

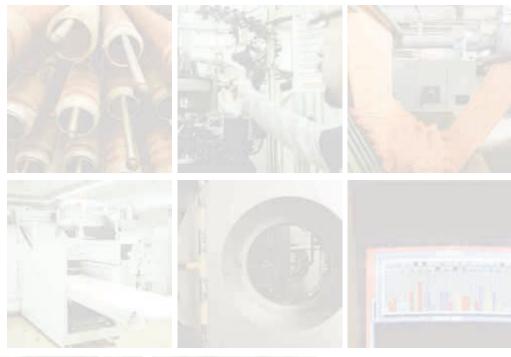
IMPETUS wearable strategy

Competitive advantage in the Portuguese fashion industry

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Dissertation written under the supervision of Nuno Cardeal

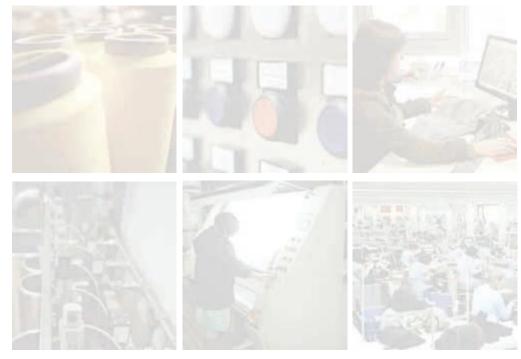
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IMPETUS



ABSTRACT

Title: IMPETUS wearable strategy – Competitive Advantage in the Portuguese fashion industry

Author: Ana Rita Abreu Fernandes

What is in the origin of the competitive advantage that IMPETUS had been crafting over the past 43 years? The Resource-Based Theory defended that a company can obtain its competitive advantage through the internal organization of its critical resources, though failed to deem the changing environment. In a complementary perspective, defining Dynamic Capabilities as the firm capability to internally and externally combine competencies to meet changing environments came to introduce the external dimension to the organization.

IMPETUS, apart from being a Portuguese Group in the textile industry, is also the name of a brand specialist in male underwear. Reaching a total turnover of nearly €41,6 million and relying 95% on international markets, IMPETUS has been standing out in the Portuguese fashion industry. Innovation etched in the genetic code with a twist of diversification in its business areas seem to speak for the differentiation strategy settled during the past years.

This dissertation purposes a journey into the company history. Aside from acknowledging which are the differentiation factors that this underwear specialist was capable of setting out, one must analyze its performance to identify what are the resources and capabilities that rely on, indeed, its competitive advantage. In this odyssey, one can deeper understand the elements inherent to this established wearable strategy and its dynamics in the textile changing environment.

Keywords: Competitive Advantage; Resource-Based Theory; Dynamic Capabilities; Differentiation Strategy

RESUMO

Título: IMPETUS wearable strategy – Competitive Advantage in the Portuguese fashion industry

Autor: Ana Rita Abreu Fernandes

O que é que está na origem da vantagem competitiva que a IMPETUS tem vindo a desenvolver nos últimos 43 anos? A Teoria Baseada nos Recursos argumenta que é através da organização interna dos seus recursos críticos que uma empresa consegue obter vantagem competitiva, apesar de não considerar envolventes em mudança. Complementarmente, ao definir Capacidades Dinâmicas como a capacidade, interna e externa, das empresas combinarem competências para responder às mudanças na envolvente, introduziu a dimensão externa à organização.

Representado não só o nome de um grupo português da indústria têxtil, IMPETUS é igualmente o nome da marca especialista em roupa interior masculina. Com um volume de negócios perto dos €41,6 milhões em cerca de 95% de mercados internacionais, a IMPETUS tem vindo a destacar-se na indústria da moda. Inovação assente no código genético com diversificação das áreas de negócio parecem definir a estratégia diferenciadora que a empresa tem vindo a construir.

A presente dissertação propõe uma viagem à história da empresa. Para além de reconhecer os fatores diferenciadores que a IMPETUS foi desenvolvendo, deve considerar-se todo o seu desempenho, de modo a identificar quais são os recursos e capacidades em que assenta a vantagem competitiva. Com esta odisseia é possível compreender quais os elementos inerentes a esta, já estabelecida estratégia vestível, bem como a sua dinâmica no ambiente têxtil em mudança.

Palavras-chave: Vantagem Competitiva; Capacidades Dinâmicas; Teoria Baseada nos Recursos; Estratégia Diferenciadora

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Last but not least, to all my friends for endless encouragement. To Rui, the truly one believing me. My Pole Start for the wild spirit.

I believe there is a certain moment in our lives we start doubting on our choices, paths, beliefs, purposes, ourselves. Don't.

To all the ones who have, at some point, struggled with themselves:

"If you want to overcome the whole world, overcome yourself."

Fyodor Dostoyevsky

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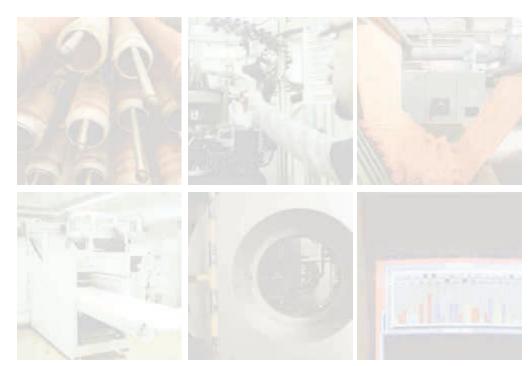
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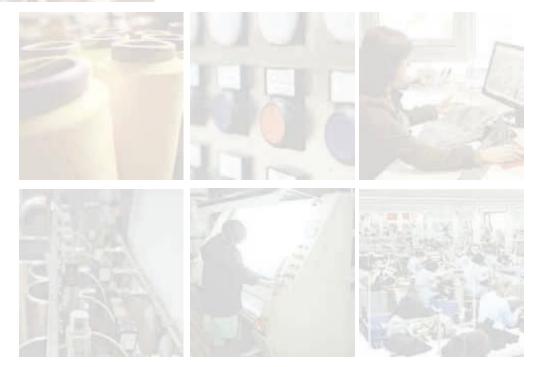
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CASE STUDY



I CASE STUDY

IMPETUS described as "a force that causes something (such as a process or activity) to be done or become more active; a force that causes an object to begin moving or to continue to move" (Merriam-Webster's Learner's Dictionary, 2016)

From the vertical industrial structure to the private label production and an own brand development, IMPETUS Group has been dividing strategies over the last 43 years to stand for quality along with an innovation role model in the fashion industry.

Men underwear specialist, nightwear, and beachwear the company is responsible for the conception, innovation and technology development, production and distribution. Reaching an annual production of 4,65 million pieces, 4 million meters of printed knitted fabrics and 3 thousand tons of dyed fabrics, IMPETUS Group's turnover reaches €41,6 million, employs nearly 800 employees and has spread to over 35 worldwide markets. But, it was not only for the underwear segment that this company was set up.

Thriving for new markets and new clients, IMPETUS adventured in the medical devices sector launching a cutting-edge product and revolutionizing the life of one's suffering from light incontinence. Etched in the company genetic code, innovation was likewise born as the first underwear line with thermoregulatory properties capable of body temperature regulation.

Representing such as not only the Group's name but also brand's name, IMPETUS is an underwear brand designed for exquisite clients seeking for comfort, distinctiveness, and foremost high-quality materials. Heralded as a functional and fashionable brand, their models have been blended innovation with a mishmash of the company roots, modern sleekness, and latest design trends.

A question emerges when one refers to IMPETUS: what has been driving the success of the so-called organization-exemplary in Europe? What is, in fact, the differentiation strategy that had been spreading this Portuguese company, literally, all over the world?

1 Portuguese fashion industry

Contextualization

Portuguese textile and clothing industry have been playing a significant role in the Portuguese economy. On a stand-alone basis, this industry has been responsible for, approximately, 10% of the country's total exports, 19% of the national's manufacturing employment and 8% of both manufacturing turnover and production¹.

In the light on proving one's efforts for development, in 2015 the industry turnover reached €6,8 million and €4,8 million exports' level. Around 81% of those levels were due to companies in the north of Portugal, mainly Braga (57%) where the main supporting textile institutes are (ATP, CITEVE2) and Oporto (24%). In that same year, European territory figured as the primary destination partner for exports, absorbing 82%, as with imports accounting for 78% (Exhibit 1).

From the nearly 6 thousand companies operating in the business, a few vertically integrated, the majority is small and medium-size. Flexibility, know-how, innovation and rapid response seem to be the arguments that better describe the Portuguese fashion suppliers³. Continuous diversification, strategy breadth, and a cost-effective workforce not only boosted manufacturers' production levels and private labels' establishment but also endowed the Portuguese Fashion Industry with competitive edges to place it amongst the top players all over the globe.

Considering a broader scope, in 2015 European Union (EU) figured as the second world exporter, right after China - the leader, in textiles as well as in clothing with respectively 22% and 25% of global sales (Exhibit 2). The largest European producers are Italy, Spain, France, Portugal, Germany, UK, Belgium, Poland, Austria, and Romania⁴.

Throwback to an industry evolution

In 2001, when China entered in the WTO5, leveraged the European industry exports and claimed its competitive strength due to the cheaper workforce and production capacity. In addition to that, the EU enlargement to Romania and Bulgaria in 2007 led to a competitiveness resistance for the, comparatively, lower labor costs and industry strength. By all means, the Portuguese companies faced the increasing relocation of production with the loss of some clients in detriment to Asian manufacturers.

From the economic crisis backed in 2009, major companies operating in the industry suffered huge losses with employment, total turnover and exports sharp declined (Exhibit 3). Despite the external pressure, internally the industry was struggling with banking system dependency, market shrinkage, and entrepreneurial view absence. Portuguese companies were no longer competitive - lacked differentiation once labor costs and effectiveness were not sufficient to overcome competition.

Withstanding imposing countries' brands as Germany, France or Italy, the Portuguese fashion industry was endeavoring for quality/design association rather than a former low priced workforce. A shift in a traditional and non-technological integrative industry was about to happen. Henceforth, the industry plunged into a "Made in Portugal" strategy.

Positioning appraisal in the international dimension

Described in the international scene as a high-quality producer at low costs, Portuguese industry was again on the spotlights after economic crisis' long years and emergent manufacturers' competition. Tangible differentiation and cutting edge innovation (in processes and products) is boosting Portugal as one of the largest textile exporters in Europe⁶ with a few renowned fashion labels (Versace, Hugo Boss or MaxMara) searching for Portugal to source fabrics due to its high-quality synthetic fibers and innovative techniques.

One of the prominent bet was the diversification towards technical textiles used for function and performance rather than aesthetics. Their wide range application has been covering different industries as agriculture, construction, clothing and apparel, medical and healthcare, military, sports, and so forth.

Over time, technical textiles have been growing with Asian countries leading the consumption as they acknowledge potential to upgrade their industry (Exhibit 4). Portuguese companies have also been developing new solutions to the market that in 2015 accounted for US\$ 153.3 billion and, by 2020, is expected to reach US\$ 193.7 billion7.

Nevertheless, industry restructuration left deep outcomes - high employment reduction and disappearance of long-dated companies⁸. Industry players have been channeling strategies (2010-2015) towards a heavily technology investment, brand image development, specialization in added value products, and workforce specialization to leverage the industry again to the top of the world.

For the next years, Portuguese fashion industry players will focus their strategic directions on innovation progress in new areas with new products and features through synergies enhancement, alongside international promotion, and operational flexibility across private label productions.

2 Inception of a Group

"The key to success in Impetus is genetic code, which mixes two essential components: the quality and design of the items." (Alberto Figueiredo, CEO)

A Rocky Start

Dated December of 1973 when a Portuguese couple, Alberto and Maria Emília Figueiredo, decided to venture in a small textile company. With an investment of \$250.000 Escudos9 settled in an old house in Esposende, north of Portugal, six workers had joined the so expected thriving company.

Working on exclusively with the external market, the Portuguese revolution in April of 1974 led the buyer canceling the first order estimated in \$300.000 Escudos¹⁰. To overcome this loss, Alberto decided to sell the merchandise for \$80.000 Escudos 11 at a local street fair, since starting again from scratch turned to be the only way out.

Boosted by Portuguese post-revolution wave, the company started sewing large series of mainly lycra t-shirts to the Portuguese market. Results revolved around facilities expansion, employees recruitment and undergarments productions. By the end of the 1970s, the first internationalization steps once again had been taken through the northern and central European markets orders.

"During the 70s the company was responsible for doing a little of everything as it was not specialized. We sold our production capacity through a business model based on much lower labor and commodities costs rather than other countries". 12

During the 1980s the company was competing in the European market where the rule-of-thumb was a cost-price tradeoff. As a result, their activity areas were expanded to come in alongside sewing, weaving, cutting, packaging, and warehousing. Tackling a product oriented era it was time for specialization. Increasing production costs, efficiency needs and a twist of not having yet a true differentiator product, led the company to focus their production on the underwear segment.

The birth of a brand

Later in the 1990s, the company decided to focus towards markets and customers. Had been producing over the last 15 years to private labels was the urge to launch a small underwear collection under its very own brand and access the market responsiveness.

"Once we were performing so well to others we could, eventually, succeed with an insignia of ours." Settling a design department with technological resources and skilled technicians responsible for conceiving brand's collection and opening the manufacturing center in Barqueiros (Exhibit 5) reinforced value chain's activities. IMPETUS brand was born: oriented to the men underwear segment for external markets.

"Switching from a product-oriented company to a brand-oriented instead established strategic pillars for future growth."

Spain was the first market to test IMPETUS underwear collection. Athwart an importer responsible for the brand spreading in independent retailers, the company soon acknowledged a positive outcome for the practical, functional and comfortable underwear collection.

The aftermath of brand development was the successive investments undertaken to expand and modernize the facilities (Exhibit 5). Progressive growth resulted in hiring more qualified commercials and boosting design, marketing, and research and development departments. Simultaneously, the total production capacity was responsible for private label and IMPETUS brand productions.

"The company started investing in the own brand. We developed the design office as hired a few fashion designers, and a commercial team."

IMPETUS Portugal Têxteis¹³ (Exhibit 6) integrated other owned companies in its business structure to strengthen the vertically integrated activities: Malhas CEF - oriented to weaving, manufacturing, underwear, sportswear's, and packaging of seamless articles; ACATEL - responsible for textile's dyeing, printing, finishing; and Verdevest - established in Cape Verde to serve private label production and reduce costs.

The Group was then set up with four industrial companies exclusively dedicated to textile production. Through the years, were established other eight commercial enterprises related to distribution inside Portugal and subsidiaries placed internationally (Exhibit 7).

Undergarment Universe

End of the 1990s and the Group was keen to embrace technology and shape a visionary path for the textiles materials. Along came a wider range of underwear collections under IMPETUS own brand.

Consecutive investments had been followed to foster growth, not only through facilities expansion but also with the acquisition of modern industrial machines (Exhibit 5). Once underwear productions require some level of machinery and specialized knowledge, reinforce the vertical structure has always been the primary goal.

Welcoming a new millennium brought brand consolidation, international expansion, and innovation core orientation. The 2000s sealed the first Seamless underwear line being produced by IMPETUS and strengthen a high-tech vision toward the Portuguese fashion industry: a new range of innovative products were about to recast the technical textiles.

Henceforth IMPETUS underwent other significant changes which underline as well one's strategic orientation and history, but those are coming in the following chapters.

3 Crafting a wearable strategy

"At a European level, we are the largest underwear company."

Under the vision "you inspire us" IMPETUS divided its business structure into three areas: private label (40% of total production), owned/licensed brands and healthcare (both 60% of total production). Indeed, the Group's core specialization in underwear enabled a growth in-between these markets, along with other two segments - nightwear and beachwear.

Business scope

Relatively to the first business area, the Group ensures private label productions for international brands as Guess, Gap or Tommy Hilfiger in both man and woman underwear collections. It is also responsible for producing thermal underwear (polypropylene transformed in textile fiber) for a Norwegian sportswear brand - Helly Hansen.

"We continue to work private labels and major brands. Fortunately, we can choose to whom we work for because demand is too high. Is ABC analysis. There is a customer who may be very interested, but either does not give us a sufficient production level or the brand does not have notoriety, we prefer not produce for them."

The first reason explaining this "ABC analysis" is related to the opportunity at the time. While 60% of total production capacity is allocated to IMPETUS' brands, the remaining 40% is for private label clients in a "make to order" scheme (planned collections with a lead time of 3-4 weeks).

The second reason is due to regular customers' productions that IMPETUS has to fulfill, once long-term relationships are preferred. The last reason is explained by the return of several brands to European market after long years outsourcing production. In China, for example, salaries and internal consumption increased along with production costs. Their internal market can absorb a significant production level, and the demanding standards are not as strict as the European ones.

Brands no longer want stored products but rather prefer promptly delivers of small series. The extensive logistic operation for Asian players (up to 4 months between production and delivery) appears now to serve basic product lines instead of fast-fashion collections. IMPETUS ended up beneficiating from this return.

Besides enjoying reputation and credibility for technical expertise of IMPETUS brand, the rapid response due to the production capacity, the competitive price and the guaranteed quality for the control of all vertically integrated activities have been fostering the Group's recognition as a private label manufacturer.

Measuring private label competitors in Portugal, IMPETUS claimed that there are no underwear companies with a production level like theirs. At a European scale, competition comes from the ones who can coordinate several production activities even when are not vertically integrated and also from specialized producers, for example in women underwear interiors, beachwear, or undergarments individual parts, such as Amann Group (Germany) and JBS Textile Group A/S (Denmark). Internationally, the Israelites Gibor Sabrina and Delta Galil Industries, figure as men underwear specialists and competitors for its quantity and quality productions.

Regarding the second business area, the owned/licensed brands have been facilitating the access to different markets and customers through offer segmentation and diversification. Across these brands, there is a functional and fashionable policy, where tangible characteristics (durability, comfort, reliability) match materials quality to create brand identity. Indeed, 2008 economic crisis led consumers to a more thoughtful purchase decision where quality, durability, and brand reliability are decisive. Differentiation factor for customer choice and, later retention, is the fulfillment of expected functional/tangible characteristics and product's quality.

In 2008 IMPETUS welcomed a baby brother. Inherent to the decision was the will to include an avantgarde brand for the bold ones who sought, somehow, a level of differentiation beyond the simple underwear functionality - HOT was born.

With a broader product range, IMPETUS (80% of 60% total production) has been covering underwear, nightwear and, introduced in 2007 beachwear (Exhibit 8). HOT (5% of 60% total production) only focuses in underwear. Both directed to upper-range men, IMPETUS stands for classic and timeless collections, whereas HOT with its tighter fitting, mixing colors and bold patterns are made for bold, irreverent and luxurious men.

Later in 2009 IMPETUS integrated into its portfolio Eden Park (5% of 60% total production), a rugbyinspired French underwear brand, which represents a more classic, sporty and toughest men target. Following the same approach, in 2011 the young and rebellious underwear brand REPLAY (5% of 60% total production) was as well granted. Under license's terms, both for production and distribution, IMPETUS sets up business plans to negotiate distribution's allocation, royalties' payment and sales forecasts for each international market.

The rationale inherent to integrate licenses was simple: sales force only with IMPETUS and HOT were not efficient. Eden Park, for example, was chosen because the French subsidiary needed a customers' well-known brand with notoriety to place IMPETUS in other commercialization points. Integrating these licensees was profitable without cannibalizing IMPETUS' brands (turnover and sales points increased). In this second business area, all the four brands face the completion of one of the most spread underwear players- Calvin Klein, due to its distribution strength and worldwide notoriety (Exhibit 9).

Entering into the third and last business area - Healthcare - meant a new market to explore. As further developed, this broadening to the medical devices segment was through the product/brand Protechdry (5% of 60% total production).

Vertical Integration

"We buy the yarn and control the entire production process from there onwards. It is a brutal competitive advantage once our competitors had completely lost product development know-how."

Substantial investments in a vertically structure endow IMPETUS to be more flexible, develop in-house new products, steer a flawless quality control and provide faster response times. If on the one hand, designers can monitor production process and adjust details, on the contrary, the brand benefits from closer quality control, reputation and a broader range of products.

First, all the raw materials (as yarns and textile chemicals) are purchased to international suppliers directly in foreign markets or through Portuguese agents. Long term relationships are preferred as well as a restricted number of suppliers for each type of product, not only to promote a sort of partnership that beneficiates competitive position but also to deepen involvement and knowledge of their mutual needs. However, all suppliers are evaluated on by different criteria such as price, offer diversity, delivery times, and some other aspects.

IMPETUS recognizes that its market position enables a privileged position within textile industry – working different fibers in a vertical structure has an impact on the commercial acquisition and bargaining power next to suppliers. Buying large quantities of yarn (tons) rather than small (kilos), it guarantees much more competitive prices. Moreover, partnerships developed with suppliers as BASF or LENZING¹⁴ place the Group among the firsts having access to innovations before hitting the entire textile industry.

The cut and sew activities that have been carried out at this total 45,000m² area are:15

- Knitting & Weaving: transformation of yarns into knitted fabrics, including inner/outer elastics. The
 majority of competitors do not have elastics weaving, besides that IMPETUS develops knitted
 waists (in addition to the elastic ones) that are appreciated by the elders;
- Dying¹⁶: coloring and other textile finishing for each piece;
- Cutting: CAD-CAM technology automatically cut knitted fabrics. For instance, a cutting method
 using vertical blades in CAM mattress is used to maximize, down to the millimeter, the cut knitted
 area and minimize wastes. Through a suction system, debris are transformed into yarn to be sold,
 while plastic and paper constituting the mattress are recycled;
- Sewing preparation: previous to assembly line, pieces undergo different operations (embroidery, stamping, others);
- Sewing: around 400 sewing machine operators are responsible for manufacturing items later submitted to quality control;
- Packaging: last stage accountable for ironing and packaging the finished products.

"Brands are successful if consumers' material and immaterial expectations are met. Our product fulfills both tangible and intangible value proposition. In a structure that ensures quality as ours, this is feasible."

Throughout this process, 70% of production is for cotton products and its mixtures - consumers recognized as being more comfortable and higher quality¹⁷- while 30% is for the remaining fibers (viscose, elastane, lyocell, modal, microfiber, polyamide and polyester¹⁸).

Distribution

The distribution channels where IMPETUS commercialize its brands are department stores (as El Corte Inglés, Galeries Lafayette or Printemps) and independent retailers (like multibrand specialist Marques Soares) that cover over 15 thousand sales points, and through an e-commerce platform¹⁹.

Regarding departments stores, IMPETUS had been developing an evolving strategy to meet mediumhigh segments in international department stores, where collections are neatly disposed in corners alongside brand's material promotion (Exhibit 10).

Notwithstanding IMPETUS' brands availability in department stores and independent retailers is subject to each market specificity and space/availability constraints. For example, for Eden Park and Replay, the market and place will depend on the license agreement. As for the owned brands, the approach is slightly different. The oldest brother, IMPETUS, is the main driving force when entering a new space, mainly department stores. HOT follows the push. The e-commerce platform stands as the only channel commercializing the four brands in a worldwide reach.

Logistics

"International business success lies in suppliers' ability to solve buyers' concerns. They do not want to think about the product, nor the brand nor logistics. They foremost seek a turnkey solution. Suppliers make it happen by continuously filling the stores with the right amount of product and no stock. Logistics is increasingly important. The capability to deliver the right product, in the right place, at the right time."

Lead time minimization, international expansion, greater distribution control and higher demand for small orders were some of the reasons to develop IMPETUS' logistics system, which serves the four brands where there is a "make to stock" policy.

During 2005 EFACEC²⁰ was responsible for customizing and developing a robotized warehouse with an automatic picking system - one of the two available in Europe²¹ (the other belongs to NIKE, in Turkey).

This entire automatic process, connected to information systems, enables a storage capacity of 5 million pieces and is optimized to efficiently serve large orders (for example, business-to-business contracts where orders are around thousand units). Through stocks management reasoning the system applies a linear optimization problem to find a product without overload the physical space. As a bespoke linear optimization, the system has the control to load and unload together, resupplying, among others. To manage the different collections, IMPETUS divides its products into two distinct groups: fashion intensive and basics. For the first ones, efficiency and quickness are sought through customer service improvement and order processing time reduction. As the second ones require weekly restocking, is IMPETUS that manage stock needs (minimums, maximums, and resupply need) according to the sales daily reports provided by a connection point - EDI²².

Besides, the interaction between information systems and logistics allow deliveries of small quantities in a profitable way - high service level at the lowest possible cost - in any part of Europe. A pick and pack system with a capacity for about 5 thousand items a day separates the products according to delivery requirements and calculates the most efficient carrier considering weight, volume, destination, and negotiated agreements. This articulation assures the dispatch of products through specialized partners (UPS, DHL, Feder Express) in 48H to Europe and up to 5 days to the rest of the world.

This logistics integration helped to boost the distribution network: the Portuguese central system is virtually connected to the sales force, besides regular stocks and credit validation, transportation plans can be calculated to reach a single destination at a profitable price.

Internal organization

IMPETUS different departments cooperate on a network information flow and receive ongoing training. Through weekly meetings and online connections, all employees are invited to share their ideas, whereas is related to products, innovations or processes.

The departments constituting IMPETUS' structure are Administration; Marketing and Communication; Commercial; Information Systems; Financial; Human Resources; Innovation and Development; Quality Control and Certification; Planning; Production; Management Control; Design.

Regarding the design department, set up with the brand's birth, designers were hired to flourish IMPETUS and HOT growth. Besides traveling the world seeking tendencies, they are aware of brands identity, values as technological shifts for the season. The blend between style and product conception enhance the conception of more than 800 references/season divided by style, color, materials and functional properties.

> "Our competitors deliver spring/summer collection during February. For the same season, we are delivering it in December."

Spring/summer collection kickoff starts in March with "where to go?" sessions. First samples go to the market in June and collections in July. In between this creation and development period, there is an ongoing involvement with distributors' feedback, internal brainstorming reunions, and yarns and colors studies. Later October, national and international orders must be collected to initiate production.

Real-time processing requests through PDA's²³, used by IMPETUS sales force, provide statistics on sales, buyer behavior, purchasing historic, and allow starting earlier the production process. As soon as the system registers a profitable and feasible quantity, both in sizes and colors, engine production can start. Moreover, this anticipation assesses which products are being ordered and reduce the number of the products in the original collection, once the ones who do not have enough demand are not produced.

Corporate social responsibility

IMPETUS SA 8000:2008 certification²⁴ revolves around the implementation of several practices towards employees' satisfaction, upper management communication and productivity improvement. Some of these measures include 15 minutes gymnastic for factory workers, internships, scholarships for relatives, profits sharing, transportation, doctor office, or kindergarten co-participation. IMPETUS is also certified with NP 4457:2007 (management of investigation, development, and innovation); ISO 9001:2008 (quality management); and ISO 13485:2003 (medical devices).

To address environmental consciousness and sustainability IMPETUS have adopted Standard 100-OEKO-TEX, Global Organic Textile Standard certifications. During 2010 became a Bluesign® partner, whose certification ensures transparency over the entire textile supply chain by attesting eco-friendly production as a careful use of resources and reliable textiles use, in pursuance of consumer's awareness and responsible impact in industry sustainability.

CSR policies affect not only employees' motivation but also the credibility towards suppliers and customers. Once the company complies with textile industry requirements, it is also seen as a competitive factor. For instance, one of Impetus' distribution partners, Metro Group Buying (responsible for Metro and Rial) refuses to work with companies that do not have certain certifications.

Experimenting to learn

Over these decades, a "do and try" journey has been writing wherein IMPETUS acknowledged trying and failing as one of the most efficient ways to learn and strengthen the business. Between the years of 2004 and 2005, IMPETUS decided to adventure in the women underwear segment, investing in specialized knowledge and hiring an Italian designer to develop the collection line. Though it had a positive market reaction, soon, IMPETUS realized that the investment was not being offset and receptiveness was only representing purchase intentions – instead of being translated into actual sales.

"We did not have a sales structure nor communication strength capable of introducing the collection into the market. Our commercials were men underwear specialists, not women. Besides, was a highly competitive market with players much stronger than us."

Incapacity of being competitive, squeezed margins and lack of a commercial structure, led to a step back under IMPETUS brand. Women productions proved to only serve private label orders and the technical products lines (Thermo, Innovation, and Protechdry).

Later on, during 2008-2009, IMPETUS shifted the distribution model and opened their stores: one in the shopping center of S.João da Madeira (Aveiro) and another in Dolce Vita Antas (Oporto).

Not only was an economic crisis period and therefore, purchase power decreased, but also IMPETUS did not have a sufficiently strong commercial knowledge, neither resources required to set up and manage a network of owned brand stores.

IMPETUS miscarried the alleged forward-looking move, closed both stores and opted to continue exploring their corners within department stores and independent retailers.

4 Innovation as yet another linchpin

"From morning to night, we breathe innovation. Indeed, it is innovation that led us to success."

Competition in European markets was not slowing down. Production costs were rising through wages and raw materials, and the price war seemed to have no end. It was a shift to a new millennium, and the Group was forced to identify innovative products and high technological processes that would value their position in the textile industry - the answer to the differentiating orientation seemed to rely on technical textiles.

Niche markets oriented, technical textiles evolve new fibers/technologies processes addressing specific concerns and standing for higher levels of quality and performance. With a vast growth potential, this segment also requires multiple accreditations to ensure compliance with particular standards.

"It is no longer time to compete for prices in Portugal. The wages increase the raw materials too. We have to be competitive with the product. They must be sophisticated, innovative and off appealing design. Once we had accumulated, for all those years, knowledge about this industry and have top innovation institutes in the area, like University of Minho and the International Iberian Nanotechnology Laboratory, we are capable to create products that otherwise we wouldn't. It is the ideal match between resources, knowledge, capabilities which allow new products to be born."

On the one hand, the production capacity, vertical integration, and privileged relationship with suppliers were some factors that could foster the development of new products. On the other hand, IMPETUS could flourish the creation of innovative knowledge through technology investment and cluster relationship. Indeed, the North region, mainly Braga, has been beneficiating from the diffusion of innovative and collaborative knowledge in the textile industry through organizations like CITEVE or University of Minho.

Seamless

"Seamless changed the way of think in the textile industry completely."

First developed for tights, this technology was later incorporated in underwear and is characterized to use, as little as possible, traditional sew lines. The reduced internal seams, specifically at the lateral sides of underwear briefs and boxers, brought comfort to users.

Nevertheless, seamless innovation goes way beyond those applications. This technology relies on the communication between CAD-CAM software and production machines, namely seamless looms, in an interaction that allows designers imagination fly to change textile structures according to its expected function: blend colors and fibers, incorporate microcapsules, absorb perfume or odor, amidst others.

Malhas CEF, one of the global pioneers using cotton in seamless technology, suffered facilities' transformations to receive, in 2000, this specialization area (Exhibit 5). The subsequent increase in responsiveness and production levels came along with substantial investments – the Group was one of the first companies acquiring those sewing machines to the Italian manufacturer Santoni. Moreover, to work with CAD-CAM technology newly qualified professionals were hired.

IMPETUS Group was now prepared to break traditional textile conventions and innovate through colors, structures, and function. The early recognition of seamless technology to serve niche markets and create new products led the company to buy the four available looms: 12, 14, 16 and 18 inches to produce in S, M, L and XL sizes. In that time, the Group was the first acquiring the machines in Portugal, and only a few worldwide players had access to the innovation. Even over time, the majority of competitors invests in one of the four looms (14 inches) and advocates a "one size fits all" policy.

"We were one of the first companies to develop seamless products composed in its majority of cotton fibers."

By that time, seamless technology in underwear used 99% of continuous polyamide fibers that can make machines work two times faster than cotton fibers. IMPETUS products were, in the vast majority, made by cotton or mixtures of it, once natural fibers are the most preferred by clients.

Attempting to transform this technology, IMPETUS incorporated cotton in the process. As the fibers were not so robust, they were always breaking during the process. After several attempts, machine adjustments and tons of wasted cotton, the Group was able to adapt the production process. The result was seamless underwear composed 95% of cotton and 5% of elastane fibers.

The vertical structure and accumulated knowledge harnessed the Group's capability to innovate according to their product needs. Later on, competitors as the Portuguese SONICARLA and SIDÓNIOS underwent the same trial and error. IMPETUS also became aware through one of Santoni's agents that a Thai producer was studying an underwear piece (available in EL Corte Inglés) to learn the cotton adaption.

Seamless differentiation also came in the way the product was communicated. As the pieces have greater elasticity and seem smaller, the customer was not prepared to receive the product. To overcome this barrier, IMPETUS educated the consumer by explaining the product's function through stores' promotional materials, training to the sales force and department stores vendors, and fair attendances.

Thermo and Innovation

Riding out the technical textiles wave, IMPETUS invested in the development of new products and launched two product lines of t-shirts and pants that resist fashion tendencies due to its functional attributes: both bestsellers in El Corte Inglés. Thermo (2000) available for man, woman and junior; and Innovation (2006) offered to man and woman.

While the first one - Thermo is a lighter product that fits the body and protects from cold through the maintenance of an ideal body temperature, the second one - Innovation has thermal regulators properties that stabilize body temperature by saving excessive body warmth and releasing it if needed.

For Innovation line it was used Outlast® Adaptive Comfort®, a technology developed to minimize the temperate fluctuations suffered by astronauts in space. Indeed, IMPETUS was one of the first companies in Europe to buy yarns with Outlast technology and integrating it into its products.

Protechdry

Born in 2010, Protechdry was developed in partnership with University of Minho²⁵ and marked the Group's entry into a new business area - Healthcare, namely in the medical devices segment. Synergies between two different structures led to a detailed study of a market need and simultaneous development of the product.

IMPETUS was keen to continue its diversification path through the creation of innovative knowledge and products, and harnessing the accumulated know-how within the textile industry. The vertical structure had to continue developing new products, and the cluster synergies made University of Minho the matching partner in resources and technical knowledge.

Conceived for the ones suffering from light incontinence, Protechdry is a regular cotton underwear for men/women (price range of €16,90-€19,90) capable of absorbing urine (up to 50 ml of liquid), neutralize odors and maintain skin dry (Exhibit 11).

This patented technology (Exhibit 12) has a first layer assuring comfort and dry feeling; a 3D structure responsible for the performance of ultra-absorbency, breathable, anti-odor and antibacterial characteristics; and watertight outer layer preventing liquids' leak; all with a sealed seams system. Protechdry underwear is hypoallergenic, can be washed and used again.

The innovation inherent to Protechdry is the fact of being the first underwear designed for urine losses, while the previously available products were disposable diapers, pads, and pants with price ranges from €5 to €25. Directly, the product does not have competitors, but it has substitutes. For instance, the leading manufacturers of incontinence – SCA Group (Tena brand) and Kimberly-Clark (Depend brand) feature both men and women incontinence undergarments.

Although the high entry costs (Protechdry) represented an investment of about €600 thousand), the urinary incontinence market has a broad cover: from the period following childbirth, to post-surgical stress, or urinary pathologies (especially in seniors). Only in Portugal, 600 thousand people suffer from this problem, while this number goes up to 4 million in France and 30 million in the USA²⁶.

IMPETUS has been assuring production and established a joint-venture with a medical devices consulting company – Emergo for overseas distribution. First available in pharmacies and drugstores, the commercialization channels have been shifting to international retail companies (Metro or Rial), and it is also available on the brand's website. Protechdry is available in markets such as France, Spain, Germany, Poland, Mexico, USA, Australia, Algeria, Lebanon, and Portugal.

5| Establishing a worldwide identity

Commercializing with international markets from its inception since the production capacity was unduly high only to cover homeland, led to an ambition to develop channels for the owned and licensed brands. IMPETUS had been establishing specialized teams responsible not only to run viability studies on which markets to target, but also to adapt the company marketing-mix: decide the products offers, select the distribution channels and define both communication and price policies. Always balancing between a standardization-adaptation dichotomy, an individual collection is not developed to each international market, but some precise adjustments might be made.

"We can assure product quality due of being vertically integrated. The fact that all processes are controlled in-house gives us credibility, as a brand and a production engine. It is that credibility that allows us to enter new markets which otherwise we would not enter."

The entry models for the international markets were:

- Subsidiaries: to fully control management, especially business operations in the key markets as
 Spain (20% of international turnover) or France (20% of international turnover) IMPETUS set up
 this type of subdivisions (Exhibit 7). Even though strategic decisions (production/product
 development) are the responsibility of headquarters, each subsidiary director actively engages in
 those and is responsible for annual budgets revisions and market plans development.
- Importers/distributors: with whom IMPETUS works locally and negotiates strict and pre-defined agreements. Upon each market's future achievements, distribution contracts define target, price, communication, sales goals, and timings, among others.
- Master agencies: was an entry model in certain markets (Belgium, Netherlands, and Luxembourg) where it was not worth constituting subsidiaries at an early stage.

 Agents facilitated market knowledge and awareness through potential customers' identification and posterior database creation. After achieving a solid position within those markets and with back office (mainly credit insurance procedures) being ensured IMPETUS, agents' added value no longer offset the margins reductions entailed by their commissions. Later on, the French subsidiary integrated the mentioned markets.

From the €41,6 million of the Group's total turnover, the national market is responsible for 5% whereas the remaining 95% is an expression of the worldwide orientation spread over more than 35 countries. From Europe to Russia, Korea, Canada, Mexico, Kazakhstan, Sri Lanka, Vietnam, Australia, and other markets, IMPETUS was the first Portuguese textile company entering in China followed by invitation.

7| What next?

Throughout the years IMPETUS has been growing by word-of-mouth with the pledge to innovation and quality. The strong textile industry knowledge and production capacity opened the doors to the world when made in Portugal brands were not yet recognized as stylish.

In a Group where orientation towards industrial production and tangible product's aspects always played a significant role, does IMPETUS brand have enough stamina to perform at the same level?

To give an impetus to brand awareness, IMPETUS decided (2015) to choose lker Casillas as the brand ambassador to leverage brand identity and fade away the manufacturer's brand association. As the company business relies 95% on the international markets, the convening authority arising from the Spanish football player appeared to be suitable to the inherent strategy - communicate the brand values and lift up identification as a premium underwear brand.

To achieve those goals was introduced an exclusive lker Casillas collection featuring boxers, slips, nightwear, and t-shirts. IMPETUS increased promotion level and the number of sales points available in the specialized retailers, as El Corte Inglés.

After improving the tangible aspects through continuous innovation developments, quality persistence, production progress and international spread, IMPETUS was likewise undertaking another move to enhance the intangible - brand values, identity, and communication.

The questions arising are - Which differentiating elements were crucial to developing IMPETUS' wearable strategy? How did a company based in Barcelos, Portugal, become "the largest underwear company in Europe"? What is, in fact, in the origin of the competitive advantage that IMPETUS had been crafting over the past 43 years?

So now, what next? Will IMPETUS stay in the loop as an innovator within the Portuguese fashion industry?

- ¹Relatively 2015. Source: Associação Têxtil e Vestuário de Portugal. (2016). *The Portuguese textile and clothing industry* [PowerPoint slides].
- ² ATP (Associação Têxtil e Vestuário de Portugal) is a Portuguese textile and clothing association while CITEVE is the technologic institute for the textile and clothing industries.
- ³AICEP. (2013). Investing in Portugal Textile and Cloting Industry [PDF document]. Retrieved from http://www.portugalglobal.pt/en/biblioteca/documents/textileclothing.pdf
- ⁴ EURATEX. (2015). Annual Report. Retrieved from http://euratex.eu/fileadmin/user_upload/documents/Library/Annual_Report/Euratex-annual_report-2015-LR.pdf
- ⁵WTO World Trade Organization.
- ⁶Binlot, A. (2015, April 17). The Portugal Fashion Industry Gains Momentum, Thanks To Its Design Talent and Textile Manufacturing. Forbes. Retrieved from http://www.forbes.com/sites/abinlot/2015/04/17/the-portugal-fashion-industry-gains-momentum-thanks-to-its-design-talent-and-textile-manufacturing/#2afcef063187
- ⁷.Future Market Insights. (2015). Global Technical Textile Market Annual. Retrieved from http://www.futuremarketinsights.com/infographics/technical-textiles-market-forecast.pdf
- ⁸Khalip, A. (2012, February 8). Analysis Portugal textile firms weave way out of crisis. Reuters. Retrieved from http://uk.reuters.com/article/uk-portugal-textile-idUKTRE8170YF20120208
- ⁹Portuguese currency in that time (approximately 1.250 Euros).
- ¹⁰ \$300.000 Escudos are equivalent to €1.500.
- ¹¹\$80.000 Escudos are equivalent to €400.
- ¹²(M. Torres, personal communication, October 13, 2016). From this point forward, all the transcriptions refer to (M. Torres, personal communication, October 13, 2016).
- ¹³ Exhibit 6 provides the leading company (IMPETUS Portugal Têxteis) KPI's and a concise comparison with the Portuguese aggregated average.
- ¹⁴ BASF is a German chemical company and Lenzing is an Austrian supplier of botanic cellulose fibers.
- ¹⁵This process is a simplification of a textile and clothing conventional production. Due to a matter of relevance for this case more complex details were not included.
- ¹⁶ACATEL is responsible for this process.
- ¹⁷ Cotton is a natural fibre of vegetable origin. Impetus embodies an anti-pilling treatment in its cotton products to increase strength, as well as different loops of stretching force to offset the natural behavior of losing their shape after successive washes.
- 18 Each one of them provides different advantages, such as humidity absorption, shrinkage resistance, or greater elasticity.
- 19www.impetusunderwear.com/pt/
- ²⁰EFACEC is a Portuguese company that provides technological solutions in the field of energy, mobility, industry among others.
- ²¹(M. Torres, personal communication, November 15, 2016).
- ²² Electronic Data Interchange that promotes communication between suppliers and customers.
- ²³Personal digital assistant.
- ²⁴ linternational certification that fosters companies to develop, implement and maintain socially practices in the workplace.
- ²⁵ The partnership was developed with FMRG Fibrous Materials Research Group from the Engineering department in University of Minho.
- ²⁶ www.protechdry.com

II | CASE STUDY EXHIBITS

Exhibit 1| Portuguese fashion industry: international trade partners

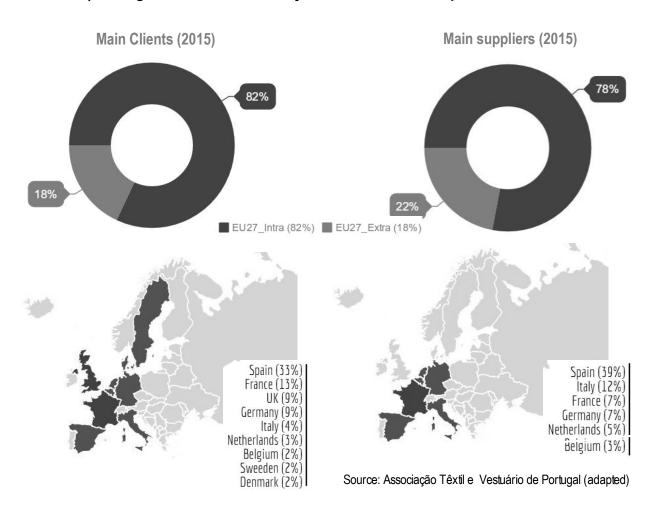


Exhibit 2| Textile and clothing industry: Top 5 exporters and importers

	Value (bilion \$)	Share			
	2015	1980	1990	2000	2015
	T	extile Expo	orters		
China	109	4,6	6,9	10,4	37,4
EU_28	64	-	-	36,7	22,1
India	17	2,4	2,1	3,6	5,9
USA	14	6,8	4,8	7,1	4,8
Turkey	11	0,6	1,4	2,4	3,7
	С	loting Exp	orters		
China	175	4,0	8,9	18,2	39,3
EU_28	112	-	-	28,7	25,2
Bangladesh	26	0,0	0,6	2,6	5,9
Vietnam	22,0	-	-	0,9	4,8
Hong Kong	18	-	-	-	-

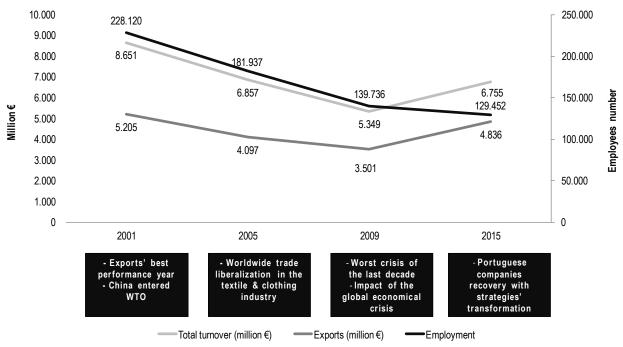
Source: World Trade Statistical Review 2016 (adapted)

Exhibit 2| Textile and clothing industry: Top 5 exporters and importers (cont.)

Value (bilion \$)	Share			
2015	1980	1990	2000	2015
Te	xtile Impor	ters		
68	-	=	35,2	22,1
30	4,5	6,2	9,8	9,6
19	1,9	4,9	7,8	6,1
18	-	=	8,0	5,8
10	0,2	0,4	0,8	3,2
Clo	oting Impo	rters		
170	-	-	41,1	34,0
97	16,4	24,0	33,0	19,4
29	3,6	7,8	9,7	5,7
15	-	-	-	-
10	1,7	2,1	1,8	2,0
	2015 Te 68 30 19 18 10 Clo 170 97 29 15	2015 1980 Textile Impor 68 - 30 4,5 19 1,9 18 - 10 0,2 Cloting Impor 170 - 97 16,4 29 3,6 15 -	Z015 1980 1990 Textile Importers 68 - - 30 4,5 6,2 19 1,9 4,9 18 - - 10 0,2 0,4 Cloting Importers 170 - - 97 16,4 24,0 29 3,6 7,8 15 - -	Z015 1980 1990 2000 Textile Importers 68 - - 35,2 30 4,5 6,2 9,8 19 1,9 4,9 7,8 18 - - 0,8 10 0,2 0,4 0,8 Cloting Importers 170 - - 41,1 97 16,4 24,0 33,0 29 3,6 7,8 9,7 15 - - -

Source: World Trade Statistical Review 2016 (adapted)

Exhibit 3| Portuguese fashion industry: evolution of the main figures



Source: Associação Têxtil e Vestuário de Portugal, 2016

Exhibit 4| Technical textiles: world consumption

Techical textiles consumption (1,000 tons)					
Region	2000	2005	2010		
Asia	6,963	8,504	10,645		
USA	5,031	5,777	6,821		
Europe	4,162	4,773	5,577		

Source: David Rigby Associates (adapted)

Exhibit 5| Timeline of the most relevant decisions to IMPETUS' current position

Year	Decision/evidence	Rational	Strategy impact
1979	Opening of Malhas CEF	Enlarge the industrial activities trough a vertical structure integration	Increase the capability production
1990	 Opening of IMPETUS manufacturing center in Barqueiros (Barcelos) Establishment of a design department with CAD system to launch IMPETUS brand 	Reduce the costs (with the underwear focus) and develop a business differentiator towards a brand	 Product specialization (male underwear) and brand development Raise of production flexibility and capacity trough an escalation of the value chain
1997	IMPETUS entry in El Corte Inglês (Spain)	Implement a distribution model and test customers responsiveness in the department stores	Foster the international awareness of the brand Establishment of a distribution model
1998	Creation of a marketing department	To address the needs of the brands underneath the Group's umbrella	 Reinforcement of a customer-oriented vision for the different Group's brand Organization of the internal structure
1999	 Development of a new business specialization (new facilities for Malhas CEF) Opening of Verdeveste in Cape Verde 	Entrance in the seamless area for underwear and increase the production capacity	 Pioneering a new distinctive solution for the Group Adjustment of the production structure to include the new seamless area and increase the production capacity
2000	Introduction to the first seamless underwear line and Thermo	Expand the business range and acquire new customers	 Strengthening of different product lines Higher levels of technological innovation and production
2002	IMPETUS invitation to entry in the Chinese market as the first Portuguese textile company operating in there	International expansion overseas	 Consolidation of an internationalization orientation Broadening of the distribution channels Acquisition of a new market with new customers
2004	Introduction to IMPETUS Woman, the first collection dedicated to woman	Extend the company offer to a new segment	Pull back of its market extension
2005	IMPETUS establishment in the French department stores Galeries Lafayette and Le Printemps	Reinforce the notoriety of IMPETUS underwear products as an upper-range brand	Strengthening of the group's international visibility

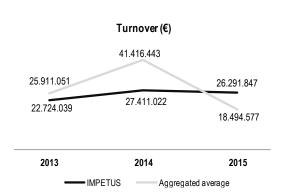
Exhibit 5| Timeline of the most relevant decisions to IMPETUS' current position (cont.)

Year	Decision/evidence	Rational	Strategy impact
2006	Innovation product with NASA technology	Meet new customers with different needs	 Increasing of production capacity Settlement of an innovative orientation towards the technical textiles
2007	 Introduction to IMPETUS beachwear products IMPETUS expansion to Greece and Mexico 	Draw on the Group's vertical structure to produce a new segment of products	Broaden the men range line products Reinforcement of an international orientation
2008	Introduction of HOT	Product differentiation through the installed capacity exploitation	 Business segmentation by meeting new customers needs Increasing the Group's added value Higher levels of competence in brand development
2009 2010	 Introduction of the licensed brand Eden Park (2009) IMPETUS stores in S. João da Madeira and Dolce Vita Antas (2009-2010) Establishment of an e-commerce platform (www.impetusunderwear.com) (2010) Introduction of product- ProtechDry (2010) 	 Increase the Group's notoriety and enter into new markets Access IMPETUS brand receptiveness within their owned retail space Differentiate the Group business areas to the healthcare segment and branch out the distribution channels 	 Recognition of IMPETUS' vertical structure capacity to produce and develop high-quality products Reinforcement of the Group's core business within the underwear segment Setback to the distribution channel enlargement Creation of a new innovative product to new markets Diversification of the business model Assessment of the platform receptiveness and performance to further extend to the European customers
2011	IMPETUS acquire the license for REPLAY underwear and nightwear lines	Reinforce the position of an underwear manufacturer specialist	Broaden the Group's brands and improve its reputation
2012	Marketing department launches two mobile applications IMPETUS Augmented Reality and IMPETUS Catwalk	Brand promotion	Interaction with clients (B2C) and brand enhancing through social media platforms
2014	 Opening of a new subsidiary in Germany Introduction of Thermo Line for kids 	Enhance the international expansion and increase the product offer	 Reinforcement of the internationalization model Extension of the innovation knowledge to conquer a new market Rise of the production flexibility Source: Author's analysis based on Cardeal (2010)

Exhibit 6| IMPETUS KPI'S and Portuguese industry comparison

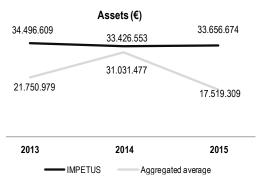
	2010	2011	2012	2013	2014	2015
Turnover	25.678.101	27.167.258	24.585.679	22.724.039	27.411.022	26.291.847
(€)	Evolution	6%	-10%	-8%	21%	-4%
Net Profits	767.146	619.552	500.282	685.874	1.607.217	1.192.019
(€)	Evolution	-19%	-19%	37%	134%	-26%
Assets (€)	37.127.933	34.292.117	33.025.633	34.496.609	33.426.553	33.656.674
Assets (c)	Evolution	-8%	-4%	4%	-3%	1%
Equity (€)	11.109.315	11.672.521	12.025.829	12.776.943	14.472.073	17.297.699
Equity (e)	Evolution	5%	3%	6%	13%	20%
Employees (number)	342	365	369	383	409	417
	Evolution	7%	1%	4%	7%	2%

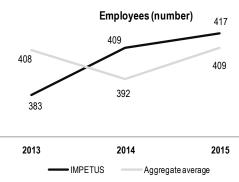
Source: IES (Simplified Corporate Information)

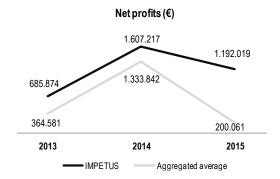


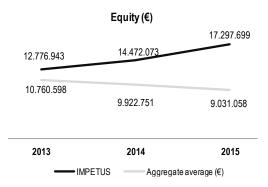
Notes

- To facilitate this case's understanding and focus on the leading company, the presented KPI's concern only to IMPETUS Portugal Têxteis, S.A., rather than the Group's consolidated accounts;
- Relatively to the comparison of IMPETUS' major indicators with the Portuguese aggregated average the criteria was: IMPETU's primary economic activity classification (Portuguese CAE: 14140 manufacturer of underwear); Years of analysis (2013-2015 as the available data); Company dimension (large corporations according to the European Commission recommendation (2003/361/EC): number of employees > 250 and turnover > €50 million or annual balance sheet total > €43 million);
- The relevance of comparing the company to other national players is intimately related to this case study purpose study a national role model company within the Portuguese Fashion Industry. Nevertheless, one shall consider that the national market only represents 5% of the company's turnover.



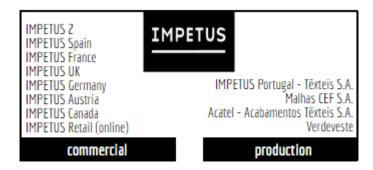






Source: Author's analysis based on Banco de Portugal (2016)

Exhibit 7| Composition of IMPETUS Group



Note: IMPETUS 2 refers to a distribution company responsible for the national market.

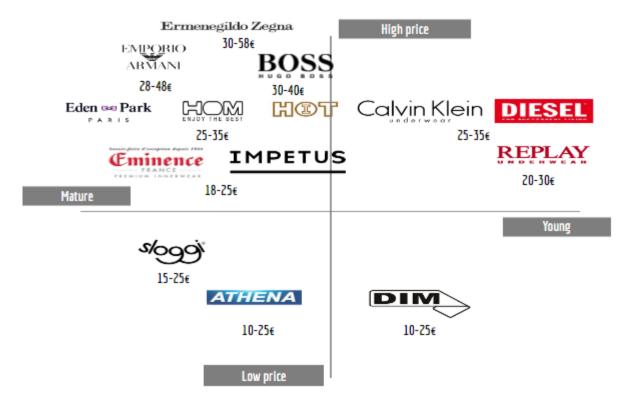
Source: Author's analysis

Exhibit 8| IMPETUS brands and licenses



Source: Author's analysis

Exhibit 9| Competitors positioning map



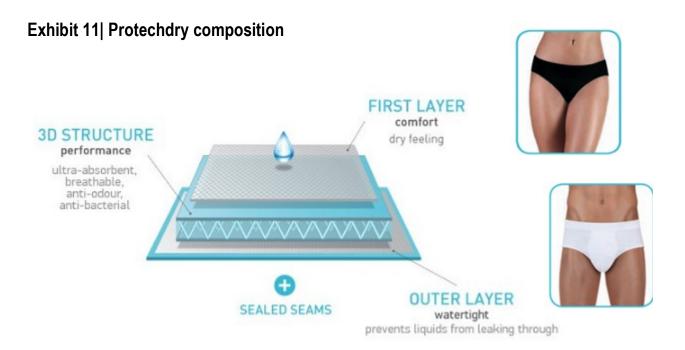
Source: IMPETUS' internal documents

Exhibit 10| International distribution: department stores

Department stores

Spain	France	Greece	Mexico	China	Japan
El Corte Inglês	Galeries Lafayette LePrintemps	Attica Hondos Center Notos Galleries	Palacio del Hierro Liverpool Saks Fifth Avenue	Galeries Lafayette Beijing	Hankyu Takashimaya
"IAPETUS "BARN MARINE INSTANCE SALEN INSTANCES		Heados Centar	Thomas of the second		

Source: Author's analysis

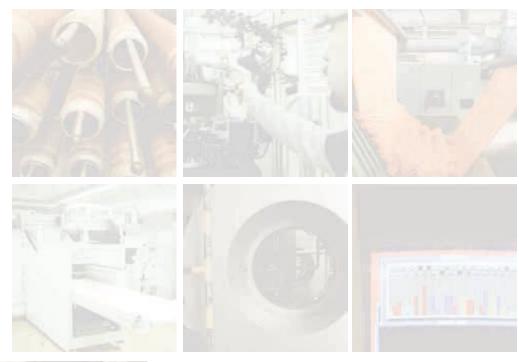


Source: wwww.protechdry.com

Exhibit 12| List of patents registered under the group's scope

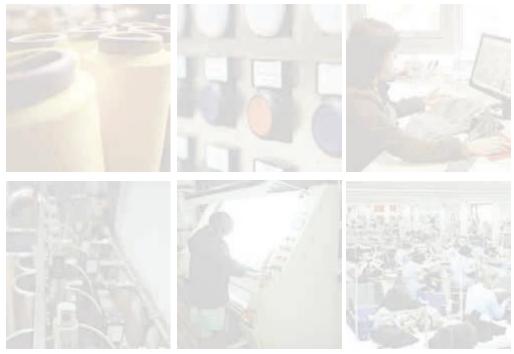
Title	Applicant	Country	Publication Date
2865804 Method and machine for sealing three dimensional fabrics, and thus produced garments	IMPETUS Portugal Têxteis S.A.	European patent office (EP)	29.04.2015
WO/2013/191574 Method and machine for sealing three dimensional fabrics, and thus produced garments	IMPETUS Portugal Têxteis S.A.	World Intellectual Property Organization (WO)	27.12.2013
2542197 An integrated, washable and reusable three-dimensional (3D) multifunctional knitted fabric structure and method to produce the same	IMPETUS Portugal Têxteis S.A.	European patent office (EP)	09.01.2013
WO/2011/108954 An integrated, washable and reusable three-dimensional (3D) multifunctional knitted fabric structure and method to produce the same	IMPETUS Portugal Têxteis S.A.	World Intellectual Property Organization (WO)	09.09.2011

Source: World Intellectual Property Organization





THEORETICAL BACKGROUND



III| THEORETICAL BACKGROUND

This review intends to provide a general contextualization on how the case study suggested analysis has integration with the theoretical background learned from strategic management theories and frameworks. Therefore, this chapter's structure follows the same logic as the one in the teaching notes section.

In a macro viewpoint, one should realize the strategic thinking evolution and its theories' application in a corporation (Part A). It is fundamental to acknowledge the industry contextualization as to identify the major shifts that have occurred in the external environment (Part B).

Afterward, one must focus on the internal view identifying what supports the firm's competitive advantage, namely the resources/capabilities that have been developing over the years (Part C). To better understand the corporate strategy development, one shall consider the options to implement a new strategy and assure the vertical integration of the business activities (Part D).

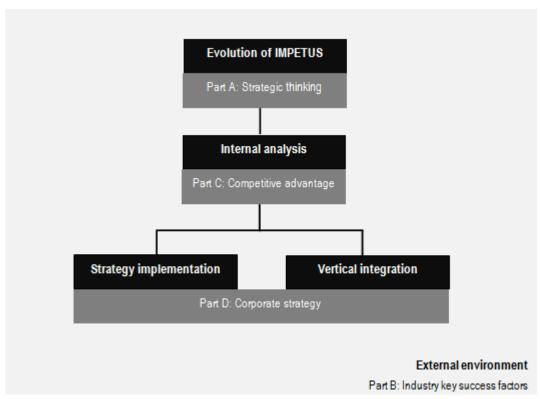


Figure 1: Theoretical background roadmap

Part A: Strategic thinking

In the 1960s strategic management revolved around different approaches and evolutions - companies' achieved growth through diversification, and corporate planning remained in the medium-term economic forecasts. The emergence of strategic management/positioning, during the 1970s-1980s, argued as basic reasoning the industry analysis and competitive positioning. The company must adapt to the surroundings to achieve a dominant positioning and, therefore, protect its market position (Cardeal, 2015). What has been termed the design school by Mintzberg assumed the strategic planning prominence, where strategy is a planned activity apart from execution. Porter (1985) made his statement in defending that industry structure shapes the company's behavior and if the company achieves a monopolistic position will, therefore, have a sustainable competitive advantage.

The quest for competitive advantage and orientation towards resources/capabilities came in the 1990s. The resource-based view focuses on the internal context by arguing that the company with better resources and capacity to explore them will sustain competitive advantage (Cardeal, 2015). Nevertheless, the millennium's strategic management combined the internal organization with the external environment, emphasizing the role of innovation, technology, corporate social responsibility, flexibility, among others.

Rather than a detailed plan or instructions set, the strategy can be count as the unifying theme supporting coherence and directions of an individual/organization actions and decisions (Grant, 2013).

From the intuitive ability to look at the world (Gorzynski, 2000); Mintzberg (1994) encouragement to analyze the company's levels of intuitive, creative and innovative thought; to Abraham (2005) definition of strategic thinking as the process of identifying different ways for competing and increasing the clients' value, the concept's scope has been through multiple interpretations over time.

Strategic thinking defends creative and intuitive thought to evolve all the company's members identifying new opportunities, and the strategic planning argues an analytical, logic, systematic and conventional long-term orientated perspective (Cardeal, 2015). Whereas the second orientates a purely rational strategy, the first supports interaction with the business changes. Instead of considering them separately, they should come alongside as complementary ways of supporting strategic management (Heracleous, 1998).

Part B: Industry key success factors

The starting point for an effective strategy analysis shall start with the certain industry's identification where the corporation develops its activities. Understanding the industry's reality guides the strategic positioning of a company and helps determine which strategic way to go (Cardeal, 2015).

Upon each corporation management, the industry key success factors (KSF) are variables that will allow companies create value for customers and, therefore compete distinctively (Eisenhardt & Martin, 2000). Whether a company intends to succeed within the industry, the KSF will be the corresponding factors that need to excel. A corporation will have a better performance than its competitors during the customer's value creation since the KSF will enable such process (Ohmae, 1982).

Complying with KSF, one should identify the reasons inherent to consumers purchasing particular products/services in detriment of competitors. Moreover, looking at consumer side will inform on the key purchase factors. At an internal differentiation, and following consumers' preferences, the competition engines are the variables that industry's players use to create a higher value to its customers than its competitors (Cardeal, 2015). Overall, identifying customer needs, preferences, and how corporations compete to attend those, will lead to the identification of the competitive advantage sources' in industry – KSF (Grant, 2013).

Part C: Competitive advantage

Cardeal (2015) argues that companies achieve competitive advantage in three ways. The first, as a result of the efficient use of resources/capabilities reaching an inferior economic cost of the product/service than competitors, and therefore ending up delivering the same perceived value at a lower cost. The second, as an outcome of differentiation through the use of the companies' resources/capabilities delivering a differentiated offer, perceived as superior and for the same cost. The third, through the combination of the two previous mentioned ways, that is to say, costs decreasing and customers' perceived value increasing - differentiation.

The Resource-Based View evaluates the integration of the company's critical resources (according to its value, rareness, inimitability, and organization -VRIO model) to achieve competitive advantage. Whereas Barney (1991) divided resources into physical resources, human resources, organizational resources and financial resources, Teece (2007) differentiated between intangible and tangible assets.

When a company implements a strategy capable of creating value and, simultaneously, is not implemented by other current/potential competitor as they are unable to duplicate the outcomes of such strategy, one can achieve a sustainable competitive advantage (Barney, 1991).

Indeed, the use of the value chain assists in identifying which are the activities that confer value to the organization's products or services (Porter, 1985). The differential among one company's value chain and its competitors may be seen as the source of a sustainable competitive advantage. Nevertheless, such perspective has a focus, essentially, on the firm's internal perspective.

Complementary, and not necessarily in opposite angles, dynamic capabilities highlights the impact of the external environment in the development of such capabilities. Furthermore, one can define dynamic capabilities as the firm's capability to integrate, develop and reconfigure its internal and external competencies base according to changes in the environment (Teece, et al., 1997).

In a purpose to remain competitive and relevant, the company's capabilities shall be responsible for incessantly creating, protecting, upgrading and expanding its exclusive resource base, in a process that in some extent argues dynamic capabilities (Teece, 2007). Some practitioners defended that dynamic capabilities may be faced, in fact, as a particular case of the VRIO model, through the capacity to respond and adapt to changes in a dynamic industry (Barney, et al., 2001).

All in all, resources are identified as the productive assets owned by companies, whereas capabilities, as the essence of superior performance, represent what the firm can do. Coupled together they have potential to generate substantial streams of profit, as to establish/sustain competitive advantage (Grant, 2013).

Part D: Corporate strategy

As an important area, business strategy addresses how companies should compete while the corporate strategy covers the extent of the industries/markets in which it should be. Furthermore, business strategy advocates that a company must establish a competitive advantage to success whereas the corporate strategy encompasses how can a firm allocate its resources amid different business, including options for diversification, vertical integration, among others (Grant, 2013).

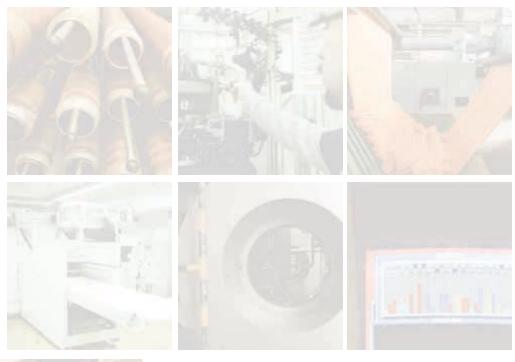
Regarding corporate strategy dimensions, one will focus the vertical integration as an extension of activities to the ones where the company becomes its customer and supplier. Cardeal (2015) argues that the main purpose of vertical integration be to define how to make use, internally and externally, of its resources/solutions to provide services/products and, therefore, develop the ideal vertical system.

Vertical integration occurs when a company includes activities upstream or downstream in its core business (Cardeal, 2015) as when, for instance, complements its portfolio with other activities (such like distribution) moving, as a result, downstream towards its final customers (Henry, 2008). Fronmueller & Reed (1996) presented, as well, vertical integration when a company owns or controls the assets in the value chain's successive stages, corresponding to the activities under the company's control and the use of the inputs/outputs throughout activity stages.

Closely connected to corporate strategy, vertical integration in diversified companies may be associated with more than one business due to a products' transversally. Indeed, vertical integration ought to enhance competitive performance and maximize the strategy fit to the business (Cardeal, 2015).

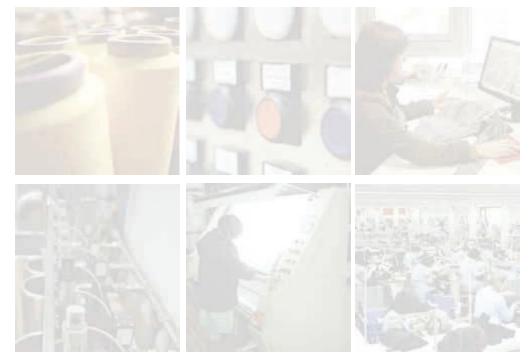
Over and above strategy formulation, execution and implementation go beyond the planning tasks. Executing strategy involves shared efforts from all organization's members, and its interdependent formulation/planning shall consider its capacity in implementing, monitoring, and allocate resources (Grant, 2013). Hence, one shall focus on the multiples options to execute the defined strategy.

Implementing strategy may be held according to two different ways – either through internal development of its organization's structures and external development (Cardeal, 2015). In the first scenario the company implements its strategy according to internal resources and capabilities, being the one responsible for executing the strategic options. In the second scenario, the company may use external options to run the defined strategy – from mergers and acquisitions to strategic alliances or market transactions. According to the strategy consistency, feasibility, and objectives, each organization must test the suitability to its business statement and, therefore, choose how to implement it better.





TEACHING NOTES



IV| TEACHING NOTES

The case study prepared aims to serve as a bridge between managerial reality and theories learned in classes. Students are advised to read and analyze it along with a few suggested questions. The teaching notes' purpose is their practice as a reasonable guideline to conduct the case.

As often specialists express, the strategy can be a blend of science and art. For all that, this analyze provides general recommendations regardless of attempting to be as accurate and illustrative as possible. Different interpretations may be assumed as the discussion might follow another approach.

Due to the non-static nature of businesses shall be aware of possible changes in the displayed information as a new fresh perspective to discuss the present case study.

1| Synopsis

IMPETUS Portugal Têxteis is a Portuguese textile company based in Braga and specialist in male underwear, nightwear, and beachwear. Featuring own brands (IMPETUS/HOT) and licensees (Eden Park/Replay) this company has been dividing efforts with other business areas –private label and healthcare.

From the vertical integration to the worldwide distribution reach, over the past 43 years, the IMPETUS set up a Group structure with about 12 other corporations ensuring 95% internationalized trade. Differentiation and innovation came along in the way: besides the traditional underwear production, IMPETUS was one of the firsts introducing seamless technology into its products, launched two technical textiles (Thermo and Innovation) and yet adventured in the MedTech industry with the first underwear for incontinent people (Protechdry)

"IMPETUS wearable strategy" aims to deconstruct the history of a Portuguese company, within the textile industry, to better understand how theoretical studies match the managerial strategy reality. Moreover, is an internal analysis of the organization resources and capabilities to identify how the company has been developing its competitive advantage.

Was it a pure chance from the external circumstances? Was entrepreneurial gut to go beyond the expected? Was a rigorous and planned strategy? Alternatively, was it a blend of all together? The principal challenge is to critically analyze how IMPETUS has been crafting this wearable strategy that placed themselves as the "largest underwear company" at a European level.

2| Teaching objectives

In this strategic journey, the primary goal is to identify what resources/capabilities have been contributing to IMPETUS' wearable strategy and, therefore, establishing its competitive advantage in the Portuguese fashion industry (henceforth PFI). More than just recognizing IMPETUS' evolving history towards differentiation, this travel intends to illustrate different stages of an ongoing strategy - from innovation, internationalization, trial and error, verticality, distribution and logistics integration to brands' range expansion.

Firstly, one must focus on the company's progression for the past years to frame a corporate application of the strategic thinking and planning theories (Part A). Subsequently, the identification of the industry's key success factors will support the dynamics nature of that external environment as will allow a first approach to identifying the source of competitive advantage (Part B). Secondly, the company's internal diagnosis includes the identification of resources through the value chain and definition of capabilities/Competitive Advantage (Part C) supporting the corporate strategy IMPETUS has been setting up (Part D). For the last one, one will analyze the decision to enter a new industry and the outcomes of having all the activities vertically integrated.

Figure 2: Case study objectives

Academic perspective

- 1. Link in-class theory, namely about the management strategy evolution, to a real company;
- 2. Evaluate the external modifications of the industry and its key success factors;
- 3. Apply the dynamic capabilities theory to identify the company's capabilities leading to competitive advantage;
- 4. Perform a critic VRIO analysis, under the resourcesbased view theory, to evaluate if the company's integration of capabilities and resources is at the origin of its competitive advantage;
- 5. Distinguish innovation as a response to differentiation and identify the strategy's execution;
- 6. Value vertical integration and its impact towards the company's performance;
- 7. Develop a holistic approach towards the integration of strategic planning and thinking.

Managerial perspective

- 1. Acknowledge IMPETUS' history and surroundings as crucial to its differentiation path among other Portuguese textile companies
- 2. Understand the evolution and directions of the PFI;
- 3. Benchmark IMPETUS' wearable strategy to others textile/ non-textile corporations, with a practical example of how they developed their competitive advantage over time;
- 4. Recognize how can a company diversify its offer by benefiting from synergies;
- 5. Identify the advantages and disadvantages of vertical integration in a company's differentiation option;
- 6. Discover the strategic reality of a Portuguese textile company.

3 Pedagogical Overview

Questions	Advantage/disadvantage of the defined approach	Bibliography
Q1. Frame the company's history by highlighting the principal turning points/decisions and connect it with the theoretical strategic management evolution. Do you consider IMPETUS' path to stand for strategic planning or strategic thinking?	(+) students are capable of identifying and describing a business' strategy in a practical example; (+) students can understand how strategy is developed within organizations; (-) theoretical evolution approach may be regarded as not so interesting; (-) the strategic thinking and planning overview may be considered too simplistic and succinct.	Cardeal, N. (2015). Pensamento Estratégico. Antecipar as ondas do futuro (pp. 33-60). Lisboa: Universidade Católica Editora. Cardeal, N. (2015). Pensamento Estratégico. Antecipar as ondas do futuro (pp. 13-18). Lisboa: Universidade Católica Editora. Grant, R. M. (2013). Contemporary Strategy Analysis (pp. 3-25). Edinburgh: Edinburgh Napier University.
Q2. What are the key success factors of the industry in which IMPETUS performs its activity?	(+) straight-forward approach to the question in identifying the key success factors; (+) identify opportunities for competitive advantage through the industry key success factors; (-) may suggest a covered sensibility to understand the Portuguese Fashion industry outlook; (-) it would be interesting to the analysis explore the technical textiles and the medical devices segment.	Cardeal, N. (2015). Pensamento Estratégico. Antecipar as ondas do futuro (pp. 99-129). Lisboa: Universidade Católica Editora. Grant, R. M. (2013). Contemporary Strategy Analysis (p.84). Edinburgh: Edinburgh Napier University.

Figure 3: Teaching notes pedagogical overview

Estimated time	Learning objectives	Theoretical background
[15 minutes]	AP1; AP7; MP1; MP6	Part A: Concept of strategy; Strategic planning vs. strategic thinking
[15 minutes]	AP2; MP2	Part B: Industry definition; industry key success factors

Note: AP (academic perspective); MP (managerial perspective); Advantage (+); disadvantage (-)

Questions	Advantage/disadvantage of the defined approach	Bibliography	Estimated time	Learning objectives	Theoretical background
Q3. What are the capabilities and resources that led to IMPETUS competitive advantage? How were they developed? Are they, in fact, in the origin of the company's competitive advantage?	(+) identify and evaluate the potential of resources and capabilities conferring competitive advantage; (+) apply Porter's value chain (+) execute VRIO analysis for resources/capabilities (-) subjective question due to the choice of resources/capabilities; (-) light version of the analysis does no evaluate the formation of dynamic capabilities and its micro foundations	Cardeal, N. (2015). Pensamento Estratégico. Antecipar as ondas do futuro (pp. 131-158). Lisboa: Universidade Católica Editora. Grant, R. M. (2013). Contemporary Strategy Analysis (p.103-125). Edinburgh: Edinburgh Napier University. Eisenhardt, K. M. & Martin, J. A. (2000). Dynamic capabilities: What are they? Strategic Management Journal, 21, 1105-1121.	[30 minutes]	AP3; AP4; MP3	Part C: Resources- Based Theory; capabilities; competitive advantage
Q4. Has the vertical integration been impacting the differentiation strategy?	 (+) understand vertical integration in an industrial company; (+) foster a critical analysis on how the company has been developing its activities and whether is impacting the differentiation strategy; (-) covered sensibility to understand the Group dynamics and correlated the different activities within each one of them. 	Grant, R. M. (2013). Contemporary Strategy	[15 minutes]	AP6; MP5	
Q5. Why did the company venture in the medical devices segments in 2010? How was the strategy behind this decision implemented?	(+) recognize how strategic planning connects to operational planning, performance, execution, and resources allocation to implement the defined strategy; (+) recognize, in a real case, how a Portuguese company took advantage of its internal and external resources to develop a new product; (-) rather than purpose a framework to apply, this question focus on the capacity to link theoretical background to a real example. As so, it may be faced with an open question with multiple interpretations.	Cardeal, N. (2015). Pensamento Estratégico. Antecipar as ondas do futuro (pp. 291-317). Lisboa: Universidade Católica Editora.	[15 minutes]	AP5; MP4	Part D: corporate strategy; business strategy; vertical integration; strategy implementation;

Note: AP (academic perspective); MP (managerial perspective); Advantage (+); disadvantage (-)

4| Suggested assignment questions: analysis and discussion

1. Frame the company's history by highlighting the principal turning points/decisions and connect it with the theoretical strategic management evolution. Do you consider IMPETUS' path to stand for strategic planning or strategic thinking?

To answer the question's first part is important to have, chronologically, a glimpse of what were the major decisions that led IMPETUS to its current position. At the same time, one should bear in mind the strategy evolution to make an analogy on how the company's history follows-up the in-class academic theory (Figure 4).

Considering the second part of the question, in a brief overview, the strategic planning emerged during the positioning/design era and led to a long-term orientation and analytical thought, while the strategic thinking is more intuitive, creative, innovative and divergent.

Until the 1990's IMPETUS Group had a more oriented strategic planning vision. The Group gave emphasis to production efficiency (competing in international markets as a low-cost manufacturer), product specialization (long term planning for focusing in underwear) and convergent leadership with the acquisition of other companies to maximize production and control all the textile activities (dyeing – Acatel).

With the new millennium, the Group emerged in a strategic thinking orientation developing innovations (seamless area, technical textile products, Protechdry), enlarging the distribution network with the two brand's license and e-commerce platform.

At the same time, all actors are invited to have an active voice within the Group: from the commercials/ subsidiaries representatives who give feedback about the collections' possible modifications, to the sewing operators who are invited to share ideas about products or process innovations.

Those new shifts demonstrate a more intuitive and creative vision. A strategic thinking orientation, as the Group's internal dynamics, is responsible for adapting to the external changes. Nevertheless, it was IMPETUS' strategic planning that built and connect the entire production engine, leading to the described key milestones, such as new business areas and core innovation capability. One can assume that is their interaction and complementarity defining their overall strategic management.

Figure 4: Framework of IMPETUS history and theoretical analogy

Date	Turning points/ decisions	Theoretical analogy	Case study evidence
[1973-1980]	a) Company oriented to product; b) Business model based upon production costs – low commodities and labor costs; c) Impetus was not yet specialized and sewed "a bit of everything" under the undergarments segments (like lycra t-shirts); d) Some improvements were made like larger undergarments productions, facilities expansion and employees recruitment; e) Focus on the external markets (north and central Europe); f) IMPETUS opened Malhas CEF (other company belonging to the Group) to increase the production capacity and enlarge the industrial activities.	Strategic Management/ positioning or design era: - industry analysis and selection (c); - positioning to lead the market (a, b, d); - competitive position (b, d, e, f); - multidivisional structures (f); - market selection (e).	 Case study (page 4): "During the 70s the company was responsible for doing a little of everything We sold our production capacity through a business model based on much lower labor and commodities costs rather than other countries"; Exhibit 5 (page 20).
[1981-1999]	[1981-1990] a) Specialization: orientation towards the brand (male underwear); b) Activities' expansion through value chain development (from the sewing to warehousing); c) Efficiency needs and the will to decrease the production costs triggered the birth of IMPETUS' brand (entirely dedicated to male underwear); d) Opening of the actual facilities in Barcelos (1990); e) Establishment of a design department with technological resources (CAD-CAM) and skilled technicians to be responsible for IMPETUS' brand collection; [1991-1999] f) Market orientation: IMPETUS entries in El Corte Inglês (1997) and starts developing its international distribution network; g) Settlement of Verdveste and business specialization through Malhas CEF (seamless technology). IMPETUS' Group was constituted for four industrial units (IMPETUS Portugal Têxteis; Malhas CEF; ACATEL and Verdeveste); h) Settlement of a marketing department and progressive investments (from commercials to designers and facilities improvements).	Competitive advantage: - cost cutting, refocusing, outsourcing (a, c, g); - new businesses development (c, e, f, g); - emphasis on resources and capabilities (b, d, g, h); - information system (e); - shareholder value maximization (b, c, g).	 Case study (page 4): "During the 1980s it was time for specialization focus their production on the underwear segment"; "Had been producing over the last 15 years to private labels was the urge to launch a small underwear collection"; " design department responsible for conceiving brand's collection and opening the manufacturing center reinforced value chain's activities. IMPETUS brand was born"; Case study (page 5): "IMPETUS Portugal Têxteis integrated other owned companies in its business structure End of the 1990s and the Group was keen to embrace technology and shape a visionary path for the textiles materials"; Exhibit 5 (page 20).

Date	Turning points/ decisions	Theoretical analogy	Case study evidence
[2000-2015]	[2000-2010] a) Market diversification and internationalization (IMPETUS entered in China, French departments; Greece and Mexico) b) First seamless underwear line and Thermo products(2000) – higher levels of technological production; c) IMPETUS develops "innovation" under NASA technology; d) HOT brand is born to attract a different range of customers; e) EFACEC develops a tailored robotized warehouse; f) IMPETUS acquire Eden Park to access other sales points in France and target new customers; [2010-2015] g) IMPETUS acquire Replay's underwear license and launch Thermo line for kids; h) IMPETUS become a Bluesign® partner, alongside other certifications; i) The Group enlarges its business areas for Healthcare. In partnership with University of Minho develops Protechdry and, in joint-venture with Emergo, starts it worldwide distribution; j) Brand consolidation: strategic and communicational repositioning with Iker Casillas been invited to brand's ambassador; k) Protechdry technology is patented.	Innovation and organizational strategy: - flexibility, responsiveness and strategic innovation (b, c, d, e, i, k); - strategic alliances (a, f, g, i, j); - social and environment responsibility (h); - self-organization and complexity (a, d, f, g, j); - emergence rather than a direction emphasis (b, c, i).	Case study (page 5): "Welcoming a new millennium brought brand consolidation, international expansion, and innovation core orientation"; Case study (page 7) "Later in 2009 IMPETUS integrated into its portfolio, Eden Parkin 2011 Replay was as well granted"; (page 14) "Born in 2010, Protechdry was developed in partnership with"; (among other examples) Exhibit 5 (page 20 and 21).

2. What are the industry key success factors in which IMPETUS performs its activity?

As described in the case study, IMPETUS develops the majority of its activity in the Textile industry, moreover, in the PFI. It must be taken into account that despite IMPETUS' brand serves a specific segment of this industry – male underwear – the entire Group activity is more transversal. Meaning that, according to the case study, IMPETUS Group is also responsible for private label productions (40% of its total revenues) and this business area serves both man and woman orders from underwear, to beachwear and nightwear.

Due to the generalization of IMPETUS' overall activity and its representation in the company's total turnover, the PFI should be the one analyzed with the proviso that it would also be interesting further examine the technical textiles as the medical devices segments.

Before presenting the industry key success factors (IKF), is significant to contextualize the PFI to comprehend its numbers' evolution:

- Industry key milestones: 2005 underline the world's industry trade liberalization and Portuguese exports fell by 21% compared with 2001, due to decentralization policies in favor to lower labor costs manufacturers (for instance, Asian countries). 2009 highlight the global economic crisis' impact with a resulting decrease in exports (15%), employment (23%) and turnover (22%) relatively to the last four years. 2015 mark the industry's recovery with the last six years key indicators rising, namely exports (38%) and turnover (26%).
- Portuguese economy's representation (2015): 10% of total exports (€4,8million); 19% of manufacturing employment; 8% of production/manufacturing turnover.

Ensuing is presented the IKF for the PFI, accordingly to the information provided throughout the case study.

Figure 5: Industry key success factors

Purchase key factors (Demand side: What do consumers want?)	Competition Engine (Competition side: How do firms endure competitors?)	Industry key success factors
 Decreased willingness to pay: competitive price 	 Long-term relationship with customers/suppliers 	Synergies/ alliances
Quality and durability	 Innovation (both in processes and products) 	Operational flexibility
 Tangible differentiation by the products' functionality 	 Accumulated know-how and workforce specialization 	Cost-effectiveness balanced with material/products differentiation
Brand reliability	Technology investment	 Investigation and development - new areas, new products, new features (technical textiles are forecasted to reach US\$ 193.7 billion in 2020)
	Distribution reach in a rapid response	Brand image

3. What are the capabilities and resources that led to IMPETUS competitive advantage? Are they in the origin of the company's competitive advantage?

To answer the question and identify the competitive advantage (henceforth referred as CA) is necessary first to select the capabilities/resources and evaluate if they are, indeed, in the origin of its CA.

For each one of the capabilities will be conducted a VRIO analysis, considering the premise that, itself, resources cannot create CA - their potential derive from de way resources are bundled through organizational processes/dynamic capabilities.

1st step: Identify resources/capabilities

The Porter's value chain applied to IMPETUS activity (figure 6) will help identifying some of the resources leading to CA (2nd step).

Figure 6: IMPETUS value chain

Firm Infrastructure: Group IMPETUS composed by 4 industrial and 8 commercial companies (CS p.5); CEO Alberto Figueiredo; internally organized in 12 departments that cooperate on a network information flow– HR; production, design, quality control & certification, administration, marketing & communication, commercial; information systems, financial, innovation & development, planning, management control (CS p.10); Innovation Partnership with University of Minho.

Human Resources: ongoing training; involvement of all employees in the innovation processes/products; encouragement to share their ideas (CS p.10); variety of working practices resulting from SA 8000:2008 certification - gymnastic, profit sharing, transportation, scholarships for relatives and medical care (CS p. 11).

Technology Development: seamless and CAD-CAM technology to develop collections (CS p.13); know-how to incorporate OUTLAST technology and develop technical textiles –Thermo/Innovation (CS p.14); specialized knowledge in underwear (CS p.5) and thermal underwear –transformation of polypropylene in textile fiber (CS p.5); knitted waits development and cutting system in CAM mattress to minimize wastes (CS p.8); control of all production activities and due to vertical integration (CS p.8); responsible for product design and innovation processes (CS p.10, 12).

Procurement: yarns and chemicals are bought externally, the owned companies help in production (Verdeveste with private label, ACATEL with dying and Malhas CEF with seamless productions).

Inbound logistics:	Operations:	Outbound logistics:	Marketing & Sales:	Service:
3 factories in Braga and 1 in	product design, development,	Robotized warehouse (with a	Marketing and communication	E-commerce platform (return
Cape Verde;	and quality control (in-house);	story capacity of 5 million	department responsible for	policies); feedback received
strict number of suppliers (like	vertical integration of the all	pieces) optimized to serve large	brands' promotion; social	from international distributors
BASF and LENZING) and	production activities (from the	orders;	media interaction and brand	about collection
preferred long term	yarns' transformation into the	automatic pick and pack system	promotion through mobile apps	responsiveness; real-time
relationships;	final product packaging) (CS	optimized to small quantities	(Exhbit 5); brand ambassador	connections through PDA's
high bargaining power due to	p.8).	(CS p.9-10); EDI connections	(CS p.16).	between IMPETUS and sales
the Group's recognition in the		with major clients to resupply		force; stocks management
fashion industry (CS p.8).		stores; international		done by IMPETUS (CS pp.9-
		subsidiaries; contracts with		10).
		DHL, UPS, Feder (CS p.10).		
Note: CS (Case study)				

Primary Activities

Capabilities (outputs) are the result of how companies integrate a set of resources (capability's inputs) to achieve CA. When one changes its resources base to adapt to environmental changes and detect opportunities/threats, its own are referred as dynamic capabilities.

Considering that, IMPETUS CA stems from the combination of three capabilities:

- **A.** Development of new products: in 2000 IMPETUS launched Thermo, in 2006 Innovation and 2010 the patented Protechdry. Besides the 800 references/season, 60% of the production is allocated to the Group's brands where there is space for new developments.
- **B.** Creation of innovative knowledge: IMPETUS has been demonstrating a core innovation policy development. First with the seamless technology adoption to its products (1999/2000), then the OUTLAST technology's incorporation (2006) and later (2010) the sealed seams for the first underwear's conceive for incontinent people.
- **C. IMPETUS brand:** settled in 1990, has the broader range of products (underwear/beachwear/nightwear), is responsible for 80% of 60% total production, and is the main force to enter a new market.

2nd step: Identify resources/capabilities and test them through VRIO analysis

According to the previous step, resources can be physical, financial, human or organizational, while the last is the company's way to organize resources and usually defined as capabilities. For that reason, one shall conclude that, for this particular case, the identified capabilities are organizational processes (the "O" in VRIO model). Moreover, resources itself cannot stem CA, as their potential derive from the way resources are bundled with organizational processes/capabilities.

For each resource is done a VRIO analysis followed by their integration under the defined capability.

A. <u>Development of new products:</u>

Resources	
Vertical integration	VR
Production capacity	VR
Seamless Technology (95% cotton)	V
Cluster relationship	-
Suppliers relationship	V
Development of new products	VRI

Note: Valuable (V); Rare (R); Inimitable (I); - (when resources are not valuable, nor rare, nor inimitable)

Vertical integration and production capacity are valuable because itself are capable of exploit opportunities/neutralize threats, as in private label's orders. Vertical integration activities have been fostering recognition, with top-notch brands sourcing in there. Besides, this resource is taking advantage of brands' return to Europe (after years outsourcing production).

Production activity is taken (60% bands, 40% private label) making it valuable for making use of the opportunity at the time. The fact of not having few vertical companies is Portugal makes it also rare, as in the case of production capacity where IMPETUS declares being the largest underwear producer in Europe. Nevertheless, none of them proves to be inimitable.

Seamless technology (95% cotton) was, at the time (1999), valuable/rare and a source of temporary advantage, as IMPETUS seized opportunities and leverage its differentiation towards technical textiles (Thermo in 2000). Having other companies (SONICARLA, SIDÓNIOS) copping this combination proves that is controlled by competitors and is no longer rare, yet it is valuable because IMPETUS can develop new products with the resource's combination itself.

Whereas suppliers relationship is valuable allowing to obtain competitive prices, bargaining power and access first to innovations (BASF, LEZING example), the cluster relationship by itself cannot generate value – it needs structure to develop outcomes and people to exploit the connection. Not of them has evidence of being rare nor inimitable.

Although none of the resources passes the VRIO test, one can conclude that is the combination of the organization's capability – development of new products that has been proven a source of CA, passing the VRIO test. Indeed, the listed resources altogether originate the capability for developing new products.

Note: Additionally, the instructor can analyze the case of brand/product Protechdry as a capability resulting from the previously analyzed one. The objective is to illustrate how a capability (development of new products) can serve as an input/resource to the progress of another capability (Protechdry). If one had chosen Protechdry for this analysis, it would have passed VRIO test. Being the first underwear for incontinent people confirms its value in seizing the market's opportunity (600.000 potential users only in Portugal), through recognition as a medical device (certification ISO 13485:2003) and generates, itself, profits (5% total's production). The fact of having no direct competitors (only substitutes products from SCA Group/Kimberly-Clark, like disposable diapers/pads) demonstrates its rareness, while the patented sealed seams and 3-D structure reveals its inimitableness.

B. Creation of innovative knowledge

Resources	
Cluster relationship	V
Technology	-
Organizational Culture	RI
Creation of innovative knowledge	VRI

Note: Valuable (V); Rare (R); Inimitable (I); - (when resources are not valuable, nor rare, nor inimitable)

In this case, cluster relationship shall be considered as valuable once it is evaluated according to the capacity of connecting IMPETUS with other based companies/institutions. For that reason, shall be considered only as valuable, because it allows IMPETUS to connect with University of Minho, Nanotechnology Center or CITEVE, and therefore differentiate through innovation and mitigates external threats. There are no proofs of it being inimitable/rare (all other north-based companies can benefit from this potential).

Technology is analyzed to the level of CAD-CAM systems, seamless technology and their integration with production activities. *Per si*, they are not valuable (need technicians and specialized knowledge to transform/use it), available in the market (not rare) and, therefore, imitable.

Organizational culture refers to the sense of how IMPETUS combines the entire activity with employees' commitment. Individually, it cannot be valuable once it needs production activities (for example) to be converted in value to the organization. Nonetheless, the combination of CSR policies (like profit sharing) proves its inimitableness (Appendix 1) and the activity's years aligned the quality detail across all production activities prove its rareness.

Similarly to the previous' capacity, is the capability passing the VRIO test and not the resources. The creation of innovation knowledge stems CA through the combination of technology with organizational culture and fostered by the cluster's relationship.

C. IMPETUS brand

Resources	
Brand portfolio	VRI
Distribution Network	R
Logistics	R
Design	I
IMPETUS brand	VRI

Note: Valuable (V); Rare (R); Inimitable (I); - (when resources are not valuable, nor rare, nor inimitable)

Brand portfolio refers to the integration of 4 different brands in IMPETUS core business.

The representation of production' values (altogether account for 95% of total) demonstrates its value. In fact, the brands' portfolio enables IMPETUS to take advantage of opportunities in a particular point of sales (the integration of Eden Park to potentiate the French market is an example) and allows exploring new possibilities in different consumer's segments. Its rareness comes from the fact of being a company, in the Portuguese industry, making use of this combination (two Portuguese brands plus two foreign licensees) and the contracts with license's terms proves its inimitableness (Appendix 1).

Both distribution network and logistics, by themselves, don't prove to be valuable *per si*. Despite reaching more than 35 countries in a worldwide coverage through e-commerce platform/distributors contracts, the distribution network only shows to be rare once IMPETUS was the first Portuguese textile company entering to China by invitation. Logistics, for instance, demonstrates its rareness because of the robotized warehouse having only other similar competitor in Europe.

Although, without production and information systems, logistics and distribution are is not valuable neither demonstrates inimitable characteristics.

The design is not valuable as it needs production's engine, technology, and designers, to mitigate threats/produce collections, and it is not rare, once competitors' positioning map (Exhibit 8) identifies other underwear brands with a design/positioning similar to IMPETUS. Nevertheless, its inimitability is proved by the way is originated - designers' articulation with entire organization (Appendix 1).

Overall, IMPETUS brand as a capability responsible for CA is proved by the bundle of all described resources.

3rd step: Relate IKF with capabilities

According to this analyze, IMPETUS appears to perform adequately in the business critical factors. On the one hand, Porter's value chain contributes understanding how the activities developed by IMPETUS create value and help identify the resources/capabilities that are at the origin of its CA. On the other hand, the former analyzed IKF (question 2) lists all the inputs that are the source of CA in the PFI.

One shall understand that IMPETUS' capabilities are intimately related to the IKF in the sense that dynamic capabilities encompass an internal evaluation as an external consideration, accepting that the company organizes its resources/capabilities to the environment mutation. Indeed, the identified capabilities will provide IMPETUS' strategic orientations to adjust better/attend the conditions of the actual/future direction of the business context where is performing its activity (IKF).

The capabilities potentiating the IKF, accordingly, follow as:

Development of new products \Rightarrow operational flexibility; cost-effectiveness balanced with material/products differentiation.

Creation of innovative knowledge ⇒ synergies/ alliances; investigation and development - new areas, new products, new functionalities.

IMPETUS brand ⇒ cost-effectiveness balanced with material/products differentiation; brand image.

4. Has the vertical integration been impacting the differentiation strategy?

Before analyzing whether vertical integration has been impacting IMPETUS' differentiation strategy is advisable to understand how that applies to the company's business structure as well as the dynamics of the textile industry.

As described, IMPETUS Group has four industrial companies dedicated to textile production (Exhibit 7). Despite IMPETUS Portugal Têxteis being the leading company and the one this analysis should focus on, is important to understand the role of the other owned companies. They were set to strengthen the vertically integrated activities and to support the different <u>business areas</u> (Verdeveste with the private label); <u>products</u> (Malhas CEF and seamless technology); and <u>activities</u> (ACATEL with dyeing).

According to the activities explained in the case study, one can represent (figure 7) the textile production process applied to IMPETUS' reality. Presenting a vertical upstream integration, in the activities involving production and despite the externally bought raw materials, IMPETUS is responsible for the diverse activities (like weaving, cutting, sewing, packaging, and others) transforming yarns into final products (underwear/ technical textiles/ healthcare). For example for the dying activity, ACATEL serves as IMPETUS supplier. The same happens with Malhas CEF, which are the seamless technology specialist.

Concerning products' distribution, IMPETUS underlies a vertical downstream integration as it is responsible for the distribution in Portugal, through the means of IMPETUS 2 (Exhibit 7), of the different outcomes in the distribution channels (department stores, independent retailers and e-commerce). Nevertheless, for the international distribution IMPETUS has partners (like DHL, UPS) to cover the different point-of-sales.

All in all, one conclude that IMPETUS has been developing its vertical integration in the past years with the settlement of owned companies, but also with the enlargement of the early described activities' in the fashion industry value chain. While there are a few Portuguese companies with this business characteristic ("From the nearly 6 thousand companies operating in the business, a few vertically integrated,...") IMPETUS continues to, internally, assuring the several textile-related activities and serving its brands/licenses productions and private label orders.

By critically analyzing vertical integration, and despite production activities (the process of transforming yarns in finished products) are entirely assured by IMPETUS, in reality, it presents a partial vertical integration strategy. Although a major part of the business activity follows a vertical integration, it still relies on a third party to runoff downstream its products (mainly, to internationally distribute them).

Figure 7: IMPETUS vertical integration **EXTERNALLY SUPPLIED** Raw materials (Yarns, chemical textiles) [Knitting & weaving] **INTERNALLY DEVELOPED Fabrics** [Dying] [Cutting] [Sewing preparation] Finished [Sewing] fabrics [Packaging] [Packaging] Technical Healthcare Beachwear **Textiles** (Protechdry) Underwear (Thermo & Nightwear Innovation) **₩** Retail (B2B) B2C **EXTERNALLY AND INTERNALLY**

Downstream integration]

[Upstream integration]

On IMPETUS' view, the outcomes related to this (partial) vertical integration strategy are:

- Greater quality control during the production's process relatively to the competitors that outsource, subdividing the different activities in different suppliers and, therefore, decrease the control by depending on others;
- Possibility to explore the production's various stages, not only through the process improvement but also in new products' development, once competitors had lost the product development capacity to decentralization policy;
- Credibility for IMPETUS as a brand and recognition of the production engine, potentiating private label productions and accessing to new markets (geographically and for distribution channels);
- Internally development of certain capabilities that can assure/contribute to competitive advantage. For example, as it was when IMPETUS modified the seamless technology. Although it was a temporary competitive advantage (competitors were able of coping it later), at the time was possible to develop, experience, adjust the technology to a specific product requirement because the company had integrated all the production activities;
- Access to more competitive prices, more bargaining power and direct information as the one described in the case (page 8) regarding suppliers. In fact, the vertical integration stamp enables a privileged position within the industry due to the more accumulated knowledge, reliability, production and investment capacity. Translating this in partnerships with suppliers (BASF/LENZING, for example) that guarantee access to newly innovations, potentiates long-term relationships and increases commercial negotiation power. In contrast, this supplier relationship narrowing may be risky to the company resulting in a loss of information and different technologies adopted by other suppliers;
- The urge to exploit all the installed production otherwise it can lead to costs' increasing. IMPETUS' possibility to choose with whom to work because the production capacity is taken 60% to IMPETUS brand's portfolio and 40% for private label clients, mitigates the side effects of the activities' efficiency lost when they are not vertically explored.

After all this information and analysis, one can conclude that the vertical integration has been impacting IMPETUS differentiation strategy in different ways.

First, the company was able to diversify its business structure into three distinct areas to better exploit the production levels capacity. Over the past 40 years was sensible to the fact that integrating more brands (namely HOT, Eden Park, and Replay) could benefit from the installed vertical structure and increase the market reach and customers coverage.

Secondly, the differentiation reinforcement through the coordination of activities is visible in IMPETUS' innovation path and technical textiles coverage. The company adapted the seamless technology to the 95% cotton requirements, integrated the NASA OUTLAST technology, covered the thermal segment and developed, from scratch, the first underwear for incontinent people (PROTECHDRY). Indeed, was through the utilization of synergies with the University of Minho that was possible to create the product, as well as it was feasible to test, adapt and produce it because of IMPETUS' vertical integration.

Last but not least, the accumulated knowledge obtained from this vertical integration has to allow IMPETUS to innovate and differentiate. Having a transversal concentrated know-how enables IMPETUS with better control over the production activities and provides encouragement to develop new products/processes further.

The sensibility to understand the activities underlying the vertical integration enhance knowledge across the different department. From production to design, innovation, and development, or quality control, IMPETUS can beneficiate from the vertical integration's impact towards a differentiation strategy fostering.

5. Why did the company venture in the medical devices segments in 2010? How was the strategy behind this decision implemented?

Entering in the medical devices segments in 2010 represented an expansion of IMPETUS' business area to Healthcare. According to the information provided, Protechdry born once the company was keen to continue its diversification path. After previous innovations developments, as the seamless technology (1999-2000) and the technical textiles (Thermo-2000 and Innovation-2006), IMPETUS continued riding out the textile innovation wave.

Besides, not only the innovation orientation and diversification ambition dictated this decision. Considering the period of development, 2010, one can deduct the external environment impact, namely the industry panorama. After the economic crisis impact, the PFI was keen to recover and initiated the "made in Portugal" journey. Diversification towards technical textiles, innovative techniques, and international promotion, were some of the strategic options across the entire industry.

The reasons underlying the decision to venture in the medical devices segments have, essentially, to do with:

1. Differentiation strategy

- Internally, IMPETUS has keen on continue investing in innovative products and taking advantage of the accumulated know-how;
- The need to keep the vertical structure developing new products allowed the simultaneous development of Protechdry and all the tests involved.
- Vertical structure enabled IMPETUS to fully adjust the production process to the newly underwear: from the evaluation of the fabrics (cotton) to the configuration of production activities to the patented method for sealing the three-dimensional structure. Not only technology able to absorb urine losses had to be developed, as its applicability to underwear pieces had to be conceived;
- The full development of Protechdry includes: a first layer responsible for the dry feeling comfort in the genital parts; a 3D structure that absorbs the urine, is breathable, has anti-odor and antibacterial properties; and an outer layer assuring that liquids don't leak into the skin.

2. Market potential

- The cross-disciplinary applications for this product demonstrate the vast potential and its broad cover. Not only for the seniors, Protechdry is also for women who suffer from childbirth stress, people who are recovering from post-surgical stress, and all the diverse urine pathologies;
- In Portugal is estimated that almost 6% of the population has problems associated with incontinence, as it is in France (6%) and USA (9%). Bearing in mind the specificity of this product- an underwear designed for urine losses- one can realize it's a niche product and, therefore, the market potential is considerably interesting.

3. Competitors

- Innovation inherent to Protechdry relies on the fact of not being a disposable diaper nor normal underwear. IMPETUS was able to combine normal underwear characteristics (like being washable, adaptable to the body, design to use under clothes) and attribute a specific function to it (retain urine losses);
- Those properties don't let Protechdry compete directly with the products available in the market for people suffering from incontinence, like the pads, pants, and disposable diapers. Of course, people may continue preferring Tena or Depend brands, once its products price range from €5-€25 (generally for packs), whereas Protechdry price range is approximately €17-€20 (for one piece of underwear);
- The advantage of using Protechdry is on the washable, "dry feeling", urine and odor retention characteristics that allow people to have a normal daily life, by using the product as a normal underwear, and without being a concern to change (like happens with a diaper). The inherent demystification of incontinence, gender indifference (both males and females using the same product breaks the paradigm that pads are more used for women), and the confidence boost through a product that is as normal as a brief or boxer.

The described diversification strategy - entering in the healthcare industry, namely the medical devices segment, was implemented according to two different processes: internally, as IMPETUS presented an organizational structure capable of implementing/producing Protechdry and, externally, through the use of third parties to both develop the technology and commercialize the product.

Internally, the vertical integration potentiated the creation of new capabilities relevant to produce Protechdry, namely the knowledge about the production process, fabrics behaviors, and consumers' needs. This potential to innovate through the internal structure led IMPETUS to recognize a product need, the market potential and to take advantage of the whole combination.

Externally, the company developed an informal strategic alliance with University of Minho (FMRG department) under the scope of investigation and development synergies. Their cooperation happened with knowledge share and innovation development. Apart from this, the North region has a significant cluster potential within the textile industry. For instance, 57% of the textile companies based in Braga's region receive support from textile organizations (CITEVE/ ATP) and innovative institutes (International Iberian Nanotechnology Laboratory and the University of Minho). This cluster environment potentiates the dissemination of knowledge and facilitates the establishment of strategic alliances, like the one settled for Protechdry.

Last, of all, the formal strategic alliance with the medical devices consulting company - Emergo was under a joint-venture. This strategy was to achieve an overseas distribution for Protechdry. Standing as an example of commercialization extent, the joint-venture enables the performance improvement of Protechdry as, in this way, it can better be distributed all over the world.

V CONCLUSION

"Made in Portugal" is fashionable and the Portuguese fashion industry is again on the spotlights. Throughout the past years, companies have been endeavoring to differentiate themselves as innovative, and quality producers and re-born in a mature industry profoundly market by low labor costs competition.

IMPETUS wearable strategy is a dissertation, in a case study format, that shall demonstrate the differentiation journey of a Portuguese company over the past. The leading intent was understanding how could a company, within the Portuguese textile company, develop resources/capabilities that are in the origin of its competitive advantage. Furthermore, according to a real corporate example, one must recognize its strategy applicability in a managerial perspective, as in an academic purpose.

Throughout the dissertation, a bundle of analysis helped to identify IMPETUS' wearable strategy. The company's milestones were analyzed to have a holistic approach towards the integration of strategic planning and thinking and to understand its similarity with the strategic evolution itself. To contextualize the environment in which IMPETUS has been developing its activities were listed the industry key success factors.

In what respects the identification of IMPETUS' competitive advantage, the conducted analysis allows concluding that the company has three capabilities accepted in VRIO test, where for this particular case, the capabilities are organizational processes (the "O" in VRIO model). As a result, IMPETUS' competitive advantage stems from VRI capabilities, namely the development of new products, the creation of innovative knowledge and the brand IMPETUS.

Acknowledging the corporate strategy emphasis was, as well, analyzed the impact and value of having a vertical integration of the company's activities, as the decision to enter in the medical devices segment to boost innovation and differentiation.

Lastly, one shall criticize further approaches to evaluate IMPETUS' competitive advantage as making use, instead, of the competition benchmarking analysis presented in the case study exhibits. Despite all the challenges towards the teaching notes interpretation, all the displayed information was subject to the company's availability in disclosing it. The subjective interpretation of the case study, particularly the teaching notes, may be regarded in other different points of view.

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https://www.protechdry.com

https://www.impetusunderwear.com

https://www.bportugal.pt/

VIII APPENDICES

Appendix 1| Evidence of inimitability

Organizational culture - Evidence of Inimitability

Socially Complex

"IMPETUS different departments cooperate on a network information flow and receive ongoing training. Through weekly meetings and online connections, all employees are invited to share their ideas, whereas is related to products, innovations or processes."

"IMPETUS SA 8000:2008 certification revolves around the implementation of several practices towards employees' satisfaction, upper management communication and productivity improvement. Some of these measures include 15 minutes gymnastic for factory workers, internships, scholarships for relatives, profits sharing, transportation, doctor office, or kindergarten co-participation."

"We were one of the first companies to develop seamless products composed in its majority of cotton fibers."

"On the one hand, IMPETUS was keen to continue its diversification path. The reasoning was continuing to invest in innovative products and harness the accumulated know-how within the textile industry."

Appendix 1| Evidence of inimitability (cont.)

Brand portfolio – Evidence of Inimitability

Legal

"Under license's terms, both for production and distribution, IMPETUS sets up business plans to negotiate distribution's allocation, royalties' payment and sales forecasts for each international market."

Design – Evidence of Inimitability

Path dependency

"Regarding the design department, set up with the brand's birth, designers were hired to flourish IMPETUS and HOT growth. Besides traveling the world seeking tendencies, they are aware of brands identity, values as technological shifts for the season. The blend between style and product conception enhance the conception of more than 800 references/season divided by style, color, materials and functional properties."

"Our competitors deliver spring/summer collection during February. For the same season, we are delivering it in December."

"Spring/summer collection kickoff starts in March with "where to go?" sessions. First samples go to the market in June and collections in July. In between this creation and development period, there is an ongoing involvement with distributors' feedback, internal brainstorming reunions, and yarns and colors studies."