/CD	66	-	61,68%	88	-	75,21%	66	-	49,62%	55	-	75,34%	275	-	68,07%
CCO	8	12,12%	7,48%	6	6,82%	5,13%	8	12,12%	6,02%	0	0,00%	0,00%	23	8,36%	5,69%
CC-TC	4	6,06%	3,74%	6	6,82%	5,13%	7	10,61%	5,26%	0	0,00%	0,00%	18	6,55%	4,46%
CD	9	13,64%	8,41%	14	15,91%	11,97%	8	12,12%	6,02%	3	5,45%	4,11%	36	13,09%	8,91%
CD-CG	4	6,06%	3,74%	3	3,41%	2,56%	0	0,00%	0,00%	7	12,73%	9,59%	25	9,09%	6,19%
CD-CPC	17	25,76%	15,89%	18	20,45%	15,38%	4	6,06%	3,01%	4	7,27%	5,48%	44	16,00%	10,89%
CD-MC	9	13,64%	8,41%	5	5,68%	4,27%	2	3,03%	1,50%	0	0,00%	0,00%	16	5,82%	3,96%
CD-MS	2	3,03%	1,87%	8	9,09%	6,84%	0	0,00%	0,00%	10	18,18%	13,70%	22	8,00%	5,45%
CD-MG/D	0	0,00%	0,00%	3	3,41%	2,56%	23	34,85%	17,29%	2	3,64%	2,74%	30	10,91%	7,43%
CD-NCAD	1	1,52%	0,93%	4	4,55%	3,42%	5	7,58%	3,76%	7	12,73%	9,59%	17	6,18%	4,21%
CD-OS	3	4,55%	2,80%	4	4,55%	3,42%	2	3,03%	1,50%	10	18,18%	13,70%	29	10,55%	7,18%
CD-Po	9	13,64%	8,41%	17	19,32%	14,53%	7	10,61%	5,26%	12	21,82%	16,44%	45	16,36%	11,14%
OP-CS	0	-	0,00%	9	-	7,69%	10	-	7,52%	3	-	4,11%	22	-	5,45%
CS	0	-	0,00%	9	100,00%	7,69%	10	100,00%	7,52%	3	100,00%	4,11%	22	100,00%	5,45%
OP/CLS	4	-	3,74%	0	-	0,00%	0	-	0,00%	0	-	0,00%	4	-	0,99%
CLS-CG	4	100,00%	3,74%	0	-	0,00%	0	-	0,00%	0	-	0,00%	4	100,00%	0,99%

OP-EEA	16	-	14,95%	9	-	7,69%	29	-	21,80%	8	-	10,96%	62	-	15,35%
EEA-AF	4	25,00%	3,74%	0	0,00%	0,00%	4	13,79%	3,01%	0	0,00%	0,00%	8	12,90%	1,98%
EEA-CF	1	6,25%	0,93%	4	44,44%	3,42%	7	24,14%	5,26%	0	0,00%	0,00%	12	150,00%	2,97%
EEA-EF	0	0,00%	0,00%	3	33,33%	2,56%	9	31,03%	6,77%	0	0,00%	0,00%	12	100,00%	2,97%
EEA-EnF	3	18,75%	2,80%	0	0,00%	0,00%	3	10,34%	2,26%	1	12,50%	1,37%	7	58,33%	1,73%
EEA-GF	0	0,00%	0,00%	0	0,00%	0,00%	0	0,00%	0,00%	4	50,00%	5,48%	4	57,14%	0,99%
EEA-LF	4	25,00%	3,74%	2	22,22%	1,71%	2	6,90%	1,50%	0	0,00%	0,00%	8	200,00%	1,98%
EEA-PF	4	25,00%	3,74%	0	0,00%	0,00%	2	6,90%	1,50%	3	37,50%	4,11%	9	112,50%	2,23%
EEA-SF	0	0,00%	0,00%	0	0,00%	0,00%	2	6,90%	1,50%	0	0,00%	0,00%	2	22,22%	0,50%
T*otal (N)*	107	-	100%	117	-	100%	133	-	100%	73	-	100%	404	-	100%

Source: Own elaboration

(*n* represents the numbers of observed quotations, *f´´*the relative frequency of the themes in its dimension, the *f* the relative frequency of among the observations *N)*

Table 42 - *Frequencies of 1st-Order Coding (Concepts) – U-Model (UM) dimensions*

Category	F1			F2			F3			F4			F1 - F4		
	n	*f´*	*f*	*n*	*f´*	*f*	*n*	*f´*	*f*	*n*	*f´*	*f*	*n*	*f´*	*f*
UM– DM	89	-	57,79%	64	-	67,37%	140	-	75,27%	15	-	30,61%	308	-	85,93%
UM-AC	0	0,00%	0,00%	0	0,00%	0,00%	10	7,14%	5,38%	0	0,00%	0,00%	10	3,48%	2,99%
UM-BN	17	19,10%	11,04%	19	29,69%	20,00%	46	32,86%	24,73%	0	0,00%	0,00%	64	22,30%	19,16%
UM-NP	21	23,60%	13,64%	0	0,00%	0,00%	19	13,57%	10,22%	3	20,00%	6,12%	43	14,98%	12,87%
UM-OD	23	25,84%	14,94%	31	48,44%	32,63%	29	20,71%	15,59%	12	80,00%	24,49%	93	32,40%	27,84%
UM-PD	0	0,00%	0,00%	0	0,00%	0,00%	4	2,86%	2,15%	0	0,00%	0,00%	3	1,05%	0,90%
UM-RM/TB	28	31,46%	18,18%	14	21,88%	14,74%	32	22,86%	17,20%	0	0,00%	0,00%	74	25,78%	22,16%
UM – OM	65	-	42,21%	31	-	32,63%	46	-	24,73%	34	-	69,39%	176	-	52,69%
UM-GD	10	15,38%	6,49%	6	19,35%	6,32%	11	23,91%	5,91%	13	38,24%	26,53%	40	22,73%	11,98%
UM - GI	6	9,23%	3,90%	0	0,00%	0,00%	11	23,91%	5,91%	5	14,71%	10,20%	22	12,50%	6,59%
UM-MCM	9	13,85%	5,84%	6	19,35%	6,32%	0	0,00%	0,00%	0	0,00%	0,00%	15	8,52%	4,49%
UM-MKM	21	32,31%	13,64%	6	19,35%	6,32%	5	10,87%	2,69%	4	11,76%	8,16%	36	20,45%	10,78%
UM-PDF	1	1,54%	0,65%	0	0,00%	0,00%	11	23,91%	5,91%	4	11,76%	8,16%	16	9,09%	4,79%
UM - RA	18	27,69%	11,69%	13	41,94%	13,68%	8	17,39%	4,30%	8	23,53%	16,33%	47	26,70%	14,07%
T*otal (N)*	154	-	100%	95	-	100%	186	-	100%	49	-	100%	484	-	100%

Source: Own elaboration

(*n* represents the numbers of observed quotations, *f´´*the relative frequency of the themes in its dimension, the *f* the relative frequency of among the observations *N)*

Table 38, shows that the DC dimension accounts for 50.95% of all quotations while its coding units (25) represent 40.98% of the first-order codes, which is symptomatic of the demonstration of organizational capabilities (OCs). Second, the DC-ELC theme assumes a vast majority of the results, which is an indicator that most DCs are not cloistered in a single individual, but are instead systematized DCs spread along the firm throughout different areas and stakeholders. It is noteworthy that the F3 and F1 cases account, respectively, in DC-ELC theme 36.29% and 34.46% of all DCs. Conversely, the GDCs (codified as a theme as DC/GDCs) do account for more than 10.23%, which demonstrates that the DCs were also GDCs in less than $1/7^{th}$ of the overall total in the participants speech. However, we do not intend to claim this is as a GDC ratio (Fx), but instead, recognize the (positive) perception of transferability proprieties of the DCs as they manifested their usage in other markets and subsidiaries. This result is consistent with our research aims (not the GDC ratios).

The OP dimension observes a contrary pattern (Table 39). The OP related coding units represent 37.70% of all codes, though the codification of the OP dimension accounts for 22,52% of all coded quotations. This indicates that more than three-quarters of the codes fit the UM and DC dimensions. Thus, it is argued that the focus on these bodies of theory (U-Model and DCT) were amply justified, corresponding to the background description and its problematization (in chapter one). Nevertheless, the lower codification of this dimension does not inhibit the observation of five different themes, related with business-level strategies (codified as OP-BLS), industry competition (OP-CD), cooperation strategies (OP-CS), corporate-level strategies (OP-CLS) and (macro) external environment analysis (OP-EEA). The OP-CD accounts for two-thirds of all codes within the dimension (68,07%) and the OP-BLS and OP-EEA, respectively, for 16,58% and 15,35%. This means that the industry competition issues are very relevant for the participants, deducing that there is a mindset for business navigation through red oceans (Kim and Maugborne, 2011). These phenomena are marked in F2, which account for 88 observations/quotations of OP-CD, corresponding to 32% of all participants concerns about the competition in the industry. The UM dimension accounts for 21.31% of the total coding units (61) exhibiting 26.98% of the total codification at the first-order level. This is leveraged by the UM-DM theme which registers 63.64% of all (UM) dimensions, and most particularly, to the UM-OD driver (registering 27.84% of the whole UM; and 32.40% of the UM-DM) and UM-BN (with 19.16% of the UM; and 22.30%). However, it should be noted that the UM-RA phenomenon (in the UM-OM theme) was the third most quoted (with 14.07% of the total UM, and 26,70% of the UM-OM theme). The coding links and hyperlinks demonstrate the following iterative relations (Figure 38, 39 and 40).

Figure 38 – *Structure of Links and Hyperlinks (DC/UM)*

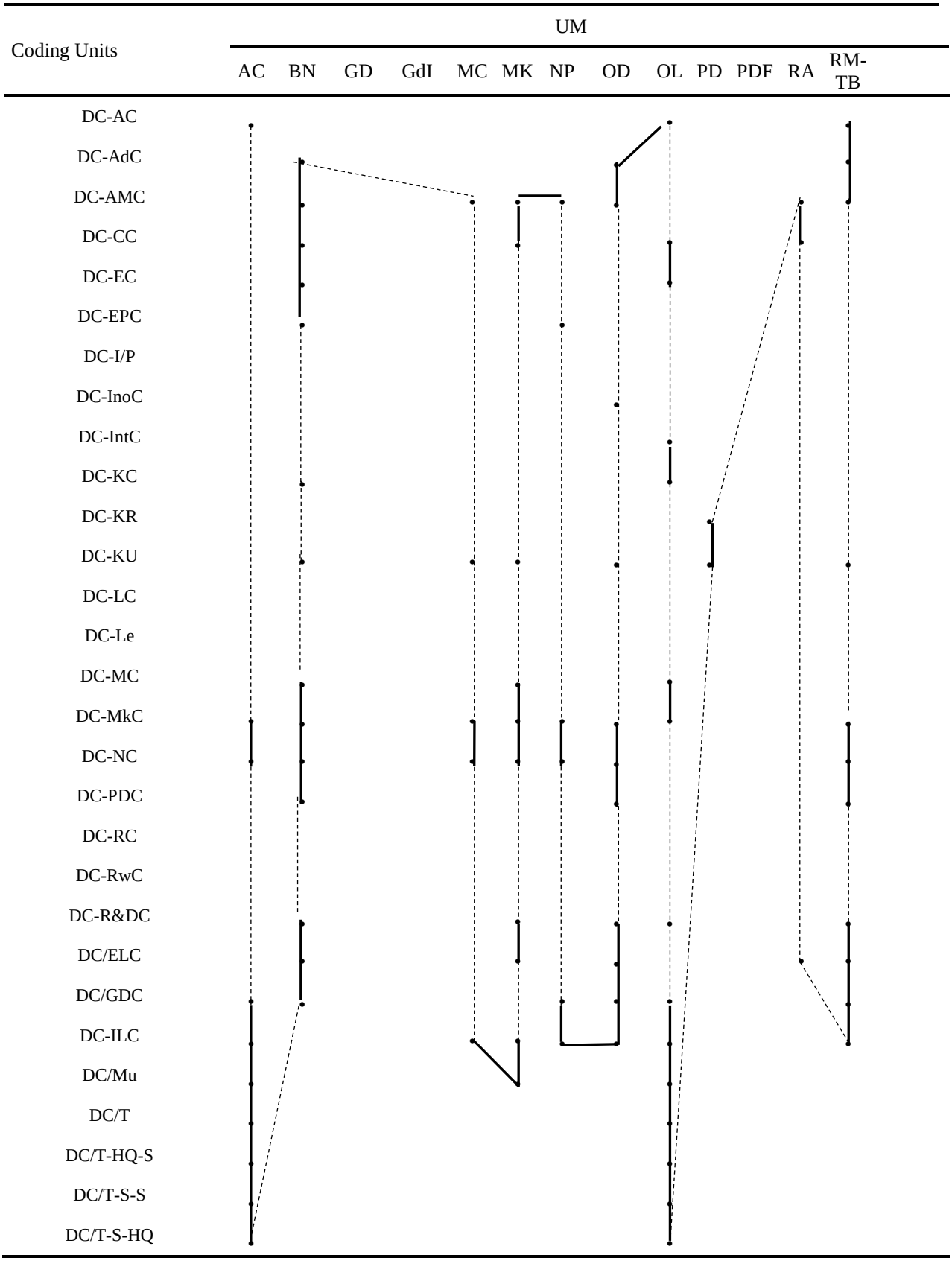
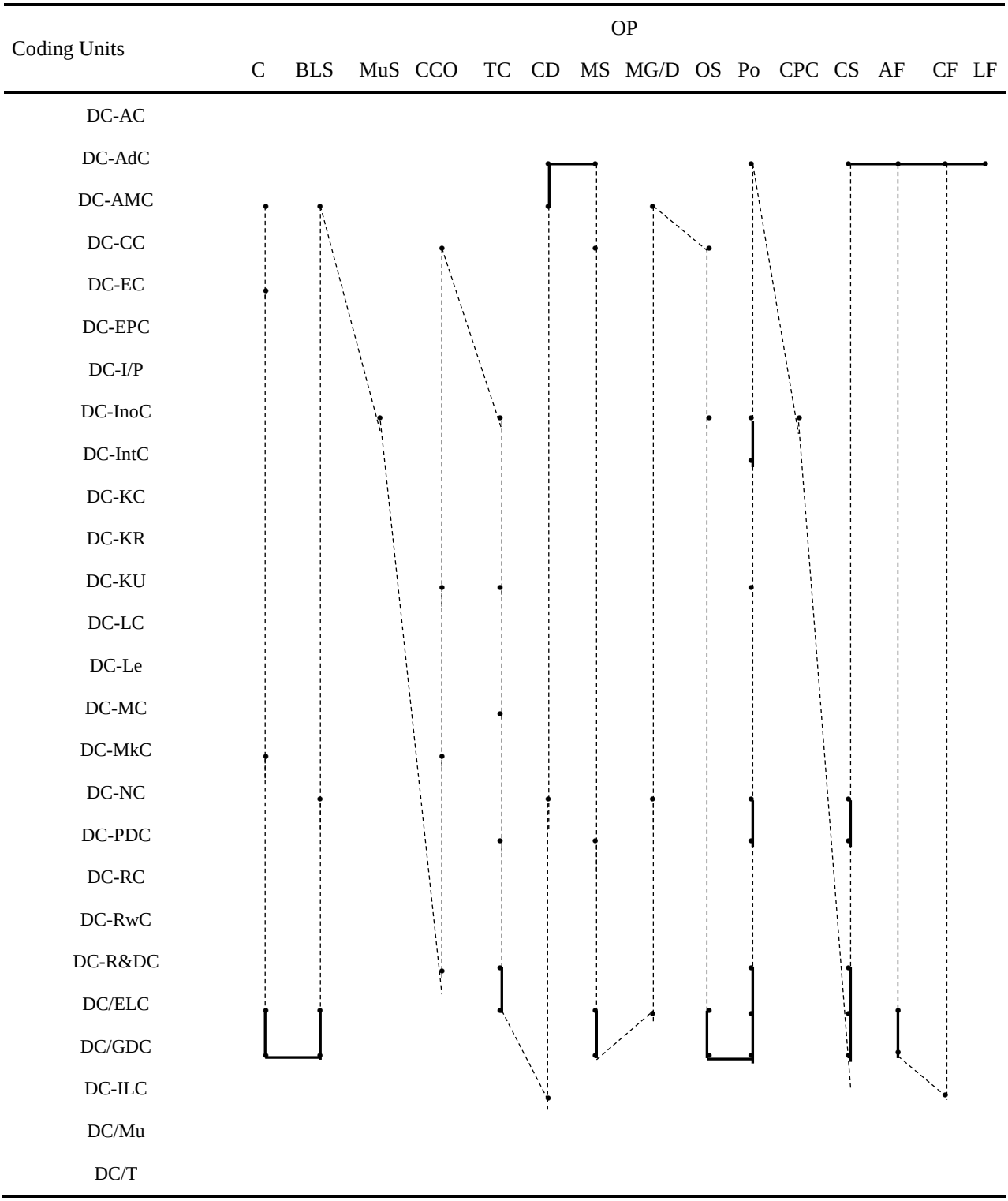
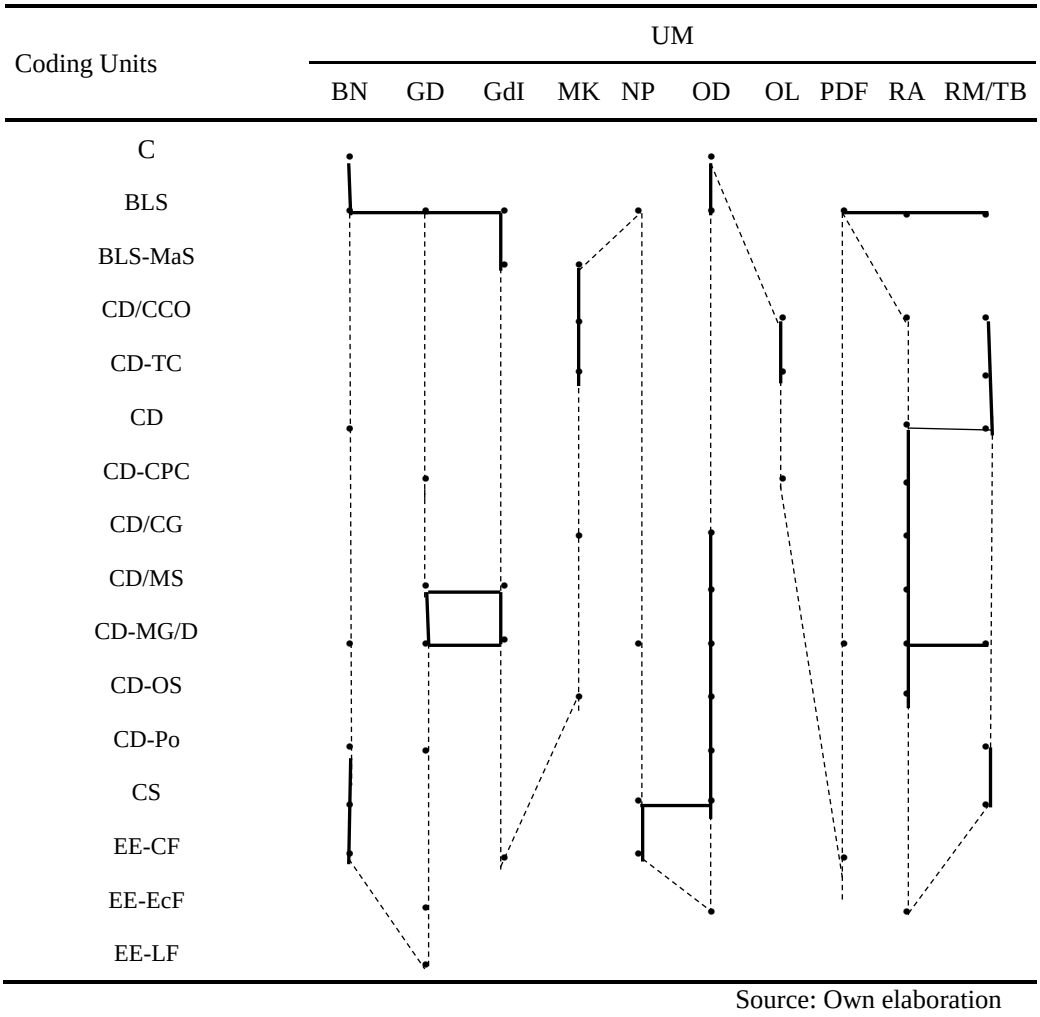


Figure 39 – *Structure of Links and Hyperlinks (DC/OP)*



Source: Own elaboration

Figure 40 – *Structure of Links and Hyperlinks (OP/UM)*



Source: Own elaboration

The dot (.) exposes the link (quotation-quotation) of the first-order coding units and underlies the hyperlink (quotation-code) between first-and and second-order coding. The continuous line (-) indicates that the neighbor constructs in the crosstab are linked and the descontinuos line (- -) unlinked. These dots uncover the phenomenon of the co-existence of the constructs in the same quotation, which indicates that the codified content, received in numerous cases more than one codification. Although the analysis of the links and hyperlinks does not explain the co-occurrence figures, and in order to do so, a co-occurrence (Cooc) matrix is used.

The results of the Cooc matrices (Table 51, 52 and 53) are aggregated results that make the intention to give a holistic perspective of the repetitions within quotations evident. Second, its figures are not indicative of the total number of quotations per construct (as presented in Tables 34 and 35). Instead, these merely accounts for the repetition of each phenomenon. Third, the matrices uniquely use first order codes due to the fact, that a second-order coding requires an hyperlink between quotations and

codes (which are pulled into dimensions and themes) that is not dependent on the participants´ contributions, but dependent on the data interpretation of the researcher and is classified according to the bodies of theory previously analyzed.

The crosstabs of Cooc matrices reveal that the business-level strategies give greater importance to risk, as they account for a high number of co-existing codes in quotations (OP/BLS and UM-RA). Moreover, it is observed that the UM-RA is considered in OP/CD-CPC, so a risk avoidance strategy may also be perceived in the cost and price competition of the firm, and finally, in the choice of markets that likewise correlate to the geographical distance (UM-GD).

However, the partaking firms simultaneously seem to give high attention to NPD in their international business strategies, because DC-PDC is highly correlated in quotations with OP-CD/Po, and the OP/CD-Po cumulatively with DC-GDC and DC-ELC, which indicates a clear association of NPD and the products and services portfolio in an international context.

In addition, there are also a higher number of occurrences of UM-RM/TB. The participants seem to correlate this construct with several others in multiple quotations. The highest correlation with the DC-AMC was demonstrated, which indicates that the alliance management capacity is intrinsically related to the aforementioned linkage (UM-RM/TB with DC-AMC). Although, it considers that UM-RM/TB requires UM-BN and UM-NP. Such construct relation, indicates that its success (UM-RM/TB) is, according to the participants, dependent on the ability of the business networking of the firm to manage its position within the network. In an IB context, this means that it is critical to avoid the liability of foreignness, as it places the firm within the eventual paradigm of liability of outsidership (Johanson and Vahlne, 2009). Moreover, it exhibits a straight relation with DC-ILC and DC-ELC, especially DC-NC, DC-MkC and DC-GDC. This implies a perception that the UM-RM/TB is critical to possess individual capabilities and develop business systems that may be a facilitator of the international operations. In chapter five (findings) we will proceed with an analysis per case (F_X) of the Cooc matrices results.

4.3. Triangulation - Mapping

In this section, an integrative triangulation approach attempts to increase the validity of the findings, as the complementarity of the techniques are applied in this research (Jonsen and Jhen, 2009). Through a cross observation of the phenomena, this research intends to grasp a comparison of the results for mutual validation of data results among different sources.

The triangulation uniquely follows as the body of the theory contained in chapters one and two incorporated in the methodological part. The type of triangulation performed is triadic, since it considers the following methodological approaches: (i) secondary data interrelated with secondary data; (ii) secondary data results compared with primary data; and (iii) multi-source primary data results compared to each other.

The secondary data considered is the GCI and TNI indexes and the C and U ratios. The primary data utilized is exclusively the table of frequencies of the quotations, the word clouding, the link-hyperlink structure and the Cooc matrices. A reversed triangle of the intra-dimensional hyperlinks is exhibited in Figure 40. The codification system and the diagrammatic networks are not hereby used: the former because this tool is empty of data as it offers only the methodological framework for the data collection and not the data itself. The latter, similarly, due to the fact that it only exhibits visual representations of the semantic-based construct interrelatedness and not the figures underlying those intra-construct relations.

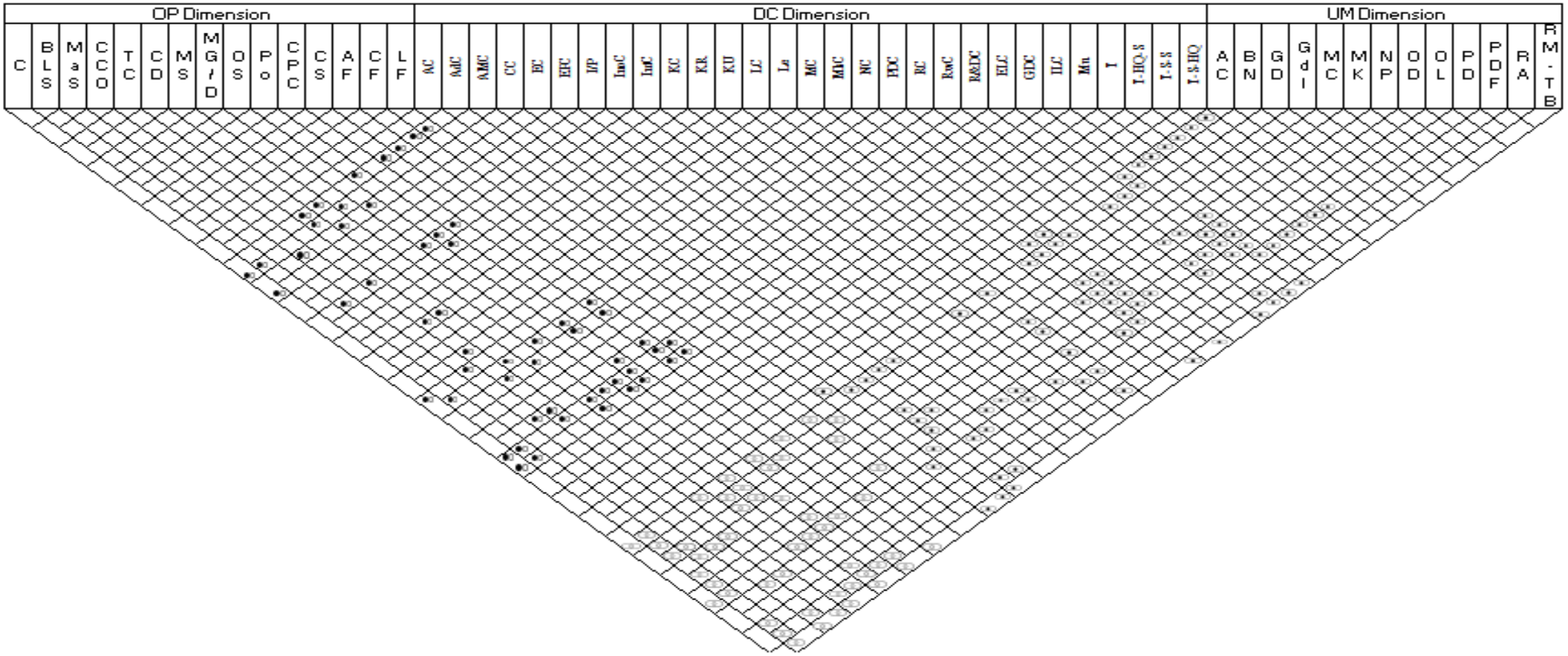
First, we noticed that the GCI is devoid of explicit direct connectable content to other data sources for an object mutual observation. However if we compare the GCIs score with the TNIs, C and U ratios based on the GD and PD factors of the U-model, we can observe some remarkable similarities. Taking as an example the F1 case, the pattern observed is clear. The firm operates in foreign-markets of GCI level 3 (innovation-driven). Furthermore, this firm encounters a low and very low GD approach, which means preference is given to markets of high proximity. In addition, F1 is the case with the lowest TNI ratio on pair with F4 and also with the lowest market commitment ratio. Finally, the markets in which F1 operates are the markets (within the GCI level 3) of higher geographical proximity. Paradoxically, the F3 case registers a higher adjustment to GCI levels 2 and 3 markets and, is the one with a higher TNI ratio, lowest dependency of the most geographically closer markets, and is the one with the highest market commitment ratio. Despite the fact that this case accounts for high figures in uncertainty perception and higher susceptibility to psychic distance factors. Thus, an

internal secondary data check demonstrates some level of congruency in the results among distinct data sources.

Following the second tier of this triangulative triadic approach, it is observed that the commitment and TNI secondary-sourced data reveal similarities with the primary data with the Cooc matrices. If we revisit our literature review (see chapter 1), then we notice that the risk avoidance approach (typified in primary data as UM-RA) is intrinsically connected to the market knowledge (UM-MK) and uncertainty perception. The UM-RA was addressed in the primary data and the U perception in the secondary data. It is curious to observe that case F3, which is the one with the highest uncertainty perception, also has the lowest market diversification and the most psych distance factors (UM-PDF). Interestingly, all external markets where F3 competes are Hispanic-speaking markets.

An internal crosscheck of the primary data of the distinctive sources, cocomitantly reveal an inner consistencty in the results and an arguable coherence. First, Figure 30 (reversed triangle) shows that the three dimensions (DC, UM and OP) present uniquely pairwise hyperlinks (DC-UM; DC-OP; and UM-OP) with no overlapping triple codifications. Second, an immersion into these dimensions reveal a moderate (or high) risk perception in the four cases. If we recall the official (secondary) data provided by the firms, such as the number of external markets, assets, employees and revenue, we recognize the trend of their U perception ratios. Although, by uniquely considering the primary data outputs from the Cooc matrices, we may observe that codification it concurs frequently with the risk avoidance (UM-RA) codification at first-order coding of business-level strategies (OP-BLS and/or OP/BLS) among all cases. Moreover, a pattern can be observed of cross coding between market knowledge coding (DC-MK). What notheworthy is as referred to above, that this code also relates to risk, with both alliance management (DC-AMC) and relation management and trust-building (UM-RM/TB). Therefore, it is advocated as symptomatic of the necessity of uncertainty control through the development of relationships and alliances and through (another frequently concurrent code of, the DC-MK, which is the opportunity development (UM-OD).

Figure 41 –*Reversed triangle - Triadic dimensionality (hyperlinks)*



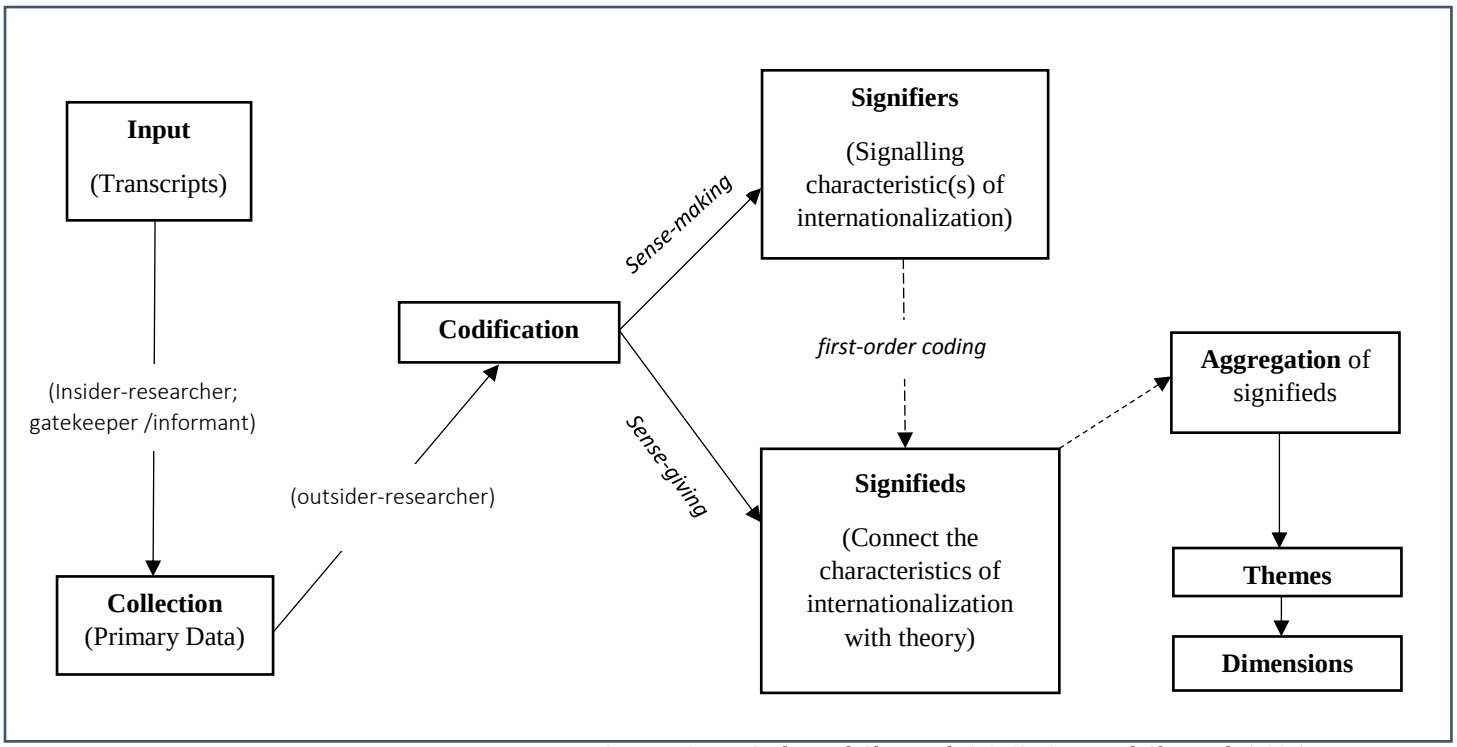
Source: Own elaboration

(⦾ - Hyperlink of DC and UM dimensions; ◖◗ - Hyperlink of DC and OP dimensions; ⦾ - Hyperlink of UM and OP dimensions)

5. FINDINGS

The manipulation of primary data from the transcriptions verified that a significant amount of codified quotations would not entirely fit within the internationalization and resource-base theories described in chapter two. Therefore the codification system exhibited in Volume II – Appendices accounts for a third dimension entitled OP (other paradigms), which has the purpose to agglomerate all the other phenomena observed in the transcripts that do not match the initial dimensions (UM and DC). Our claim for enlarging the dimensions of the codification, is that a wider spectrum of coding encompassing a wider observation of constructs may lead to a thorough and clearer picture of the IPPF, regarding the cases under analysis. Thus, the mismatching phenomena with the UM and DC dimensions portraying supplementary characteristics of the internationalization of the firms were labelled a phenomenon fitting the OP dimension and given correspondence to their respective bodies of theory. In this section, the results of all dimensions of the primary data, plus the secondary data and the triangulation of these data sources are analytically deduced in order to interpret the results from chapter 4 and contextualize them in theoretical terms through a meaning system of the information. This meaning system is demonstrated below in Figure 42.

Figure 42 - *Meaning system of primary data*



Source: Gioia, Corley and Chttippedi (2013); Gioia and Chittipedi (1991)

The meaning system of primary data shown above comprises the acquisition, mining and structuring of data. The system involves the interaction of the insider and outsider-researchers to the successful collection of data and the achievement of the saturation point of information. The preconception of conceptualizations and theorizations in the research field to codify pieces of data as evidence of the characteristics of the internationalization of the firm. This phase of the codification process that preeceds the first-order coding corresponds to the construction of the signifiers. As explained in chapter three the signifier belongs to language signing system, where the information is connected to to the known phenomena. Here, in this study, the phenomena are the described evidence of the internationalization paradigm of each firm. Thus, the Saussurean sign system of the language may be recognised as a part of the sensegiving process of the meaning system of the primary data (Saussurean, 1957; Gioia and Chittipedi, 1991; Gioia, Corley and Chttippedi, 2013). The first-order coding occurs with the treatment of signifiers into signifieds allowing the connection of the identified phenomena with preconceived constructs and/or theorizations in literature, while the second-order coding relates to the aggregation of those concepts in categories to which they belong to. For example, a quotation is a signifier demonstrating evidence of a market selection because of the language (Portuguese for instance), which correspond to a signified quotation adherent to the psychic distance concept (at fist-order coding) and subsequently links to the original u-model theorization (2^{nd} order - theme) of the Uppsala school of internationalization (U-model) as 2^{nd}-order dimension.

The rationale for extending the studied dimensions to the OP is that a wider spectrum of coding encompasses a wider range of constructs, which may lead to a thorough and clearer image of the IPPF regarding the cases under analysis. The phenomena matching the OP dimension are in this chapter contextualized, as they are given correspondence to their respective bodies of theory. As we intent to clarify the IPPF, a preliminary recall of the industry (Table 41), is followed by the portrait of the partaking firms. (Table 42).

Table 43 – *General characteristics of the industry*

Firm(x)	Industry					
	Econ. family	Sector	Type	Tech. Intensity	Intern. Pattern	ISIC
F1	Transactional	Secondary	Manufacture	ML	Global industry	(CAE Rev. 3) 24420 - Production and Transformation of Aluminium
F2	Transactional	Secondary	Manufacture	ML	Global industry	(CAE Rev. 3) 27320 - Manufacture of other electrical and electronic wires and cables
F3	Transactional	Secondary	Manufacture	ML	Global industry	(CNAE C243) - Manufacture of other first class steel products
F4	Transactional	Secondary	Manufacture	LT	Global industry	(CAE Rev. 3) 16420- Manufacture of wooden articles

Source: Own elaboration

(F1, F2 and F3 – code 27; F4 – code 22 for technology intensity classification - Eurostat (n.d.); high-tech (HT); medium-high tech (MHT); medium-low tech (MLT); low-tech (LT)

We made an overall clarification of the IPPF starting with the description of the industry (Tables 19 and 20) and then a discussion of the sampled cases, and the general characteristics of the firms, regarding their size, structure, strategies, and classification as operative unit overseas (Table 44). Subsequently, we provide an overview of the characteristics of the international operations, describing their approaches, strategies, coordination mechanisms, market orientation and risk perception (Table 45). Furthermore, the paradigm of competition is described as it was observed (Table 46), addressing the mode of competition, its strategy, and market approach and commitment, and since the networking, cooperation and particularly, alliancing, which the firms seem to have devoted great deal of attention, it is revealing that the alliancing models followed plus the types of alliance and their classifications (Table 45).

Table 44 - *Internationalization Paradigms - General description of the firm (F1-F4)*

Firm	Size[1]	Structure Configuration	CLS	BLS	Innovation-Model	Type of firm
F1	Medium – entreprise (ME)	Functional structure (Amit and Schoemaker, 1993); Profissional burocrary (Mintzberg, 1980; Daft, Kendrick and Vershinina, 2010)	Low diversification (Volberda et. al, 2011)	Focus on cost leadership / differentiation (Porter, 1986a);	Open innovation (with partners); (Chesbrough, Vanhaverbeke, and West, 2006) NPD-orientation (Moorman and Miner, 1998)	MNC (Bartlett and Goshall, 1990; Collinon, Narula and Rugman)
F2	Medium – entreprise (ME)	Functional structure (Amit and Schoemaker, 1993; Profissional burocrary (Mintzberg, 1980; Daft, Kendrick and Vershinina, 2010))	Low diversification (Volberda et. al, 2011)	Focus on cost leadership / differentiation (Porter, 1986a);	Open innovation (with partners); (Chesbrough, Vanhaverbeke, and West, 2006) NPD-orientation	MNC (Bartlett and Goshall, 1990; Collinon, Narula and Rugman)
F3	Small – Enterprise (SE)	Functional structure (Amit and Schoemaker, 1993); Profissional burocrary (Mintzberg, 1980; Daft, Kendrick and Vershinina, 2010)	Low diversification (Volberda et. al, 2011)	Focus on cost leadership / differentiation (Porter, 1986a);	Open innovation (with partners) (Chesbrough, Vanhaverbeke, and West, 2006) NPD-orientation (Moorman and Miner, 1998)	MNC (Bartlett and Goshall, 1990; Collinon, Narula and Rugman)
F4	Small – Enterprise (SE)	Functional structure (Amit and Schoemaker, 1993); Profissional burocrary (Mintzberg, 1980; Daft, Kendrick and Vershinina, 2010)	Low diversification (Volberda et. al, 2011)	Focus on cost leadership / differentiation (Porter, 1986a);	Open innovation (with partners); (Chesbrough, Vanhaverbeke and West, 2006) NPD-orientation (Moorman and Miner, 1998)	Exporting-firm (Bartlett and Goshall, 1990; Collinon, Narula and Rugman)

Source: Own elaboration

([1] Following the recommendation of the European Commission (n.d.) (2003-361-CE) for the classification of SMEs (Small and Medium-Enterprises)

The cases reveal differences in their dimensions, though equivalence in its organizational structures. First, the cases F1 and F2 are classified in their dimension as MEs while F3 and F4 are SEs. Second, the internationalization of F1, F2 and F3 adhere to FDI mode while F4 to the international trade.

All cases fit simultaneously a Mintzbergian configuration of professional bureaucracy, because it relies on the standardization of skills, highly specialized jobs, though minimally formalized. However, the structure is not a pure organic or professional bureaucratic structure, as it also adjusts to the functional type of organizational structure (Volberda et. al, 2011). Thus, the functional structure consists of a limited vertical and horizontal decentralization, with some dominant areas being occupied by middle line managers. This observation clearly reveals that, the four cases do not fit the simple structure configuration of Mintzberg but the professional bureaucracy model, also perceived here as being adapted and combined with another one. This structures configurations reveal the existence of corporate-level strategies of low diversification, as the low diversification comprises the double paradigm of a dominant business comprising 95% or above of the total operation or a single business (Volberda et al., 2011). Here the case studied firm fit the single business paradigm of the corporate – level strategies (CLS). Consequently, the business-level strategy (BLS) is a focus strategy (Porter, 1986a), according to the generic strategies framework. However, the similar strategy adopted by the four cases, indicates a focus on cost leadership strategy, and similarly, a focus on differentitation strategy, which indicates a paradigmatic circumstance of integration of boths strategies. Thus, the firms do not follow a pure (generic) strategy but a hybrid strategy classified as a stuck in the middle strategy (Porter, 1985). This hybrid strategy is clearly perceived in the quotations frequency, and Cooc matrices, as the participants seem to give semantic attention to the UM-CPC and OP/CD phenomena. The firms adopt an open-innovation model as the research and development activities are not singly developed by the firm (centered in the research and development activities comprised to the labs), but instead it enters a pipeline work which is shared internally and externally with different stakeholders and their partners. Three firms are typical MNCs (F1, F2 and F3) and fourth an exporting-firm (Table 43). The MNCs fit the transactional internationalization paradigm (Oviatt and McDougall, 2005).

Table 45 - *General characteristics of the International business (IB) configuration (F1-F4)*

Firm	International configuration					
	Approach	Strategy	Coordenation mechanism	market orientation	Strategic planning	Risk perception
F1	Transactional and investment	Transnational (Oviatt and McDougall, 2005; Ghemawatt, 2008)	Centralized Hub (Bartlett and Goshal, 1991, 1989)	Geographical proximity (Johanson and Vahlne, 1977); Networking (Håkanson and Ford, 2002); Outsourcing (Williamson, 2008)	between Phase II (forecast) and III (Gluck, Kaufman, Walleck,1980)	Moderate
F2	Transactional and investment	Transnational (Oviatt and McDougall, 2005; Ghemawatt, 2008)	Centralized Hub (Bartlett and Goshal, 1991, 1989)	Geographical proximity (Johanson and Vahlne, 1977); Networking (Håkanson and Ford, 2002); Outsourcing (Williamson, 2008)	Phase III (externall-orientation)	Moderate
F3	Transactional and investment	Transnational (Oviatt and McDougall, 2005; Ghemawatt, 2008)	Centralized Hub (Bartlett and Goshal, 1991, 1989)	Psychic distance (Johanson and Vahlne, 1977); Networking (Håkanson and Ford, 2002); Outsourcing (Williamson, 2008); Clustering (Porter, 1988)	Phase III (externall-orientation) (Gluck, Kaufman, Walleck,1980)	High
F4	Transactional	Transnational (Oviatt and McDougall, 2005; Ghemawatt, 2008)	Centralized Hub (Bartlett and Goshal, 1991, 1989)	Networking (Håkanson and Ford, 2002); Clustering (Porter, 1988)	Phase III (external-orientation) (Gluck, Kaufman, Walleck,1980)	Moderate

Source: Own elaboration

The approach in table 45 of all the partaking firms is similar; however there´s a gap between primary and secondary data results (transcripts and TNI indexes). The first, makes makes clear the international driver of all firms. The latter, exposes the fact that F1 is still on a phase two of strategic planning (forecasting) as the TNI result (0,14) demonstrate an effective internal market orientation not observed in the informants (P1 and P2) interviews (Gluck, Kaufman, Walleck, 1980). In parallel, F2 and F4, despite in phase III (externally-oriented) reveal low scores (0,22 and 0,26) due to effective low international investment in assets abroad employability abroad. Thus, this configures a general scenario of a hybrid paradigmatic approach towards the markets where companies demonstrate a wide openness to trade internationally; however, a low adherence to the FDI framework (Verbeke and Yuan, 2010). This fact of low adherence to the FDI framework is also visible in their international coordination systems, as all companies apply the centralized-federation model towards their corporate governance (Bartlett and Goshal, 1991, 1989). This phenonmenon of low FDI is explained below in chapter 6. *Conclusions*, where we will address the pitfalls of the Portuguese economy rooted on the Ricardian and Smithian theories of national competition, on the concept of economic periphery and on the Keynesian microeconomic dependency of expansionist public policies.

Secondary data exhibit also that the the partaking firms have moderate and high risk perception about the international markets, which is corroborated by primary data from the participants´ contributions printed in the transcripts. Since the perception of risk is moderate/high and the strategies of the firms are congruent to their risk perception. These firms avoid risks and general uncertainity, as the firms F1, F2 and F4 elect their host-markets according to the geographical proximity to the domestic-market, while F3 chooses host-markets of psychic proximity giving preference to those of Spanish and Portuguese languages in South America. Thus, is verified a GD and PD competitive orientation. Yet, the adherence to the variable of geographical distance has a true relation to risk and uncertainity avoidance, although is also blured has a partial spurious relation towards market choices; again influenced by the concept of economic periphery, which is determing the companies options. As refered above, this concept it will be depicted in chapter 6. *Conclusions*.

A distinctive internationalization approach of F4, is related to the low intrinsic unitary value of the products being highly commoditizable, a fact that was signaled by the participant (P7). This fact explains the exporting-firm classification with a portfolio of products in trailer, or leveraged by the other firms, as members of the same corporation, which competes in the segment of equipment

transportation of the same sector. Thus, the remaining cases externalize to F4 their packaging and parceling shipped from the Portuguese-based production facilities. It is also curious to note that F2, has the highest sensitivity to cost materialized in the numbers of OP/CD-CPC quotation frequencies and word clouding, which is also the one with the highest frequency indicator in word clouding regarding the commoditization and indicating the presence of a cost leadership strategy.

We have verified that the firms adopt a typical international business strategy, which is consistent with a transnational strategy mode (Bartlett and Ghoshal, 1990; Harzing, 1999). The firms incorporate an adaptation and integration proxy in their BLS; however, their adaption is only partial and therefore they do not fit the multi-domestic strategy, but the transnational strategy instead. It is observed that the firms combines and balance those two proxys, the level of adaptation to the host market with the integration of organizational settings. In the literature, the integration process of NPD in the (products) portfolio across markets is claimed to be due to the necessity to reduce the individual complexity of each focal market (Harzing, 1999; Ghemawatt, 2008). Although, is also perceived as a GDC (Teece and Pisano, 1994; Ambrosini, Bowan and Collier, 2009). Both perspectives are arguable and this study does not clarify which is more common/dominant, despite both are perceived as being capability-based strategies of BLS that focus on differentiation.

The market orientation as explained in the previous chapter by the analysis of the QDA output make clear a dependence on the GD phenomenon on F1, and F2 and PD in F3. The market knowledge management (UM-MK) appears to be critical for the four firms, especially the CAGE related information in order to control uncertainty and risk (Ghemawatt, 2008). F1 and F2 revealed the adherence to the externalization paradigm of internal activities comprised in the transactional cost economics theory (Williamson, 2008). The traits of the international competition observed are described bellow in Table 44.

Table 46 –*Traits of International competition (F1-F4)*

F(x)	Mode	Strategy	Market Approach	markets commitment
F1	Solo player (Koller, 1988)	Uncertainty-reducing strategy (Volberda et al., 2011); risk avoidance (Johanson and Vahlne, 1977); cooperation	Path dependent - on market knowledge (Sydow and Koch, 2009) and organizational learning (Weerawardena et al., 2007); Business networks (Coviello and Munro, 1995); Closed-innovation strategy (Volberda et al., 2011); Vertical integration (Grant, 2010)	Gradualistic; (Joahnson and Vahlne, 1977); and alliance building oriented (Eisenhardt and Martin, 2000); opportunity development (Kirzner, 1973; Ardichvili, 2003; exploiting advantages (Dunning, 2001), exploiting international capabilities (Luo, 2001; Griffith and Harvey, 2001)
F2	Solo player (Koller, 1988)	Uncertainty-reducing strategy (Volberda et al., 2011) risk avoidance (Johanson and Vahlne, 1977); cooperation;	Path dependent - on market knowledge (Sydow and Koch, 2009) and organizational learning (Weerawardena et al., 2007); Closed-innovation strategy (Volberda et al., 2011); Vertical integration (Grant, 2010)	Gradualistic; (Joahnson and Vahlne, 1977); and alliance building oriented (Eisenhardt and Martin, 2000); opportunity development (Kirzner, 1973; Ardichvili, 2003; exploiting advantages (Dunning, 2001), exploiting international capabilities (Luo, 2001; Griffith and Harvey, 2001)
F3	Solo player (Koller, 1988)	Uncertainty-reducing strategy (Volberda et al., 2011); risk avoidance (Johanson and Vahlne, 1977)	Centered on business networks (Coviello and Munro, 1995); path dependent - on market knowledge (Sydow and Koch, 2009) and organizational learning (Weerawardena et al., 2007); Clustering (Porter, 1988); Closed-innovation strategy (Volberda et al., 2011); Vertical integration (Grant, 2010)	Focused on exploiting own local advantages (Dunning, 2001) within its network position (Vahlne and Johanson, 2013); Orientation towards alliance building (Eisenhardt and Martin, 2000); opportunity development (Kirzner, 1973; Ardichvili, 2003), exploitation of advantages (Dunning, 2001), and exploitation international capabilities (Luo, 2001; Griffith and Harvey, 2001)
F4	Solo player (Johanson and Vahlne, 2009)	Uncertainty-reducing strategy (Volberda et al., 2011); risk avoidance (Johanson and Vahlne, 1977)	Path dependent - on market knowledge (Sydow and Koch, 2009) and organizational learning (Weerawardena et al., 2007); clustering (Porter, 1988); Closed-innovation strategy (Volberda et al., 2011); Vertical integration (Grant, 2010)	Gradualistic; (Joahnson and Vahlne, 1977); opportunity development (Kirzner, 1973; Ardichvili, 2003; exploiting advantages (Dunning, 2001) through the network position (Vahlne and Johanson, 2013)

Source: Own elaboration

The driver(s) of the firm to control uncertainty and avoid risk are consistent with the empirical findings of the research from the University of Uppsala on Swedish firms conducted by Johanson and Wiedersheim-Paul (1975), consubstantiating a similar pattern of behavioral model) (Johanson and Vahlne, 1977).

The four firms appear to compete disconnectly in the market although exploring economies of scope among each other, through resources and capabilies sharing and transferance (Volberda et al., 2011). Competing as solo players, they are not adherent to the IJV phenomenon (Collinson, Naruda, Rugman, 2017). However, they incorporate networking strategies in IB (Håkanson and Ford, 2002; Anderson, Håkanson and Johanson, 1994; Holm and Johanson, 1996; Johanson and Vahlne, 2009). Complementarily, they adopt cooperation strategies, grounded on alliances, as depicted in Table 45. Their competition paradigm is focused on risk avoidance and risk control as addressed in the QDA in chapter 4. The cases reveal a greater dependence of market knowledge building and on their own path dependency Coviello and Munro, 1995; Sydow and Koch, 2009; and on the individual capacity of their human resources to incorporate apprenticeships, and disseminate knowledge for a systematization of the organization learning (Weerawardena et al., 2007). However, as observed above, these structures reveal a lack of managerial systems, as the structures are based upon a Mintzbergian professional bureaucracy model focusing on skills and governance flexibility.

The market commitment obeys a gradualistic approach, which is concomitantly related to uncertainty and risk avoidance and path dependency and networking is used towards this aim as the alliance management intends to solidify relationships and build a stable base for business. This position towards international competition coexists with a more progressive one since the opportunity development (UM-OD) phenomenon in the QDA outputs seemed to be clearly one of the most relevant exhibited in the quotation frequencies: the most frequent and second most frequent (UM-OD) in F2; the second most frequent in F1 (behind UM-RM/TB); and in F3 the third most relevant one (where the first and second ranked phenomena are respectively UM-BN and UM-RM/TB).

As the BN, the cooperation strategies, are applied by the case-studied firms in an international context as exhibited in Table 45, the contours of the followed cooperation strategies, their identification, typology and classification. Yet it should be noted that the firms aim to exploit their own advantages through a capability-based strategy which is combined with allianci

Table 47 – *Configuration of International Cooperation Strategies (CS) (F1-F4)*

Firm	CS Type	Alliance strategy	Classification	Type
F1	Alliance	Horizontal complementary strategic alliances (Volberda et al., 2011)	Upstream/downstream (Hess and Rothaermel, 2011); Orientation towards fast-cycles (Volberda et al., 2011)	Non-equity alliance and access alliances (Johnson et al. 2011)
F2	Alliance	Horizontal complementary strategic alliance (Volberda et al., 2011)	Upstream/downstream; non-equity, and access-based alliances. Orientation toards fast-cycles (Johnson et al. 2011; Hess and Rothaermel, 2011) (Volberda et al., 2011)	Non-equity alliance and access alliances (Johnson et al. 2011)
F3	Alliance	Horizontal complementary strategic alliance (Volberda et al., 2011)	Upstream/downstream; non-equity, and access-based alliances. Orientation towards fast-cycles (Johnson et al. 2011; Hess and Rothaermel, 2011) (Volberda et al., 2011)	Non-equity alliance and access alliances (Johnson et al. 2011)
F4	Alliance	Vertical strategic alliance (Volberda et al., 2011)	Clustering through the relatedness of the industries (Porter, 1988; Volberda et al., 2011)	Equity-strategic alliance and access alliances (Johnson et al., 2011)

Source: Own elaboration

It is recognised in Table 45 that cases F1, F2, and F3 adopt international cooperative or cross-border, business-level, cooperative strategies, which were observed by the analysis of the results of the quotation frequencies and the crosstabulation of the dimensions (Cooc matrix), applied to the three dimensions DC, OP and UM where the QDA revealed a particular attention to the DC-AMC phenomenon. The results are not homogeneous, as F4 does not demonstrate a focus on DC-AMC development, while the F2 exhibits a normal frequency with a result among the others in the DC dimension. However, the F1 and F3 cases reveal a particular attention to DC-AMC, and a cross relation to UM-BN, and UM-OD and UM-RM/TB, corroborating the information above in Table 44, that in the approach to competition within the industry the companies combine a cooperation strategy grounded in alliancing, complemented by a networking approach. Thus, this behavioral pattern fits the network cooperative strategy, and its subset of alliance networking. Although, it is not clear if the cases (F1, F2 and F3) follow a stable alliance network and/or dynamic alliance network, as the stable mode is used in mature industries to ensure stable long-term contractual relationships, while the dynamic observes frequent research and development and innovation in the industries, which is also observed. So, we claim that the firms (F1-F3) follow a dynamic-stable alliance networking strategy.

Yet, the alliancing approach unveils a complementary horizontal strategy shape, as the sharing process is not transversal (as in a vertical complementary strategic alliance), crossing different phases of the value chain in order to generate common competitive advantages. Instead, the sharing process is punctual, exploiting a particular scenario and/or positional advantage (Dunning, 2001; Stuart and Ding, 2007, cited in Volberda et. al, 2011). Thus, the alliancing approach assumes a non-equity form, since it is based in a contractual partner relation comprising resource-sharing, but not engaging in equity exchange, such as that in the international joint-venture (IJV) form, which here is not observed (Johnson et al. 2011; Hess and Rothaermel, 2011; Volberda et al., 2011; Collinson, Naruda, Rugman, 2017). The alliance management of the firms (F1, F2 and F3) encompasses an ambidextra strand, both, the upstream and downstream (Hess and Rothaermel, 2011). The cases demonstrate a dual interest in alliancing towards the exploration of opportunities (upstream) and simultaneously oriented on the direction of new knowledge generation (downstream), since particular attention is given, respectively, to opportunity development and research and development and NPD activities. Furthermore, looking particularly at the downstream approach the underlying dynamism, and accelerated pace are acknowledged and claimed to be an orientation towards fast-cycles. The strategic alliances are oriented towards the research and development, product innovation and NPD, a finding that is consistent with the fast-paced cycles commonly associated with

the accelerated pace of a new market entry and development of goods and services, overcoming uncertainty, maintenance of market leadership, and a industry technology standard.

Looking separately at each case, a more frequent adherence to the following phenomena herein ranked top-down can be observed:

F1: DC-AM; UM-RM/TB; UM-OD; DC-MaC; DC-PDC; DC-NC; UM-MKC; UM-NP; UM-RA; OP/CD-CPC and UM-BN. Here, the main DCs may be classified as follows:

$$DCs_{(F1)} = \begin{cases} T1: DC\text{-}AM; DC\text{-}PDC \\ \\ T2: DC\text{-}MaC; DC\text{-}NC \end{cases} ; DICs_{(F1)} = \begin{cases} IeiP: DC\text{-}AM \\ \\ IerP: DC\text{-}AM; DC\text{-}PDC \end{cases}$$

F2: UM-OD; UM-BN; CD-CPC; DC-KC; OP/CD-Po and DC-R&D; UM-RM/TB; and UM-RA. Here, the main DCs may be classified as follows:

$$DCs_{(F2)} = \begin{cases} T1: DC\text{-}KC \\ \\ T2: - DC\text{-}R\&D \end{cases} ; DICs_{(F2)} = \begin{cases} IeiP: DC\text{-}KC \\ \\ IerP: DC\text{-}KC; DC\text{-}R\&D \end{cases}$$

F3: DC-NC; UM-BN; UM-RM/TB; UM-OD; DC-MaC; DC-NP; DC-R&D; DC-CC; DC-PDC. Here, the main DCs may be classified as follows:

$$DCs_{(F3)} = \begin{cases} T1: DC\text{-}CC \\ \\ T2: - DC\text{-}NC; DC\text{-}MaC; DC\text{-}NP; DC\text{-}R\&D; DC\text{-}PDC \end{cases}$$

And, DICs (F3) = { IeiP: DC-NP; DC-MaC ; IerP:DC-NP; DC-R&C; DC-PDC; DC-NC; DC-MaC

F4: UM-GD; UM-OD; OP/CD-Po; DC-PDC; DC-MaC; DC-AdC; UM-RA; DC-R&D. Here, the main DCs may be classified as follows:

DCs (F2) = { T1: DC -AdC ; T2: DC-PDC; Dc-MaC; Dc-AdC; DC-R&D

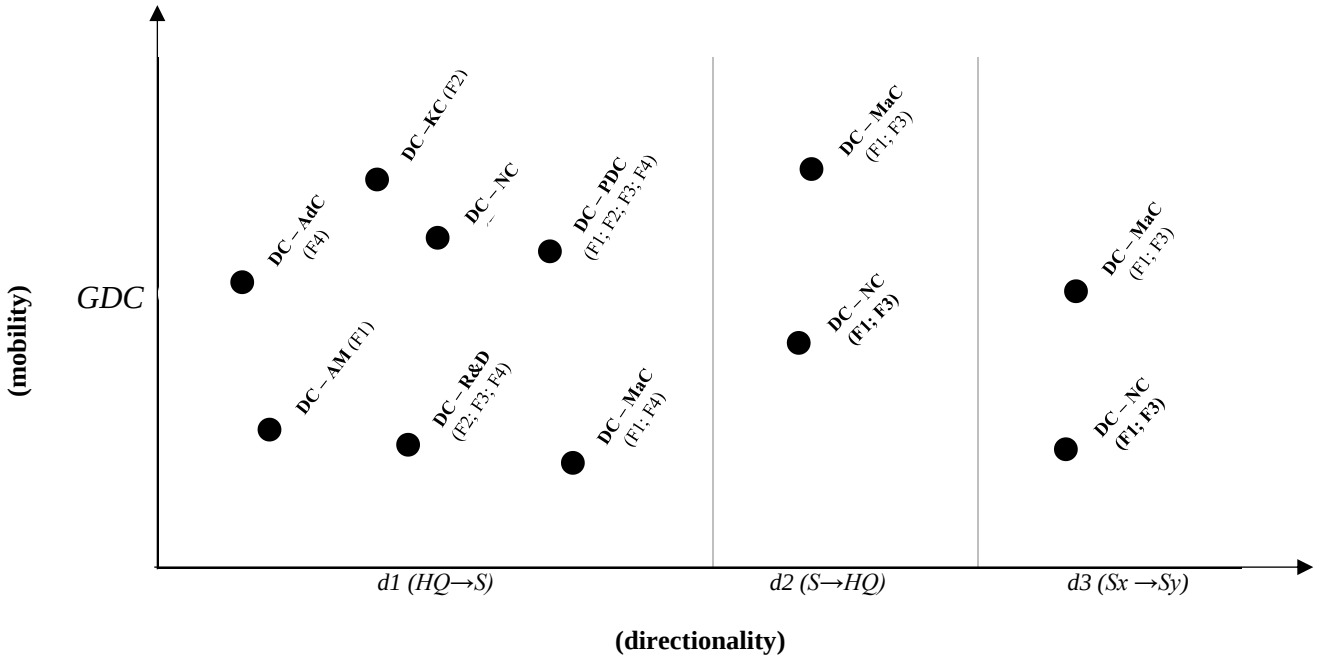
And, DICs (F3) = { IeiP: DC-AdC; DC-MaC ; IerP: DC-R&D; DC-PDC

F1 demonstrates a dual concern for cost/price competition and the development of opportunities accounting for market uncertainty and risk.Thus, F1 fits their IPPF fits the Porterian phenomenon of a hybrid generic strategy, with the integration of cost-leadership and the differentiation (Porter, 1985). The firm is risk-avoider, follows the gradualistic internationalization and exhibits the adherence to the GD phenomenon. The past traces of the PD phenomenon are not observed currently. The capability-creation/development is rooted in the business-level strategy of the firm. The capabilizatization is balanced between the Teecian reconfiguration DCs type 1 and 2 and oriented towards DICs of international exploration processes (IerP). The F2 follows an identical hybrid strategy; however, with an accentuated cost leadership concern as dominant phenomenon, as the cost/price competition seems to be central. The capabilitization process observes a balance between DCs type 1 and type 2. Moreover, the firm demonstrates a marked concern for marketing questions related with the management of current business and alliances and pursuing new opportunities, which

indicates a cumulatively concern with internationalization capabilities (DICs) regarding the international exploration processes (IerP) to leverage first-moving opportunities (FMOs) (Lieberman and Montgomery, 1988). The QDA of the F3 transcriptions reveal a clear focus on differentiation approach, both at their portfolio and market positioning. This international entrepreneurial orientation is centered on the alliance management and further opportunity development, and a secondary attention towards market innovation regarding NPD. The firm fits the capability-builing strategic approach, such as the previous; however, their IPPF is oriented towards the development of DICs (Prange and Verdier, 2011). Therefore, is almost exclusively centered in the Teecian DCs type 2. F4 confirms a domestic-orientation, with a risk-avoindance approach where the GD phenomenon is perceived. The PD reveals a spurious effect where the countries of the Lusophony are target not due to the PD phenomenon but instead because of the network position. The firm possesses a capability-development strategy, though focused on the Teecian DCs type 2 with the internationalization being leveraged by the equity-strategic alliances, while pursuing the IeiPs of consolidation capabilities (CoC) of the DICs, in order to obtain positive externalities in new business creation through the exploitation of th network, as a peripheral specialist, with a very strong tie (high multiplex) with the equity-strategic allies of their network (Cross and Prusak, 2012; Albrecht and Ropp, 1984). Nevertheless, F4 exhibits concerns related with markets opportunities in general (UM-OD), which may reveal their attention towards reciprocity with the strong ties within their network.

The patterns of transferability (DC-T) and mutability (DC-M) of the main DCs of the partaking firms are presented below. Figure 43 addresses the transferability of DCs at the partaking firms using the elements of directionality (*d1 = HQ→S; d2 = S→HQ; and d3 = S1 →S(2, 3, 4, ...)*. The DCs are distributed along *d1, d2, and d3* according to the direction exhibited in their mobility. Figure 44 addresses aligns the DCs according to the level of mutability exhibited in each DC according to the TPS perspective (partial mutability – reconfiguration; total mutability – renewal).

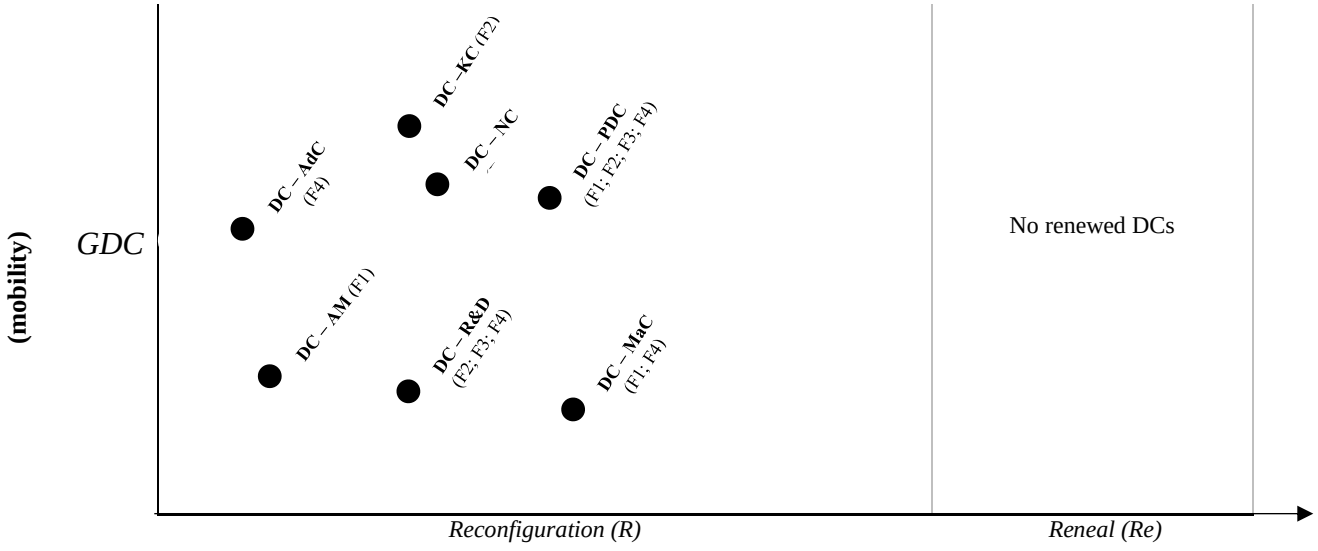
Figure 43 - *Patterns of DC-Transferability (DC-T)*



Source: Own elaboration

The paradigm of DC-T has a distribution centered on d1 where the transference of 1st-order capabilities reveals mostly a unilateral mobility from PoO (HQ) to PoD (Sn) as other business units at host-markets (HQ→*S)*. Noticeable is the fact that the d2 and d3 reveal a similar pattern with the DCs fitting the Prange and Verdier´s (2011) DICs as they belong to the international exploitation processes (consolidation capabilities). Figure 44 exhibits the DC-M:

Figure 44 –*Patterns of DC-Mutability (DC-M)*



Source: Own elaboration

Regarding the DC-M it is not observed a disruptive mutability in the morphologic characteristics with the total abandonment of previous characteristics and the acquisition of new ones since the transcripts of the participants´s speeches do not contain any traces of a total modification of an original DC. Thus, the reconfiguration occurred in several capabilities related with the Senge´s (1990) concept of adaptative learning (due to market knowledge) and other regenerative learning due to new technical/technological knowledge, which shaped severeal DCs: DC-MaC; DC-NC; DC-PDC; DC-R&D; however, no renewal is perceived in a particular capability. In parallel, as the U-model´s concept of path dependency is likewise observed in transcripts, this also corroborates the thesis of partial mutation or reconfiguration and lack of DC renewal or DC disruptive transformation.

Recalling the research questions (RQ1-RQ6) and its propositions under testing (Pr1-Pr6), it is observed that the firms do not follow a pure gradualistic internationalization archetype comprised in the original U-model (Pr1), but instead a multidimensional paradigmatic approach to the external markets, as described in chapter 5. *Conclusions*. The adherence to psychic distance factors in all firms in their historical path is confirmed. Currently, the phenomena is perceived most intensively in F3 (as a true relation) and additionally in F4 (as spurious releation), although not verified in F1 and F2. All firms follow a capability-based internationalization strategy (Pr3), and the development of ordinary capabilities (OrC) and/or dynamic capabilities (DCs) in their domestic market (Pr4) is positively observed. The transference of DCs to foreign markets where the firm operates is positively observed (Pr5) and simultaneously, assume heterogeneous directionality patterns of integration and mutability/reconfiguration processes from the PoO to the PoD (Pr6). Table 48 summarizes these findings.

Table 48 – *Summary of IPPFs (F1 – F4)*

Firm	Corporate-level strategy	Business-level strategy	Structure and systems	International competition
F1	Corporate scope: Single SBU Diversification: Low level of diversification (> 95% revenue from single business) Focus: Gowth strategies (of international expansion)	Type: hybrid strategy (integration cost-leadership/ differentiation) Strategic Planning: between Phase II (Forecast-based) and Phase III (externally-oriented) Risk profile: avoidance, pursues geographically closer markets Other features: incorporation of innovation strategies (for differentiation), cooperation strategies (cost-leadership and differentiaton) Innovation strategy: Open-innovation, orientation towards NPD Cooperation strategy: alliance networking (non-equity alliancing; horizontal complementary strategic alliances)	General: Functional structure of professional burocracy (organic); focus on skills standardization International coordination system: Centralized-federation Capabilitization: DCs(R&D, market development, adaptability, networking, relationship and trust-building)	- mix of FDI and exports - Ambidexterian (international exploration and exploitation processes) - Synergies HQ-S/S: Transnational - Marketing: blend multi-domestic and global strategy
F2	Corporate scope: Single SBU Diversification: Low level of diversification (> 95% revenue from single business) Focus: Gowth strategies (of international expansion)	Type: hybrid strategy (integration cost-leadership/ differentiation) Strategic planning: Phase III (Externally-oriented) Risk profile: avoidance, pursues geographically closer markets Other features: incorporation of innovation strategies (for differentiation), cooperation strategies (for cost-leadership and differentiaton) Innovation strategy: Open-innovation, orientation towards NPD Cooperation strategies: alliance networking (non-equity alliancing; horizontal complementary strategic alliances)	General: Functional structure of professional burocracy (organic); focus on skills standardization International coordination system: Centralized-federation Capabilitization: DCs (R&D, market development, adaptability, networking, relationship and trust-building)	- FDI and exports - Ambidextra (international exploration and exploitation processes) - Synergies HQ-S/S: Transnational - Marketing: blends a multi-domestic with a global strategy -

F3	Corporate scope: Single SBU Diversification: Low level of diversification (> 95% revenue from single business) Focus: Gowth strategies (of international expansion)	Type: hybrid strategy (integration cost-leadership/differentiation) Strategic planning: Phase III (externally-oriented) Risk profile:(high) avoidance, pursues culturally closer markets Other features: incorporation of innovation strategies (for differentiation), cooperation strategies (for cost-leadership and differentiaton) Innovation strategy: Open-innovation, orientation towards NPD Cooperation strategies: alliance networking (non-equity alliancing; horizontal complementary strategic alliances)	General: Functional structure of professional burocracy (organic); focus on skills standardization International coordination systems: Centralized-federation Capabilitization: DCs (R&D, market development, adaptability, networking, relationship and trust-building)	- mix of FDI and exports - exploration and exploitation processes - Synergies HQ-S/S: Transnational - Marketing: blend multi-domestic and global strategy
F4	Corporate scope: Single SBU Diversification: Low level of diversification (> 95% revenue from single business) Focus: Gowth strategies (of international expansion)	Type: hybrid strategy (integration: cost-leadership/differentiation) Strategic planning: Phase III (externally-oriented) Risk profile: avoidance, pursues geographically closer markets Other features: incorporation of innovation strategies (for differentiation), cooperation strategies (for cost-leadership and differentiaton) Innovation strategy: Open-innovation, orientation towards NPD Cooperation strategies: alliance networking (non-equity alliancing; horizontal complementary strategic alliances)	General: Functional structure of professional burocracy (organic); focus on skills standardization International coordination system: Centralized-federation Capabilitization: DCs (R&D, market development, adaptability, networking, relationship and trust-building)	- International trade (exports) - Ambidextra (international exploration and exploitation processes)

Source: Owm elaboration

6. CONCLUSIONS

We address the conclusions in a dualistic mode, both agglomerating (the four cases) and specifying ones, when particularizing a focal firm. The comprehension of the patterns of IPPF required an integration of the empirical testing with the revised literature to illuminate the phenomenon (IPPF) and respond to the RQs and demonstrate the achievement of their aims. It was perceived that the IPPF of the case studied firms, accounts, cumulatively, account for the specificities of the firms, the environmental specificities of the domestic-market and host-markets environmental, the organizational ecology, and the drivers for international entrepreneurship (Collinson, Narula and Rugman, 2017; Mathews and Zandler, Carrol and Hannan, 2000). Thus, we observed that both the internal and external environment have a mutual significate impact on the IPPF of the firms.

The cases accommodate a multidimensional paradigmatic internationalization reality, as demonstrated below. The IPPF reveals heterogeneity among cases with some overlapping phenomena, although with a holistically distinctive identity of the firms among each other, as discussed in Chapter 5. *Findings*. In general, the Portuguese firms fit partially into the Uppsala school of thought as their internationalization is committed to uncertainty control and risk avoidance through a gradualistic approach typically of a process model that relies on the edification of market knowledge to balance the market commitment decisions. This finding partially explains their geographical orientation towards markets of proximity in Europe, and we say "partially" as the other factor (apart from the U-model gradualism) and driver for geographical proximity is the national comparative position, which is addressed below. However, the propensity of the firms towards risk and uncertainty control is based on the pillar of knowledge arbitrage. Although, we did collect evidence that the firms are equally sensitive (apart from knowledge arbitrage) to labor arbitrage, capital arbitrage and tax arbitrage (Kogut, 1985; Ghemawat, 2008).

Nevertheless, within the framework of the u-model the observance of psychic distance factors are still verified. Thus, it is confirmed the adherence of the firms to the phenomenon as pointed out at in chapter one, regarding the background description of the reality. It is confirmed the disregard towards the markets of Maghreb in the North African region, despite the geographical proximity, and is observed the preference for markets of closer psychic/cultural proximity, as the Portuguese-spoken and Spanish-spoken countries in Africa and in South America, despite its larger distance.

The issues related with the national comparative position, as referred above, affect transversally the internal trade of all four cases. F4 as an exporter, and the remaining ones, as they possess production units in the domestic market, which are supplying other countries. F1 and F2 demonstrate particular sensitivity to this issue as they revealed adherence to the externalization of activities to other international partners. This national reality which impact their firms the most (and is supra industries), is explained by the participants, that is related with the geographical location of the country which underlies a economic periphicity towards the economies in Central and North Europe, that overloads the companies in the country with a surplus of costs and loss of international business opportunities in the Euro region, as explained in findings. This incidence fits additionally the theory of Adam Smith of absolute advantage, regarding the territorial dimension of the market and the Ricardian theory of comparative advantage. The domestic (small) geographical dimension of the local market is perceived in all cases transcriptions, regarding the negative impact in firms, as portrayed by the CEO of Bobimade, S.A. (classified as participant P7 in this study) claiming that "*another disadvantage has to do with the effective size of the market, not just the geographic dimension…*" (quotation 20:15). This argument adjusts to the factor endowment theory or Heckscher–Ohlin model (H–O model), which claims the importance of national factors as land, capital, and labour. Here is observed land constraints. Although, the Porterian diamond corroborates the previous theory attributing to factor conditions (and its related demand conditions the national competitiveness constraints. Moreover, the CEO of one of the firms (identified as P5 in this thesis) argues that "*for companies to survive in Portugal it is necessary to have support, specific lines for companies´ investment, because if we want to increase exports, and if the Portuguese productive tissue is exhausted, we can only increase exports if production is increased*." (quotation 18:24), which corroborates the limitation of the market in terms of land, and additionally stresses the lacking role of the governmental policies to leverage the international trade and investments (Collinson, Naruda and Rugman, 2017). In parallel, it is observed a proximity towards the transaction cost theory and global integration of the business value chain, as a recurrent mechanism of compensation of potential geographical peripheral losses (Coase, 1937). Thus, the companies demonstrate a profound awareness of the national macro barriers that affect the international business environment, and a particular attention to the factors described in the CAGE framework (Ghemawhatt, 2008).

The industry is capital-intensive and firms rely on highly skilled human capital. Therefore, the industry fits the Leontief paradox of the Heckscher–Ohlin theory (H-O theory), as capital-intensive goods are attracted to the international markets (Collinson, Naruda and Rugman, 2017). It is also

stressed, that despite the concern of the firms with regard to the impact of the fluctuation of the exchange rates in international trade competitiveness variation, the data is not suffice to contextualise it within the international Fisher effect (IFE).

The business-level strategies fit the Porteriam focus on strategies, and are in a stuck in the middle position, as they integrate cost competition with differentiation. Although, the differentiation does not fit the blue ocean diversification model, which encompasses the generation of value innovation (Porter, 1986a; Kim and Maugborne, 2011). However, the mindset of the firms is oriented towards the development of competitive advantages, through the generation of incremental innovations, from research and development activities oriented towards the NPD. In this sense, the stuck in the middle strategy it seems to occur, fruit of cicunstacionalism, and related with the fact that other global players do not allow an international (real) cost leadership, and cumulatively, the demand target industry is highly commoditizable (the energetic sector). Thus, the sample firms produce parts of cables, packing, conductive wires, and coverages, oriented to a target industry (of utility companies of electric distribution) where the product is technological and intricate to differentiate it, despite the constant research that the firms seem to undertake regularly. As the sampled cases, endeavor to differenciate themselves, the QDA results and findings, exhibit the possession and use of sets of combinative capabilities of ordinary (zero-order) and higher-level (first-order) capabilities, operational/ordinary capabilities and (global and non-global) dynamic capabilities, which the firms develop, purposely, to explore sources of competitive differentiation, focusing on the improvement of their portfolio, while introducing innovative traits, through NPD. Thus, the firms attempt to develop social capital and generate new intellectual capital (Sørenson, 1997). The main forces of competion het face, are here identified as the bargaining power of buyers (utility electrical companies) and the direct competition of global players, which the sampled firms seek to counter-balance with an effectuation process of development of competitive advantages leveraged by their competences and DCs that may generate own local advantages in the international markets (Grant, 2010; Grant, 2010, Barney, 2001; Wernerfelt, 1984; Dornbusch, Fischer and Samuelson, 1977; Penrose, 1957; Saravasthy; 2001; Dunning, 2001; Porter, 1986).

The structures archertpes of the firms and governance models as described in findings adjusted to the Minztbergian professional burocracy and functional structure, articulated with a central-hub federation mechanism for coordinating international operations. The later one requires adjustments in its strategic fit (McDougall and Oviatt, 2000; Barlett and Goshall, 1993; Goshall and Barlett, 1990;

Prahalad and Doz, 1987, cited in, Ghemawat, 2008; Minztberg, 1980). The adjustments to the strategic fitness is due to the growth of the firms in volume (increasing number of markets), which indiciates a spiral of complexification of the operation, in geographies and segments, which was not adequately accommodated in the structure and governance models. Thus, it is demands further formulation in its managerial systems, especially the ones related with the activities of, organizational controls, business communication, and coordination mechanisms intra subsidiaries, as pointed out by several participants, being acknowledged the risk of the lack of systematization of information, its centrality in the individual, and risk of explicit knowledge dissipation or definite loss (Volberda et al., 2011).

Conversely, the interculturality issues are considered at the case studied firms. The partaking firms reveal a common awareness to the interculturality or cross-cultural issues between nations and the capacity to function in culturally diverse settings; therefore, it may be built the assumption that demonstrate positive cultural quotient (CQ) or cultural intelligence (Earley and Ang, 2003). Here, the CQ is noticed merely at meta-cognitive and cognitive tiers, since the firms exhibit a cultural awareness and consciousness to interact with individuals from different cultural backgrounds and also to deconstruct the cultural knowledge into international business norms, practices and conventions (Groves and Feyerhelm, 2011; Van Dyne, Ang and Koh, 2008). Although, the latter refered business norms, practices, and conventions require further systematization in their functional and managerial systems and the abandonment of arbitrarian circunstancial diagnosis. Therefore these require a closer look into the cross-cultural management, and national/corporate cultural values and the development of motivational CQ and behavioral CQ (Adler, 1993; Smith, Dungan and Trompenaars, 1996; Hofstede, 1983; Schwartz, 1999; Tsalikis, Seaton and Sheperd, 2007; Van Dyne, Ang and Koh, 2008). Moreover, the organizational ecology, and the contemporary pace of the business environment, globalization models, the hypercompetition, the network-playing modes, the born-global (BG) firms, the flagship and gazelle firms, seems to be acknowledged by the partaking firms in this study (Collinson, Narula, Rugman, 2017; Gabrielsson *et al*., 2008; Acs and Mueller, 2008; Carrol and Hannan, 2000; Grifith and Harvey, 2001; Nielsen, 2006; Zahra *et al*., 2000; Johanson et al., 1988; Coviello and Munro, 1995; Holmlund and Kock, 1998; Forsgren, 2002; Coviello, 2006; Holmlund et al., 2007).

Summarily, it should be noticed that the IPPF was here in this research empirical tested, reasoned and illustrated its theoretical ground, and therefore it is claimed that A1 then achieved. The specific aims A2 and A3 are positively observed, both the compliance with a psychic distance factors, and an of

internationalization paradigm deeply rooted in a capability-based strategic design, and the firms DCs are thoroughly identified. As the research identified patterns of international transferability of DCs/global dynamic capabilities (GDCs) - from the domestic, to the foreign markets (where the firm operates) and complementarily it is confirmed mutation in the morphology and/or intensity of the applicability of the DC, and therefore, it is here also claimed the achievement of A5 and A6.

6.1. Limitations to the study

A first constraint here recognized, is related with the limitation of the time frame of the project, the limited knowledge of the researcher to make inferences about the world, and its underling limited computacional skills, which are commonly ignored by the models of decision making in economics, cognitive sciences, biology and other field (Gigerenzer and Selten, 2002). These limitations are recognized in the boundend rationality notion, as imperfection of human behaviour within the business firms and institutional economics (Simon, 1982). As the bounded rationality is explicitly assumed as an individual limitation of the researcher, it comprises the set of philosophical assumptions, as an epistemological assumption related with the perception of the world. Secondly, the research design itself, and particularly the data collection and sampling methods, which were inhibitory of a larger scale data collection, and its extrapolation to an intra-sectoral study and its appliance in a multi-country comparison.

The absence of scalling and measurement units applied to this study within the dynamic capabilities theory, constituted an influential factor in the decision of the type of approach to theory development. An eventual quantitative approach lacked on further ground on theory as the mobility, transferability, and mutability scales on GDCs do not account a classification of scalling and measurement of the phenomena. Thus, the research was oriented towards a constructivistic paradigm for testing GDCs, although, without measuring the levels of observance of the phenomena, but circumscribed to the identification of the DCs type, and observing the contours of the transference and reconfiguration through an interpretativistic mode.

Moreover, the Atlas.Ti version 8 raised methodological challenges related with the flexibility of manipulation of the system, also concerning the capacity to interrelate tools, and with the type of outputs generated.

6.2. Managerial implications

This case study research identified critical issues in the business environment in the Portugal, related with the endowments factors of competitiveness of the economy, its national comparative advantage position, and its national diamond. Primary and secondary data did not allow the determination of a Leontief paradox phenomenon in the manufacturing industries, since this study´s scope in not macro but microeconomic.

We observed that selection of host-markets is positively related (but not not exclusively) to geographical and psychic distance factors of the u-model and an underlying risk avoidance, and uncertainty control strategy. The IPPF matches other paradigms revealing a markedly dependency on the factor endowment and on the Ricardian theories. Data demonstrates a low national comparative advantage on the sector and the dependency of public intervention to balance competitive equilibriums, mostly within the EU markets. The size of the land as a factor condition and more precisely the relative dimension of the country in comparison with other states, is materialized in a small effective market dimension, which is combined with a peripheral geographical location in Europe.

Both phenomena pressure the Portuguese firms with a surplus of costs with international trade of goods from Portugal, which is related to the primary activities of outbound logistics (for deliveries in Europe), and on the buying-side with the inbound logistics of acquisition of raw materials. Moreover, the loss of business opportunities with regard to framework contracts and spot sales is also observed. This consubstantiates a phenomenon of economic periphery that uncovers a Keynesian dependency of governmental public policies to mitigate the effects of the economic periphery. Conversely, the firms argue a lack of national policies to compensate the economic periphery phenomena (consubstantiated in peripheral geographical location and small effective market size) and to stimulate the international trade and FDI.

This Keynesian dependency of the governamental intervention is observed in some participants´ narratives, which demand a higher participation of the state in two domains, regulation and stimuli to the economic activity. At regulation level, the suggestion of the creation of legal and administrative mechamisms that may facilitate the future establishment of professional tariffs for energy

consumption in natural gas and electricity for the secondary sector (ajusted to an average prices in central Europe to reduce the competitive gap to the other EU markets) was than raised.

The firms referred their need for governmental financial instruments of credit for facilitating their outward international trade and investment. Moreover, referred to the public co-participation of the government in investment risks and international ventures, and applying expansionist fiscal policies oriented towards the cutting on corporate taxes. Thus, the partaking firms claim that these measures are critical national mechanisms of compensation of competitive inequalities and (re)establishment of equilibrium among markets and their application may reduce at these organisations the economic periphery, mitigate some exchange markets losses with regard of the fluctuation of the Euro to other currencies, particularly losses against the dollar, and stimulate the expansion of the export and foreign investment activities. In this sense, we have cross-checked the firms´ claims lack of government stimuli to international expansion, through the observation of data of international economic freedom (IEF) (Table 49).

Table 49 – *International Economic Freedom (IEF)*

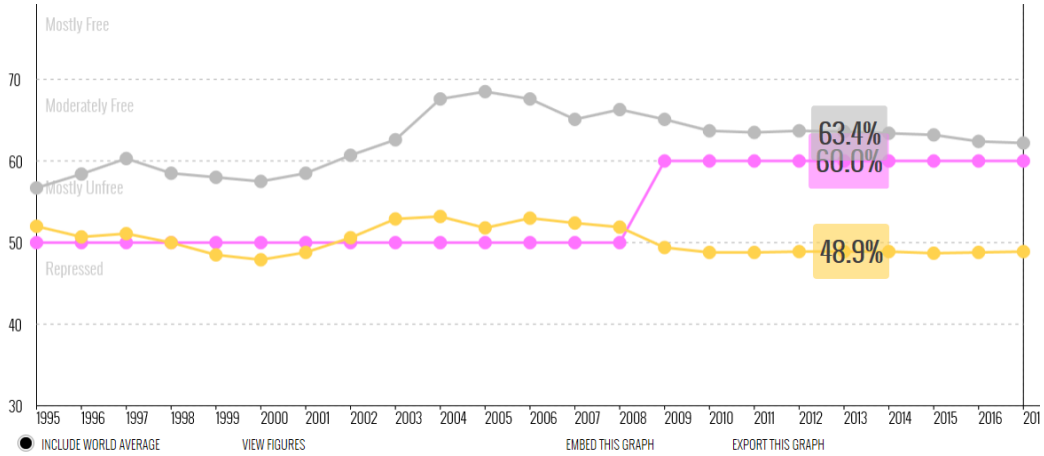
Country	Rules of law			Government size			Regulatory efficency			Market Openess		
	IP	JE	GI	TB	GS	FH	BF	LF	MF	TF	IF	FF
Portugal	73,3	68,9	59	59,8	25,1	32,1	86,4	43,4	85,9	87	70	60
Italy	74,6	55,4	44,7	54,9	22,3	66,9	69,8	52,9	86,9	87	85	50
Spain	71,2	53,9	57,2	62,5	41,4	26,9	66,9	55,3	85,5	87	85	70
France	85	72,7	69,7	47,6	2	57	78	44,1	81,6	82	70	70
UK	93,8	93	78,3	65,1	41,9	40,4	89,9	72,8	85	87	90	80
Germany	82,9	79,5	77,7	61,9	41,4	89,9	86,6	42,8	85,9	87	80	70
US	81,3	75,1	78,1	65,3	55,9	53,3	84,4	91	80,1	87,1	80	70
Angola	36,4	19,8	12,8	87,7	58,6	70,7	58,5	40,4	70,6	56,7	30	40
Brazil	55	49,7	33,4	70,1	53,1	22,8	61,3	52,3	67	69,4	50	50
Netherlands	87,4	69,9	85,7	53,2	37	83	80,2	70,5	85,8	87	90	80
Belgium	83,3	69,3	71,5	44,1	9,6	66,3	82	61,1	84,9	87	85	70

Source: Own elaboration

(IP – Intellectual property; JE – judicial effectiveness; GI – government integrity; TB – Tax burden; GS – government spending; FH – Fiscal health; BF – Businss freedom; MF – Monetary freedom; TF – Trade freedom; IF – Investment Freedom; FF – Financial Freedom)

Considering the data in the table above, we focused on the financial freedom (FF) indicator, which is the one directly explanatory of the governmental financial simuli to international trade and investment. Data reveals that the country has the second lowest figures in the group of European markets (Figure 43).

Figure 45 – *Financial Freedom – World, Europe and Portugal*



Source: Heritage (n.d.)

(Orange line – World; pink line- Portugal; grey line – Europe)

The data of financial freedom of the IEF that measures the level of public savings, credit, payment and investment services of the state to individuals, corroborates the claim for public policies to stimulate their international expansion and correct competitive inequalities to other EU market players as the slope of the pink line representing Portugal demonstrates lower indicators than the average in EU since 1995 until 2016. In parallel, the exports in the sector indicate low-level of national comparative advantage (NCA) as the shared value ratios in the world trade are 0,7 in the category 83 – miscellaneous articles of base metal) and 0,2 in the category 85 – electrical machinery and parts thereof (ITC, n.d.).Thus, the sector lacks on differentiative factor endowments to competete internationally and to generate further international business investments. In this contxt, the eclectic paradigm of Dunning (2001) and CSA/FSA matrix of Rugman (2010) suggest that firms may tackle national competition issues that are hampering higher profitabilities (due to international trade unit costs) by switching to a FDI framework. The authors advocate that firms may tackle this national competitiveness issue through a trade-jumping-cost gain which has a positive impact on operative profits, despite the loss of economies of scale of concentrating the production in domestic facilities. This trade-jumping-cost gain (γ) is represented by difference between the estimated total profits from the FDI (Π^F) and those from exports (Π^X). The γ considers the $\pi*$ (t*) as the potential for the MNC to earn additional operating profits by selling in the foreign market directly, the total estimated higher operative profits $\pi*(0)$ and the additional fixed costs (f), which equals:

$$\gamma\ (t^*, f) \equiv \Pi^F - \Pi^X = \pi*(0) - f - \pi*(t*) \qquad (17)$$

Dunning (2001) suggests that the rise in operational profits may come from O (ownership) advantages, most precisely through the ownership of assets (Oa) transfering partial production to host-markets and combining it with L (location) advantages. Nevertheless the virtues of the OLI attributes of the ecletic paradigm for the illumination of a future IPPF in the sector, it should be noted that the Oa advantages do not take into account the MNC behaviour patterns on capabilities transferability as already criticized in recent literature (Verbeke and Yuan, 2010). However, should be emphasized that the OLI factors exhibit a specific O advantage, the Oi (Ownerhip of institutional advantages) as a subset of O advantages named by the author as the institutional infrastructure which is related with the resource-based of the firm. Here, the Oi suggests cross-border general transference of practices and its diffusion among subsidiaries, which is line with the DCT and with the GDC notion. In fact, the DC inner capacity of groegraphical mobility and its actual transferability to international markets, intra-transferability between subsidiaries (S-S) and or reversed to the internal market (S-HQ) was positively observed in the partaking firms as were explicitly verbalized in the participants´ narratives of F2 (P4) and F3 (P5 and P6).

Finally, we cross-checked the national model of competitiveness (NMC) defended for the Portuguese economy with this empirical research. The NMC claims the focus on the transactional economy industries and the rise of sophistication and singularity of both businesses and products, including their technological content and further incorporation of knowledge (Bento, 2010). The partaking firms in this study belong to the secondary sector and pursue business-level strategies either pure or hybrid business models containing evidence of sophistication, First, they reveal to knowledge-orientated as they pursue capability-developing strategies design and open-innovation models previously explained. Those BLS strategies (capabilisation and open-innovation) comprising knowledge-based activities of R&D are combined with cooperative strategies, to generate new social and intellectual capital, to introduce new technological solutions and portfolio reconfigurations and to create product innovations. However, despite the sophistication of their business models and external markets success and constant growth, the IPPF is marked in the present time by a U-Model in its majority marked by the GD phenomenon which has a hybrid effect, a true and a spurious relation to the IPPF. The geographical orientation is portraying the choice of external markets and further commitment decisions in these markets. However, this happens not uniquely due to a risk avoidance internationalization gradualistic pattern that advocates the proximity markets as less risky (and their local companies as well) but also, the IB related decision-making processes are contrained by the phenomenon of economic periphery (peripheral geographical location and small effective market

size). In this context, we observed that despite the multidimensionality of the strategic designs of the partaking firms, which demonstrate the capacity to develop knowledge-based and sophisticated approaches, a Keynesian dependency of governamental public policies is noted and higher regulation and stimuli to MNCs is demanded to mitigate competitive disadvantages and establish competitive equilibriums at intra and extra-EU marketplaces and to trigger growth opportunities for the firms in general and the international expansion of the industries of the transactional economy.

6.3. Future Research

This research may be enlarged in its sample dimension and that may be associated with a representative sampling within the sector, and/or extrapolated to an intra-sectoral study, and it may comprise country-comparisons. These, allow to obtain statistical generalizations which are complementary to the analytical generalization of this study.

As indicated in subsection 6.1., the development of scales related with the mobility of DCs is critical to deepen the knowledge in this research field. The creation of scales orientated to the measurement of GDCs may interrelated and enlarge the body of theory of DCV towards the IE theory. Therefore, the development of scales and its underlying units of measurement applied to the DC transferability and DC mutability are essential, as in this phase the DCT despite incorporating dynamism and the reconfiguration process, possess empirical testing corroborating the existence of the GDC phenomenon.

We propose the development of a semantic differential scale (SDS) for proceeding with further testing of those concepts of DC transferability and mutability. For measuring those, is suggested the use of a semantic differential scale (SDS) within the interval scales, and sub-classified within the itemized rating scales (IRS), due to appropriatness of the scale to measure the intensity-level of the observed phenomena. However our suggestion that lies in the development of an SDS, as a non-comparative scale (NCS) of IRS-type, but not a pure itemized rating scale (graphic, semantic or numeric) combining two rating elements (the semantics and numering), and therefore, blending the itemized semantic scale (ISC) with the itemized numeric scale (INS).

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APPENDICES

Appendix 1 - *The Manual of the Interview Guide*

1. Phases of the interview

- Pre-introductory
- Introductory
- Opening development and substantive content
- Closure
- Post-closure

1.1. Activities per phase

1.1.1- Pre-introductory:

- Preparation of tools and resources, as the sound-recording device, USB driver, and laptop
- Printing the interview guide and ethical agreement form(s) for filling up and signing it

1.1.2- Introductory

- Greeting and thanking the participant
- Summarized explanation of the research project
- Confirmation of data - Demographic profile questionnaire
- Interview agreement form (reading/signing)

1.1.3- Opening development and substantive content

- Initiate recording session
- General questions
- Supplementary questions
- Take notes
- End recording session

1.1.4 – Closure:

- Final thank for the time spent and information provided
- Verification of the recording materials and notes
- Manual transcription of the data to a word processor file

5 – Post-closure:

- Verifying the recording materials and notes
- Save, and back-up of data (in the computer and USB driver)
- Sharing a copy of the interview with the partaking firm
- Verification of the recording materials and notes
- Manual transcription of the data to a word processor file

2. Data Collection Instruments:

2.1 - Demographic Profiling Questionnaire

You may check bellow the template of the demographic profile questionnaire.

Demographic Profile Questionnaire

(This questionnaire is uniquely applied to the participants on the academic research field of the internationalization paradigms of the Portuguese firms)

Interviewee´s Name:	
Gender:	
Age:	
Employer identification:	
Seniority at the company?:	
Position occupied:	
Functional area:	

- END –

To all participants is granted confidentiality and anonymity of his/her participation. The interviewer ensures the security of data and the testimonials at verbal and written formats will be stored in a safe location which is inaccessible to third parties.

- Thank you for your Collaboration! -

2.2. Interview Agreement Form

The contents of the form signed by bothg the research and the participants are the following:

1 – Participation in this research:

a. Is voluntary? ☐

b. Informed consent (awareness of the research)? ☐

2 – Protection of identity:

c. Confidentiality of data ☐

d. Anonymity of participants ☐

3 – Ethics

e. No conflictual interests ☐

f. Respect to the privacy of individuals ☐

g. No physical or emotional harm, at my personal and professional life ☐

h. Does not affect the current and/or future health of the participant ☐

i. Is authorized the (audio/video) sound/images recording ☐

j. Data will be stored safely and inaccessible to third parties ☐

- END -

Researcher	**Interviewee**
_____	_____

2.3. General Questions

Table 50 – *Interview guide - General questions*

No.	Question Formulation
1	EN: How do you describe the strategy of the firms towards the international markets? *PT: Como descreve a estratégia adotada pela empresa perante os mercados internacionais?*
2	EN: To what extent does your company consider the *geographical location* (and its relative proximity/distance) to the domestic market and/or headquarters as a factor weighing on the market-entry decision? *PT: Em que medida considera que a localizacao geográfica (e a relative proximidade/distancia) face ao mercado interno e/ou sede da empresa, como um factor de peso na decisao de entrada num novo mercado externo?*
3	EN: Does/did the company been influenced on its market-entry and/or continuing and expansion, by criteria of (inter)cultural or linguistic proximity, affinity and and/or relatedness? *PT: É/foi a empresa influenciada na entrada, continuidade e/ou exapansäo de Mercado foi questöes de proximidade, afinidade ou relacionamento (inter)cultural?*
4	EN: What kind of arrangements are perceived in the firms 'internationalization strategy that indicates the search, identification, exploration and/or exploitation of market opportunities? *PT: Que tipo de accoes relacionadas com a estratégia de internacionalizacao da empresa sao desenvolvidas com vista à pesquisa, identificao, desenvolvimento e exploracao de oportunidades internacionais?*
5	EN: Does the company undertake diligences towards the affiliation and development of its international business networking, and/or cooperative strategies? *PT: A empresa compromete-se com a afiliacao e desenvolvimento de redes de negócios internacionaos, e/ou estratégias de cooperacao internacional?*
6	EN: Does the company possess critical resources and capabilities for its national and international business competition? PT: Possui a empresa importantes recursos e capacidades internas para a competicao nos mercados nacional e internacional?
7	EN: What resources and capacities is the company exploring in the international markets? *PT: Quais sao os recursos e capacidades que a empresa utiliza nos mercados internacionais?*

8	EN: Are the resources and capabilities which are transferred to the foreign markets, used and managed identically in the host market (as in the domestic) or do they suffer adaptive changing processes? *PT: Os recursos e/ou capacidades utilizados nos mercados internacionaos que foram transferidos do mercado interno, säo utilizados e geridos de forma identica à do mercado nacional, ou sofrem processos de alteraco adaptiva?*
9	EN: (About the resources and capabilities implanted in the international markets), are they cumulatively, and/or alternately used at the domestic market? *PT: Os recursos os capacidades utilizados nos mercados internacionais sao utilizados cumultivamente (ou alternadamente) na empresa internamente, após a sua implantacao internacional?*
10	EN: Have you perceived the use of resources and/or capabilities at the local market that belong to an operation abroad, or with its previous origin there? *PT: Percepcionou alguma vez a utilizacao no mercado interno de recursos e/ou capacidades da empresa que pertencem, ou que estäo estäo localizados fora do país e/ou que tiveram a sua origem no estrangeiro?*

Source: Own elaboration

2.4. Supplementary Questions

Not prepared previously. Those are within the research frame, and according to the interviewer perception about the participant´s information possession as gatekeepers, which may be critical to achieve the saturation point of collection.

3. Interview Method – Application structure

Table 51 - *Application structure*

Basis/dimensions	Identification
Organizing phases	Preparation, pre-test, conduction and data-mining
Conducting phases	Introductory, opening development and substantive content, closure and post-closure
Approach	Qualitative inquiry
Type	Research interview
Interaction	Dyadic (two actors)
Style	Non-directive
Focus	Management of insights
Objective	Synchronization of meaning
Insights	Prompts and probes
Actors	One interviewee; One interviewer
Inquiry	Intensive / in-depth interview
Tools and resources	Interview guide, demographic questionnaire, List of questions, interview agreement form, laptop computer, sound-recording device, and notebook
Written idiom	Portuguese (PT)
Spoken idiom	Portuguese (PT)
Language	Formal
Formality-level	Medium/high
Timeframe	Not limited
Schedule	Working hours
Date	July 2017
Assumptions	Interviewees as key-informants and gatekeepers
Format	Semi-structured interview
Process	Dual non-standardization (on the sequence of questions, and phrasing)
Questions	General questions and supplementary questions; non standardization on its sequence
Questions-metrics	Not applied (n.a)
Ethics	Described in the interview agreement form
Mode	Vis-à-vis
Validity	Pre-testing of questions (Jun-17)
Environment	Chosen by the interviewee
Location	Workplace of the participants
Output	Transcripts
Output´s retroversion	PT – EN

Source: Own elaboration

All the omitted information about the design of the interview method, its relatedness with the methodological approach followed in the thesis and the conduction of the selected technique, which you may not identify, as issues addressed in this interview guide, are you recommended to follow the thesis document itself.

Appendix 2 – The Codification System of Qualitative Data

1. Introduction

The CS guidebook is a codebook that depicts the analytical procedure of data codification, according to the theoretical frameworks in this thesis for general qualitative data analysis, and data structuring.

The codification process presupposes an *ex ante* preparatory effort building the architecture of coding, plus the codification *per se* which generates the cognitive mapping of the analytical procedure (as a result of the coding) and a final *ex post* analysis of its findings. Thus, the CS guidebook (exhibited in Appendix 2) addresses the codification design and its rationale grounded in the data analysis methodology adopted, and creates the cognitive mapping (of the concepts, constructs, themes and dimensions) verbalized in the speech of the interviewees.

2. Conceptualizations

Codebook - a "*complete list of all codes used to code data variables*".

Code - "*is a single word, short phrase, used to label a unit of data, and a number or word used to represent a response by a respondent or participant"*.

Coding - "*the processing of labelling data using a code that symbolises or summarises the meaning of that data"* (Saunders, Lewis and Thornhill, 2016:712).

CAQDAS (Computer-assisted qualitative data analysis)– "*Computer software that facilitates the analysis of qualitative data*" (Bryman and Bell, 2015:606)

Nodes – *"a set of references about a specific theme, place, person, and/or other area of interest."* (Bryman and Bell, 2015:610)

3. Purpose of the CS System

The CS system attends to the following two categories of targeted objectives:

- General (and primary ones)
- Specific (subsequent to the first category)

4. Objectives

4.1. General objectives

The general objectives are:

- Edification of an adequate response to the research paradigm, aims and research questions
- Self-organize the research
- Reduce subjectivity and bias
- Eliminating eventual misperceptions by the reviewers
- To make explicit the in-depth analytical procedure

4.2. Specific objectives

The specific objectives are as follows:

- Improvement of the meaning system
- Support a deep immersion into data mining
- To exhibit the tools and resources employed
- Detect eventual inconsistencies between the constructs´ characteristics and borders
- Explore commonalities between the two theoretical approaches (The Uppsala´s school of business internationalization and the dynamic capability view of the resource-based theory)

5. CS and CS System - Concepts and definition

It is critical to clarify the two terms here employed: codification system and codification system guidebook. Therefore, it should be mentioned that the first comprises all the codification steps along the research while the CS guidebook contains merely the preparation of coding, but not its further implementation.

Although, before entering in-depth into the characteristics of both, it is rather essential to mention that the data structuring instrumentalize the codification process as a part of a whole. In this way, according to the methodologic approach of the investigation, the data structuring accounts two components of this research:

(i) the data analysis framework

(ii) the data collection technique.

5.1. Stages of data structuring

Based on those, the data structuring follows these stages:

- Data reduction
    - Selecting
    - Structuring
    - Detextualizing
    - Codification rationale
    - Codification design
    - Codification and manipulation of data
    - Manipulation

- Data display
    - Coding outputs
    - Cognitive mapping

The codification system is subsequent to the data analysis and structuring, within the phases of the later, data reduction and data display, this instrument accounts the following traits:

1. Codification rationale
2. Codification design
3. Units of analysis and data
4. Coding frame
5. Levels of codification
6. Coding units
7. Coding categories, rules and codes´ descriptors
8. Tools and resources
9. The codification process/testing
10. Codified frequencies
11. Nodes
12. Cognitive mapping

13. Coding Outputs

It is perceived that the codification ends with the generation of outputs, give place to the data structuring an analytical interpretative immersion into the data displays, analysis and conclusion of according to the methodological general approach defines for this research.

In turn, the CS guidebook does not contain the whole the components of the CS, as it is concerned uniquely with the structuring and organizational aspects of the system for further enforcement. Thus, it addresses uniquely:

1. Codification rationale
2. Codification design
3. Units of analysis and data
4. Coding frame
5. Levels of codification
6. Coding units
7. Coding categories, rules and codes´ descriptors
8. Tools and resources
9. The codification process

5.2. CS components and CS guidebook section

The CS guidebook addresses these phases in the following sections:

Table 52 - *Codification System (CS) - CS Components and Guidebook sections*

CS Components	CS Guidebook´s Section
Codification rationale	Related to the theoretical framework line followed, it is presented at: *"General Description"*
Codification design	*"General Description" and "Coding Frame"*
Units of analysis and type data	*"General Description"*
Coding frame	*"Coding Frame"*
Levels of codification	*"General Description", "Coding Frame" and "Coding Descriptors"*
Coding units	*"Coding Frame" and "Coding Descriptors"*
Codes (and the coding descriptors)	"Coding Descriptors"
Tools and resources	*"General Description"*
The codification process	*"General Description" and "Nodes – Coding Units"*

Source: Own elaboration

Looking at the Table 33 above, you may find a correspondence between each codification subject and its fit within the sections of the CS guidebook.

6. CS Structure

6.1 CS General Description

Table 53 –*Codification System (CS) – General Description*

Basis of analysis	Specifications
Evidence(s)	Primary data
Origin	Interview(s)
Unit of analysis (UAs)	Interviews´ data
Type of content	Manifest content
Content´s identification	Informant-centric
Holder of content	Insider-researcher(s) / (Participants - Pn)
Interview´s idiom	Portuguese (PT)
Receptor of content (interviewer)	Outsider-researcher
Object of codification	Transcript(s)
Transcription Language	Portuguese (PT) with retroversion to English (EN)
Transcription unbiased procedures	- Retroversion (PT-EN) - External assessment of retroversion - Certification of the retroversion´s authenticity (of the interview´s script, enquiries, participants´ insights and the research ethics form(s))
Tools of codification	- Sound-recording device (Phillips voice tracer) - Word document processor - Computer-assisted qualitative data analysis software (CAQDA)
Tools' identification	- Microsoft Word 2016 - Microsoft OneNote 2016; - Atlas.Ti (version 1.16.0)
Tools´ files	- Word-document(s) - Podcast(s) - Network diagram(s)
Files´ formats	".docx"; ".mp3"; and ".hpr7"
Codifier	Outsider-researcher
Data analyst	Outsider-researcher
Analytical procedure	Miles and Huberman´s (2004) framework
Codification taxonomy	Gioia´s (2009) framework; and Weber´s (1990) Protocol
Component(s)	Transcripts, files, coding frame, codification, and cognitive mapping

Source: Own elaboration

6.2 Coding Frame

The coding frame identifies the the whole architecture of the codification process according to the theoretical frameworks followed (Weber, 1990; Miles and Huberman, 1994, Gioia, 2009).

Table 54 – *Codification System (CS) – Coding Frame*

Components	Description
Coding frame	Set of all components described bellow
Codifiable data	Transcripts of interviews (appendix 6)
Coding Units	Words, sentences and paragraphs
Codification levels	1st and 2nd order
Coding process – 1st order	Practitioner-based language
Coding units of analysis – 2nd order	Researcher-centric analytics
Codification categories	Concepts, themes and dimensions
Codification rules	Interrelationship between categories
Coding Outcome	Cognitive mapping
Coding Outputs	Network diagram, constructs´ identification and interrelations

Source: Own elaboration

6.3 Coding Units

The CAQDA Atlas.ti labels the coding units as quotations. These are bellow identified:

Table 55 – *Codification System (CS) – Coding Units*

Coding Units	Description
Words	The coding unit considers merely the verbal language of the interviewees. It accounts, the set of separate words, numbers, signs, acronyms, abbreviations and terms.
Sentences	The coding unit considers merely the verbal language of the interviewees. It accounts the set of separate phrases/sentences completed/uncompleted, and finished with a sound pause.
Paragraphs	The coding unit considers merely the verbal language of the interviewees. It accounts the set of sentences that compose a paragraph, a block of test, accounting the words, numbers, signs, acronyms, abbreviations, terms, expressions, and/or the general terminology employed by the participants.

Source: Own elaboration

6.4. Coding Categories

Table 56 – *Codification System (CS) – Coding Categories*

Coding Categories	Description
1. Concepts	The first category of the codification system that makes use of whole the coding units to interrelate the interviewees/participants information at the research field. The "*concept*" category establishes a link between the insider-researcher contribute and the theory on the field, being the most elementary category of coding, associated with the first-order coding.
2. Themes	Second category that aggregates the content of the informants in the academic literature according to the hierarchy of coding rules. As the first level of second-order coding, it allows an analytical contextualisation of the interviewees' information in the research main topic (and/or subfields) that incorporate the concepts, constructs and frameworks.
3. Dimensions	As the "*Dimensions*" are the third category it sums the themes and concepts (of the previous categories) to raise the information of the interviewees to an upper level of analysis within the second-order coding. Provides a broad understanding of the reality, as the observed phenomena contextualized in ample literature in the research field, so that we may respond appropriately to the research questions, and achieve the goals defined for this research.

Source: Own elaboration

6.5 Coding rules

The coding rules identify the 1st and 2nd order coding categories, and codes (and its descriptors) and releationships between 1st and 2nd order codes. The codes are uniquely the ones perceived in the hermeneutic units (HU) or transcripts, concerning the interviewee's speech. All the phenomena not observed within the HUs were not object of codification, as were not observed as codifiable quotations within the text. The coding rules description provides an holistic view of the of the correspondence of codes between levels, and subsequently, and a theoretical interdependence of the concepts across levels.

Table 57 - *Codification System (CS) – Coding Rules*

Source	**2nd order**		**1st order**	
	Code	**Description**	**Code**	**Description**
Hermeneutic Units (UNs) - Transcripts	DC	Dynamic Capabilities (First-order organizational capabilities)	DC-AC DC-AdC DC-AM	Absorptive capacity Adaptative Capability Alliance

		DC-CC	Coordination
DC/ ELC		DC-EC	Entrepreneurial
	Entreprise-level Capabilities	DC-EPC	Exercise of Power
DC/ILC		DC-I/P	Improvisation/Patching
	Individual-level Capabilities	DC-IC	Innovation
DC/GDC		DC-IntC	Integration
	Global dynamic capabilities	DC-KC	Knowledge creation
		DC-KR	Knowledge Recombination
			Learning capability
		DC-LC	Leveraging
		DC-Le	Managerial capability
		DC-MC	Product Development
		DC-PDC	Knowledge Usage
		DC-KU	Marketing Capability
		DC- MkC	Networking Capability
		DC-NC	Reconfiguration Capability
		DC-RC	Renewal capability
			Research & Development
		DC-RwC	Transferability
		DC-R&DC	Transferability HQ-S
		DC- T	
		DC-T-HQ-S	TransferabilityS-S
		DC-T-S-S	Transferability S-HQ
		DC-T-S-HQ	
			Clustering
			Managerial system(s)
OP		OP/BLS-C	Multisegmentation
	Other Paradigms of	OP/BLS-MaS	
OP/BLS	internationalization	OP/BLS-MuS	Outsourcing
	Business-level strategies at	OP/BLS-O	
	foreign market		Cost/price differentiation
	Competitive differentiation		Governance differentiation
	Cooperation Strategies	OP/CD/CPD	General cooperation
OP/CD			strategies
OP/CS	External environment	OP/CD-CG	
OP/EE	analysis	OP/CD-GCC	Managerial systems
			differentiation
			Managerial communication
			Markets
		OP-CD/MS	Market growth
			/diversification
		OP/CD-MC	National Comparative
			advantage/disadvantage
		OP/CD-M	
		OP/CD/M/MG	Organizational Structure
		/D	differentiation
		OP/CD-	Portfolio differentiation
		NCAD	Administrative factors
			Cultural factors
		OP/CD/OS	Economic factors
		OP/CD/Po	Environmental factors

		OP/EE/AF	Geographical factors
		OP/EE/CF	Legal Factors
		OP/EE/EF	Political factors
		OP/EE/EnF	Social factors
		OP/EE/GF	
		OP/EE/LF	Global cooperation
		OP/EE/PF	strategies
		OP/EE/SF	
			Absoprtive capacity
		OP-GCS	Business networking
			Geographical distance
			Gradualistic
			Internationalization
		UM-AC	Market commitment
		UM-BN	Management
UM		UM-GD	Market knowledge
UM-OM		UM-GdI	management
UM-DM	U-Model	UM-MCM	Network position
	Original model		management
	Descending models	UM-MKM	Opportunity development
			Organization learning
		UM-NPM	Path dependency
			Psychic distance
		UM-OD	Risk avoidance
			Relationship management
		UM-OL	and Trust-building
		UM-PD	
		UM-PDF	
		UM-RA	
		UM-RM-TB	

Source: Own elaboration

The table above (of the coding rules) contains trhe following codes:

Table 58 - *Codification System (CS) - Summary of codes per level*

	2nd order			1st order		
	DC	OP	UM	DC	OP	UM
Codification Code/level	5	5	3	25	23	13

Source: Own elaboration

The whole CS system accounts74 codes, which 13 are from the second-order coding, and the remaining 61 codes belong to first-coding level.

6.6. Coding´s Semantic Networking

The 2nd order codification entailed the process of elevating the first order codes obtained from the interviewees' quotations, to a second-order coding level. As a research-centric approach, this comprises a linkage with the observations to the theory, in a process where the outsider-researcher immerses into a task of giving order to intial codes obtained from the informant-centric quotations.

Table 59 - *Codification System (CS) - Coding links/Hyperlinks Procedure*

Components	Interrelationship			Coding level
	Type	Description	Tool	
Quotations (Q)	Coding link/Hyperlink 1:1	Q:Q	Nodes	1st order – 1st order
Codes (C)	Coding link/Hyperlink 1:multiple (1:m)	Q:C		1st oder – 2nd order
	Coding link/Hyperlink m:1	C:Q		2nd order – 1st order; intra 2nd order

Source: Own elaboration

The semantic networking identifies several code links/hyperlinks between the above indicated components (codes, quotations) in order to typify the nature of the linkage (e.g. Isa – Is a part of…; IoT - Is opposite to….).

6.7 Coding scheme

The coding scheme presented bellow is an example of a manual coding scheme. However, should be noticed that this research is conducted through a CAQDA system (Atlas.Ti software).

Table 60 - *Codification System (CS) – Coding scheme*

Interviewees´ Information			Cat. 1		Cat. 2	
No.	Description	Rastreability	Code	Identification	Code	Identification
(Examples):						
UA1	*Interview no. 1*	*Quotation 15:2*	*PD*	*Psychic distance*	*UM*	*U-model*
UA4	*Interview no. 4*	*Quotation 3:1*	*Pa*	*Patching*	*DC*	*Dynamic capability*

Source: Own elaboration

The application of the coding scheme in the effective data mapping it is exhibited in the structure of the thesis. Likewise, the analysis of results of frequency, and co-occurence, hierarchy and types of nodes and its analytical reflection and diagrammatic network representation is similarly presented in

the thesis. Contrarily, the testing of coding in simulative text for refinement of the coding frame is a tier disregarded explicitly in the thesis, as we applied this phase to verify the reliability of the coding system, although its results are simulative and therefore not pertinent, and could hamper the work of the reviewers of this research.

Appendix 3 – Measurement Units and Scales of secondary data

1. Scales and Measurement Units

1.1. Scale of geographical distance (GD)

Table 61 - *Descriptors of the GD Scale*

			Criteria (Y/N)			
Level	Classification	Identification	Prim.	Secon.	Descriptor	Example
5	Very-high GD	countries with very high geographical proximity	Y	N	Countries with physical borders	Spain
4	High GD	countries with high geographical proximity	N	Y	Neighbor country with no physical border, but with relative proximity due to its presence in the same administrative region of the globe, and/or possessing a maritime border (Euro-zone Member-State; Other U.E. Member-State; Maghreb countries of North Africa);	France Morocco
3	Medium GD	countries with moderate geographical proximity	N		Countries with physical borders to the neighbor countries categorized as high proximity	Russia
2	Low GD	countries with high geographical distance	N		Rest of countries without physical and/or maritime borders and/or without physical borders to the neighborhood physical borders, in the same administrative region of the globe (Europe and Africa)	Armenia
1	Very-low GD	countries with very high geographical distance	N		Rest of the countries in the world	Angola

Source: Own elaboration

1.1.1. Caption of the Scale:

(VH): Countries with physical border.

(H): Neighbor country with no physical border, but with relative proximity due to its presence in the same administrative region of the globe, and/or possessing a maritime border (Euro-zone Member-State; Other U.E. Member-State; Maghreb countries of North Africa);

(M): High proximity countries with physical borders, to the neighbor/VH countries.

(ML): Rest of countries in the without physical and/or maritime borders and/or without neighborhood physical borders, in the same administrative region of the globe (Europe and Africa)

(L): Rest of the countries in the world

1.1.2 Measurement Criteria:

- (Primary): Physical border
- (Secondary - by order of relevance): neighborhood country of the one(s) with physical border, and/or with maritime border

1.2. Scale of Psychic Distance (PD)

Table 62 - *Descriptors of the PD Scale*

			Criteria (Y/N)			
Level	Classification	Identification	Prime	Secon.	Descriptor	Example
5	Very-high PD	Countries belonging to CPLP/PALOP Member-State	Y	Y	Highest formal cultural engagement with Portuguese Republic; high vestiges of (historical) physical and symbolic dominance of the Lusophone culture	Brazil
4	High PD	Countries belonging to E.U. Member State (countries not categorized in the previous category)	Y	N	High formal cultural engagement with Portuguese Republic; low or null vestiges of (historical) physical and symbolic dominance of the Lusophone culture	Germany
3	Medium PD	Countries belonging to the Ibero-American Community of Nations (countries not categorized in the previous categories)	Y	N	Low formal cultural engagement with Portuguese Republic; low or null vestiges of (historical) physical and symbolic dominance of the Lusophone culture	Mexico

2	Low PD	Other countries either ex-colonies and/or with physical /symbolic traits of the Portuguese culture, not accounting the citizens migrations and the Portuguese Diaspora (countries not categorized in the previous categories)	Low or null formal cultural engagement with Portuguese Republic Low vestiges of (historical) physical and symbolic dominance of the Lusophone culture	East Timor Mauritius
1	Very-low PD	Other countries (not categorized in the previous categories)	Very low or null formal cultural engagement with Portuguese Republic; low or null vestiges of (historical) physical and symbolic dominance of the Lusophone culture. The construct of inter-culturalism	Canada

Source: Own elaboration

1.2. 1.Measurement Criteria

The measurement criteria for classifying the countries in PD construct are:

- Primary: Formal engagement with Portuguese Republic
- Secondary: Vestiges of (historical) physical and symbolic dominance of the Lusophone culture. The construct of inter-culturalism

Appendix 4– Word clouding - frequencies for the 1st-order coding category (concepts)

Table 63 - *Word clouding per dimension (2nd-order codes) and concept (1st-order codes)*

Coding Unit	Dimension	code(s)	Firm			
	(2nd-order	(1st-order)	F1	F2	F3	F4
absorb	DC; UM	DC-AC; UM-AC	2	9	0	0
adapt	DC	DC-AdC	15	28	2	2
advantage	OP	OP-CD	6	19	10	3
commit	UM	UM-MCM	3	24	0	0
communicat	OP	UM/CD-MS	2	1	0	1
cluster	OP	OP-C	1	2	0	0
competence	OP	OP-CC	55	33	31	7
cost	OP	OP/CD-PC	51	11	8	7
depend	UM	UM-PD	8	16	2	0
develop	DC	DC-RD	53	15	13	20
differentiat	OP	OP/CD	27	2	4	3
distance	UM	UM-GD	18	11	11	3
diversificat	OP	OP/CD-M-MG/D	11	4	3	4
governance	OP	OP/CD-CG	3	1	2	0
grow	OP	OP/CD/M-MG/D	9	2	3	2
innovat	DC	DC-IC	7	4	1	0
know	DC; UM	DC-KU; DC-KR; UM-MKM	52	18	11	5
learn	DC; UM	DC-LC; UM-OL	5	2	2	0
leverage	DC	DC-Le	3	1	1	0
manage	DC	DC-MC	64	25	29	0
market	DC	DC-MC	17	3	7	5
networks	DC; UM	DC-NC; UM-BN	36	4	23	2
opportunit	UM	UM-OD	45	11	12	7
outsource	OP	OP/CD-O	1	0	0	0
position	UM	UM-NPM	25	4	5	13
power	UM	UM-EP	10	3	0	3
price	OP	OP/CD-PC	39	23	20	1
proximity	UM	UM-GD	5	4	6	4
relation	UM	UM-RMT	35	6	11	1
renew	DC	DC-RC	2	0	1	0
research	DC	DC-RD	15	6	3	2
risk	UM	UM-RA	28	12	7	6

segment	OP	OP/CD-MS	12	5	3	1
structure	OP	OP/CD-OS	3	1	2	3
system	OP	OP/CD-MS	3	1	3	1
transfer	DC	DC-T	32	4	16	1

Source: Own elaboration

Appendix 5 – Cooc Matrices (DC/OP/UM)

Table 64 - *Cooc Matrix (F1-F4): DC-UM*

Factor	UM-AC	UM/BN	UM/GD	UM-GdI	UM-MC	UM-MK	UM-NP	UM-OD	UM-OL	UM-PD	UM-PDF	UM-RA	UM-RM-TB
DC-AC	2	0	0	0	0	0	0	0	1	0	0	0	1
DC-AdC	0	1	0	0	0	0	0	2	0	0	0	0	1
DC-AMC	0	4	0	0	1	1	4	4	0	0	0	1	8
DC-CC	0	1	0	0	0	1	0	0	1	0	0	1	0
DC-D	0	0	0	0	0	0	0	0	0	0	0	0	0
DC-EC	0	1	0	0	0	0	0	1	0	0	0	0	0
DC-EPC	0	1	0	0	0	0	2	0	0	0	0	0	0
DC-I/P	0	0	0	0	0	0	0	0	0	0	0	0	0
DC-InoC	0	0	0	0	0	0	0	2	0	0	0	0	0
DC-IntC	0	1	0	0	0	0	0	0	1	0	0	0	0
DC-KC	0	1	0	0	0	0	0	0	1	0	0	0	0
DC-KR	0	0	0	0	0	0	0	0	0	1	0	0	0
DC-KU	0	1	0	0	1	2	0	1	0	1	0	0	1
DC-LC	0	0	0	0	0	0	0	0	0	0	0	0	0
DC-Le	0	0	0	0	0	0	0	0	0	0	0	0	0
DC-MC	0	1	0	0	0	1	0	0	1	0	0	0	0
DC-MkC	1	2	0	0	2	3	2	6	2	0	0	0	5
DC-NC	1	3	0	0	1	1	4	3	0	0	0	0	6
DC-PDC	0	1	0	0	0	0	0	3	0	0	0	0	1
DC-RC	0	0	0	0	0	0	0	0	0	0	0	0	0
DC-RwC	0	0	0	0	0	0	0	0	0	0	0	0	0
DC-R&DC	0	1	0	0	0	1	0	3	1	0	0	0	2
DC/ELC	0	4	0	0	0	1	4	3	1	0	0	1	2
DC/GDC	1	4	0	0	0	0	3	4	1	0	0	0	4
DC-ILC	1	3	0	0	1	1	1	3	1	0	0	0	5
DC/Mu	0	0	0	0	0	0	0	0	0	0	0	0	0

DC/T	0	1	0	0	0	2	0	0	1	0	0	0	0
DC/T-HQ-S	0	1	0	0	0	0	0	0	1	0	0	0	0
DC/T-S-S	0	1	0	0	0	0	0	0	1	0	0	0	0

Source: Own elaboration

Table 65 - *Cooc Matrix (F1-F4): OP -UM*

Factor	UM-AC	UM/BN	UM/GD	UM-GdI	UM-MC	UM-MK	UM-NP	UM-OD	UM-OL	UM-PD	UM/PDF	UM-RA	UM/RM-TB
BLS-C	0	1	0	0	0	0	0	2	0	0	0	0	0
BLS	0	2	1	2	0	0	2	2	0	0	1	4	2
BLS-O	0	0	0	0	0	0	0	0	0	0	0	0	0
BLS/MaS	0	0	0	2	0	1	0	0	0	0	0	0	0
BLS/MuS	0	0	0	0	0	0	0	0	0	0	0	0	0
CD/CCO	0	0	0	0	0	1	0	0	1	0	0	1	1
CD/CC-TC	0	0	0	0	0	1	0	0	1	0	0	0	1
CD	0	1	0	0	0	0	0	0	0	0	0	1	2
CD-CPC	0	0	3	0	0	0	0	2	0	0	0	3	0
CD/CG	0	0	0	0	0	1	0	1	0	0	0	1	0
CD/MS	0	0	0	1	0	1	0	0	0	0	0	1	0
CD/MC	0	0	0	0	0	0	0	0	0	0	0	0	0
CD/Ms	0	0	3	1	0	0	0	1	0	0	0	1	0
CD/M-MG/D	0	1	1	1	0	0	2	1	0	0	2	1	1
CD/NCAD	0	0	0	0	0	0	0	0	0	0	0	0	0
CD/OS	0	0	0	0	0	1	0	1	0	0	0	1	0
CD/Po	0	1	2	0	0	0	0	2	0	0	0	0	1
CLS	0	0	0	0	0	0	0	0	0	0	0	0	0
CLS/CG	0	0	0	0	0	0	0	0	0	0	0	0	0
CLS/CG/MS	0	0	0	0	0	0	0	0	0	0	0	0	0

EE/AF	0	0	0	0	0	0	0	0	0	0	0	0	0
EE-CF	0	1	0	1	0	0	1	0	0	0	1	0	0
EEA/MA	0	0	0	0	0	0	0	0	0	0	0	0	0
EE/EcF	0	0	1	0	0	0	0	1	0	0	0	3	0
EE/LF	0	0	1	0	0	0	0	0	0	0	0	0	0
EE/PF	0	0	0	0	0	0	0	0	0	0	0	0	0
EE/SF	0	0	0	0	0	0	0	0	0	0	0	0	0
EE/EnF	0	0	0	0	0	0	0	0	0	0	0	0	0
EE-GF	0	0	0	0	0	0	0	0	0	0	0	0	0
GCS	0	3	0	0	0	0	1	1	0	0	0	0	1

Source: Own elaboration

Table 66- *Cooc Matrix (DC/OP)*

	BLS					CD												CS	CLS			EEA								
	c	BLS	O	MaS	MuS	CCO	CC	CD	CG	MS	MC	MS	M-MG/D	OS	/Po	CPC	NCAD	GCS	CLS	CG	CG-MS	EE/AF	EE-CF	EEA/MA	EE/EcF	EE/LF	EE/PF	EE/SF	EE/EnF	EE-GF
DC-AC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DC-AdC	0	0	0	0	0	0	0	1	0	1	0	0	0	0	2	0	0	1	0	0	0	1	1	0	0	1	0	0	0	0
DC-AMC	1	3	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DC-CC	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DC-EC	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DC-EPC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DC-I/P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DC-InoC	0	0	0	0	1	0	1	0	0	0	0	0	0	1	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DC-IntC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DC-KR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DC-Le	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DC-MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DC-PDC	0	0	0	0	0	0	1	0	0	1	0	0	0	0	6	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
DC-D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DC-KU	0	0	0	0	0	1	1	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DC-MkC	1	0	0	0	0	1	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DC-NC	0	3	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
DC-RC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DC-RwC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DC-R&DC	0	0	0	0	0	2	2	0	0	0	0	0	0	0	3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
DC/ELC	1	1	0	0	1	0	1	0	0	1	0	1	1	0	4	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0
DC/GDC	1	1	0	0	0	0	0	0	0	1	0	0	1	0	5	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0
DC-ILC	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
DC/Mu	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DC/T	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DC/T-HQ-S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DC/T-S-S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DC/T-S-HQ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

DC-KC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DC-LC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Appendix 6 – Synopsis of interviews (UA1-UA7)

INTERVIEW NUMBER ONE

UA ID: UA4
Participant ID*:* P4
Date: 07/07/2017
Hour: 17h00
Duration: 1h05m

Prior historical or cultural bonds to certain markets are a minor factor of foreign markets establishment. The company seems to be more attemptive to other issues as risk-avoindance (identified as the critical one) and opportunity development.The international strategy of the firm is focused towards their current clients with favorable credit ranking which in turn, allow the company to finance itself through them. Here, it is currently centered upon framework contracts (from 4 to 8 years) whom deliver stable orders and the fulfillment of cashflow requirements and economic-financial commitments.
The company's strategy it is to have at least 60 or 70 percent of their turnover based on high-end customers with higher certainty of honoring their payment commitments, since the industry is a capital-intensive one with high cost of raw materials and extended cycles of payments (between the moment of acquisition of raw material and invoicing is long - between 3 to 6 months). It was also refered that price competition is unavoidable in the international markets and the strategy of the firm accomodates a thorough study of each market and customers. The level of difficulty of entry into high-efficiency markets such as the UK is medium high, being slow its penetration, especially in institutional clients who are in average from 2 to 4 years. In parallel, it was mentioned that Portugal is a peripheral country by the sea, with favorable conditions of accessibility to seaports and shipping containers in more distant markets and with a good quality national road infrastructure and connectivity for freight transport; however, it was underlined the costs related to logistics and transports and therefore the economies of scale were pointed as especially important in order to mitigate the effect of the loss of gross margins on business related to the extraordinary logistical costs of the periphery of the company. The interviewee refered that "*distance is an important factor. The cost of freight logistics can have a strong influence on the selling price in international business and on average can represent 8 to 15 percent of the final price for one of our main markets like the UK*; *however, for markets*

that are more distant the logistics costs may fall depending on the route, volume, and type of transport, and are equivalent to the same costs for UK. It seems bizarre but it is the reality".

The business networking diligences towards international markets were pointed as casual and involving agreements with national/international authorities such as the AICEP and CIGRE. Moreover, it was refered that the company possesses critical competences related with the quality control of the materials and industrial research and development of new products in wiring for the transportation of aerial and underground energy. The interviewee mentioned that R&D is mainly solution-oriented research with a focus on finding solutions for specific problems raised by clients in technical terms. Regarding the structure and governance of the firm the interviewee indicated that the firm possesses a light structure and adopts a proximity policy of the top management to the the rest of the organization, which is perceived as beneficial to achieve agile decision-making, better/faster problem solving and opportunity exploitation.

INTERVIEW NUMBER TWO

UA ID: UA2
Participant ID*:* P2
Date: 07/07/2017
Hour: 12h00
Duration: 39m

In the past the company had a focus on Portuguese-speaking countries (e.g. Angola and Brazil) but nowadays the strategy of internationalization is concetration of the operations towards countries of higher geographical proximity in the markets of south-west Europe, such as, Spain, France, Italy, and North Africa, despite exporting (spot sales) throughout the world, since the decision-makers perceive that the headquarters´ location does not inhibit its globalization process.

The shift for internationalization for geographical proximity was to achieve higher competitiveness. The geography criterion has to do with the factor cost, logistics and displacement. The top-management argues that the company is more competitive in proximity markets, despite the location of the production facilities in Portugal and the cost of scale.

The company is a medium-sized firm with great flexibility (unlike the main multinational competitors at global scale) and fast decision-making. This feature (flexibility) derives from the dimension, internal communication and proximity to top-management. Organizational flexibility allows higher levels of adaptation and resource usage efficency which is observed in its outputs: the design of new products, and also to capacity to attend very specific requirements placed on contracting procedures.

The communication among subsidiaries reveal disarticulation, being particularly identified by the interviewee the urge for a governane mechanism for opening and controlling social exchange practices and knowledge generation. Thus it was refered that currently each subsidiary director or market manager implements in a solo mode his/her business-level and functional strategies per se. The interviewee defended an integration and collectivization of this work practices to allow the development of business in a far more quick and/or efficiently manner. Complementarily, the onus of opportunity development is market specific and circumscribed to the sphere of responsibility of each manager at his/her market thresholds (single host-market manager) instead of a common cooperative task shared by markets-managers. On the value chain, the dispatchment of goods as a critical activity is centrally managed despite the operational part is runned through a sourcing system. Subcontracting does not invalidate the existence of an operation that is mainly verticalized, in which the value chain is commanded directly by the company.

The company reveals the possession of multiple capabilities mostly at the technical areas. At the technostructure these competences are related with risk analysis, quality auditing, production planning, and coordination of flows of resources-sharing between subsidiaries (e.g.laboratory means for testing, or subcontracting external labs). At the operational apex is related to engineering with great capacity in the metallurgical area of aluminum for the ingots production, for electrical purposes for the production of the alloys. The latter is pure expertise that is distinctive in competitive terms and allows the firm to “cook” the final product along the whole value chain using a backward strategy. Personal networking is well explored at individual-level, however, the exploration of the firm's personal networking is a competitive tool that is not systematized across markets.

INTERVIEW NUMBER THREE

UA ID: UA5
Participant ID*:* P5
Date: 07/07/2017
Hour: 19h00
Duration: 52m

The interviewee recognizes that the international positioning of the firm is oriented by cultural affinity, and language plus cultural relationship with the host-markets, combined with the intentional development of businesses opportunities. Here, occasional diligencies are undertaken through the networking capabilities of the firm to extend the opportunity exploration possibilities (e.g. links to embassies, AICEP and chambers of commerce).

The company has a market expansion strategy making use of their portfolio differentiation potential against local competitors. The company is focused on the production of cables with higher added value, with greater margins and more competitive in other markets. Therefore, in Latin America the long-term contracts are mainly with electrical companies (owned by Spanish corporations). The regular contracts are settled for 2 to 6 years and the geographical scope of the firm is Latin American markets of Portuguese and Spanish language and these are combined with spot operations with electrical installers or contractors. Despite the differentiation strategy, the firm reveals a great concern with price competition, as perceived in the interviewee´s speech: "…*in order to be competitive, nobody will buy us a product for a more expensive price. So what we struggle in the private sector with the big installers is to have the commercial opportunity to track the price, and offer it slightly below if necessary to be awarded with an order… it is fundamental for us to guarantee a market position where we have the last call or first refuse in an order"*. This may only be achieved through the usage of an intangible resource of the firm, as argued by the interviewee: the ability to build long-lasting relations of trust with clients.

The interviewee has also claimed the possession of capabilities which deliver a favorable competitive position in the overseas markets. Their portfolio-related capabilities exhibit first-moving advantages (e.g. only cable manufacturer for 220 kva and 182 kva). In parallel, the

company demonstrates a path dependency track and organization learning capabilities in the industry, since the interviewee refered that the firm evolved from an initial business strategy as a general cable producer (e.g. V-wires, copper wires, and telephone wires) to a specialized electrical cable producer. Despite the specialization in electrical cables in some circumstances their portfolio encompasses a range of products that is bigger than the big-multinationals in this industry (e.g. in low, medium and high tension - possession of insulated cables combined with bare cables production, alloy cables, OPGW cables with fiber optics, aluminum-steel cables and naked cables). Deespite the portfolio wideness as a differentiation factor againt other competitors, it has also been pointed out the organizational structure and management systems as complementary tools of differentiation and reinforcement of market positioning. Since the orders from several markets are highly dependent on the production of few production facilities located in Portugal for achieving higher economies of scale, then the decisions are also highly centralized, but simultaneously less rigid and decisions are taken in a fast manner. The interviewee points out their functional-level and technical-level differentiating structure opposing to the biggest multinationals in this industry, as follows: "…*in a large multinational, no one dares to stop the production planning by an urgency of a customer. Here the situations are more controllable. The fact is that, we have centralized production facilities …we have a faster decision-making process, added to the fact that in our structure, unlike in the big multinationals, you can speak directly to the top management, which is something unthinkable in a large multinational, for example, a customer calling and talking to the director directly*". At technical-level differentiation it is refered the example of the new products such, medium-voltage cables at higher quality and lower cost in cables of aluminum (replacing the multi-wires with a single solid cable with the same capacity of transport in a smaller diameter).

Regarding competences possession and transference, two notes should be noticed that the interviewee identifies the networking capacity for managing interpersonal relations with clients as one of the key-assets of the firm, and secondly refered that competences are transferred across markets. Here it explained that the transference process occurs mostly with exchange of work practices and methodologies

INTERVIEW NUMBER FOUR

UA ID: UA6
Participant ID*:* P6
Date: 10/07/2017
Hour: 10h30
Duration: 52m

The company has a corporate strategy of market expansion through the establishment of relationships with local partners and through the exploration of opportunities. It combines differentiation (new product development) with price competition. The selection of foreign markets accounts geographical proximity, as logistic costs are an important part of the composition of prices, as explained: " *Often we offer ex-works prices so that our customers realize that our price is rather competitive, what happens is that we are at the end of Europe".* Simultaneously, it is observed the psych distance phenomenon as the firm reveals "affinity" for Spanish-speaking countries.

Personal networking is one capability the firm values and exploits the most, mainly circumscribed to local agents´ management and customer relationship management; however, the company also uses networking with the purpose of business opportunity development (e.g. it has a protocol with CERNE; it integrates several governmental State visits and it has institutional relations with AICEP). Nevertheless, inside of the firm is perceived a lack of intra-subsidiaries/markets networking. Here, the firm demands an (intra-market) commercial coordination system.

The main capabilities of the firm are the following: the coordination of local agents, language skills, and technical competences. The latter ones (technical competences) are in field of steel foundry, which is a differentiating factor of competitive advantage, as described by the interviewee: *"we make the product itself, without being dependent on the purchase of aluminum abroad, because we buy ingot/bar and we transform it into metal rod, to make be able to produce our final product. There are companies in Portugal and abroad that do not have this kind of competences and therefore have to buy them out there."* The company does not possess formalized mechanisms of transference of competences between markets, which in turn, creates

a division between countries, since each country has its own standard, product and designation. Although, competences are transferred but not in a systematized manner (e.g. transference of capabilities related to business intelligence, R&D, and homologation of new products).

INTERVIEW NUMBER FIVE

UA ID: UA7
Participant ID*:* P7
Date: 10/07/2017
Hour: 10h00
Duration: 36m

The company applies a hybrid business-level strategy with a large component of cost leadership. The strategy of internationalization lies upon internal networking at the corporation and balances opportunity development with risk-taking. Basically, the strategy of internationalization is "go to trailer" of the other companies of the corporation in the steel industry, as the manufacturer of steel packaging. Casuistic external networking is observed, for example with organisations as IAPMEI and EDP. The company perceives itself as an indirect exporter, seeking economies of scale through the concentration of their production in fewer units at the local market (Portugal) for gaining economies of scale. In this sense, the company makes use of cooperation strategies - internal strategic allies – and follows the general typology of international establishment of the corporation. This is a gradualistic market expansion highly influenced by the geographical proximity factor. The geographically-related competition overseas is influenced by the grographical periphery of the country and the economic periphery of the industry with a surplus of logistic costs to export from the local market to other State-members in Europe materialized in a competitive disadvantage.

This is a risk-avoiding organization operating in international trade only with securitized operations. The company is reluctant to markets of higher geographical proximity with high perception of risk or unbearable risk. Thus, market attractiveness may be relegated to second plan in accordance to risk-level perception.

The company reveals lower economies of scale at inbound logistics activities at the acquisition of raw materials against the big multinationals and therefore a competitive disadvantage for thoese ones. Another disadvantage is related with the phenomenon of economic periphery, as described by the interviewee: "another disadvantage has to do with the effective size of the market, not just the geographic dimension". Thus, the main circunstancialism for being in Portugal deliver disadvantages to the firm related to the country location, dimension and other factor conditions, as mentioned by the interviewee: "*…not only because of the distance to the large reception center of materials, but also because of the lack of public policies to support the industrial activity that exist in other countries. For example, differentiated prices that are more advantageous for large energy consumers, whether electricity or natural gas, which is our case the latter, and we cope with unit energy costs much higher than the unit energy costs that our competitors have in the center from Europe*".

The company is an international business opportunities-seeker. It pursues national homologations and product certifications prior the market entry phase in longlasting processes (that take from four to five years) and search in advance for valid partning companies in the market. The question of opportunities research accentuates an internal philosophy of assertiveness of the range of products for each market of local portfolio adaptation and a tailored approach to potential customers.

INTERVIEW NUMBER SIX

UA ID: UA3
Participant ID*:* P3
Date: 10/07/2017
Hour: 16h30
Duration: 39m

A corporate-level strategy of growth related to market expansion is the realized strategy followed by the current board of directors. This strategy is followed to accomodate eventual losses deriving from (market and client) risks in the overall of the competing markets. At business-level a hybrid strategy is followed articulating cost efficency and innovation on their

portfolio of products. The firm adopts a narrow scope of competition focusing on a single business segment: power cables production although with specific goals per product/market.

The internationalization strategy exibits the adherence to the multidomestic paradigm. Internationalization is affected by the geographical proximity factor, due to the economic perificity of the country (size and location of land; and effective size of the industry) as described by the interviewee: "*We are located in the western extremity of Europe, pushed here a little bit to the United States, and this is for us a factor of loss of competitiveness. You will easily understand that if we are selling to the center of Europe, our competitiveness in terms of logistics costs compared to a local French supplier or German is completely different. We have to travel a route, with the subsequent impact, in terms of costs and in terms of time, and delivery times are clearly unfavorable to us. This disfavor has two components, the commercial part of sale but also the purchase, because our suppliers of materials that we are located in the Center of Europe when they put us a product here also have logistical costs added which increases the purchase prices of our compared to other competitors. Therefore, we have a surplus of peripheral costs in relation to the main centers of decision of purchase and reception of orders."*

Firm is a risk-avoider preferring framework contracts instead of spot sales, and having regular suppliers. In terms of resources and capabilities, the company it has technical equipment and e know-how in the field of aluminium alloy conductors (not accessible to most competitors) and conductors of medium high and very high voltage for undertaking activities of R&D, production and launching of new products, plus marketing and networking capabilities. In addition, a curriculum in this latter mentioned competences of aluminium alloy conductors also denotes a a sort of path dependency and organization learning/evolution which delivers business competitiveness. The transference of capabilities is described as mainly mono-directional in its majority from the domestic-market to host-markets (but also occurs bi-directionality). Normally, the transference involves quality standards, manufacturing processes and methodologies, despite differences of product portfolio from a market to another market.

INTERVIEW NUMBER SEVEN

UA ID: UA1

Participant ID*:* P1

Date: 11/07/2017

Hour: 12h00

Duration: 25m

A hybrid model is adopted combining cost efficency and differentiation. In this sense, the internationalization of the firm is dictated by a geographical-proximity driver (preference for markets as the southwest of Europe and European Union) and it is argued that no psychic distance approach is followed. An opportunistic approach to other markets may be also followed. However, at the extra-EU markets the currency exchange fluctuation is a determinant of the capacity to exploit a certain opportunity. In situations of high valorization of the euro against the dollar, these opportunity markets are no longer accessible. Logistic costs make also more distant markets less accessible. The internationalization strategy encompasses the establishment of long-term relationships with clients, due to the volatility of the foreign exchange markets. Furthermore, the firm focus on a niche strategy for a specific set of electrical cable production: the high voltage underground cables, due to the fact that fewer competitiors are qualified to produce it.

The traceability of opportunities is made by e-business platforms and through local presence of sales clerks, while the main capabilities of the firm are the networking capability focused on the management of interpersonal relations with clients and technical competencies in the research and development of laboratory testing of alternative materials or production techniques that enrich the final product. The combined usage of these capabilities (networking and R&D) allows the firm to undertake solution-oriented research for specific needs of the customers, which in turn, which guarantees some first-moving and reputational advantage over competition.

The interviewee recognizes that in terms of capability transference this flows are not systematized and/or managed in a formalized manner. Capabilities are made available according to the perception of need of the subsidiaries/markets. The firm did not implement a managerial system for managing these processes of mobility, transference and/or morphological exchange.