

ISCTE  Business School
Instituto Universitário de Lisboa

CIN:

Internationalization Strategies of the Insecticide Paint Artilin 3A Mate

Raquel Monção Fernandes Pinheiro da Costa

Project submitted as partial requirement for the conferral of

Master in International Management

Supervisor:

Prof. António Vieira da Silva, ISCTE Business School Invited Teacher

October 2017

Acknowledgments

I am grateful to all the people who have somehow been part of this project and supported me to finish it.

I would like to thank, in particular, my supervisor, Prof. António Vieira da Silva, for agreeing to orient this project and to have guided me to the right path.

To my family and friends for believing I was able to finish this thesis for the past year.

And finally, to Dr. Pedro Cerquinho (Sotinco's Managing Director) for giving me all the information needed in order to develop this case study.

Table of Contents

Sumário	v
Summary	vi
1. The Case: CIN: Internationalization Strategies of the Insecticide Paint Artiline 3A Mate	1
1.1. Presentation of the issue	1
1.2. Company Presentation – CIN	1
1.3. CIN Internationalization	3
1.4. Product Presentation – Artilin 3A Mate	4
1.5. CIN R&D Centres	5
1.6. Artilin and the research on Vector-borne diseases	7
1.7. Case Summary	8
1.8. Appendices	10
Appendice 1 - Vector Borne Diseases	10
Appendice 2 - Vector Borne Diseases	10
Appendice 3 - Deaths from Vector Borne Diseases	11
Appendice 4 - Examples of Vector Borne Diseases	11
Appendice 5 - Vectors	12
Appendice 6 - Main Vectors	12
Appendice 7 - Prevention Actions	13
Appendice 8 - Artilin 3A Mate	13
Appendice 9 - How Artilin 3A Mate works	14
Appendice 10 - Artilin 3A Mate Attestation	14
Appendice 11 - Attestation	15
Appendice 12 - Artilin 3A Mate Partners	15
Appendice 13 - CIN's Internationalization	16
Appendice 14 - Strategic Capabilities	17
Appendice 15 - AMM Attestation	18
2. Pedagogical Note	26
2.1. The case's Target Audience	26
2.2. Educational Objectives	26
2.3. Literature Review	26
2.3.1. Introduction	26
2.3.2. Literature Review	27
2.3.2.1. Internationalization Concept	27

2.3.2.2.	Main Internationalization Strategies.....	29
2.3.2.3.	Internationalization Models.....	30
a)	International Commerce Classic Theory.....	30
b)	Competitive Advantage Theory.....	31
c)	Product Life Cycle Theory.....	31
d)	Companies Management and Behaviour Theories.....	31
e)	Market Imperfection Theory.....	32
f)	Internalization Theory.....	32
g)	Eclectic Theory (OLI Paradigm).....	32
h)	Industrial Networks Theory.....	33
i)	Stages Theory.....	33
2.3.2.4.	Market Entry Modes.....	33
a)	Wholly Owned Subsidiary.....	35
b)	Acquisition.....	35
c)	Exportation.....	35
c.1.	Indirect Exportation.....	35
c.2.	Direct Exportation.....	36
d)	Licensing.....	36
e)	Franchising.....	36
f)	Industrial Subcontracting.....	37
g)	Strategic Alliances.....	37
g.1.	Join Ventures.....	37
2.4.	Innovation and R&D.....	37
2.5.	Paints.....	38
Composition.....		39
Insecticidal Paints.....		39
2.6.	Conclusion of the Chapter.....	40
3.	Methodology.....	41
4.	Competitors.....	43
5.	SWOT Analysis.....	48
6.	Interview Questions – Dr. Pedro Cerquinho.....	48
7.	Case Study Lecture Plan.....	52
8.	Questions for students.....	54
9.	Answer Proposal for the questions.....	55
ii.	Try to highlight in your answer the Theories and Models of internationalization that best fit the Internationalization Process of the CIN, justifying.....	55

ii.	From the different models of internationalization strategies (global, international, multinational and transnational), which is the one more accurate for CIN for each of the following characteristics?: strategic posture, main flows, assets and resources configuration, operations role/units on foreign markets, development and knowledge diffusion, interdependence between headquarters and subsidiaries?.....	59
iii.	Which are the main characteristics of Artilin’s internationalization success?	62
iv.	Which are the main ways of entering on international markets?.....	63
v.	What are the main Market Entry Modes and Artilin 3A Mate Internationalization Strategy? 63	
vi.	Which are the main factors that explain CIN’s competitiveness on international markets?..	64
vii.	Make a proposal to the reinforcement of CIN's international expansion, not forgetting the product Artilin 3A Mate.	67
viii.	What is the role of the strategic alliances to CIN’s growth in a competitive environment? 68	
10.	Case Study Spreadsheets	69
	Conclusion.....	73
	Bibliography.....	75

Sumário

Num mundo globalizado, a informação atravessa as fronteiras dos países, as empresas procuram novos mercados e desafios, de modo a que outros adquiram um maior conhecimento sobre a empresa e receitas aumentem com a perspectiva de se internacionalizarem.

As empresas têm de estar conscientes de que para além do aumento de receitas e conhecimento, existem outros factores a ter em consideração tal como os indivíduos, o ambiente envolvente, as leis e normas, recursos e estratégias no país anfitrião para o qual a empresa se pretende internacionalizar.

A CIN é um bom exemplo de uma empresa que se internacionalizou com sucesso. Criada em Portugal em 1962, está actualmente instalada em 31 países abrangendo diferentes tipos de mercado como os da decoração, industrial e dos acessórios.

Nos dias de hoje, a CIN está a desenvolver estratégias de internacionalização para lançar nos mercados existentes um novo produto com a designação de Artilin 3A Mate, uma tinta insecticida que decorre de uma extensa actividade de pesquisa, inovação e desenvolvimento à qual estão afectos 11 por cento dos recursos humanos da empresa.

O objectivo principal deste estudo de caso é compreender como um produto tão específico poderá entrar em diferentes mercados, tanto por razões estéticas como pelo combate a doenças transmissíveis por insectos.

Espera-se também demonstrar como o lançamento deste produto, em termos pedagógicos, pode constituir um exemplo estratégico de uma empresa que está a apostar numa tinta de alta performance (anti - ácaros, anti - insectos e resistentes a fungos) no que toca ao combate de doenças como o dengue, malária e zika, distribuindo-a nos mercados onde já se encontra instalada.

Palavras – chave: Internacionalização, Pesquisa e Desenvolvimento, Doenças Transmissíveis por Insectos, Inovação

Classificação JEL:

- **I18** – Políticas Governamentais, Normas, Saúde Pública
- **F23** – Empresas Multinacionais, Empresas Internacionais

Summary

In a globalized world, where information crosses countries' borders, companies seek new markets and challenges, in order for others to have broader knowledge about the firm and to increase profits by going international.

Enterprises must be aware that despite the profit and knowledge increase, there are other factors to be taken into account like the individuals, environment, laws and regulations, resources and strategies on the host country when they want to go international.

CIN is a good example of an internationalized company, created in Portugal in 1962, already settled in 31 countries and having different markets such as decoration, industrial and accessories.

Nowadays, CIN is developing internationalization strategies to launch in its existing markets a new product called Artilin 3A Mate, an insecticide paint that has a research, innovation and development element to which 11 percent of the human resources of the company are affected.

The main objective of this case study is to understand how such a specific product can enter in different markets, either for aesthetic reasons or in order to combat vector-borne diseases.

It is also expected to demonstrate how this product launch may be, in pedagogical terms, an example of a company that is betting on the development of a functional high-performance paints (anti-mites, anti-insects and resistant to fungi) that comes up in a context against illnesses like dengue, malaria and zika, distributing it among the markets they are already in.

Keywords: Internationalization, Research and Development, Vector-Borne diseases, Innovation

JEL Classification:

- **I18** – Government Policy, Regulation, Public Health
- **F23** – Multinational Firms, International Firms

1. The Case: CIN: Internationalization Strategies of the Insecticide Paint Artiline 3A Mate

1.1. Presentation of the issue

The main objective of this thesis is to understand how a specific product could be sold into different types of markets, as for aesthetic reasons or to combat vector-borne diseases, by integrating on the global context of the international expansion of CIN, more specifically the internationalization strategies that are now being developed to launch into the markets (4 continents, 40 countries) the insecticide paint Artilin 3 A Mate.

A secondary objective will be to demonstrate how this case study / product launch may be, in pedagogical terms, an example of a company that enters the market betting on a strong element of research, innovation and technology.

1.2. Company Presentation – CIN

As the main company, CIN has *Corporação Industrial Norte S.A.* and its main activity consists on the manufacturing and sale of paint, varnishes and products of the same nature.

CIN has different markets for its activity: decoration, industrial, accessories, among others, and each one of them has a different weight on the different markets the company is located.

The company was created in 1926, and it belongs to CEPE – Conselho Europeu de Fabricantes de Tintas, as well as, to Coatings Research Group Inc. (since 1990) and it is one of the founders of Nova Paint Club.

CIN assures its production with 10 factories Portugal, Spain, France, Mozambique and Angola, with a capacity of 120 thousand tons supported by 14 storage and distribution centres. Their products are distributed in Portugal and Spain in franchising and own-stores network. With this data CIN was considered for 2 decades the Iberian Peninsula leader. (Deloitte & Associados, 2016)

So far, CIN has 90 years of experience, 200 million euros of volume of global business, it has operations in 12 countries and it is located in more than 40 countries (Europe, America, Africa and Asia). It counts with 1300 contributors and 120 R&D professionals.

CIN has three (3) different market segments divided as below:

- Decorative: it covers paints and varnishes for buildings applied by professionals and final clients (do it yourself), with secured production in Africa and Iberian Peninsula. It represented 57% of the business volume in 2015 (114,5 million euros) with a significant growth in Portugal, Spain and France;
- Protective: in this segment coatings are used to protect structures used in the petrochemical and energetic sector. The four biggest lines of Coatings Solutions are intumescent (metallic and wood structures), pavements, concrete and fuel deposits; that have been chosen for big public structures in Europe, Central America and South Africa;
- Industry: it produces and commercializes powder paints for protections and finishing of metal and liquid paints for decoration for different materials (wood, metal, plastic, glass).

Summarizing, since 1995, CIN (paint and varnishes manufacturer) is leader on Iberian Peninsula and from 1992 in Portugal. It is a brand with more than 90 years of history with QSA (qualified security assessor) triple certification: ISO 9001, USIO 14001, OSHAS 18001. They have 10 factories in 2 continents: Europe and Africa, as well as, 3 R&D centres and more than 1000 workers all over the world and more than 100 stores.

CIN is also an active member of the following associations:

- CRGI - Coatings Research Group Inc. (Cleveland, USA)
- Nova Paint Club (Geneve, CH)
- CEPE (Bruxelas, BE)
- ESTAL (Zurique, CH)
- QUALICOAT (Zurique, CH)
- APT (Lisboa, PT)
- ASEFAPI (Madrid, ES).

Although, CIN has different segments (decorative, protective and industry), it is from few years ago that the company decided to enter on the insecticides business, making it integrated almost in every segment by being a paint for interiors and exteriors.

1.3. CIN Internationalization

Since CIN's foundation, the enterprise has been acquiring different companies throughout the world, as it is shown on the appendix 13. These acquisitions make CIN a multinational enterprise.

Being multinational, as said on point 2.3.2.2 on literature review, CIN has been focused into different cultures in order to better integrate on the countries where the firm operates, seeing its operations independent and decision making is decentralized.

Regarding market entries, CIN has most of its stores franchised, having in the Dominican Republic, as well as in other countries, subsidiaries that run the business in these countries.

Although there are different types of internationalization strategies, we cannot apply an exact one to CIN due to its different uses throughout time. We may say that acquisitions, franchising and creating its own stores and factories all over the world are the main entry market modes.

Throughout time, making a general approach to CIN's internationalization, we can see the different entry modes:

- ❖ On the 60's, CIN has constructed factories in Angola and Mozambique (being leader on these countries);
- ❖ On the 70's, a partnership was established with Cabo Verde with a licensed manufacturing factory without CIN's capital (*Sita* is leader on this country);
- ❖ On the 90's, CIN has been bought factories in Spain for the decorative and protective coatings business units, due to its geographical and cultural proximity;
- ❖ In 2010, CIN acquired two factories in France for the industry business units in order to gather more technological support and a country that is also geographical and culturally close;
- ❖ In 2014, CIN acquired Artilin, in order to distribute more products for francophone countries;
- ❖ In 2015, CIN started to internationalize its protective coatings business unit, by creating commercial firms in South Africa, México, Turkey and Poland. CIN's main partnerships on this internationalization are in Colombia, Argentina and Brazil;

- ❖ In 2016, it has been made a partnership with an Algerian company in order to develop all three CIN's business units, regarding its proximity and in order to complement the offer;
- ❖ In 2017, a powder manufacturer Spanish company was bought, for the industry business unit, to reinforce the production capacity and to complement the offer on this sector.

When mentioning their ultimate innovative product, Artilin 3A Mate (as well acquired the French enterprise which developed it), it has a global reach to subsidiaries that sell it to new markets with exclusive distribution from CIN. This product is only one allowed to be manufactured in Portugal, France and Spain, as we can see from AMM certificate on the appendix 15 and forward (as well as its characteristics).

1.4. Product Presentation – Artilin 3A Mate



Taken from Sotinco's Website – October 2017

Artilin was created in 1932, and in 2002 CIN acquired 33,6% of its capital and in 2007 CIN owned 100% of this brand. Nowadays, Artilin is a commercial brand of CELLIOSE (created in 1929 in Lyon, also acquired by 100% in 2007).

Artilin 3A Mate is an insecticide paint that kills all kinds of insects just by contact. It is organophosphates free, with no emissions and not harmful effects for humans and it is the best solution for health protection. The paint contains pyrethrin, a natural insecticide produced by flowers but chemically improved to resist better to environmental aggressions. This substance enters the insects' nervous system enabling the entrance of sodium and potassium, leading to an over excitation and consequent death of the insect.

A R&D area where 11% of the human resources are affected, guarantees CIN its technological innovation, whereby it can anticipate the market needs and increases permanently value to its products. Artilin 3 A Mate: is an expression of this innovation of the company which centres its activity on the development of functional high-performance paints (anti-mites, anti-

insects' paints and resistant to fungi). It comes up in a favourable context in defense against illnesses like dengue and zika, distributing itself nowadays in 4 continents and 40 countries.

The development of Artilin 3A Mate was undertaken for several years, involving different respected entities. For the attestation of fungi effect, fungi resistance and interior air quality maintenance the entities involved were *Laboratoire T.E.C.* (effectiveness report), *idMEC* and *Iqai – Laboratório da Qualidade do Ar Interior* (air quality report) and *CEDEVE – itech enterprises* (fungi resistance report).

Regarding the human and pet safety, Artilin 3A Mate's attestation was produced by *Phycher Bio Développement* proving that the paint is not harmful for warm blooded animals.

Finally, it was given by the *Ministère de L'Environnement de L'énergie et de la Mer* (France) an authorization to enter the markets and what allows it to be the only insecticide paint to be manufactured in Europe. This authorization as per name *AMM – Autorisation de Mise au Marché* with the number FR-2016-0004.

The attestation and how the product works, as well as the vectors that can be killed by this paint are referred from appendice 1 to 12, and from 15 forward.

1.5. CIN R&D Centres

CIN has in different countries (Portugal, Spain, Angola, Mozambique and France), diverse centres of R&D and diagnose laboratories where 115 employees work (CIN, 2016).

The main activities of the R&D centres are decorative coatings development for construction, industrial coatings for metals, wood and plastics and development for corrosion protection and industrial installations.

The biggest and most important R&D centre that CIN has, is located in Maia (Portugal), opened its activity in January 2010. This centre has around 50 employees and an invested budget of 5 million euros. This centre has as main activities the ones mentioned above and also other key departments to support those key activities, such as, colorimetry, an analytical laboratory, a show-room, an accelerated aging test laboratory, among others.

It is also worth to mention that the R&D areas constitute three different laboratories: R&D, manufacture and applications.

R&D laboratories are responsible for the new products' creation, existant products' improvement, competition benchmarking and raw material substitution.

The manufacture laboratories are equipped with dispersers, mills and pilot installations in order to produce paint samples between 1 and 150 litres, and it also studies the scale-up before the production passes to the factory.

The applications' laboratory has 3 paint cabins with preparation areas for surface, application and drying, as well as diverse spray equipment.

As said previously, CIN has a colorimetry department, that is responsible for the R&D of dyes used on industrial products, for the colours and new products catalogues study, analysis of colours and existent products in order to satisfy the clients, among other studies.

The analytical has as main activities: raw materials quality control and analysis and the identification of coatings.

Maia's R&D centre has also a training room for clients and employees for knowledge improvement.

In order to improve CIN's R&D, CIN has an international cooperation, as well as an academic cooperation. The international cooperation comes from its membership in *CRGI – Coatings Research Group Inc.* and *Nova Paint Club – Worldwide Association of Paint Companies*, that have a common objective of technical and technological information trade.

The academic cooperation has as objectives to improve student's competencies and to develop R&D projects using the knowledge and technological academic sources.

In Portugal, the academic cooperation integrates the following universities and associations/companies:

(<http://www.cincoatings.com/portalc/linkto?categoryOID=76818080809480GC&nl=pt>)

- FEUP - Faculdade de Engenharia da Universidade do Porto (Departamento de Engenharia Química)
- FCUP - Faculdade de Ciências da Universidade do Porto (Departamento de Química)
- UM - Universidade do Minho (Departamento de Engenharia Química e Biológica)
- UA - Universidade de Aveiro (Departamento de Química)

- FCTUC - Faculdade de Ciências e Tecnologia da Universidade de Coimbra (Departamento de Engenharia Química)
- ARCP - Associação de Rede de Competência em Polímeros
- TER - Associação para a Inovação e Desenvolvimento Tecnológico de Energias Renováveis

CIN has also an academic cooperation in France with its firm *Celliose*, including internships to technicians, engineers and chemists. This cooperation includes the following universities:

- INSA - Institut National des Sciences Appliquées
- Université de Clermont-Ferrand (Laboratoire de Vieillessement Photochimique)
- Université de Mulhouse
- Université Claude Bernard Lyon 1
- ITECH - Institut Textile et Chimique de Lyon
- IUT - Institut Universitaire Technologique

1.6. Artilin and the research on Vector-borne diseases

As stated before, Artilin product conception claimed to research on Vector-borne diseases. Those diseases are transferrable by bloodsucking insects, that ingest from another animal or human, injecting later to a new host.

These diseases can be transmitted by different types of insects, considering that the diseases are different according to the insect itself. If transmitted by mosquitoes, the diseases can be among others, dengue, zika, yellow fever and malaria. When transmitted by sand-flies, the disease can be leishmaniasis; by ticks the disease can be lyme or different types of fever. These are only some examples of diseases transferrable by insects, but there are much more that could be mentioned (WHO, 2016).

On the World Health Organization (WHO) website, we can see that the statistics say that every year around 1 million people worldwide die from vector-borne diseases like malaria and dengue, and these diseases are more than 17% of all infectious diseases globally (in <http://www.who.int/mediacentre/factsheets/fs387/en/>).

Due to globalization, with an inflation of travelling around the world and global warming, these diseases have a tendency to increase.

WHO has some measures that wants to implement in order to respond to vector-borne diseases like, giving technical support to countries to manage outbreaks, offering training in identifying diagnosis and controlling the vectors with their worldwide centres, as well as developing new insecticide products to combat these diseases.

In order to combat these diseases, and as has been said previously, CIN has Artilin 3 Mate (an insecticide paint) that can help to prevent vector-borne diseases. After obtaining the AMM (Associação Médica Mundial) in June 2016, CIN contacted WHO in order to have a cooperation with them to prevent the diseases worldwide (although they still do not have an answer due to WHO being a worldwide organization).

So far, in Portugal there is a cooperation starting between CIN and the *APA – Associação Portuguesa de Asmático*, where a protocol is being negotiated. In other countries (Dominican Republic, Brazil, etc.) the cooperation and contacts are made between local distributors and governmental institutions.

1.7. Case Summary

The main objective of this case study is for students to analyse which are the best market entries for CIN's new acquisition innovative product, Artilin 3A Mate.

Students may analyse CIN's internationalization so far, and how innovation and development of a new product can make a firm's knowledge across borders and which is the impact of this new product in new markets.

As seen before, over the years R&D in CIN is growing every year and with Artilin 3A Mate having a strong influence in combating vector-borne diseases (which due to more trade of people and services, are growing diseases all over the world), it has been thought as good example for studies.

At the end of the lectures, students should understand the internationalization processes and how an innovative product, that does not affect warm blood animals, can change millions of

people around the world by having the probability of eliminating diseases transmittable by insects.

In conclusion of this part, we can state that CIN can enter in different markets according with their business units and taking advantage of their R&D centres in order to develop newer products to face competition.

We can also understand that innovation can lead to products that can help in the cure of certain diseases spread all over the world. These products, like Artilin 3A Mate, will also give recognition to CIN in a global world (increasing also their revenue).

1.8. Appendices

From appendices 1 to 12, they were taken from Artalin 3A Mate presentation.

Appendice 1 - Vector Borne Diseases

Vector-Borne Diseases

- Vector-borne diseases are illnesses caused by pathogens and parasites in human populations.
- Every year there are more than 1 billion cases and over 1 million deaths from vector-borne diseases
- Vector-borne diseases account for over 17% of all infectious diseases

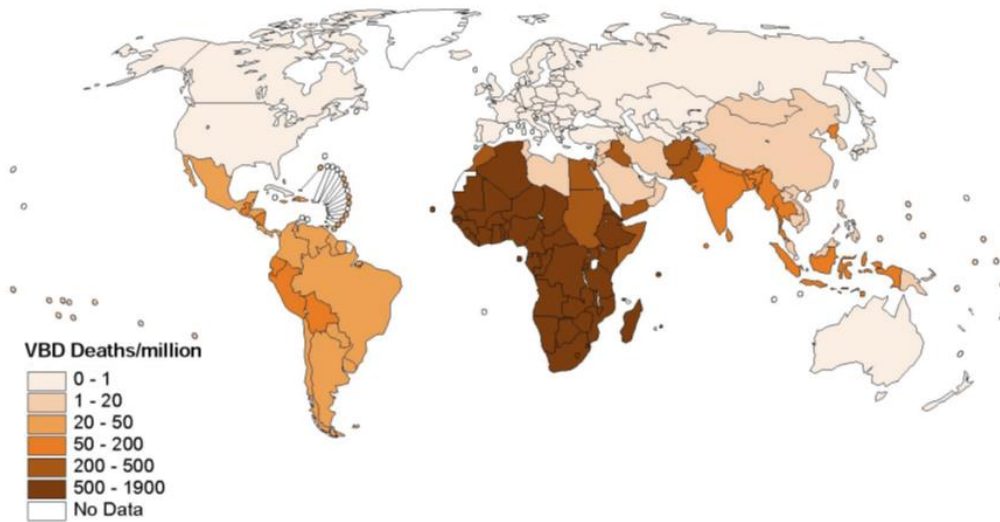
Appendice 2 - Vector Borne Diseases

Vector-Borne Diseases

- Distribution of these diseases is determined by a complex dynamic of environmental and social factors
- Globalization of travel and trade, unplanned urbanization and environmental challenges such as climate change are having a significant impact on disease transmission in recent years. Some diseases, such as dengue, chikungunya and West Nile virus, are emerging in countries where they were previously unknown

Appendice 3 - Deaths from Vector Borne Diseases

Deaths from Vector-Borne Diseases



Appendice 4 - Examples of Vector Borne Diseases

Examples of World Wide Vector-Borne Diseases

- Malaria
- Dengue
- Chikungunya Virus (CV)
- La Crosse Encephalitis Virus
- Zika Virus
- Schistosomiasis
- Yellow Fever
- Leishmaniasis
- Chagas Disease
- Japanese Encephalitis

Appendice 5 - Vectors

Vectors

- Vectors are living organisms that can transmit infectious diseases between humans or from animals to humans
- Many of these vectors are bloodsucking insects, which ingest disease-producing microorganisms during a blood meal from an infected host (human or animal) and later inject it into a new host during their subsequent blood meal

Appendice 6 - Main Vectors

Main Vectors



Cockroaches



Flies



Mosquitoes | Anopheles



Mosquitoes | Aedes



Dust mites

Appendice 7 - Prevention Actions

Preventive Actions

Prevention and control relies on reducing insects through source reduction (removal and modification of breeding sites) and reducing contact between insects and people. This can be done by:

- Using insect repellent
- Wearing clothes (preferably light-coloured) that cover as much of the body as possible
- Using physical barriers such as screens, closed doors and windows
- Sleeping under mosquito nets
- Protecting your house with a paint that kills insects: **Artilin 3A Mate**



Appendice 8 - Artilin 3A Mate

Preventive Action | Insecticide Paint Artilin 3A Mate

- Last generation pyrethroid water based matt paint which Kills mosquitoes, flies, cockroaches, dust mites by simple contact for at least 3 years
- Ready to apply
- Organophosphates free
- No emissions
- No harmful effects for humans and pets
- Best solution for health protection and well being



Appendice 9 - How Artilin 3A Mate works

How does it work?



1. The insect lands on the surface of the paint
2. The active molecule gets into its body by its legs
3. The action on the insect's nervous system kills the insect in a few moments

Appendice 10 - Artilin 3A Mate Attestation

CIN

Insecticide Paint | 3A Mate

Preventive Action | Insecticide Paint Artilin 3A Mate



The development of **Artilin 3A Mate**, a top quality insecticide paint, was taken for many years. For this, many entities very respected and full of knowledge and expertise were involved.

The attestation of insecticide effect, fungi resistance and interior air quality maintenance, were done by the following entities:

Effectiveness TEC Report



Air Quality Report



Fungi Resistance Report



For more details please contact: artilin.export@cin.com

Appendice 11 - Attestation

Preventive Action | Insecticide Paint Artilin 3A Mate



The attestation of no harmful effects for warm blooded animals were made by the labs **Phycher | Bio Développement** by the following tests:

- Acute Dermal Irritation
- Acute Dermal Toxicity
- Acute Eye Irritation
- Acute Oral Toxicity
- Skin Sensitization



Appendice 12 - Artilin 3A Mate Partners

Artilin 3A Mate Partners over the world



16 Partners

31 Countries

4 continents

Appendice 13 - CIN's Internationalization

Year	Happening
1917	Companhia Industrial do Norte, SARL was founded.
1926	Constitution of CIN - Corporação Industrial do Norte, Lda.
1950	Since then, CIN is leader in industrial finishings.
1970	CIN internationalization starts with Tintas CIN Angola, S.A., creation.
1973	Tintas CIN Moçambique, SARL., creation.
1988	Capital stock dispersion and admission to listing at BVL.
1989	Fábrica de Tintas Lacose, Lda., acquisition
1990	Aquisition from Sotinco to Sociedade de Tintas de Construção Tíneo, S.A.
1994	47,36% from the capital of Barnices Valentine was bought
1996	Cros Pinturas acquisition and reinforcement of participation in Barnices Valentine (+11%).
1997	Joint Venture with DISA - Corporación Petrolífera, S.A., creating DISA Pinturas, SA., with a participation of 50% from this society's capital
1999	98% of Barnices Valentine bought.
2000	99,7% da NITIN - Nova Indústria de Tintas, S.A. Acquired
2001	100% DISA Pinturas, SA acquisition. Social designation from DISA Pinturas, S.A., to Pinturas CIN Canárias, SA.
2002	33,6% from capital participation of Artflin, S.A., enlarged to 42,6% in 2003.
2005	Ibercoat acquisition to Tintas em Pó, S.A
2006	Proitesa - Productos Industriales acquisition of Tenerife
2007	Robbiac and Martolar S.A industrial finishing acquisition. 100% da Artflin tenure. 100% French firm Celliose, S.A acquisition.
2010	New R&D Centre inauguration, in Maia.
2012	Megadur (powder paints to the industrial sector) industrial capacity increase, in Maia
2013	CIN Coatings México implementation
2014	CIN Coatings South Africa creation
	NAVIS firm implementation, created by CIN and BBDouro, with nautical market offers.
2015	CIN goes to Turkey, with the business unit creation CIN COATINGS TURKEY, in Istanbul.
2016	Aquisition of the French Group MONOPOL
	CIN Indústria, S.A is now called CIN INDUSTRIAL COATINGS, S.A., and has a new corporate brand identity.

Information taken from CIN's website

Appendice 14 - Strategic Capabilities

Strategic Capability	Organizational Characteristics	Management Tasks
Global Competiveness	Dispersed and interdependent assets and resources	Legitimizing diverse perspectives and capabilities
Multinational Flexibility	Differentiated and specialized subsidiaries rules	Developing multiple and flexible coordination processes
Worldwide Learning	Joint development and worldwide sharing knowledge	Building shared vision and individual commitment

From (Ghoshal, 1998, p. 77)

Appendice 15 - AMM Attestation

The attestation appendices were sent by Dr. Pedro Cerquinho (Sotinco's Managing Director)



MINISTÈRE DE L'ENVIRONNEMENT, DE L'ÉNERGIE ET DE LA MER

Direction Générale de la Prévention des Risques

Service des risques sanitaires liés à l'environnement, des déchets
et des pollutions diffuses

Sous-direction santé-environnement, produits chimiques,
agriculture

Bureau des produits chimiques

Paris, le **21 JUN 2016**

LA CELLIOSE SA
Division Artilin
Chemin de la Verrerie
BP 58
69492 PIERRE BENITE

RECOMMANDE AVEC ACCUSE DE RECEPTION

Objet : Lettre notifiant la décision d'autorisation de mise à disposition sur le marché pour le produit biocide 3A MATE

PJ : - Décision relative au produit 3A MATE

Madame, Monsieur,

Veillez trouver ci-joint la décision qui fait suite à votre demande d'autorisation de mise à disposition sur le marché d'un produit biocide, dont les références sont les suivantes :

Type de demande	Demande d'autorisation de mise à disposition sur le marché
Nom du produit	3A MATE
N° de dossier R4BP	BC-WN001508-25
N° d'AMM	FR-2016-0004

(ces références sont à rappeler dans chaque correspondance concernant ce dossier)

J'attire votre attention sur la nécessité d'avertir les utilisateurs de votre produit des risques liés à son utilisation, et notamment les risques pour les populations vulnérables.

Je vous prie d'agréer, Madame, Monsieur, l'expression de mes salutations distinguées.

Pour la Ministre et par délégation
l'adjoint(e) au chef de service
des risques sanitaires liés à l'environnement,
des déchets et des pollutions diffuses
Catherine MIR

Copie : Monsieur le directeur général de l'Anses



www.developpement-durable.gouv.fr

Ministère de l'Environnement, de l'Énergie et de la Mer
92055 La Défense Cedex

MINISTÈRE DE L'ENVIRONNEMENT, DE L'ÉNERGIE ET DE LA MER

Décision de mise à disposition sur le marché

N° AMM : FR-2016-0004

DATE DE LA DECISION : **21 JUIN 2016**

La ministre de l'environnement, de l'énergie, et de la mer,

Vu le règlement (UE) n° 528/2012 du Parlement européen et du Conseil du 22 mai 2012 concernant la mise à disposition sur le marché et l'utilisation de produits biocides,
Vu le code de l'environnement, et notamment le chapitre II du Titre II du Livre V,
Vu le courrier de l'Anses du 22 décembre 2015,
Vu l'avis de la Commission des Produits Chimiques et Biocides,

DECIDE

Article 1^{er}

La mise à disposition sur le marché du produit biocide visé au point 1.1 de l'annexe à la présente décision est autorisée pour les usages et dans les conditions figurant dans cette annexe.

Article 2

Le détenteur de l'autorisation de mise sur le marché déclare à l'autorité administrative, en application de l'article L. 522-2 du code de l'environnement, les informations concernant les substances actives ou le produit biocide, dont il a connaissance ou peut raisonnablement avoir connaissance, et qui peuvent avoir des conséquences sur le maintien de l'autorisation.

Article 3

La présente décision s'applique sans préjudice des dispositions générales applicables aux produits biocides, notamment en matière d'étiquetage.

Article 4

La présente décision est notifiée au bénéficiaire par lettre recommandée avec accusé de réception.

Article 5

La présente décision peut être déférée devant le tribunal administratif de Cergy Pontoise dans un délai de deux mois à compter de la date sa notification.

Pour la Ministre et par délégation
l'adjointe au chef de service
des risques sanitaires liés à l'environnement,
des déchets et des pollutions diffuses

Catherine MIR

Page 1

Résumé des Caractéristiques du Produit

1. Informations administratives

1.1. Nom commercial du produit biocide

Nom commercial ¹
3A MATE

1.2. Titulaire de l'autorisation

Nom et adresse du titulaire de l'autorisation	Nom	LA CELLIOSE SA, division ARTILIN
	Adresse	Chemin de la Verrerie BP 58 69492 PIERRE BENITE France
Type de demande	Première demande d'autorisation	
Numéro d'autorisation	FR-2016-0004	
Date de l'autorisation	Se reporter à la date figurant en tête de la décision	
Date d'expiration de l'autorisation	10 ans à compter de la date d'autorisation de mise à disposition sur le marché	

1.3. Fabricant(s) du produit biocide

Nom du fabricant	LA CELLIOSE SA, division ARTILIN
Adresse du fabricant	Chemin de la Verrerie BP 58 69492 Pierre Bénite France
Emplacement des sites de fabrication	10 boulevard du Poitou 49300 Cholet France

Nom du fabricant	LA CELLIOSE SA, division ARTILIN
Adresse du fabricant	Chemin de la Verrerie BP 58 69492 Pierre Bénite France
Emplacement des sites de fabrication	31 avenue Robert Schumann 69360 Saint Symphorien d'Ozon France

Nom du fabricant	CIN Valentine, SAU
Adresse du fabricant	Riera Seca, número 1 Poligono Industrial Can Millans 08110 Montcada i Reixac Barcelona Espana
Emplacement des sites de fabrication	Riera Seca, número 1 Poligono Industrial Can Millans 08110 Montcada i Reixac

¹ Si plusieurs noms s'appliquent au même produit, tous les noms peuvent être indiqués dans ce champ, à la condition que tous les autres éléments du RCP soient identiques. Dans le cas contraire, un RCP additionnel doit être fourni par nom.

	Barcelona Espana
Nom du fabricant	CIN - Corporação Industrial do Norte, SA
Adresse du fabricant	Avenida D. Mendo nº831 Apartado 1008 4471-909 Maia Portugal
Emplacement des sites de fabrication	Avenida D. Mendo nº831 Apartado 1008 4471-909 Maia Portugal

1.4. Fabricant(s) de substance(s) active(s)

Substance active	Deltamethrin
Nom du fabricant	BAYER Bayer Vapi Private Limited
Adresse du fabricant	Bayer House Central Avenue, Hiranandani Gardens Powai Mumbai – 400076 India
Emplacement des sites de fabrication	Plot 306/3, 2 Phase, GIDC Gujarat. Vapi – 396195 India

2. Composition et type de formulation du produit biocide

2.1. Composition qualitative et quantitative du produit biocide

Nom commun	Nom IUPAC	Fonction	Numéro CAS	Numéro EC	Concentration en % (m/m)
Deltamethrin	(S)- α -cyano-3-phenoxybenzyl (1R, 3R)-3-(2,2-dibromovinyl)-2,2-dimethylcyclopropanecarboxylate	Substance active	52918-63-5	258-256-6	0,74 %

2.2. Type de formulation

Pâte à base d'eau formant un film (PA)
--

3. Utilisation(s) autorisée(s)

Usage # 1 –Professionnels

Type de produit	TP18
Le cas échéant, description précise de l'usage autorisé	Produit insecticide
Organisme(s) cible(s) cible(s) (y compris le stade de développement)	<p>Acariens des poussières : <i>Dermatophagoides pteronyssinus</i> Stades larve et adulte</p> <p>Moustiques : Genres : <i>Culex spp, Aedes spp, Anopheles spp</i> Stade adulte</p> <p>Mouches : <i>Musca domestica, Stomoxys calcitrans</i> (à l'exception des logements d'animaux domestiques (centres équestres et chenils)) Stade adulte</p>
Domaine(s) d'utilisation	<p>A l'intérieur des habitations, des locaux commerciaux et le cas échéant de logements d'animaux domestiques (centres équestres et chenils). Cette peinture prête à l'emploi ne doit pas être utilisée dans d'autres bâtiments d'élevage, ni sur des surfaces qui pourraient être en contact avec des ustensiles à usage alimentaire, des denrées ou des boissons destinées à la consommation humaine ou à l'alimentation des animaux de rente.</p> <p>Peinture prête à l'emploi.</p>
Méthode(s) d'application	<p>Le produit est appliqué sans dilution à l'aide d'un rouleau ou d'un pinceau. Le produit ne peut pas être appliqué par pulvérisation.</p> <p>Le produit ne doit être appliqué que sur une surface préalablement recouverte d'une sous-couche.</p>
Dose(s) et fréquence(s) d'application	<p>100 g de produit / m² soit 1 L de produit pour 14 m² de surface à traiter</p> <p>Durée de protection : 6 mois</p>
Catégorie d'utilisateurs	Professionnels
Taille(s) et type(s) de conditionnement	Seaux en étain sertis d'un couvercle de 2,5 et 10 L, vernis à l'intérieur avec une résine de type époxy-phénolique.

4. Mentions de danger et conseils de prudence

Classification et étiquetage du produit selon le règlement (CE) n° 1272/2008

Classification	
Catégories de danger	Toxicité aquatique aiguë de catégorie 1 Toxicité aquatique chronique de catégorie 1
Mentions de danger	H400 : Très toxique pour les organismes aquatiques H410 : Très toxique pour les organismes aquatiques, entraîne des effets néfastes à long terme
Etiquetage	
Mentions d'avertissement	Attention
Mentions de danger	H410 : Très toxique pour les organismes aquatiques, entraîne des effets néfastes à long terme
Conseils de prudence	P273 : Éviter le rejet dans l'environnement. P391 : Recueillir le produit répandu. P501 : Éliminer le contenu/récipient dans ...

Les phrases « EUH 208 : Contient du 2-octyl-2H-isothiazol-3-one, du 1,2-benzisothiazol-3(2H)-one et un mélange de 5-chloro-2-méthyl-4-isothiazolin-3-one et de 2-méthyl-2H-isothiazolin-3-one (3:1)). Peut produire une réaction allergique. » doivent apparaître sur l'étiquette du produit.

5. Conditions d'utilisation

5.1. Instructions d'utilisation

Utilisateurs professionnels :

- Respecter les doses d'emploi recommandées et lire les instructions fournies.
- Adopter des méthodes de gestion intégrée telle que la combinaison de méthodes de lutte chimique, physique et autres mesures d'hygiène publique, en tenant compte des spécificités locales (conditions climatiques, espèces cibles, conditions d'usage, etc.).
- Alterner les produits contenant des substances actives ayant des modes d'action différents (afin d'éliminer les individus résistants de la population).
- Prévenir le responsable de la mise sur le marché en cas de non efficacité du traitement.
- Ne pas appliquer dans les installations des chats ou d'autres espèces présentant une sensibilité particulière à la deltaméthrine.
- Ne pas utiliser en même temps qu'un traitement antiparasitaire vétérinaire contenant une substance de la famille des pyréthrinoïdes.
- Appliquer uniquement dans des bâtiments vides, en l'absence d'animaux.
- Ne pas appliquer sur des surfaces susceptibles d'être léchées par les animaux.
- Attendre le séchage complet des surfaces, avant de faire ré-entrer les animaux.
- Ne pas toucher les surfaces fraîchement traitées avant séchage complet.
- Ne pas appliquer sur des surfaces qui pourraient être en contact avec des ustensiles à usages alimentaires, des denrées ou des boissons destinées à la consommation humaine ou à l'alimentation des animaux de rente.
- Ne pas laver le matériel contaminé sous l'eau courante.
- Un film plastique approprié doit être placé au sol lors de l'application.
- Pour l'applicateur, porter un équipement de protection jetable (gants et vêtements de protection).
- Les surfaces traitées (murs et plafonds) ne doivent pas être nettoyées à l'eau. En cas de lavage occasionnel, ne pas évacuer les eaux de lavage dans les systèmes d'évacuation des eaux. Sur les murs nécessitant un lavage régulier, ne pas appliquer le produit à une hauteur inférieure à 1,50 m.
- Utiliser obligatoirement un système de récupération des eaux souillées et des boues de peinture résiduelles pour le nettoyage du matériel.
- Ne pas rejeter le produit non utilisé, les boues de peinture résiduelles, ni les eaux de rinçage du matériel sur le sol, dans les cours d'eau, dans les canalisations (évier, toilettes, etc.) ou dans les systèmes d'évacuation des eaux.

5.2. Détails relatifs aux effets indésirables directs ou indirects possibles, instructions de premiers soins et mesures d'urgence à prendre pour protéger l'environnement

- En cas d'ingestion : rincer la bouche à l'eau. Ne pas faire vomir. Appeler le centre antipoison ou consulter un médecin. Lui montrer l'étiquette, l'emballage ou la notice du produit.
- En cas d'inhalation : mettre au repos et à l'air frais, si des symptômes respiratoires apparaissent, appeler un médecin.
- En cas de contact avec la peau : ôter les vêtements imprégnés de produits. Rincer et laver abondamment avec de l'eau et du savon. En cas de symptômes, consulter un médecin.
- En cas de contact avec les yeux : rincer abondamment à l'eau pendant 10 minutes. Consulter un ophtalmologue, notamment en cas de rougeur, de douleur, ou de trouble de la vue. Lui montrer l'étiquette, l'emballage ou la notice du produit.

5.3. Instructions en vue d'une élimination sans danger du produit et de son emballage

- L'emballage, les résidus de peinture, le matériel contaminé non nettoyé et/ou les eaux et boues de rinçage doivent être éliminées dans un circuit de collecte approprié.

5.4. Conditions de stockage et durée de conservation du produit biocide dans les conditions de stockage normales.

- Durée de conservation : 2 ans

6. Autres informations

- En cas de constatation d'inefficacité du traitement (suspicion de résistance), l'autorité compétente devra en être informée par le détenteur de l'autorisation de mise sur le marché.
- Il conviendra de soumettre, dans un délai de 1 an, des essais de terrain ou de semi-terrain sur des moustiques des genres *Anopheles* et *Aedes* afin de confirmer l'efficacité du produit sur ces cibles jusqu'à 6 mois après application.
- Il conviendra de recueillir des données de référence et de suivre les niveaux d'efficacité sur les populations dans des zones clés (au moins une enquête par an), de manière à détecter tout changement significatif de sensibilité à la substance active. Les informations issues des programmes de suivi de la résistance permettent de détecter les problèmes précocement, et donnent des informations pour une prise de décision adaptée.

2. Pedagogical Note

2.1. The case's Target Audience

The case's target audience will be students of international business or business administration bachelors or master degrees.

2.2. Educational Objectives

Case studies with pedagogical notes tend to create educational objectives for professors to teach how to apply theory on a real case (Bonney, 2015).

In this case study the main educational objectives are for students to:

- Understand the concept of internationalization and its theories, identify the firm's motivations to internationalize and differentiate the market entries;
- Understand how the strategic alliances and customer service contribute to the company growth in competition environments;
- Understand the role of subsidiaries when selling a new product across borders.

2.3. Literature Review

2.3.1. Introduction

In a globalized world, where information cross countries' borders, companies seek new markets and challenges, in order for others to have broader knowledge about the firm and to increase profits by going international.

CIN is a good example of an internationalized company, created in Portugal in 1962, already settled in 31 countries and having different markets such as decoration, industrial and protective coatings.

It is the main objective of this case study literature review to understand the definition of internationalization (section 2.3.2.1), the internationalization models (section 2.3.2.3) and the market entry modes (section 2.3.2.4).

With the previous understanding of these concepts, we state another objective to comprehend which are the best entry modes when regarding the new innovative CIN's product, Artilin 3A Mate, as well as, to know in which strategy type CIN is included (multinational,

global or international as in Bartlett and Ghoshal's reference stated moreover in section 2.3.2.2.).

2.3.2. Literature Review

This thesis' main objective is to approach CIN's internationalization strategies, particularly those concerning Artilin 3A Mate. It is a company that bets heavily on innovation and R&D (research and development), which has progressively been introduced in emerging markets focusing mainly on franchising, acquisitions and subsidiaries.

Thus, in this chapter – and in order to understand important distinctions between globalization and internationalization, the different market entry modes (national and international) and the internationalization strategies companies can adopt – we will present firstly, internationalization management theories and its strategies, highlighting principally Ghoshal and Bartlett's theoretical influence.

On a second moment, it will be presented CIN's internationalization strategies, placing special emphasis on Artilin 3A Mate.

2.3.2.1. Internationalization Concept

Due to a globalized world firms tend to cross boundaries, internationalizing their products or services in order to have higher profits seeking new markets and challenges. Therefore, we cannot consider internationalization a concept from nowadays, since from ages that trade and commerce between nations have no time boundary.

Despite the knowledge and profit increase, laws, regulations and individuals should also be taken into account when a firm wants to go international.

As follows, some concepts from different authors characterize internationalization with different perspectives.

According to Ghoshal, nowadays, companies should understand its corporate history in order to adapt to the international environmental demands. Today's international operating environment is controlled by the company's internal capabilities (1998, pp. 39-40).

Welsh (1988) defines internationalization as “a process of increasing involvement in international operations”, although it is still an uncertain definition since it is extensively used. It is possible to see in the article that the author utters that a broader concept is deliberately due

to the different stages when a firm internationalizes. Welsh states, that the operations dimension should lead to an increase of the functioning methods variety which would be led by internationalization of a firm, and with a global level of the firm it would lead to a development of foreign investment. Therefore, not only with the operational method the firm's internationalization would be viable.

We can acknowledge by other authors that the concept can change or show some other perceptions added. As we can see from Fernández & Nieto (Fernández, 2005, pp. 77-89), the internationalization process is based on taking the advantage of the firm's competitive advantage in domestic markets. It is said on the same paper that resources (or lack of them) can give or not a complexity to the process when going to an overseas expansion.

It is also important to know, that sometimes firms can de-internationalize by quitting foreign investment of a certain product or by being centred in exportation reducing the firm's activities (Chatty & Campbell-Hunt, 2001).

It is also worth to mention the process of globalization that goes along with the internationalization, whereby everything imaginable (from people to money) can move freely across borders (Lasserre, 2002, p. 4).

A Dictionary of Business and Management (Oxford, 2016), defines globalization in two different ways:

- ✓ Process which enabled investment in financial markets to be carried out internationally;
- ✓ Process by which economy has become named firms operating across national barriers.

Some factors that drove companies to go global are the free trade among countries (political), the cost of transportation and flow of information that has lowered (technological), social skills and also the increase of competition due to the knowledge customers can obtain accordingly to the information received.

Despite all the good factors that can lead to globalization, there are also factors that can lead a firm not to go global. These factors rely on cultural differences, distribution processes, standards regarding technology and the most important the legislation part of each country.

2.3.2.2. Main Internationalization Strategies

In order to understand which types of enterprises can be when they go international, hereby we will differentiate the different strategies that can be applied regarding the capabilities of the firm (Bartlett, 2008, pp. 200-203).

There are diverse organizational models that describe varied strategic capabilities when a company goes international (Ghoshal, 1998, p. 18).

According to the author, those main strategic capabilities are:

- **Multinational:** when a company builds a strong local presence through being attentive and taking into account to national differences,
- **Global:** those that build cost advantages through centralizing the global scale operations,
- **International:** take advantage of parent company knowledge through worldwide adaptation.

Furthermore, there are three models that distinguish the mentalities of the different types of organizations (idem, pp. 57-60) the multinational, the organizational and the global models:

- The **Multinational Organizational Model** which present the following features:
 - Multinational mentality: when the firm's management sees its operations as a collection of independent businesses overseas;
 - Decentralized Federation: when most of the firm's key assets, responsibilities and decisions are decentralized;
 - Personal Control: when the financial controls are simple due to an overlapped the informal headquarters with sub relationships;
- The **International Organizational Model** which includes:
 - International Mentality: when the overseas operations are attached to a central domestic operation;
 - International Federation: when most of the assets or resources are decentralized but controlled by the headquarters;
 - Administrative Control: through formal management and other forms of manage planning a closer linkage between headquarters is built.

- Finally, the main aspects of the **Global Organizational Model** are:
 - Global Mentality: operations are the delivery pipeline to a unified global market;
 - Centralized Hub: most strategic assets, resources, responsibilities and decisions centralized;
 - Operational Control: tight control of decisions, resources and information.

Furthermore, there are also transnational firms that are single, interdependent and specialized. They have distinguished contributions by national units to integrated worldwide operations and have knowledge developed cooperatively and shared worldwide (Ghoshal, 1998, pp. 75-77).

Firms that want to go abroad should also have an integrated network, "... which consists in a process of coordination and cooperation in an environment of a shared decision making. It distributes specialized resources with a large flow of products, resources, people and information among interdependent units" (idem, p.12).

Another aspect that should be taken into account is the role of subsidiaries, whereas resources, markets and cheap labour are objectives that motivate overseas expansion (idem, p. 113).

2.3.2.3. Internationalization Models

It should be referred that there is not only one theory that is able to explain the concept of internationalization and the ones existent are based in bigger companies' internationalization process or in economic reality for medium/small enterprises. Therefore, there is not one perfect theory that explains the exact internationalization process.

Hereby, the most important theories will be explained here on brief analysis (Dias, 2007, apud, pp. 9-20).

a) International Commerce Classic Theory

As said in "*On the Principles of Political Economy and Taxation*" (David Ricardo, 1817), the international commerce existence is based on the relative prices of the goods in each country, which differ from the offers and demands. This theory is based on the international resources analysis of each country (natural or technological) (Dias, 2007, pp. 9-20).

b) Competitive Advantage Theory

As Porter (1990) describes on his paper, price is not the main focus of this theory, but the competitive advantage not only in the basic products but also in the technology differences, in the competition methods and the product quality factor.

The theory is based on industry analysis and there are four factors to take into consideration:

- ✓ Factors conditions (such as human resources and infrastructures)
- ✓ Demand conditions (consumers' needs)
- ✓ Support and Relation Sectors (suppliers, distributors)
- ✓ Firm's structure, strategy and rivalry (activities management and organization)

c) Product Life Cycle Theory

As seen in Vernon (Vernon, 1966, pp. 190-207), some companies become multinationals due to the product life cycle. Firms test and produce their products in countries with high consumerism levels and then they will export these products to other countries.

Firstly, there is the 'imitation phase' where the richer countries (initially importers) start to export the products themselves, then on the next phase lesser developed countries exploit the cost advantages of the product itself.

On the 'maturity phase' of the product, the competition is intense and the most developed countries are again the importers of these products being them launched again.

This theory tries to explain the company's relocation from more to less developed countries.

d) Companies Management and Behaviour Theories

These theories relate the international investment through the firm's behaviour and the management's importance.

The theory regarding the behaviour relates to how the managers' interests contribute to the well-functioning of the firm.

When speaking about the management's theory (also known as 'Growth of the Company Theory'), it considers management a production factor, essential to explain the internationalization.

e) **Market Imperfection Theory**

This theory defends the idea that firms want to internationalize because they may have advantages on its own market and want to exploit other markets. This way even with limited knowledge firms can compete in outside markets (Hymer, 1976).

In this theory the market imperfections are the ones below:

- ✓ Imperfections on the goods market (brand, marketing);
- ✓ Imperfection on the factor markets (resources acquisition);
- ✓ Imperfection on competition due to the internal and external economies of scale;
- ✓ Imperfection on competition due to governmental policies.

f) **Internalization Theory**

This theory was created by Buckley and Casson (Buckley P. a., 1976) and its main idea is that companies take advantages of opportunities generated by market imperfections. It is a theory based on the previous theory described. This theory is settled on a decision according to which when a firm decides to go international, the decision is based on cost reduction.

There are two axioms on which the theory is based on: 1) the firm will internalize the operations until the costs will be higher; 2) the firm will grow by internalizing markets until benefits cover the costs.

g) **Eclectic Theory (OLI Paradigm)**

This strategy is also used within some companies when thinking about going international, according to Lemaire (1997, p. 128). This model comprises three categories that should be taken into account, as it is shown below:

- **Ownership:** it is considered an imperative pre-requisite when considering the firm internationalization. Company position and dimension can cover its intangible assets.
- **Location Advantage:** it focuses in transportation, labour accessibility, cultural barriers and regulations. This factors are decisive to the firm development.
- **Internationalization:** when the firm creations made in its own structure creates benefits to the transaction system for other markets.

This strategy is a multi-theoretical approach that includes the concepts of the comparative advantage, the internationalization advantage and the localization advantage, which means that includes other theories synthesis.

This strategy makes firm adopt different penetration choices like exportation or licensing, regarding its three characteristics.

h) Industrial Networks Theory

This theory was mainly made by the authors Jan-Johansson and Lars-Gunnar Mattsson in 1988, (Johanson, 1988), and it states that enterprises in industrial markets establish and maintain negotiable relationships for a long time.

Companies in this theory are seen on a context of inter-organizational and interpersonal relationships(in <https://www.ukessays.com/essays/marketing/internationalization-theories.php>). Therefore, the internationalization is a result of externalization (instead of internalization), it is multilateral through business and social networks.

i) Stages Theory

This model states that the process of internationalization depends on the market-specific knowledge and it is included on the *Theory of Stages* (Buckley, p. 165).

The *Theory of Stages* exists in order to fill the gaps on the internationalization research, that so far have been supported by bigger firms' internationalization.

Firms have to have a knowledge of the process of internationalization because when they operate in foreign markets, firms develop in addition of this knowledge networks of institutional measures.

We can relate the Uppsala Model, mentioned in this section, with the theory of international trade, in which the firms' ownership involves issues of the location of its production activities when owned by residents of one country (idem, p. 25).

The Uppsala Model is gradual and includes four steps: 1) the inexistence of regulations to direct exports; 2) indirect exportation; 3) create local subsidiaries that sell products; 4) creation of local production subsidiaries.

2.3.2.4. Market Entry Modes

When going international, firms need to know how to enter the new markets, and for that there are different ways to do it.

In order to have a better international competition, there are three ways to enter the markets regarding where the production occurs. The first way is when the production is made on the domestic market and exportation is made to foreign countries; the second method is to have a

contract-based agreement with a local company on the foreign market where production is made, and finally, the third process is when the internationalized firm has a significant equity position (more than 10% is owned by the internationalized firm).

There are two main forms of entering the markets and they are divided into two different modes: equity and non-equity mode, which have different types of agreements.

The equity modes of entering new markets include wholly-owned subsidiaries, equity joint ventures, foreign minority holdings and fade-out agreements.

The non-equity modes include licensing, franchising, management contracts, turnkey projects, contractual joint ventures and international sub-contracting (Tayeb, 2000, pp. 156-175).

On the table below it shows the difference between the market entry strategies, regarding the intensity of investment and control each entry has.

Intensity of investment	High	Minority joint venture Consortium Minority acquisition	Wholly owned subsidiary Dominant acquisition Absolute majority joint venture
	Low	Licensing Distribution Franchise Agent	Procurement office Representation office Marketing Subsidiary Technical Observatory Regional Headquarters
		Weak Control	Strong Control
		Control	

Figure 1. Intensity of Investment vs. Control – (Lasserre, 2002, p. 210)

As seen in *Global Strategic Management* (Lasserre, 2002, pp. 210-218), there are different entry modes for companies to go abroad, although other authors claim to be more than the ones on figure 2. All entry modes are going to be explained as follows.

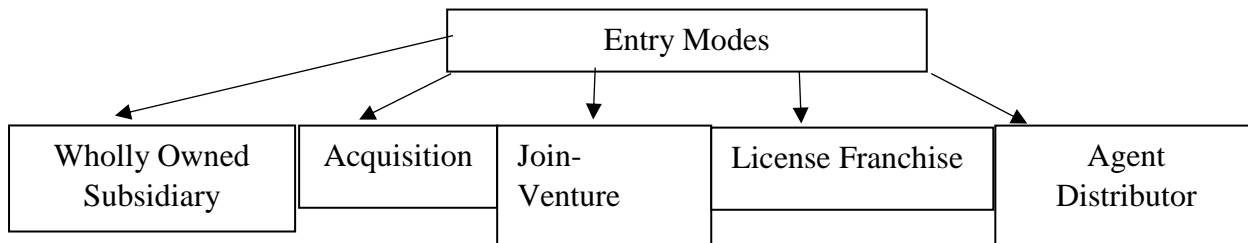


Figure 2. Entry Modes – (Lasserre, 2002, p. 211)

a) Wholly Owned Subsidiary

It gives more control over operations but involves more deployment of resources and capabilities. The firm must realize if it is feasible to enter on the new market by the legal and commercial environment knowledge of the subsidiary.

b) Acquisition

Immediate availability of resources and quicker market entry by acquiring another company but it also can cost more than other market entries.

c) Exportation

It is the market entry more used by firms whereas, products made on the home country are sold on a foreign country.

It has as advantages the low financial cost and the it enables the economies of scale due to the production being in a unique location. However, it has the problem of a lack of control when talking about price, distribution and communication (marketing tools from the host country).

c.1. Indirect Exportation

This type of exportation reduces the risks because the company uses involve less of their resources and it is a better market entrance to firms that do not have an adequate knowledge about internationalization.

Although it is a good way of internationalization, the firm with indirect exportation does not get internationalization experience or knowledge by others because there are other firms that export this firm' products.

c.2. Direct Exportation

This market entry makes the firm implies a previously knowledge about distribution, prices and communication from the host country and firms' policies, having this way a better control over their products' exportation increasing the costs and international experience.

The direct exportation has different arrangements: 1) when the firm has a specific department inside the company in charge of the exportations; 2) a resident retailer that will give a better knowledge about a specific market; 3) having agents on other countries where they make direct contact with the sellers of the products; 4) having a branch on the host country, whereas a physical store of the firm; 5) having a storage structure which will lead to a better response to clients' demands; 6) having a commercial branch, where a juridical mentioning, the person in the host country partner has a strong commercial advantage in selling the products; 7) when there are difficulties with accessing to the usual distribution channels, it is created a distribution franchising.

d) Licensing

Licensing happens when a firm give to other the right to use certain knowledges (know-how) and to exploit the rights of industrial property (patents, brands) with an exchange of a payment, usually expressed in royalties.

Moreover, it will be shown on a table the advantages and disadvantages in licensing products into other countries.

e) Franchising

Franchising is a specific way of licensing, where the franchisor licenses the franchisee to commercialize or produce a product in a specific location, according to the franchisor's business model. The franchisee has the right to use the franchisor's name, brand, know-how and services but has to pay to franchisor with royalties (usually with commission fees of the products sold).

There are three types of franchising that can be acknowledged: 1) production franchising (commercialize the product, giving the right of the know-how usage); 2) distribution franchising; 3) services franchising where the know-how and management model is transferred.

f) Industrial Subcontracting

This market entry happens when the firm that wants to go international has a contract with a local firm (from the market to enter in), where this firm manufactures the products and the other sells it.

g) Strategic Alliances

The strategic alliances include commercial relationships between companies of an economy and firms from other countries, always when it does not include joint ventures or licensing. Some examples of strategic alliances are production specialization, reciprocal distribution and post sell services points together.

g.1. Joint Ventures

Investors / firms are welcome to bring products / technology in exchange for an entry on the new market or to its resources.

2.4. Innovation and R&D

One of the most important reasons for corporate internationalization is innovation, which is the primary source of competitive success, that happens when a firm invests abroad to arise further profits from innovations developed for the domestic markets (Ghoshal, 1998, pp. 131-132).

There are two types of innovation processes: (idem, pp. 132-133)

- Central innovation process: In order to take place, this process starts with the identification, in the home country, of a new opportunity. In consequence, a new product is created using only the internal resources from the main company. Underlying this process is the assumption that the firm has core capabilities that must be protected at the headquarters;
- Local innovation process: This process operates and focuses on the national level: the created innovations are above all responses to the needs of the local environments through the use of resources and capabilities of national subsidiaries.

Firms that are sensitive to market or technological trends and that are creatively responsive to worldwide opportunities, are firms that have more chance to win new markets.

When mentioning locally leverage innovations we are speaking about the use of creative resources and developments of its subsidiaries worldwide, in order to benefit the whole company. With these innovations, the company can often take the responses to market trends emerging in one location and use them to lead similar trends elsewhere.

To Goshal, "...there is also stimulus for an innovation when it is distant from the company's capability or several organizational units can contribute to developing the most innovative response to a sensed opportunity". This stimulus comes from an environment called 'globally linked innovation' (Ghoshal, 1998, pp. 135-137).

According to Laurens, we can acknowledge from different books and journals, "*the search of the most effective organizational structures for global innovation process is a key issue for corporate management and that building organizational capabilities and integrating knowledge from dispersed geographic locations are keys for generating high value innovations at lower cost*" (Laurens, p. 19).

2.5. Paints

Paints and coatings have a role in human lives since pre-historical times, as cavern paintings may testify. Nowadays, paints are more sophisticated than before but have the same base, the binders and the color agent (pigments). (APT - Associação Portuguesa de Tintas, 2017)

Painting for civil construction began to be used by the Europeans about 4000 year A.C., they used to burn limestone mixing it with water applying it to their clay houses to protect and decorate them.

At the same time on the southwestern Asian, the invention of lacquers was already developed and in India shellac was as well created, used as a varnish to protect wooden materials.

Paintings and coatings only conquered the world after the industrial revolution, the technological progress created new markets for these products. The automobile success constituted coatings developments and application processes, by shorting the paint drying time accelerating the painting process just by using painting pistols.

Nowadays, some products used on the 30s cannot be used anymore, due to the evolution of paints in regarding with human health and environment impact.

Paints contribute for object durability, helping to the use of natural resources, making human life more bright with different color options.

Composition

There are four major families of paints:

- **Binder** (resins that constitute the fix carrier) is responsible for the main components of the coating, making the paint classifiable and its constitution by the type of binder.
- **Solvents and Diluents** - solvents dissolve the resin and the diluent reduces the viscosity of the paint.
- **Additions** – materials added to paints in order to control one or more of its properties (e.g. insecticides, biocides, secants).
- **Powdered Materials**
 - o **Pigments** – check the color and opacity of the paint, changing the paint properties in resistance, durability, etc.
 - o **Loads** – they play a role in brightness, hardness, adhesion, etc.

Insecticidal Paints

Insecticidal paints are available for quite some time in Europe and North America, although being suggested to control diseases they never had the same attention as indoor spraying. (Schioler, 2016, p. 1)

These paints were formulated to protect humans against vector borne diseases like dengue, malaria and zika, as well as they are designed to be used on building's interior and exterior.

As well as other anti-insects products (spraying, repellents, etc.) if not properly used and maintained, they can create insects resistance.

Many insecticides are now in use in order to prevent diseases, however, 90% of them are used for agricultural purposes making the resistance of mosquitoes to it is getting bigger (Karunamoorthi, 2012, pp. 7-15). The vectors' resistance to insecticidal paints and other types of insecticides make a bigger concern to public health.

Although there is a restricted use of active ingredients usable in insecticidal paints, written on the World Health Organization's Pesticide Evaluation Scheme, the safety approval by WHO tends to take a long time, being usually made locally in each country.

There is a need to follow an Integrated Vector Management (made by WHO), whereas there are strategies to optimize the use of resources to control vectors. These strategies could also be more effective if there would be more entomologists specialized in vector-borne diseases.

When mentioning insecticidal paints, a life-time cycle of around 3 years after using the first painting process is mentioned, but it doesn't mean it won't have a shorter cycle due to the constant change on the environmental regulations (changing as well the revenues for the firms that sell these paints).

2.6. Conclusion of the Chapter

We can conclude from the literature and applying it to CIN's case study that:

- CIN is an international enterprise, which uses an international strategy, mentality and model. This means that CIN uses advantage through worldwide adaptation and the operations are attached to a centralized operation and resources are controlled by the headquarters;
- Regarding Artilin 3A Mate and the Protective Coatings Business Unit, its distribution is global instead of international, whereas the global operations are centralized. As well as being an insecticidal paint it can prevent vector-borne diseases, being a public health prevention when mentioning dengue, malaria, zika, Nile fever, etc. It is as well an innovative product that increases the company development and spreading the sales overseas.;
- It is not possible to relate one single internationalization theory to CIN, due to its different internationalization throughout the years and its business units, although we can name some that can be correlated with the global internationalization such as the Uppsala Model when mentioning the creation of subsidiaries to sell products (Stages Theory) and the Eclectic Theory (OLI Paradigm) which consider the dimension and position and dimension which will cover the intangible assets, where factors such as regulations and cultural barriers are decisive for the company (buying firms on the closest countries such as France and Spain) labour accessibility, cultural barriers and regulations.
- CIN has as entry markets: franchising, acquisitions and subsidiaries (namely to Artilin 3A Mate).¹

¹ This literature review had to be amplified when preparing the answers to the students' questions.

3. Methodology

The main goal with this thesis is to identify the best internationalization model and strategy applicable to CIN's newest product, Artilin 3A Mate. It is also important for students to identify firstly, in which model and strategy CIN is better integrated.

In this thesis, the methodology used will be a case study with pedagogical note, which is used as an analysis' investigation strategy. It will be applied accordingly to the theory studied and presented on the literature review to a real company's case.

We may say, according to Bryman and Bell, (Bell, 2007, pp. 62-65), that a case study emphasizes the concern of a particular question of a single case. The analysis can be from a single organization, single location, a person or a single event.

A case study is a qualitative method on research that is based on words more than in analysing research, as well as, it represents a social reality from the individuals' conception.

The case study research and data collection are linked with the specific questions that arise from theoretical concerns. The research and its questions must be reliable, valid and stable.

Its main characteristics were identified as below (Carmo and Ferreira, pp. 179-181, 1988, Universidade Aberta):

- ✓ Inductive: researchers develop and understand concepts that derive from data collection, and the information collected is not found to create hypothesis.
- ✓ Holistic: researches take into account groups or individuals, as well as their past or future.
- ✓ Naturalist: researchers act naturally among the groups they are investigating not pushing them in order not to change the results.
- ✓ Descriptive: data include written documents, photographs, etc., researchers respect data like they original were taken.

Robert Yin (Yin, 1988), defines a case study as an empirical and experimental approach that investigate an actual real context, where boundaries between context and phenomena are not clear and many data is used. In case studies the main questions to be answered are "why" and "how", where researchers do not have control of the facts.

As stated in *Research Methods in Education* (Cohen, 2007, pp. 253-263), “case studies can establish cause and effect, indeed one of their strengths is that they observe effects in real contexts, recognizing is a powerful determinant of both cases and effects”.

Case studies with pedagogical notes are used since 1950, applied firstly in Harvard, and are considered a learning key factor. The main important expertise on this type of case study is the interactivity between students and the teacher, as well as the students’ reasoning due to the subject itself being a real-based situation.

By being an active method, it is the accurate for learning due to its advantages like students’ motivation, where the learning process is dynamic and has a reality-based purpose when facing real business’ facts.

The methodology used on this particular case study with pedagogical note, will be unstructured interviews and documental analysis.

Unstructured interviews are used on this method by using a list of topics, a guidance, that are mainly concerns that are quite useful on the development on this thesis.

The documental analysis issued are mainly from the documents sent by Dr. Pedro Cerquinho, in all e-mails exchanged with this author's thesis and from CIN’s website as from the competitors’ analysis.

At the end of all the analysis, a SWOT framework will be done in order to compile all the data collection be gathered.

The main objective of this methodology is to apprehend which are the best internationalization and entry market modes for a single product (with a global strategy) of a company with a multinational strategy.

4. Competitors

When researching for competitors, for direct ones, they were found 7 listed below:

- Sika Portugal, S.A. (coatings)
- PPG Dyrup, S.A. (decorative)
- Tintas Robbialac, S.A. (decorative)
- Hempel (Portugal), S.A. (coatings)
- Fábrica de Tintas 2000, S.A. (industry)
- Tintas Titan, S.A. (industry)
- Barbot. S.A. (decorative)

The listed competitors are different for each CIN's business unit, and they will be analysed accordingly.

Regarding the decorative business unit, whereas the main paints are for inside, the main competitors in Portugal are *Dyrup*, *Robbialac* and *Barbot*.

For the industry business unit the main competitors are *Fábrica de Tintas 2000* and *Tintas Titan*; and finally for coatings business unit the main competitors are *Sika Portugal* and *Hempel*.

When we are mentioning the decorative business unit we are talking about usable paints for inside and outside apartments / houses, as well as varnishes.

PPG Dyrup is one of the main competitors of the decorative business unit, and it has its headquarters in Denmark but it was created in Portugal in 1947 and has as president of administration Mr. Loic Derrien (France). Dyrup has 2 main firms, *Dyrup A/S* (75%) and *Danish Indian Paint Company APS* (24,99%). This firm in global has reached, at the end of 2015 a total revenue of 25.347.714,42€ with net results of 1.213.179,49€ and 148 employees. They have their one brands, listed below (eInforma, 2017):

- DYRUSAND
- DYRUSTAR
- DYRUWASH
- ELEMENTS BY BONDEX
- ELEMENTS BY DYRUP

- EXTRASILK
- O TINTAS
- PLASMATE
- SOS RENOV TINTA PAVIMENTOS
- XYLOPHENE XYLOPROTECT EXO 1000

The company has two majority companies, from which one is Portuguese and the other is foreign: *Xylofene – Protecção e Decoração da Madeira, Lda.* (fused, Portuguese – 100%) and *Tintas Bondex* de Angola (Angola, 50,25%).

Dyrup's representatives are:

- XYLOFENE
- DYLON
- DYRUMAT ECOLOGICO
- DYRUMASTER
- ACRYLSIL
- HITT
- BONDEX
- DYRUTEX

Dyrup's products that can substitute CIN's on the decorative segment are:

- *Interiors*: Dyrustar, 003, Dyrumat Nature, Dylon, Dyrutex, Dyruguay Evolution, Kitchen & WC, Dyruplad, Stop Manchas
- *Exteriors*: 003, Dycrilforce, Akromur, Dycriltex, Dyrulastic, Dylon, Telhas, Dyruguay Evolution, Dyrutex, Dyrupaster 2S 1.5, Tinta Silitaco
- *Decoratives*: Elements Seda, Elements Mate, Contrastes, Harmony

Robbialac is another CIN's direct competitor for the decorative business unit, and it has its headquarters in France but it was created in Portugal in 1999 (having as a main-company Cromology) and has as president of administration Mr. Emmanuele Commaret (France). This firm in global has reached, at the end of 2015 a total revenue of 37.721.896€ with net results of 1.859.637€ and 288 employees. They also have a minority representation in an external company in Spain named *Materis Paint España, S.L.*, with 32,67%.

They have their one brands, listed below:

- VITON

- WOODLAC
- XILOVIP
- SUPERCRIL
- SUPERFLAT
- SYLURE
- TARTARUGA
- TEXTIFIN
- TINTAS VIP
- TINTAS VIP A OPÇÃO CERTA

Robbialac's products that can substitute CIN's on the decorative segment have the following brands: Robbialac (interiors and exteriors), Tintas VIP (exterior and interior surface paints), Stic (civil construction), Hammerite (metals), Cuprinol (wood) and Classidur (isolation).

Barbot is another main competitor of the decorative business unit, and it has its headquarters in Portugal and it was created in 1922 and has as president of administration Dr. Carlos Barbot Pereira. This firm in global has reached, at the end of 2015 a total revenue of 26.471.834,87€ with net results of 1.581.485,32€ and 168 employees. They have their one brands, listed below:

- NOVAS EMOÇÕES
- SODULAX
- BARBOT

Barbot's representatives are:

- SILICRIL
- BARBOMIX
- SILICORSINHA
- SILICOR
- DIOFLIX
- INTERPLAST
- DIOPLAST
- BARBOTERIL
- BARBOLUX
- BARBOTSILK

Barbot's products that can substitute CIN's on the decorative segment are:

- Interiors: Barbot Ardósia, Barbot Glamour, Barbot Íman

For the industry business unit the main competitors are *Fábrica de Tintas 2000* and *Tintas Titan*.

Fábrica de Tintas 2000 is one of the main competitors of the mentioned previously business unit, and it has its headquarters in Portugal in 1980 and has as president of administration Mr. António Ambrósio. This firm in global has reached, at the end of 2015 a total revenue of 14.174.752,70€ with net results of 777.760,58€ and 128 employees.

The company has as majority firm *Tintas Marilina, S.A.* (100%) and 6 minority participation on the following companies: *Ambrósio & Filho Lda.* (49,50%), *Fábricas de Tintas S.A.* (1,35%), *Norgarante – Sociedade de Garantia Mútua, S.A.* (0,03%), *Garval - Sociedade de Garantia Mútua, S.A.* (0,02%), *Lisgarante – Sociedade de Garantia Mútua S.A.* (0%) and *Nexponor – Sociedade Especial de Investimento Imobiliário de Capital Fixo – SICAFI* (0%).

They have their one brands, listed below:

- MAIPLASTE
- NILAITE
- PLAS SOFT
- PLAS SUPER
- PLIOMIL
- POLIMÓVEIS
- PROBEX
- SILICALINA
- TEXTURFLEX
- THERMINNOV 2009

Tintas 2000's products that can substitute CIN's on the industry segment have the following products: Acrílica AD Microtex, Acrílico 2K Brilhante/Fosco/MB.

Titan S.A. is the other main competitor of the industry business unit, and it has its headquarters in Spain and it was created in 1946 and has as president of administration Dr. Alberto Faixat. This firm in global has reached, at the end of 2015 a total revenue of 31.700.312,00€ with net results of 627.966,00€ and 149 employees. The firm has as majority

percentage in a Portuguese company, with 64%, being this company *Farilex – Sociedade Comercial e Industrial de Tintas, Lda*.

They have their one brands, listed below:

- EMEL
- FERCOULEME ECOTEXT
- TITAN

Finally for coatings business unit the main competitors are Sika Portugal and Hempel.

Sika is one of CIN's direct competitor for the coatings business unit, and it has its headquarters in Switzerland but it was created in Portugal in 1957 and has as president of administration Mr. Paul Schuler. This firm in global has reached, at the end of 2015 a total revenue of 36.265.588,80€ with net results of 2.017.703,31€ and 122 employees. They also have a minority representation in a Portuguese company named *OPWAY – Engenharia S.A.*, with 0,01% and had a majority representation with 85% in another company called Tintas Sital (now extinct).

SIKA's representatives are:

- SIKALASTOMER
- ICOSIT
- PLASTIMENT
- SIKACRETE
- SIKAFLOOR
- SIKAFLEX
- SIGUNIT
- SIKATOP
- TOPOL
- PASSIMUR

Hempel is the other CIN's direct competitor for the coatings business unit, and it has its headquarters in Denmark but it was created in Portugal in 1970 and has as president of administration Mrs. Maria Corte-Real and Mr. João Manuel do Couto. This firm in global has reached, at the end of 2015 a total revenue of 71.388.132,00€ with net results of 1.987.85,00€ and 141 employees. They also have majority representation with 99,8% in a Portuguese company called *Hempatil – Fábrica de Tintas e Anti-Corrosivos, Lda* (now extinct).

5. SWOT Analysis

Accordingly, with Dr. Pedro Cerquinho (CIN's manager), hereby are the conclusions for a SWOT analysis:

- Strengths and Opportunities: management capacity, business know-how, medium-large vision (familiar company), financial strength, rentability, investment prudence, markets and geography diversification, Artilin 3A Mate is the only certified paint in Europe to its usage and manufacturing.
- Weaknesses and Threats: it does not have accordingly to Dr. Pedro Cerquinho

For this thesis, it has been added some points to the SWOT analysis:

- Strengths: leader on national and Iberian market, technological investment and development, strong expansion policy, human resources qualification.
- Weaknesses: interdepartmental dependence, operational tasks with high bureaucracy, complex organizational structure.
- Opportunities: new markets' entrance, Spanish market leadership, big investments, new products development, other companies acquisition.
- Threats: economical recession, multinational enterprises entering the Portuguese market.

6. Interview Questions – Dr. Pedro Cerquinho

Hereby it is shown the questions made to Dr. Pedro Cerquinho, Sotinco's manager director, which have helped me to develop this thesis. It is also shown the answers to the questions made.

- ❖ **Did you contact the World Health Organization (WHO) or Ordem dos Médicos (Doctors' Order) in order to know if the product is viable to fight the vector borne diseases?**

- *“After obtaining, in June 2016, the European AMM – Autorisation de Mise au Marché, we have initiated contacts with the WHO in order to proceed with possible cooperations. By being a world organization the processes tend to be slow.*

- *In Portugal, we did not contact Ordem dos Médicos, but we are in contact with APA – Associação Portuguesa de Asmáticos, in which the management is made by alergologists, in order to make a protocol with them.*
- ❖ **The entry mode to foreign markets, for Artilin 3A Mate, is made by franchising, licensing, or any other mode?**
 - *“The internationalization strategy for Artilin 3A Mate is by exclusive distribution contracts by country. The partners which we identify as ideals, are local paint manufacturers.”*
- ❖ **Is it Artilin 3A Mate manufactured only on the home country?**
 - *“AMM allows us to manufacture Artilin in CIN Celliose (France), CIN BV (Spain) or in CIN Portugal.”*
- ❖ **Until today, which is the internationalization strategy more used in CIN? Do you consider CIN as a global, multinational or international company?**
 - *“CIN is an international company, with presence in Portugal, France, Spain, Poland, Turkey, Mozambique, Angola, South Africa, Cabo Verde and Mexico.*
 - *However, for the business unit protective coatings and for Artilin, CIN has a global distribution strategy.”*
- ❖ **Which is the subsidiaries role, in external markets, when mentioning their contact with CIN?**
 - *“The business units responsible coordinate the business development on the countries we are present.”*
- ❖ **Which direct competitors do you think exist for CIN, as well as for Artilin?**
 - *“CIN’s competitors depend on the market or business unit. For example in Portugal, for BU Decorative the competitors are Robbialac, Dyrup and Barbot; for BU Industry the competitors are Titan and Tintas 2000; and for BU Protective Coatings the competitors are Hempel and Sika. Regarding Artilin it does not have competitors because it is the only insecticide paint with selling authorization on the UE.”*
- ❖ **Regarding the theory, which internationalization model do you believe is more suitable for CIN? When analysing the different ones, it came up two different ones, The Uppsala Model or the OLI Paradigm, do you think they are applicable?**
 - *“In my opinion, none of these models are applicable to CIN, because they were different in time according to the product and/or business unit.*

- *On the later 60s, the internationalization was the factories construction in Mozambique and Angola, at that time, Portuguese territory. These operations still exist. CIN is leader in Angola and Mozambique.*
- *On the later 70s, a partnership with Cabo Verde was made, a factory with manufacture license, on which CIN does not have capital participation. Sita is leader in Cabo Verde.*
- *On the 90s, several factories were bought in Spain, for the decorative and protective coatings business unit. The logic of these acquisitions were to advance to a geographical close market and culturally similar.*
- *From 2010, two factories acquisitions were made in France for the industry business unit. The logic and strategy of these acquisitions was based in complementing the technology to CINs, as well as the synergies obtained to the markets where CIN operates and the geographical close market and culturally similar are as well other reasons.*
- *In 2014, with Artilin acquisition, CIN went forward with a project to create a distribution network of decorative products with the European francophone markets.*
- *From 2015, a internationalization process for the protective coatings business unit initiated, having as a potential market the world, CIN's commercial companies were created in South Africa, Mexico, Turkey and Poland. Partnerships were made mainly in Colombia, Argentina and Brazil.*
- *In 2016 a partnership with an Algerian company was made in order to develop the three CIN's business units, the logic was to complement the offer and the proximity.*
- *In 2017, it was acquired in Spain, one company for the industry business unit, powder manufacturer. The strategy is to make a reinforcement of our production capacity, the geographical proximity and the powder business development.”*

❖ Which are the strengths, weaknesses, opportunities and threats do you consider are more compatible with CIN and Artilin?

- *“This point would give a big dissertation. Trying to be synthetic, I would say that the strengths and opportunities are the management capacity, know-how, average long-term vision (familiar business), financial solidity, rentability, investment prudence and geographic and markets diversification. Trying not to be pretentious, strong threats and weaknesses. In Artilin (insecticide paint) the*

bigger strength and opportunity is having an unique product on the world, the biggest threat is the constant change on the environmental rules which can in a long-term make impossible to sell the product.”

7. Case Study Lecture Plan

Hereby it is shown how a teacher can plan the classes for this case study. Some duration of sessions can be arranged accordingly with the needs or any other changes can be made through classes development.

Session	Pedagogical Objectives	Support	Time
1st Session	Internationalization strategies concepts and models;	Support slides;	25 minutes
	Market entries; CIN's and Artilin 3 ^a Mate presentation;	Case study copies;	10 minutes
	Present and discuss the case	Theory applicable for the resolution	10 minutes
	Prepare students for the questions resolution		15 minutes
To do outside the session	Read and understand the case study;	CIN's case study	30 minutes
	Analyse the data given by the professor on the support slides as well as the recommended bibliography;	Slides	30 minutes

	<p>Analyse CIN's internationalization, as well as its new product Artilin 3A Mate;</p> <p>Answer the questions on the case study accordingly;</p> <p>Make a PowerPoint presentation for next session.</p>	<p>Online and professor's resources</p>	<p>5 hours</p> <p>1 hour</p> <p>40 minutes</p>
2nd Session	<p>Present questions solution and case study resolution;</p> <p>Debate the solutions</p>	<p>PowerPoint solutions</p>	<p>40 minutes (4 groups)</p> <p>20 minutes (4 groups)</p>
3rd Session	<p>Professor's solution to the case and its questions;</p> <p>Answer Students questions</p>	<p>Support Slides</p>	<p>30 minutes</p> <p>30 minutes</p>

8. Questions for students

The professor should apply the theory taught in class to the real case study of CIN's internationalization, more specifically about Artilin 3A Mate.

The suggested questions are the ones below, made according to the pedagogical objectives defined at section 2.2.:

- i. Try to highlight in your answer the Theories and Models of internationalization that best fit the Internationalization Process of the CIN, justifying.
- ii. From the different models of internationalization strategies (global, international, multinational and transnational), which is the one more accurate for CIN for each of the following characteristics?: strategic posture, main flows, assets and resources configuration, operations role/units on foreign markets, development and knowledge diffusion, interdependence between headquarters and subsidiaries?
- iii. Which are the main characteristics of Artilin's internationalization success?;
- iv. Which are the main ways of entering on international markets?;
- v. What are the main Market Entry Modes and Artilin 3A Mate Internationalization Strategy?;
- vi. Which are the main factors that explain CIN's competitiveness on international markets?;
- vii. Make a proposal to the reinforcement of CIN's international expansion, not forgetting the product Artilin 3A Mate;
- viii. What is the role of the strategic alliances on CIN's growth in a competitive environment?

The literature review of this thesis supports the questions' answers. However, to formulate the answers an obligation to research further was necessary. This additional research, that will complete the framework literature review, will be mentioned on the questions' answer and added into the bibliographic references.

9. Answer Proposal for the questions

- ii. **Try to highlight in your answer the Theories and Models of internationalization that best fit the Internationalization Process of the CIN, justifying.**

In this study of the internationalization Process of CIN, we will not mention direct or indirect export, assuming that the various Contractual Distribution Agreements (Strategic Alliances) and R&D were preceded by those modes of entry.

It is also not mentioned, as internationalization, Angola and Mozambique expansion due to being at the time a Portuguese territory with a benefit of industrial conditionals protection.

CIN centers its internationalization process in a sustainable and gradual way, on the distribution contracts agreements, commercial subsidiaries creation and the acquisitions and mergers with companies of industrial manufacture.

We consider, therefore, that the theories and models that best fit the internationalization process of CIN - what, in a moment, we will try to justify - are the Stages Theory (UPPSALA Model), the Industrial Networks Theory and the OLI Paradigm.

When mentioning the **Stages Theory**, the internationalization process is seen as a gradual process which is developed in stages. Within this theory there is a model that stands out:

- **the Uppsala Model**: this model is based on the gradual development by stages (considering the existence of five that go from non-regulatory export activities to the establishment of local production subsidiaries). These successive stages are based on the learning and the external market knowledge, as well as on the functioning of the company on the market. This model is also related with the psychic distance which can be defined as the sum of factors that prevent the information flow from and to the markets, as well as the education and culture. In this sense, this model lays on the company “flair” to initiate the

internationalization process on the more familiar and near markets in terms of psychic distance, followed by markets with greater psychic distance.

The **Industrial Network Theory**, is another theory that can be applicable for this case. It has been developed by several authors and describes industrial markets as relationship networks between companies. Sharma (1993), states that the network comprises the exchange of resources between different members (suppliers, clients, competitors, distributors and others) which allows companies access to resources and to sell products and services.

As last model, we have the **OLI Paradigm**, which seeks to explain the internationalization process with R&D and through questions such as *why* (property advantage), *where* (location advantage) and *how* (internationalization advantage). A successful investment in R&D only occurs if these advantages verify, otherwise the company should choose other market entries such as exportation or licensing.

We will now try to explain the reasons why we considered the models presented above as those that best fit the internationalization process of CIN:

- The Uppsala Model:

CIN started the internationalization process in Spain, in 1988, by opening a branch in Galiza. In 1994, initiated Bernices Valentine (BV) acquisition, in Barcelona, which continued to strengthen in 1996 and 1999 (98%). This lead CIN to be on the lead of the Iberian market. After this acquisition, new productive units were acquired: in 2001 CIN owned 100% of DISA Pinturas, S.A. which gave origin to CIN Canarias; in 2005 CIN acquired 100% on Industria de la Pintura, absorbed by CIN Canarias and in 2006, CIN acquired 100% of Proitesa – Produtos Industriais de Tenerife.

CIN began the internationalization process in foreign markets which were more familiar and close in terms of psychic distance, one of the main characteristics of Uppsala Model.

This expansion is done in a gradual manner, from a Commercial Branch to an Industrial Production Unit. It is also followed by steps based on learning and knowledge of the market and on the functioning of the company in this same market, which points to the another characteristic of the UPPSALA model.

From 2013, CIN starts the internationalization process of the Protective Coatings Business Unit, having as objective the global market, creating commercial companies in South

Africa (2014), México (2013), Turkey (2015) and Poland (2014), as well as the partnerships in Colombia, Argentina and Brazil. In this case CIN chose to bet on very different markets and more distant in terms of psychic distance.

All this internationalization process was made gradually, from exportation to commercial subsidiaries, having market knowledge increase, making CIN framed on the Stages model and Uppsala.

- The Stages Theory:

CIN has expanded for different countries in which is present, with distribution contracts agreements (strategic alliances), which encompass franchising stores, authorized resellers and exclusive resellers. It should be noted that it also uses this model for the Artilin 3 A Mate product.

This model helps to reach and diversify quickly different geographies and markets with less costs and risks. It is therefore possible to identify, in this case, the Stages Theory because it is through the development of relationships between companies that CIN sells its products and services.

- The Eclectic Paradigm – OLI - We can identify in the CIN - and related to this model – the R&D (in Spain and France), Property Advantages, Location and Internalization.
 - In Spain

CIN was founded in 1925, but only in 1994 begins in Spain, a set of mergers and acquisitions (1994,1995,1996,1997 and 2005), which later on will extend to France. It is R&D and can be considered a success investment (Spain is the second CIN market after Portugal) and fits the Eclectic Paradigm for being in accordance with the OLI advantages.

- Ownership advantage: CIN had already started its organic expansion and consolidation in Portugal, such as the creation of factories in Angola and Mozambique (1970 and 1973), the foundation with other foreign companies of Ass. Int. Nova Paint (1983) and, in 1990, joined the Coatings Research Group. In 1985, it passes the Corporation and in 1989 and 1990 it purchases the competitors Lacose and Sotinco (1989 and 1990).

CIN had already projected its brand and demonstrated to have resources, management capacity and technology that allowed him to have specific advantages that raised it to the Iberian level

- Location advantage: It is possible to refer that CIN expands to Spain by R&D, the decorative and protective segments, because it is the closest culturally (lesser psychic distance) country, but also because of the size and development of the Spanish market.
- Internationalization advantage: the subsidiary constitution, from production and commercialization in Spain, allows to internally execute (i.e., internalize) transaction operations within the country and the group, feeding, in this case, 23 own stores, 1148 authorized distributors and 101 exclusive distributors existent on that country. The objective is to reduce costs and risks, to increase control and to enable a higher return.

- R&D in France:

CIN makes acquisitions of factories in France in the Industry segment: Artilin (2002, 2003 and 2007), Celliose (2007, incorporation of Artilin) and Monopol (2015).

It is R&D oriented mainly for the Industry segment and also a successful investment. In fact, France is the CIN group's third market with complementary technologies (functional and technical paints) and serves as a basis for expansion in francophone countries.

- Property Advantages: The specific advantages have been extended since the beginning of the entry into Spain namely the brand, resources, technology, R&D and management experience and the internationalization.

- Location Advantage: This expansion through R&D in France gives way to a large market (which surpassed Angola in the sales volume of CIN), technologically developed which allows CIN to have manufacturing and complementary markets to its traditional markets. It is also worth mentioning the development of Artilin 3A Mate Product.

- Advantages of internalization: The supply of the French market and the French-speaking European countries is done by local production or by related transactions between companies of the group (with transfer prices) (5 per cent), which reduces costs and contractual conflicts, with greater control difficulties by the larger size of the group.

- ii. **From the different models of internationalization strategies (global, international, multinational and transnational), which is the one more accurate for CIN for each of the following characteristics?: strategic posture, main flows, assets and resources configuration, operations role/units on foreign markets, development and knowledge diffusion, interdependence between headquarters and subsidiaries?**

Regarding the strategic posture, the multinational strategy treats the world as a national opportunities portfolio. The international strategy considers the external units as an unfolding of the national strategy. The global strategy views the world as a single integrated strategy unit. And for last, the transnational strategy refers to a broad concept that manifests itself in the organizational capacity and the company mentality.

CIN's strategic posture is generally identified with the international strategy, since it treats the exterior units as a result of the national strategy. Thus, a customer who enters an own store or exclusive distributor in Portugal identifies the same characteristics (logo, design, commercial procedures) as in another owned store or exclusive distributor in a different country (Spain, France, Mozambique, etc.).

However, regarding the Protective Coatings segment and the Artilin 3A Mate, CIN treats the worldwide market as a unit with global distribution and can therefore be considered to be identified with the global strategy.

When we look at the Main Flows we find that the Multinational model deals with Financial Flows, the International with Flows of knowledge and information (technology and expertise based on headquarters and adapted locally). Finally, the Global model deals with Product Flows and the Transnational strategy with Financial Flows, knowledge flows, and products. It also refers to large flows of components (resources, people and information between independent units).

The knowledge and information flows between the headquarters and the owned-stores and distributors on the different countries CIN is located are very important. Their implementation

and functioning are object of a program with the purpose of transmitting knowledge, procedures and the company culture (techno-commercial support, store layout, computerized color selection, marketing development system, etc.).

There is a need to empower knowledge and information to open stores, configuring its international strategy.

It is also necessary a product flow to its functioning, identifying itself, in this case, with the Global strategy.

Portugal is the largest producer of CIN's group (double than Spain), and it is verifiable an important flow through related operations between CIN S.A., CIN Industry and its subsidiaries in Spain (BV and CIN Canarias) and France (Celliose), which together with the transferences to Nictrading (trading to Angola, Mozambique and exportations), make Portugal, direct and indirectly, the issuing center of that flow (Borda, 2013).

We can conclude that CIN adopts international and global strategies with respect to main flows.

Regarding the strategic orientation, the multinational strategy affirms that it is necessary to build flexibility to answer to the national differences through strong, inventive and entrepreneurial national operations. The international strategies, for their part, aim to exploit the knowledge and capabilities of Headquarters through diffusion and adaptation around the world while Global focus on building cost advantages through centralized and globalized operations. Finally, tthe transnational aim to develop global efficiency, learning capacity and flexibility at the same time.

CIN's strategic orientation identifies with the international strategy, because it exploits the knowledges and the headquarters capacities through diffusion and adaptation throughout the world. However, as regards the Protective Coatings segment and Artilin 3A Mate, we can find two examples of global strategy throughout cost reduction advantages, a worldwide distribution option and centralized operations (issued from Portugal and France respectively).

For the assets and resources configuration, the multinational most of the key assets and resources are decentralized. In the international strategy some competences are centralized and others decentralized and most assets are decentralized but controlled by the headquarters. On the contrary, in the global strategy the assets and resources are independent, scattered and specialized.

By acquiring industrial units in Spain and France and by creating those in Angola and Mozambique, CIN has added assets (infra-structures, technologies, customer and worker portfolios, etc.) which consume resources and generate capital gains acting in a decentralized way but coordinated and monitored by the headquarters. There is also a decentralization of knowledge, information and competences decentralization to commercial subsidiaries and distributors.

When mentioning R&D, and although there are still 3 existing centers (Portugal, Spain and France), the Portuguese is the largest (with half the total number of employees) and complements its research with partnerships with universities.

We can also conclude that most of the company competences are on the headquarters and the others are decentralized and that the configuration of assets and resources constitutes an international strategy.

In what concerns the operations configuration / units on foreign markets, the multinational strategy selects and exploits local activities, whereas the company treats the subsidiaries as national companies. The international strategy adapts and takes advantage of the mother company competences, where the headquarters treats the subsidiaries as extensions of the domestic operations. The global strategy says that the strategy implemented is the same as the mother company, where the headquarters treat the subsidiaries as distribution channels of a global market. In the transnational strategy, we see differentiated contributions in the national units for integrated global operations. In general, subsidiaries and strategic alliances (distributor partners) take advantage of the mother company's competencies.

In a general way, CIN's subsidiaries and strategic alliances take advantage of the mother company. Specially with regards to commercialization subsidiaries (Protective Coatings), the headquarters treat the subsidiaries as global distribution channels, being identified as a global strategy. The same happens to Artilin 3A Mate.

For the development and knowledge diffusion, the multinational strategy says that the developed knowledge is maintained in each unit; the international strategy mentions that the developed knowledge on the mother company is transferred for the foreign subsidiaries; the global strategy mentions that the developed knowledge is maintained on the mother company and for the multinational strategy the knowledge is developed together and shared worldwide.

In the case of CIN this is an International strategy in that knowledge is mainly developed at the mother company in Portugal, Spain and France, and then shared for the other subsidiaries and partners in other countries where CIN is present.

For the interdependence between the headquarters and the subsidiaries, while in the Multinational strategy this interdependence is low and in the International and Global strategies it is moderate, in the Transnational model it is high.

CIN adopts an International Strategy since interdependence only occurs in the main markets and it is moderate although the Spanish market stands out as the largest foreign market, but much lower than Portuguese (50 percent lower).

iii. Which are the main characteristics of Artilin's internationalization success?

Artilin 3A Mate product originated in Artilin's development, in the 1950s, of a technology that was based on surface migration of active particles incorporated into the paint and patented by Artilin at that time. It is an ink that acts exclusively by contact, effective against insects. In addition, it ensures the protection of walls and ceilings against the development of fungi which are the food of mites. Applied to interior walls and ceilings and being long-lasting and non-toxic, it thus responds to a need for public health (combating diseases transmitted by insects).

CIN has always been interested in functional paints, therefore acquired Artilin, afterwards merged with Celliose, becoming then a brand.

Artilin 3 Mate takes advantage of the group's sales and distribution model in the countries in which CIN is present and in other countries uses exclusive distributors, preferably local paint manufacturers. It is present in 11 countries, 4 continents and 16 partnerships.

Until 2010, this product was only manufactured in France and marketed in Portugal and France, from this year forward, as on the European Union rules have changed, it started to be manufactured and commercialized in France.

From June 2016 onwards, Artilin was authorized to be manufactured in France, Portugal and Spain, as well as commercialized all over the world, starting the realization of an exclusive global distribution implementation of a global distribution strategy.

Artilin 3A Mate takes advantage of the group's sales and distribution model in the countries where CIN is present, and uses in other countries exclusive distributors, preferably local paint manufacturers. This product is present in 11 countries, 4 continents and has 16 partnerships.

It is a unique product without competitors on the European Union, and the few competition that appears at international level, mainly in India and Brazil, must be faced with precaution by the lack of fundamental elements such as efficacy and non-toxicity tests, technical and security files, which lead these other products not to be considered as insecticidal paints.

Although with just one year in the beginning of its global expansion it can be considered by its characteristics, by almost without competition and by the speed of its expansion like a case of success.

iv. Which are the main ways of entering on international markets?

There are different types of market entries for companies who want to go international. On CIN's case, it has been used more than one entry mode for the firm to go international.

On early stages, CIN constructed factories in Angola and Mozambique (Portuguese territory at the time), has made with a Cabo Verde factory a manufacturing licensing (without CIN's capital), having their owned-factories and licenses to increase the knowledge and technology.

After these stages, CIN has acquired firms and factories in Spain and France to complement CIN's technology and to advance to closest markets with similar cultures.

CIN has also created commercial companies in South Africa, Mexico, Turkey, and Poland, as well as partnerships in Colombia, Argentina, Brazil and Algeria.

In conclusion CIN uses mergers and acquisitions in order to have a quicker entry on the markets, as well as its production franchising, subsidiaries and strategic alliances. This market entries can make a company go international with different products, making the company bigger and well known all over the world.

v. What are the main Market Entry Modes and Artilin 3A Mate Internationalization Strategy?

The product Artilin 3A Mate uses the same entry modes of the group (direct sales by subsidiaries, direct exportation and distribution contracts agreements) in the countries where CIN is present in, and it is widening within a global strategy to more countries through preference distribution contracts with local paints manufacturers.

CIN is, on a wide mode, an international company that treats external unit as branches of the national strategy.

However, some aspects are identified with the Global Strategy, namely the following aspects-

- Strategic Position: with its global distribution strategy, CIN sees the world as a unit;
- Strategic Orientation: For advantages of cost reduction and by choice of the distribution process, CIN carries out centralized operations of this product from France;
- Operations configuration on foreign markets: CIN uses Artilin, a subsidiary brand, as a distribution channel for other subsidiaries and exclusive distributors worldwide.

vi. Which are the main factors that explain CIN's competitiveness on international markets?

CIN throughout its existence, has gone through several phases of growth that have origin in several factors highlighted below which translate its competitiveness on national and international markets.

If we look at CIN as **an agent of change and organic growth** we can verify the following: the mother company, CIN – *Corporação Industrial do Norte, S.A.*, was founded as Lda. In 1926 by 7 initial associates. In 1950 was admitted to lead the investigation center, the engineer António Serrenho, who gradually introduced with success his vision of the world and his technical and management practice. Throughout the years, he acquired the shares from other associated and is now the leader of the company.

The company then took the lead in industrial finishes (1958) and in the anti-corrosive segment (1965). The new factory of Maia, the largest and most modern factory in Portugal, is inaugurated.

Factory units are created in Angola (1970) and Mozambique (1973) taking advantage of the industrial conditionality and, from 1970, the company showed a strong growth in the decorative segment.

If we take into account the **International Associativism of CIN** we can observe that in 1988, CIN and other companies founded the Nova Paint Club Association and integrated, in 1990, the Coatings Research Group. In addition to its products, the Group complements its offer

by establishing links at an international level, translated into manufacturing, marketing and other licenses of a different nature.

CIN is a **family business**. It was constituted as Sociedade Anónima (1985), dispersing the capital and it was admitted on the Bolsa de Valores (1988), leaving it in 2007. Nowadays it is a familiar company, constituted by 4 administrators, being only 1 independent.

CIN made **acquisitions and mergers in Portugal**. With the acquisitions of the factories Lacose (1989) and Sotinco (1990), merged into CIN S.A. and later giving rise to a commercial company, other acquisitions of competing companies followed.

In 1996, CIN acquired Cross Pinturas, in 2000 the NITIN – Empresa de Tintas Profissionais, S.A., and also Ibercoat – Tintas em Pó S.A. These acquisitions gave place to CIN Industry.

In 2007, CIN acquired the Robbialac's Finishes Division and Martolar, creating with BBB Douro painting solutions to the nautical markets.

CIN also made acquisitions and mergers in Spain and France. In 1988, CIN enters Spain with a commercial delegation and in 1994 acquires Barnices Valentine (oriented for decorative paints (1994, 1996 and 1999). This lead CIN to the leadership of the Iberian market.

Subsequently, CIN created DISA – Corporação Petrolífera, being its denomination changed to CIN Canarias, to increase the decorative and industrial business units.

Industria de las Pinturas was acquired from the brand Palmcolor, which manufactured paints, later in 2013 absorbed by CIN Canarias.

Proitesa – Produtos Industriais de Tenerife, which manufactured products of its brand in its own stores was also acquired.

Soritec Pinturas, a company dedicated to the production and marketing of paints for the industry, is acquired from the French group Monopol in 2015.

From 2002 to 2007, Artilin was acquired, being the company specialized in functional paints, developing the product Artilin 3A Mate. Nowadays it is a brand of Celliose, a CIN's subsidiary.

In 2007, Celliose, an enterprise producer of paints for the industry with two factories located in France, was totally acquired.

In 2015, CIN also acquired Monopol, a manufacturer specialized in paints and technical varnishes, with two factories in France and one in Spain.

Innovation is also a CIN's important competition factor to consider. The innovation and investigation assumed a big importance after 1950, when Eng. António Serrenho finished his internship and took off the management position of the investigation center.

Acquiring the factories in Spain and France, CIN acquired laboratories and two investigation centers, which contribute to CIN's technological competitiveness.

In 2010, the new Maia Research Center was inaugurated. It is the biggest and most important of CIN with a global area of about 3300 square meters where about 50 employees work.

Research is complemented by partnerships and collaboration with universities. Innovation is not only about product development, but also about processes, sales concepts and customer service improvement. In 1990 the automatic tuning system of 5000 colors Clormix was implemented, revolutionizing the market. Later a new generation was launched, the Clormix 3 G developed exclusively for the group CIN. In 1998 the Concept of Points of Sale (Decocenter - Decoration Centers) was implemented in Spain in owned stores and distributors.

When we look at Strategic Alliances - Contractual Distribution Agreements we see that this Market Entry Mode is widely used both in countries where CIN has subsidiaries (eg Spain) and in countries and geographies in which it intends to expand, contributing decisively to the diversification of these markets faster and less costly. The network amounts to more than 200 points.

From all these factors that contributed to the growth and competitiveness of CIN, we can highlight the leading role of Eng. António Serrenho, the innovation, the acquisitions and distribution agreements which made the company what it is today: a familiar company with a medium-long term vision, with management capacity, knowledge of the business, financial strength, profitability, making 220 million euros in 2015, with operations in 12 countries and brand presence in 40 countries, an Iberian leader and the 15th biggest European manufacturer.

vii. Make a proposal to the reinforcement of CIN's international expansion, not forgetting the product Artilin 3A Mate.

CIN has based its national and international expansion fundamentally on acquisitions. Analyzing the 2011 business volume (Borda, 2013), in the countries where these acquisitions were made or in which the creation of manufacturing plants took place - France (22281), Angola (20640) and Mozambique (4590) and comparing the exports total volume for other countries, we can verify that these are inferior to the ones of Spain and France when considered individually (Borda, 2013)

On the other hand, CIN has postponed a structuring, which should have been done already to increase these operations profitability. From 2013, CIN initiated in Mexico an internationalization process, with the aim of distributing the Protective Coatings segment worldwide, pursuing with South Africa (2014), Poland (2014) and Turkey (2015), still in consolidation.

Maia's factory (liquid paints) is manufacturing below its installed capacity, not working even in two full shifts, although the production in Portugal (2 factories) is double than Spain.

The three segments, Decorative (50), Industry (40) and Protective (10), have different weights in the sales volume and in the number of countries in which they are present (respectively 15, 21 and 19), the expansion of each segment being also differentiated.

Artilin 3A Mate's global expansion and distribution strategy through contractual arrangements, preferably local paint manufacturers, is just over a year old and needs to be further strengthened.

Although all these remarks are implicitly or explicitly present on CIN's business strategy, as short- and medium-term objectives, the following measures that constitute our proposal should be emphasized in order to accelerate growth:

:

- ✓ Consolidate the internationalization process for the protective coatings business units carried out through commercial subsidiaries;
- ✓ Increase the number of partnerships and the geographical diversification of the product distribution Artilin 3A Mate;

- ✓ Reinforce the exportations growth, through distribution contracts for a level of turnover identical to that of France or what has been Angola;
- ✓ Take advantage of the manufacture and distribution capacity installed to complement the offer, by establishing international connections and agreements on manufacturing and commercialization licenses;
- ✓ Structure and make acquisitions more profitable, which should include the reduction and concentration of factories and other normal measures on identical operations;
- ✓ Make new acquisitions in Europe and Africa, in mature and growing markets, focusing on its size and location as a center of gravity for expansion to neighboring countries;
- ✓ Continue strengthening the portfolio of solutions for the industry and protective business in detriment of simple sales of the products;
- ✓ Reinforce the cooperation and agreements with universities and scientific institutions, in other countries where CIN has investigation centers (Spain, France and Portugal).

viii. **What is the role of the strategic alliances to CIN's growth in a competitive environment?**

The strategic alliances are a market entry mode, through cooperation between two or more companies that combine efforts to reach a strategic goal. These strategies do not include joint ventures or licensing.

The strategic alliances have been object of a great diversity of expressions to designate them namely cooperation relationships, agreements and networks. Their objectives can also vary from sales increment and market shares, to increased profits, among others.

The cooperation can be of commercial, technical manufacture and financial scope, maintaining, however, the companies independent. The commercial scope can cover, among others, the representation and distribution agreements, franchisees, Purchases, Training, Technical Assistance and Customer Support.

The scope and objectives of this cooperation are evident on CIN's announcement on internet, for the exclusive distributors selection, for francophone European countries, scopes

and objectives that we have translated below (in *Devenir Partenaire CIN – www.artilin.fr/fr/project-cin-artilin*):

“We will bring: commercial technical support, a full range of products, warehouse installation assistance with simulations made in 3D by our architects, show room zone installation, CIN’s and Artilin’s machines to select all market colors. We can still help: a possible investment help, helping to develop a communication service by our marketing department, a techno-commercial help on the ground, a complete training on the painting field. Our objective: to work on a real partnership with our distributors, so that their success is ours as well.”

This activities, resources and risks sharing has allowed CIN to boost its growth and to diversify more rapidly the geographies in which it is present. The reseller points by the distributors rise over 200.

10. Case Study Spreadsheets

Applicable theories and models to CIN’s Internationalization	
Uppsala Model	<ul style="list-style-type: none"> ✓ Gradual process which is developed by stages; ✓ 1988 CIN entered the Spanish market; ✓ 1994 CIN acquired in Barcelona, Bernices Valentine, reinforcing it in 1996 and 1999; ✓ 2001 - 100% of DISA Pinturas was acquired, giving origin to CIN Canarias; ✓ 2006 – 100% of Proitesa – Produtos Industriais de Tenerife was acquired. ✓ Familiar and close markets are a characteristic of the internationalization process from the Uppsala Model;

	<ul style="list-style-type: none"> ✓ Commercial branches were created in South Africa, Mexico, Poland, Turkey in order to internationalize the protective coatings business unit; ✓ Distribution contracts agreements were made do distribute Artilin 3A Mate.
OLI Paradigm	<ul style="list-style-type: none"> ✓ Explains the internationalization process through R&D and through questions such as, <i>why</i> (property advantage), <i>where</i> (location advantage) and <i>how</i> (internationalization advantage); ✓ <u>Ownership</u>: factories in Angola and Mozambique, Nova Paint Club founder, joined Coatings Research Group, acquired Lactose and Sotinco, incorporation of R&D with Artilin and Celliose; ✓ <u>Location</u>: expansion by R&D to Spain for the decorative and protective segments; technology development to complement the manufacture and markets; ✓ <u>Internationalization</u>: subsidiaries constitution to internalize operations and reduce costs; local production between companies of the group.
Main Characteristics of Artilin’s internationalization success	
<ul style="list-style-type: none"> ✓ Developed in the 1950’s, from a technology based on surface migration of active particles incorporate into paint; 	

<ul style="list-style-type: none"> ✓ It is the only insecticidal paint authorized to be manufactures and distributed worldwide; ✓ It doesn't have competitors on the European Union and has few worldwide, mainly in India and Brazil; ✓ Other products named as insecticidal paints do not have technical and security files.
Main ways of entering on International Markets
<ul style="list-style-type: none"> ✓ Acquisitions, ✓ Subsidiaries, ✓ Strategic Alliances, ✓ Franchising, ✓ Manufacturing Licensing.
Main market entry modes and Artilin 3A Mate internationalization Strategy
<ul style="list-style-type: none"> ✓ Acquisitions, ✓ Direct sales by Subsidiaries, ✓ Strategic Alliances, ✓ Distribution contract agreements, ✓ Direct Exportation.
Main Factors that explain CIN's Competitivy on international markets
<ul style="list-style-type: none"> ✓ Agent of change and organic growth; ✓ Leader in industrial finishes (1958); ✓ Leader in anti-corrosive segment (1965); ✓ Eng. António Serrenho leadership; ✓ Factories creation in Angola and Mozambique; ✓ Nova Paint Association founder and joint in Coatings Research Group; ✓ Family business; ✓ Lactose and Sotinco acquisitions (previous competitors); ✓ Several acquisitions throughout Spain and France; ✓ Laboratories and investigation centers acquisition to develop CIN's innovation; ✓ Maia's research center creation; ✓ Research complemented by partnerships and collaboration with universities;

<ul style="list-style-type: none"> ✓ Company with medium-long term vision, management capacity, knowledge of business and financial strength.
<p>Proposal of reinforcement for CIN's international expansion</p>
<ul style="list-style-type: none"> ✓ Consolidate the internationalization process for the protective coatings business units carried out through commercial subsidiaries; ✓ Increase the number of partnerships and the geographical diversification of the product distribution Artilin 3A Mate; ✓ Reinforce the exportations growth, through distribution contracts for a level of turnover identical to that of France or what has been Angola; ✓ Take advantage of the manufacture and distribution capacity installed to complement the offer, by establishing international connections and agreements on manufacturing and commercialization licenses; ✓ Structure and make acquisitions more profitable, which should include the reduction and concentration of factories and other normal measures on identical operations; ✓ Make new acquisitions in Europe and Africa, in mature and growing markets, focusing on its size and location as a center of gravity for expansion to neighboring countries; ✓ Continue strengthening the portfolio of solutions for the industry and protective business in detriment of simple sales of the products; ✓ Reinforce the cooperation and agreements with universities and scientific institutions, in other countries where CIN has investigation centers (Spain, France and Portugal).
<p>Role of the Strategic Alliances</p>
<ul style="list-style-type: none"> ✓ Cooperation between two or more companies that combine efforts to reach a strategic goal; ✓ The objectives can vary from sales increment and market shares, to increase profits, among others; ✓ Cooperation can be: commercial, manufacture, financial scope; ✓ The commercial scope can cover distribution agreements, franchisees, purchases, etc.; ✓ The activities and resources shared can boost CIN into different markets;

Conclusion

This thesis had as final purpose to analyze the internationalization process of a product (having CIN three segments and several products) produced and commercialized by CIN – Artilin 3A Mate. Although it is a product with very specific characteristics answering that answers to public health needs and with a worldwide expansion project, in this thesis its internationalization process analysis had to be approached within the group, and moreover integrated on a case study with a pedagogical note.

Following the first point of view, we could approach the Internationalization theme giving answers to primordial questions that allowed to understand WHY a decision or several decisions were taken, *WHEN*, *WHERE* and *HOW* those decisions were implemented, and which were the results (section 2.3. - *Literature Review* and 9 - *Proposal of answers the Questions*).

On the other hand, it was necessary to frame the reality of the internationalization process of the company and of the product within the internationalization theories, and to identify the linearity or connection between them. It was what we intend to do in the sections 1 - *The Case Cin: Artilin 3A Mate*, 2.3 - *Literature Review* and 9 – *Answer proposal for questions*.

Secondly, we approached CIN internationalization process has a case study for students learning. The case study as a method of teaching has been considered as a very effective learning method to develop and promote management and leadership capacities in students. They are often chosen to act as characters of the case, and are asked to present proposals and comments on a real environment. This usually happens after presenting a theoretical and practical content, previously properly planned. This is the method which was chosen as the model of this thesis (cf. Option 3- Case Study with Pedagogical Note). In addition to the elements mentioned in the internationalization process approach in this thesis, including questions and answers, the pedagogical part is highlighted in 2 - *Pedagogical Note* and 3 – *Methodology*.

Next, we would like to highlight some management conclusions which, in general, can be drawn from this case study.

The first relates with the importance of leadership as an agent of change in the development and growth of a company.

The second with the international expansion that, at the beginning, must be done gradually on stages according to the psychic distance and to the Stages Model.

We could also verify that the entry mode that allows faster and more efficient expansion (among other advantages as adding customer portfolios and market knowledge) is that of Acquisitions and Mergers. However, financial and management capacity is not always available to small business firms.

Among Entry Modes, in an increasingly globalized and interdependent world, Contractual Agreements are gaining more and more importance whereas we highlight the strategic alliances and the industrial network internationalization.

Another relevant aspect is the importance of R&D centers in the development of companies and their connections or partnerships with universities, institutions and international business associations.

As we could also see the fact of being a family business does not prevent a significant size and competitiveness in the international ranking.

Companies must constantly improve and develop new products to maintain or increase their competitiveness. This effort should be extended to processes, technologies and sales customer support.

Nowadays, products are increasingly being integrated in the sale of solutions. Furthermore, companies' environmental standards should be considered in the development, production and marketing of any product, the non-compliance of which may delay or even lead to the failure of a project.

The international relocation of production is another remarkable fact: for example, the active ingredient of Artilin 3 Mate is produced by Bayer in India.

By taking into account this case study, companies that want to internationalize can experience that even though they are already in quite some markets, there is always time to innovate and create newer products that will allow the company to enter different markets.

Bibliography

Books

Bartlett, C. A. & Ghosal, S. 2002. **Managing Across Borders: the Transnational Solution**. Harvard: Harvard Business School Press.

Bartlett, C. (2008). *Transnational Management*. New York: McGraw Hill.

Bell, B. a. (2007). *Business Research Methods 2nd Edition*. Oxford: Oxford University Press.

Buckley, P. a. (1976). *The Future of the Multinational Enterprise*. New York: Homes and Meier.

Buckley, P. J. & Ghauri, P. N. 1999. **The Internationalization of the Firm: a Reader**. UK: Cengage Learning.

Cohen. (2007). *Methods in Education - 6th Edition*. Routledge.

Fernández, Z. a. (2005). *Internationalization Strategy of Small and Medium-Sized Family Businesses: Some Influential Factors*. Family Business Review.

Hymer, S. H. (1976). *The International Operations of National Firms: A Study of Direct Foreign Investment*. Cambridge: MIT Press.

Johanson, J. a.-G. (1988). *Internationalisation in Industrial Systems – A Network Approach*. London: Croom Helm.

Lasserre, P. (2002). *Global Strategic Management - Third Edition*. New York: Palgrave Macmillan.

Lemaire, J. P. (1997). *Estratégias de Internacionalização*. Dunot: Intituto Piaget.

Ricardo, D. 1827. **On Principles of Political Economy and Taxation**. 2001 edition. Canada: Batoche Books, Kitchener.

Tayeb, M. (2000). *International Business - Theories, Policies and Practices*. Essex: Pearson Education Limited.

Yin, R. (1988). *Introducing the World of Education: A Case Study Reader*. United States of America: Sage Publications.

Book Chapters

McQuillan, D. & Scott, P. S. 2015. Models of Internationalization: a business model approach to professional service firm internationalization. In *Business Models and Modelling, Vol. 33: Advances in Strategic Management*, C. Baden Fuller & V. Mangematin: Emerald Press,

Chapter 11. URL: https://www.cass.city.ac.uk/__data/assets/pdf_file/0014/301712/McQuillan-Scott-FINAL-for-authors-with-citation.pdf . Access: February 2017.

Peng, Mike W. 2014. Chapter 3: Strategizing around the Globe. In *Global Business, 3rd Edition*, South Western CENGAGE Learning.

Periodicals

Bonney, K. (May 16th 2015). Case Study Teaching Method Improves Student Performance and Perceptions of Learning Gains. *Journal of Microbiology and Biology Education*, 21-28.

Danciu, V. 2012. Models for the Internationalization of the Business: a diversity-based approach. *Management and Marketing. Challenges for the Knowledge Society*, Vol. 7, N° 1, 29-42. URL: <http://www.managementmarketing.ro/pdf/articole/253.pdf>. Access: February 2017.

Dunning, John H. 2000. The eclectic paradigm as an envelope for economic and business theories of MNE activity. *International Business Review* 9 (2000) 163–190. URL: https://www.google.pt/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0ahUKEwiE5_nZ6-jVAhWCDxoKHds1CrSQFggoMAA&url=http%3A%2F%2Fwww.exeter.ac.uk%2Fmedia%2FUniversityofexeter%2Finternationalexeter%2Fdocuments%2Ffiss%2FDunning_IBR_2000.pdf&usq=AFQjCNGWrfJFxeQ0pqwGiGREhEO4RKI1Dg

Dunning, J. H. 1980. "Towards An Eclectic Theory of International Production: Some Empirical Tests", *Journal of International Business Studies*, 11(1), pp.931

Ghemawat, P. 2001. "Distant still matters : The Hard Reality of Global Expansion" *Harvard Business Review*

Harris S. & Wheeler C. 2005 "Entrepreneurs Relationships for Internalizations: Functions, Origins And Strategies" *International Business Review* Vol.14: pp. 187-207

Johanson, J. & Vahlne, J.E. 2009 " The UPPSALA Internationalization Process Model Revisited : From Liability of Foreignness to Liability Outsidership". *Journal of International Business Studies*, vol, 40, 9 pp. 1411-1431.

Johanson, J. & Mattsson L6 1988 " Internationalization in industrial Systems Network" Approach" in Hood, N C

Karunamoorthi, K. (February 1st 2012). Insecticide Resistance in Insect Vectors of Disease with Special Reference to Mosquitoes: A Potential Threat to Global Public Health. *Health Scope*, pp. 7-15.

Knigt, GA & Cavusgil S, T 2004 "Innovation Organizational Capabilities, And The Born Global Firm *Journal of International Business Studies* vol.35, pp.124-14

Laurens, P. (s.d.). Internationalization of European MNCs R&D: "deglobalization" and evolution of the locational strategies. *Management International*, 18-33.

Petersen, K. 2003. The Eclectic Paradigm: a new deal? *Journal of International Business and Economy* (revision of article for publication). URL: <http://www.i-jibe.org/achive/2003fall/2-Pedersen.pdf>. Access: February 2017.

Schioler, K. L. (21st April 2016). Insecticidal Paints: A Realistic Approach to Vector Control? *PLOS - Neglected Tropical Diseases*.

Tsai, H.-T. (2010). Internationalization strategies for emerging market firms. *California Management Review Vol. 53 - No. 1*, 114-135.

Vahl J. E(EDS).Strategies in Global Competitions.New York.Croom Hlm, pp. 303-332

Vernon, R. (1966). International Investment and International Trade in The Product Cycle. *Quarterly Journal of Economics*, 190-207.

Welch, S. & Luostarinen, R. 1988. Internationalization: evolution of a concept. *Journal of General Management*, Vol. 14(2), 34 – 55. URL: https://www.researchgate.net/publication/285844787_Internationalization_Evolution_of_a_concept.Access: February 2017.

Electronic Documents

Associação Industrial do Minho (s/d). Internacionalização. Cadernos Técnicos, Al Minho. URL: <http://www.aiminho.pt/imgAll/file/Manuais/Internacionalizacao.pdf>. Access: February 2017.

Brito, M. C. (s/d). Estratégias de Internacionalização e Cooperação Empresarial. Working Paper nº 38, Faculdade de Economia da Universidade do Porto. URL: http://www.fep.up.pt/docentes/cbrito/Estrat_Intern_e_Coop.pdf. Access: February 2017.

CIN. (December 13th 2016). *CIN Coatings*. Obtained from CIN Coatings:

<http://www.cincoatings.com/portalc/portal/user/anon/page/scidlab.psml?categoryOID=75818080809080GC&contentid=DA81808380CO&nl=pt>

Deloitte & Associados. (19 de 04 de 2016). *Relatório & Contas Consolidado 2015*. Obtido de CIN Coatings: <http://www.cincoatings.com/portalc/pdf/RCCIN2015PT.pdf>

Dulupçu, M. I. & Demirel, I. O. 2005. Globalization and Internationalization (Module 3). Socrates Comenius Project, European Commission, 37 pp. No URL. Download: February 2017.

eInforma. (2017). *Relatório Estrutural*. Lisboa.

Etemad, H. & Ala-Mutka, J. Growth and Internationalization Strategies of Rapid Growing and Internationalizing Enterprises from Canada and Finland. ASAC. No URL. Download February 2017.

Jornal de Negócios, *CIN compra 33,6% da Artilin por 495 mil euros*. URL: http://www.jornaldenegocios.pt/empresas/detalhe/cin_compra_336_da_artilin_por_495_mil_euros. Access: March 2017

Kamawi, M. 2011. Concise Dictionary of Management Terms. United Nations Institute for Training and Research. URL: <https://www.unitar.org/hiroshima/sites/unitar.org/hiroshima/files/Management%20Glossary%20-%20Musa%20Kamawi.pdf>. Access: February 2017.

Porter, M. E. 1990. The Competitive Advantage of Nations. *Harvard Business Review*. March-April, URL: <https://hbr.org/1990/03/the-competitive-advantage-of-nations>. Access: February 2017.

Tallmann, S. & Fladmoe-Lindquist, K. (s/d). Internationalization, Globalization, and Capability-Based Strategy. URL: <http://faculty.poly.edu/~brao/tallman.pdf>. Access: February 2017.

Tintas SOTINCO Notícias (2016. Tintas Sotincó lança Artilin 3 a Mate – Tinta Anti- Insectos, anti-àcaros) URL: <http://www.sotincop.pt/noticias/sotincop-lanca-a-nova-3a-mate-2016-tinta-anti-insectos-anti-acaros>. Access: March 2017

Veja Portugal (28 de Novembro de 2013). Tinta da CIN ajuda a combater malária nas Filipinas. URL: <http://www.vejaportugal.pt/tintadacinaajudaacombartermalariasnasfilipinas/1/6>. Access: March 2017

Wikipedia Entry : “Eclectic Paradigm”

World Economy FDI: the OLI Framework. URL: <http://users.ox.ac.uk/~econ0211/papers/pdf/fdi-princeton.pdf>. Access: February 2017.

WHO. (February 2016). *World Health Organization*. Obtido de World Health Organization: <http://www.who.int/mediacentre/factsheets/fs387/en/>

Unpublished Works - Thesis online

Bettencourt, Maria Margarida Rodrigues Gonçalves. 2009. *A Internacionalização do Compal Essencial para o Mercado Polaco*. Caso Pedagógico, Mestrado em Gestão, ISCTE Business School, Lisboa. URL: <https://repositorio.iscte-iul.pt/bitstream/10071/1714/1/Caso%20Compal%20Essencial.pdf>. Access: February 2017.

Borda, T. T. (January de 2013). Preços de Transferência: O caso prático da CIN Portugal. Porto.

Botelho, José Manuel Macedo. 2015. *Internacionalização de Empresas. Contributos para a construção de um modelo de suporte à análise e implementação de estratégias de internacionalização*. Tese apresentada à Universidade de Évora para a obtenção de Grau de Doutor em Gestão. URL: https://dspace.uevora.pt/rdpc/bitstream/10174/17794/1/tese_vfinal.pdf. Access: February 2017.

Carreira, Maria Dulce Santos Tomé Libério. 2015. *Internacionalização das empresas portuguesas: o caso do sector da Pré-fabricação do Betão*. Tese de Mestrado em Ciências Empresariais, Instituto Politécnico de Setúbal, Escola Superior de Ciências Empresariais. URL: <https://comum.rcaap.pt/bitstream/10400.26/10669/1/Tese%20Final.pdf>. Access: February 2017.

Carvalho, Pedro Miguel Fonseca Moreira de. 2004. *O Marketing Relacional e o Estudo do Caso Chip 7*. Dissertação de Mestrado, Universidade Portucalense Infante D. Henrique. URL: <http://www.fep.up.pt/docentes/cbrito/Tese%20Pedro%20Carvalho.pdf>. Access: February 2017.

Dias, Manuela Cristina Costa Ferreira. 2007. *A Internacionalização e os Factores de Competitividade: o caso Adira*. Dissertação de Mestrado em Ciências Empresariais, Especialização em Marketing, Universidade do Porto, Faculdade de Economia. URL: <http://www.fep.up.pt/docentes/cbrito/Tese%20Manuela%20Dias.pdf>. Access: February 2017.

Ferreira, Nuno Tiago Pimenta. 2014. *The Latin American International Management Strategy: The Food Industry Case*. Master in International Management, ISCTE, Business School. URL: http://www.academia.edu/8723558/The_Latin_American_International_Management_Strategy_The_Food_Industry_Case. Access: February 2017.

Masum, M. I. & Fernandez, A. 1964. *Internationalization Process of Smes: Strategies and Methods*. Master Thesis, Malardalen University. URL: <http://www.diva-portal.org/smash/get/diva2:121500/FULLTEXT01.pdf>. Access: February 2017.

Matos, Marina da Conceição da Silva. 2008. *Estudo da Incorporação de Estereatos em Tintas de forma a Aumentar a sua Impermeabilidade à Água*. Dissertação para a obtenção de grau de Mestre em Engenharia Química, Instituto Politécnico de Bragança. URL: https://bibliotecadigital.ipb.pt/bitstream/10198/1984/1/Marina_Matos_MEQ_2008.pdf. Access: February 2017.

Mendes, Sara Isabel Martins. 2015. *A Internacionalização das Empresas Portuguesas: Estudo de Caso – Parfois – Barata & Ramilo S. A*. Trabalho Final na modalidade de Relatório de Estágio para obtenção do grau de Mestre em Gestão. Universidade Católica Portuguesa, Faculdade de Economia e Gestão. URL: http://repositorio.ucp.pt/bitstream/10400.14/19446/1/TFM%20Sara%20Mendes_355413021.pdf. Access: February 2017.

Miranda, Cláudia Maria da Cruz. 2007. *Qualidade do Serviço e Satisfação do Cliente – o caso Vodafone*. Dissertação de Mestrado em Marketing, Universidade Católica Portuguesa, Centro Regional do Porto, Faculdade de Economia e Gestão. URL: <http://www.fep.up.pt/docentes/cbrito/Tese%20Claudia%20Miranda.pdf>. Access: February 2017.

Pereira Vicente, Sara Raquel. 2013. *Proposta de Implementação do Balanced Scorecard no Grupo CIN*. Estágio. Mestrado em Gestão, Universidade Católica Portuguesa, Centro Regional do Porto, Faculdade de Economia e Gestão. URL: <https://www.google.pt/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0ahUKEwj3Nvw6ejVAhWMhRoKHQ1dCJAQFggoMAA&url=http%3A%2F%2Fbiblioteca.catalogo.por>

to.ucp.pt%2Fdocbweb%2Fdownload.asp%3Ffile%3Dmultimedia%2Fassocia%2Fpdf%2Ffm-spv.pdf&usg=AFQjCNHJBOchoh8yqLKh6MH2jgmQ2SBQVw. Access: February 2017

Sousa, Ana Paula Mónica de. 2013. *Caso Pedagógico – Internacionalização da marca Fly London*. Tese de Mestrado em Gestão, ISCTE, Business School. URL: https://repositorio.iscte-iul.pt/bitstream/10071/8251/1/Tese%20Mestrado%20Gest%C3%A3o_Caso%20Pedag%C3%B3gico%20-%20Internacionaliza%C3%A7%C3%A3o%20da%20marca%20Fly%20London.pdf. Access: February 2017.

Websites

APT - Associação Portuguesa de Tintas. (July 12th 2017). Obtido de APT - Associação Portuguesa de Tintas: <http://www.ap tintas.pt/breveHistoriaTintas.aspx>

CIN Coatings Portal. URL: http://www.cincoatings.com/portalc/portal/user/anon/page/sconde_estamos.psm1?categoryOID=11898080808580GC&contentid=E788808780CO&nl=en. Access: 9th August 2017

Tintas e Pinturas. URL: www.tintasepintura.pt/tintas-do-mundo-cin/ Access: June 2017