

# POLITECNICO DI TORINO

Department of Mechanical and Aerospace Engineering

## **Master of Science in Automotive Engineering**

Master of Science Thesis

## **Business Development in Medium-Sized Company**



**Supervisor**

Prof. Paolo Ferrero

**Co-supervisor**

Linda Negro

**Candidate**

Shenouda Fraig

Academic Year 2019/2020



## Acknowledgment

I would like to express my deepest gratitude and thankfulness for my family for their continuous support and motivation throughout the period of my master's degree. I would like also to express special thanks to Professor Paolo Ferrero who gave me the chance to do this thesis under his supervision and guidance and giving me an opportunity to join the company "Spesso Gasket" for my internship.

I am grateful for the team of "Spesso Gasket", Ms. Linda my direct supervisor and Spesso's sales manager for her support and highly-appreciated contribution to my work, to Ms. Alessandra and Ms. Viviana for the welcoming and friendly working environment that they provided throughout the internship. It was an experience I will never forget.



## Abstract

In the modern-day working environment, companies should thrive daily to innovate and outgrow their competition, or else risk losing their businesses. This is even more relevant for small/medium enterprises (SMEs) where the consequences could be more severe.

There are two main objectives for this dissertation. The first one is to develop a comprehensive view of the concept of business development, especially in the case of SMEs. This part of the thesis is mainly based on researching the available academic publications, extracting the important and relevant information and combining all the data to form a well-structured idea of the following question “What is business development?”. The outcome of this research and analysis is to develop the main disciplines that constitute the concept of business development.

Simultaneously, an internship was conducted in the Italian company “Spesso Gaskets S.R.L” which is specialized in the manufacturing of engine gaskets. and here comes the second objective of the thesis, which is getting involved in business development activities in the company, identifying and developing new potential businesses and opportunities for growth. The outcome of the internship’s work is developing a viable business plan for the top management, which was presented in the form of a presentation. The results obtained show a potential increase in revenues of around 30% for the aftermarket businesses for the year 2020.



# Table of Contents

1. Introduction.....	1
2. Conceptual Background.....	3
2.1 Basic theory:.....	5
2.1.1 Resource-based view: .....	5
2.1.2 Market-based view: .....	6
2.2 Research fields influencing business development:.....	7
2.2.1 Strategic marketing: .....	7
2.2.2 Strategic management:.....	8
2.2.2.1 Ansoff 's product/market matrix: .....	8
2.2.2.2 Familiarity Matrix: .....	10
2.2.2.3 Porter generic competitive strategies:.....	11
2.2.2.4 Value chain analysis: .....	11
2.2.2.5 Porter's five forces:.....	12
2.2.3 Corporate entrepreneurship:.....	13
3. what constitutes Business Development .....	15
3.1 Tasks / Activities.....	17
3.2 Process .....	21
3.3 Skills and Capabilities / People .....	24
3.4 Structure / Organization .....	26
3.5 Instruments / Tools .....	29
3.6 Coordination (Managerial and planning activities).....	30
3.7 Challenges and future applicability.....	31
4. Case Study .....	33
4.1 The motivation behind business development .....	33
4.2 An Introduction about the company.....	36
4.2.1 International agreements:.....	37
4.2.2 Spesso Management System (S.M.S):.....	38
4.2.3 Certifications: .....	38
4.2.4 Range of Products:.....	38

4.2.4.1 Engine gasket sets/kits:.....	38
4.2.4.2 Cylinder-Head Gaskets (CHG):.....	39
4.2.4.3 Exhaust gaskets:.....	39
4.2.4.4 Valve cover gaskets and oil pan gaskets:.....	39
4.2.4.5 Secondary gaskets.....	39
4.2.5 Premium products as original equipment component manufacturers (OEM): .....	40
4.2.5.1 Original Equipment (OE) Customers:.....	41
4.2.5.2 Original Equipment Service (OES).....	42
4.2.6 Aftermarket (AM):.....	42
4.2.6.1 Private Label (PL).....	42
4.2.6.2 Independent Aftermarket (IAM) under the Spesso brand.....	42
4.2.6.3 Independent Aftermarket (IAM) under Spesso Racing brand for racing and classic cars.....	42
4.3 Business Development Case Study at Spesso Gaskets.....	43
4.3.1 European Aftermarket Research.....	44
4.3.1.1 German market.....	48
4.3.1.2 French market.....	50
4.3.1.3 Polish market.....	51
4.3.2 European Aftermarket research findings.....	52
4.3.3 Non-European Aftermarket Research.....	54
4.3.4 Non-European Aftermarket Research findings.....	55
4.3.5 The Improvement Kata Approach (Toyota Kata).....	56
4.3.6 Aftermarket business development plan.....	59
4.3.7 European OE market Research.....	62
4.3.7.1 Analysis of alternative propulsion scenarios.....	62
5. Conclusion and insights.....	70
6. Bibliography.....	72

## List of Figures

Figure 1: A definition of business development.....	3
Figure 2: Definitions for business development according to academic publications.....	4
Figure 3: The main elements of a dynamic organizational capability .....	6
Figure 4: Ansoff's product/market matrix.....	8
Figure 5: Familiarity matrix (Roberts, Berry 1985) .....	10
Figure 6: Porter generic competitive strategies.....	11
Figure 7: Porter's value chain analysis model .....	12
Figure 8: Porter's five forces.....	12
Figure 9: Elements of corporate entrepreneurship .....	14
Figure 10: Main elements of a business development capability.....	19
Figure 11: Business development process.....	21
Figure 12: Approaches to Growth (cp. Dülfnér, 2001, 146; Bleicher, 1979, 130) .....	27
Figure 13: Internal activities flow chart.....	35
Figure 14: History of Spesso Gaskets S.R.L .....	36
Figure 15: Spesso Gasket worldwide market.....	37
Figure 16: Spesso and Ishikawa Gasket collaboration .....	37
Figure 17: Spesso and Interface agreement .....	37
Figure 18: Example of cylinder head gaskets.....	39
Figure 19: Example of exhaust gasket.....	39
Figure 20: Example of valve cover gasket .....	39
Figure 21: Example of secondary gaskets .....	39
Figure 22: Previous and current AM Vs OE businesses revenue share.....	40
Figure 23: OE medium and big engine manufacturers.....	41
Figure 24: OE small engine manufacturers.....	41
Figure 25: Tier 1 suppliers .....	41
Figure 26: Previous and current share between exports and sales in Italy.....	42
Figure 27: Motor vehicles sales figures in 2019 as per region.....	45
Figure 28: Passenger cars registration trend in European countries (2019) .....	46
Figure 29: Passenger cars registrations in European countries (2019) per manufacturer .....	46
Figure 30: Commercial vehicles registrations in European countries (2019).....	46
Figure 31: Motor vehicles registration trend in the Eastern European market.....	47
Figure 32: Motor vehicles registrations in the Eastern European market in 2018.....	47
Figure 33: Passenger cars market share by brand in the German market .....	48
Figure 34: Total number of passenger cars on the German road as of January 2019 ....	48
Figure 35: Italian brands market share trend in the German market .....	48

Figure 36: Yearly buses registrations trend by brand in the German market .....	49
Figure 37: Yearly trucks registrations trend by brand in the German market .....	49
Figure 38: Yearly agricultural tractors registrations trend by brand in the German market .....	49
Figure 39: Passenger cars registrations market share by brand in the French market in 2018 .....	50
Figure 40: Light commercial vehicles registrations market share by brand in the French market in 2018.....	50
Figure 41: Yearly high-duty vehicles registration trend by brand in the French market .....	50
Figure 42: Yearly buses and coaches registration trend by brand in the French market .....	50
Figure 43: Yearly passenger cars registration trend for the top ten selling brands in the Polish market.....	51
Figure 44: Yearly light commercial vehicles registration trend for the top ten selling brands in the Polish market.....	51
Figure 45: Spesso's European market strategic plan based on Ansoff's product/market matrix .....	53
Figure 46: EU-market projects expected revenues for the year 2020 .....	54
Figure 47: Spesso's non-European market strategic plan based on Ansoff's product/market matrix .....	55
Figure 48: non-EU-market projects expected revenues for the year 2020 .....	56
Figure 49: The four steps of the improvement kata model by Mike Rother .....	57
Figure 50: The five questions based on the Toyota kata model .....	58
Figure 51: Rapid PDCA cycles by Mike Rother .....	58
Figure 52: Spesso's SWOT analysis .....	59
Figure 53: Global sales of electric vehicles.....	63
Figure 54: Global sales of electric vehicles and percentage of total motor vehicle sales .....	63
Figure 55: Electric vehicles sales per region and the corresponding sales market share .....	64
Figure 56: Sales of electric vehicles with alternative fuel types .....	64
Figure 57: Shell sky scenario with representation of the global energy consumption..	65
Figure 58: European countries taking the initiative for Hydrogen as a green energy source .....	66
Figure 59: Diverse application for Hydrogen as a source of energy .....	67
Figure 60: Comparison between the applicability of battery and hydrogen fuel cell technologies .....	67

## List of Tables

Table 1: Business development activities.....	20
Table 2: Business developer professional background and abilities.....	24
Table 3: Instrument and tools used by business developer .....	29
Table 4: Business development challenges.....	32
Table 5: Market development and expansion of strategic business plan .....	60
Table 6: Product development and diversification strategic business plan .....	61
Table 7: OE Key-players' strategies .....	69



# 1. Introduction

In a world of high competition and continuously dynamic market and technological change companies are now forced to develop new resources, expertise, and flexible business models to maintain a competitive advantage to persevere in today's global hyper-competition. One of the current key challenges for a firm is maintaining growth, or in other words, managing that growth. Recently, an evolving managerial concept called "Business Development" is spreading within business practices. Although the term is frequently used in today's business world, especially in specific industries (information and communication technology, biotechnology), the concept in itself is not yet fully defined or empirically tested.

Figuring out a clear definition for this term is not easy, even though the concept or the terminology is widely used in various industries, it has been given little attention in the academic and managerial literature. From a general point of view the concept of business development can be summed up as being ideas, initiatives, and activities/actions aimed at improving a business. In other words, maximizing the organization's/shareholder's profit and that can be achieved in some way either by increasing profitability or reducing costs – and always keeping in mind the aspects of time, the product/service quality, and the expenses incurred by such actions. Business development should provide the answer and help businesses manage growth opportunities, develop growth, and expand into new markets and technologies.

However, as of the time, only a few academic articles have addressed the topic of business development. Although there have been some explanations and clarification about the possible range of business development activities, still there was a lack in understanding how business development functions within the organization and how it plays a role in maintaining a competitive advantage. According to the recently published studies, there is evidence that business development as a concept shares some commonalities with other research fields such as strategic management/marketing and corporate entrepreneurship, and that in fact, they share a lot of the corporate functions.

A common misconception is that business Development is usually confused with sales and/or marketing. However, in real-life applications, it includes more disciplines, functions, and dimensions than what is thought of. Even though this might apply in the

case of small businesses where the same person is responsible for the sales or marketing and business development, each of these roles occupies a different set of activities and tasks realizing different purposes within the company. In the bigger picture, these roles are interconnected and interdependent for the growth of the organization. As we will see later, the activities of BD extend across the different departments of an organization, from sales & marketing, product/service management, market development to partnerships/business expansion and management and even negotiations. Such roles are not the sole functions of business development. However, the spectrum of functions varies widely depending on the industry, the company's size and age, and the overall strategy and objectives.

At the same time of writing my dissertation, I was conducting an internship in Spesso Gaskets S.R.L - an Italian manufacturer of engine gaskets as an intern in the company's sales department to support the activities of business development. A range of activities was carried out - market research and trend analysis (concerning the automotive industry), contacting new suppliers and customers for possible business opportunities and growth potentials.

Hence, we had two aims for this dissertation. The first objective of this dissertation was to review all the business development-related academic publications and try to gather a complete idea of the attributes of business development and understand the wide range of activities and functions of this role. Secondly, in some way, apply the lessons learned from the theories provided from the literature in the real-life case (Spesso Gaskets). In addition to working on business development related activities and developing a potentially applicable business plan for the company and present it to the top management for their further consideration.

As for the structure of the thesis, in chapter 2 we will discuss the theoretical background behind the business development concept and its relation to other management research fields. Chapter 3 shows all the data and results acquired from the academic publications concerning business development and an elaborated view of business development activities, processes, functions, and structure within the organization. In chapter 4, the work-related activities done in the company and the obtained results are shown. In the end, a conclusion is written in chapter 5 along with some personal insights concerning the whole experience.

## 2. Conceptual Background

In this chapter of the thesis, we will present the different case studies and researches that were available about business development, with a more focus on SMEs. These studies were conducted among various industries, countries, small/big-sized companies. Each of these researchers was asking different questions, looking for a clear definition of one or more of the aspects of business development; how it functions, its structure within an organization, the typical tasks, and activities, etc. Even the way the researches were carried out was different, some were based on in-depth interviews with experts from various business fields, others developed surveys targeting particular companies and positions, others applied in-depth qualitative or quantitative case studies. Each study concluded a result corresponding to its research questions, hence obtaining a definition for one of the various aspects of business development principles. The whole purpose of this research/dissertation was to identify the various principles that govern the concept of business development and find what is important and sufficient in applying business development for our case study at Spesso Gaskets. Several academic works of literature were reviewed for this dissertation, however, we only narrowed down our in-depth analysis over a few of them, with regards to their importance/relevance, applicability, and its inclusion within the overall definition of the business development concept.

However, before we go directly into the details, we need to review and understand the main concept behind business development and how it is defined. In a general sense, it can be understood as being a set of tasks and processes with the aim of developing and implementing internal and/or external long-term value growth opportunities for an organization from customers, markets, and relationships. The undertaking of business development activities can be applied in small or large organizations, profit or non-profit enterprises. One long encompassing definition by Economic Development Services, Inc. is shown in the following figure:

**Business Development:**  
*...enterprise development; the activity that increases, or is intended to increase, the profit, production, or service potential of an enterprise; investment of capital and time that causes, or is intended to cause, the growth and expansion of an enterprise; the process of moving a business towards the point where it can provide its services and products to the entire outside group that wants them; the promotional side of business networking; persuading, or intending to persuade, prospects that appear to have the potential become customers, clients, or buyers; the process of promotion to build and sustain working relationships that relate to the business purpose.*

Figure 1: A definition of business development

(Michael Sturm 2015) in his article "Business Development Characteristics: Findings from Literature" summarized in a table the previous definitions from different literature articles:

BD Definitions
BD aims to create growth through expansion or extension of existing product-markets (or their service equivalents) or through development of product-markets or services that are new to the firm (Davis, Sun 2006)
We define BD as a capability comprised of routines and skills that serves to enable growth by identifying opportunities and guiding the deployment of resources to extend the firm's value creation activities into technological or market areas that are relatively new to the firm (Davis, Sun 2006).
In the Roberts & Berry framework BD practices can be regarded as capabilities that enable organizational stretching to extend the frontier of familiarity toward new combinations of markets and technologies (Davis, Sun 2006; Roberts & Berry 1985).
The BD function can be seen as an empirical manifestation of a capability that may allow a company to adapt to changing technology and market environments (Zy Knyphausen-Aufseß; Kind 2007)
New business development is the process of linking the technological and market knowledge together (Burgers, Van den Bosch, Volberda 2008)
BD refers to the tasks and processes concerning analytical preparation of potential growth opportunities, the support and monitoring of the implementation of growth opportunities, but does not include decisions on strategy and implementation of growth opportunities (Sorensen 2012).
Sustainable Business Development (SBD) involves the total integration of the enterprise and the deliberate linking of its strategic management system and the product delivery system with all of the value networks, strategic partners, and constituencies (Rainey 2006).

Figure 2: Definitions for business development according to academic publications

In the academic literature business development has been only investigated in certain industries - information and communication technology (Davis C. H., Sun E. 2006), the biotechnology industry (Kind Sonia, Knyphausen-Aufseß D. Zu 2007). Business development has not yet been studied or investigated from a comprehensive point of view since the majority of the case studies were based on qualitative research approaches. The study conducted on IT SME's in Canada confirmed that the business development role is a recognized notion with distinct tasks and functions, they also considered it as a set of skills and routines that enables growth through identifying opportunities and manage the deployment of resources. As a phenomenon business development is predominantly true in the context of biotechnology ventures, in which the terminology seems to have an intuitive appeal. There are two options to conduct business development activities; either internally (a do it yourself attitude) using the company's capabilities and resources to bring on the market new products and services, or rely on external competencies (especially for the biotech industry) through engaging or acquiring them through alliance (M&A activities). Business development activities will vary with different organizational goals and the respectively chosen process design.

The most recent academic literature about business development was done by (Voeth, M., Poelzl, J. and Eidhoff, A.T. 2018). Their findings show that business development is perceived as the search for growth opportunities in four key dimensions: product, process, market, business model. Business developers have top management access, they are highly skilled people with diversified and distinctive professional backgrounds, who for the most part apply instruments and tools found in management literature.

When it comes to business practices, one of the considerable challenges for a firm is seizing growth opportunities in a market that is characterized by an increasing competition, attributed to globalization, increasingly differentiated customer needs, and the non-stop technological advancements. Hence, companies are required to continuously adapt to the market's changing conditions and pursue identifying new and innovative growth potentials to expand to new fields beyond their core business. Therefore, the stage of growth opportunities identification is of crucial importance for the company to initiate and maintain an edge over its competitors.

## 2.1 Basic theory:

The academic research lacks a holistic and consistent theoretical background, (Voeth, M., Poelzl, J. and Eidhoff, A.T. 2018) draw two basic theories that lay the foundation for business development research.

- RBV (Resource-based view) with a focus on internal resources and capabilities.
- MBV (Market-based view) with focus on the external market need, conditions and stakeholders.

### 2.1.1 Resource-based view:

In this context a company can be understood as a set of resources and capabilities in which they are essential to promote transformation and hence value creation. Building upon RBV the so-called "dynamic capabilities" approach regards evolvments of resources and capabilities over time. Dynamic capabilities describe a firm's ability to adapt to internal processes and resources to the changing markets, in which managers conglomerate their various business, functional, and personal expertise to make the choices that will form the major strategic moves for the organization. This concept has been recently gaining attention in the strategic management literature and seems to have outdated the traditional concept of strategic planning in studies about organizational capabilities.

(Lorenzi V., Sorensen H. 2014) pointed out that an organizational competitive edge not only arises from resources that are valuable, rare and difficult, but also from how they are integrated and managed and thus originates in the dynamic capability view. Such organizational capability within a business function can be created through the

implementation of specific managerial and organizational aspects. These main elements of a dynamic organizational capability are presented in the following figure:

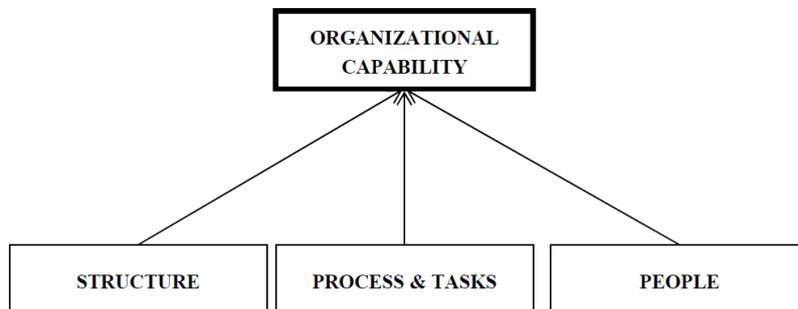


Figure 3: The main elements of a dynamic organizational capability

(Voeth, M., Poelzl, J. and Eidhoff, A.T. 2018) later stated that RBV supplemented by dynamic capability theory is a beginning point for the research of business development, considering it provides us with an economic explanation for the eventual goal of business development, achieving organizational growth through acquiring competitive advantages and innovation from within the company. From this perspective resource-based view highlights to us the significance of identifying the relevant competitive resources within a company, that can be leveraged to achieve growth across business development projects.

#### 2.1.2 Market-based view:

This context emphasizes a focus on the markets in which the firm operates, and therefore paying attention to what's happening outside of the company. In the biotechnology industry (Lorenzi V., Sorensen H. 2014) companies are required to maintain a balance between their technological groundwork with an outside-in thinking process (a market-oriented process), this market approach mindset encourages firms to continuously explore the market to identify the new business opportunities and hence to adapt their strategies to the changing condition. On that account, organizations are better able to timely monitor the outside trend and have greater aptness to perform better and ahead of their competitors when it comes to identifying new growth opportunities.

The competitive edge stems from managing the barriers to competition rooted in the market structure. (Voeth, M., Poelzl, J. and Eidhoff, A.T. 2018) indicate in their study that a market-based view has been shaped by the structure-conduct-performance paradigm and is first and foremost shaped by porter's research on strategic management. The model is known as "porter's five forces" which represents a framework of how the external market factors can influence a company's performance. Correspondingly, the

corporate's strategy and its success are in a large sense determined by the market structure.

(Ajay K. Kohli, Bernard J. Jaworski 1990) described the market orientation approach as the "organization-wide generation of market intelligence pertaining to current and future customer needs, dissemination of the intelligence across departments, and organization-wide responsiveness to it."

(Lorenzi V., Sorensen H. 2014) advised that for business development which operates in line with the corporate's strategy, it is equally important to consider the market side as much as the internal resources, for it to be successful.

In the end, MBV implies particular responsibilities for business development; identifying market opportunities, new customers, and new business fields/opportunities to advance transformation and make use of these possible growth opportunities.

Most studies dealing with business development do not allocate the concept itself to any certain research field. However, the following research fields were considered to be fundamental for business development research; strategic marketing, strategic management, and corporate entrepreneurship - business development concept was drawn upon these different research fields.

## 2.2 Research fields influencing business development:

### 2.2.1 Strategic marketing:

The main focus or objective behind strategic marketing is the relationship between the company and its customers/consumers, competitors and even the external stakeholders in the market. It aims at exploiting the market potentials and handle customer relations. It also focuses on affairs related to the selection of markets, dealing with competitors, identifying the suitable timing strategies for market entry and exit. Accordingly, the company can generate value for its customers and thus is able to create a competitive edge in the market.

### 2.2.2 Strategic management:

Strategic relates to gaining long-term advantages, management is the process of dealing with and controlling things. In simple words - in the field of management, strategic management involves the development/formulation and implementation of long-term goals and initiatives, usually decided by the company's top management after taking into consideration the available resources and a comprehensive evaluation of both the internal and external working environment. This orientation directs the company towards its primary objective of gaining a competitive advantage. To maintain a competitive edge, this implies the continuous development, implementation, and monitoring of the corporate strategy.

When it comes to business development the most important researches to be considered for additional analysis are the following: Ansoff's matrix (which was later enlarged to familiarity matrix), porter's generic competitive strategies model, value chain analysis, and porter's five forces model. We will not go in detail in each of these because it is out of our scope of the study, but a brief explanation will be provided below since it is imperative to mention them.

#### 2.2.2.1 Ansoff 's product/market matrix:

Ansoff's matrix (Ansoff, H. 1957) is a strategic planning tool that provides a framework for the possible strategies of future growth. It defines four alternatives of growth for an organization considering four elements: new and existing products, new and existing markets. Each of these growth opportunities poses a different level of risk.



Figure 4: Ansoff's product/market matrix

#### 2.2.2.1.1 Market penetration: (lowest risk)

The organization tries to grow using its already existing products/services within the existing market. The aim here is to increase the market share (usually the same market segment). This is achieved by increasing sales and targeting more customers. Penetrating the market can be achieved in several ways; offering competitive prices, applying aggressive promotion and distribution strategies, acquisition of competitors, providing modest product/service refinements without affecting the price.

#### 2.2.2.1.2 Market development: (modest risk)

In this context, the organization aims at distributing or selling its existing products/services in a new market. This new market could be a foreign country, new customer segments, new regions of the same country, or new potential industrial buyers. This strategy will usually be successful when the company has a unique product or technology to offer in this new market; a unique value proposition than the competitors already existing in the market. The risks, in this case, are concerned with the entry in new territory with no background experience, hence a good strategy could be partnering with another firm with the necessary knowledge of the market.

#### 2.2.2.1.3 Product development: (modest risk)

In this case, the company is aiming at achieving growth in its existing market, through developing new innovative products/services. In other words, extending the product range (organization's portfolio) offered to the market. This can be achieved through the investment in research and development of innovative ideas, acquiring the rights to produce someone else's products or forming joint ventures with others. The risks included are usually related to the high costs attributed to the development of the new products.

#### 2.2.2.1.4 Diversification: (highest risk)

In diversification, the organization is trying to obtain growth in new markets by introducing new products/services. It is the riskiest strategy of all. There are two types: related diversification and unrelated diversification.

Related diversification means that this growth opportunity shares a relation between the company's existing businesses and the new product/market endeavor. This can be done through concentric diversification in which a company develops a new product/service that is related to the core business or technology to enter new markets, or through vertical integration in which the company expands in the different activities along its product's vertical supply chain.

Unrelated diversification, on the other hand, is also termed as conglomerate growth, which means developing different products or businesses that are not related together; an example for this could be acquiring a company with different products and in a different market.

### 2.2.2.2 Familiarity Matrix:

Later, a so-called familiarity matrix was developed by Roberts and Berry (1985) which is an enlarged framework on Ansoff's matrix. In it, we have nine optional growth strategies of directions where a firm can stretch its market or technological strategic base and move ahead to non-familiar markets or technological fields.

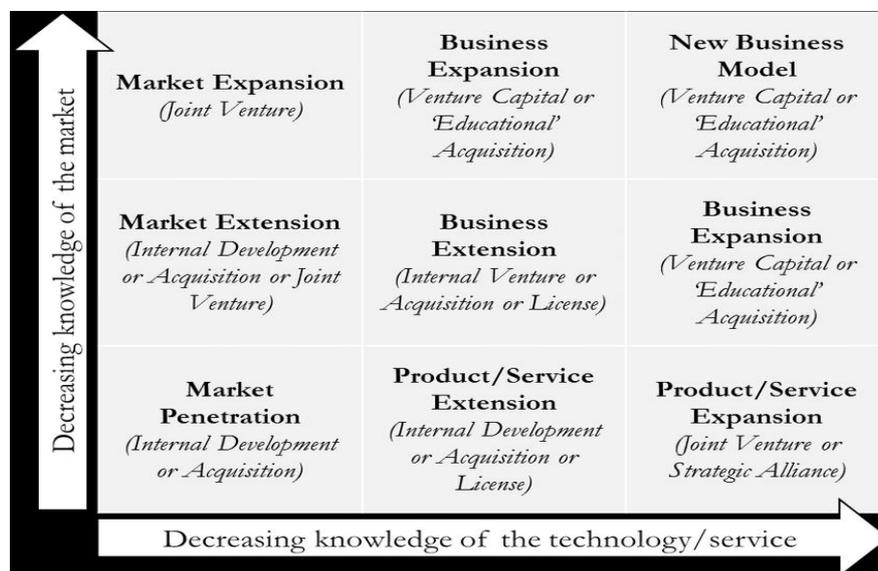


Figure 5: Familiarity matrix (Roberts, Berry 1985)

### 2.2.2.3 Porter generic competitive strategies:

In the following context, Porter shows that a firm's strategy target is usually one of three generic strategies. The strategy target can either be differentiation, cost leadership, or focus. He asserted that only one strategy should be chosen by the organization or they risk wasting valuable resources that could have been profitably used elsewhere. Porter claimed that for a company to acquire a competitive advantage they need to make a choice about the type of their strategic advantage and the scope of activities of which the firm is seeking to attain them.

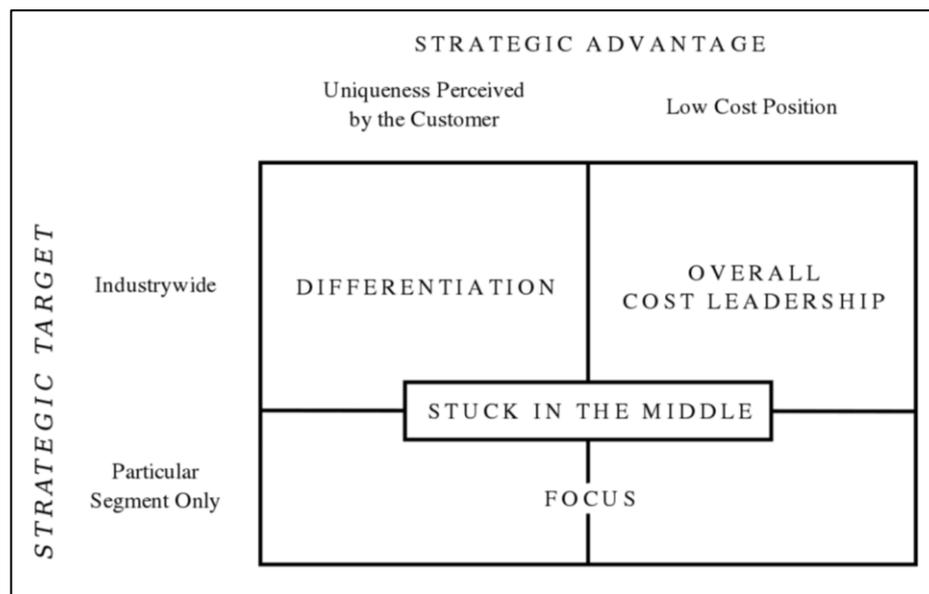


Figure 6: Porter generic competitive strategies

### 2.2.2.4 Value chain analysis:

The following models depict the chain of activities and processes that an organization carries out to deliver its product or service to the market. It is divided into primary activities (inbound/outbound logistics, operations, etc.) and support activities such as the internal systems and technology infrastructure. The idea is that if these activities were aligned with the company's strategy, the firm would be able to achieve a competitive edge. All these different activities should fit coherently together. Porter indicated that the competitive advantage is a result of all the discrete activities that the firm executes from designing, manufacturing, marketing, delivering and supporting its products. Each of these activities adds value and contributes to the relative cost and thus creating the basis for differentiation.



Figure 7: Porter's value chain analysis model

### 2.2.2.5 Porter's five forces:



Figure 8: Porter's five forces

In this analysis provided by Porter in 1980, he aimed to identify a framework showing the forces that shape the structure of the industry. These forces influence the organizations ability to compete, the company might not be able to raise its prices because of the bargaining power of the buyers or the presence of competition, it might not be able to reduce its costs because of the bargaining power of its suppliers, and so on as shown in more details in the above figure.

The intersection between business development and strategic management lies in the common approach in cultivating a long-term mindset or orientation, gaining competitive advantage, and developing new market strategies to realize potential growth opportunities. When comparing with the insights from strategic management, the results show that business development is an example of what the modern way of planning might look like.

### 2.2.3 Corporate entrepreneurship:

If we look at the definition of the term "entrepreneurship" it would be something close to the activities set up to identify and exploit new businesses and growth opportunities, taking on financial risks, with the goal of growing the firm and making profits. This comes in line with the all-embracing goal of business development.

All companies are seeking growth; however, few organizations have a process that can support and sustain growth consistently over time. Organizations need to build a framework upon which they can aid new innovations and business growth. Corporate entrepreneurship is a process in which an individual or a group develops new businesses, products or services or even to develop new processes in an existing organization. Therefore, new businesses will be created, and companies will be transformed through these key ideas.

This process refers to two different, but related concepts: innovation and corporate venturing.

*Innovation management:* the aim here is to support the operational implementation of the new ideas and realize it into commercially successful products, services or processes with the end goal of generating sustainable and competitive advantages for the company.

*Corporate venturing:* it focuses more on the processes that are essential for the creation and integration of new businesses or growth opportunities into the company's business portfolio.

If Corporate entrepreneurship sets the conditions for innovation and growth that the organization needs. It lays out a system's view of the needed resources, processes, and the environment to encourage engage the organization as a whole in entrepreneurial thinking and action. There is no one perfect way to in which this process can be implemented, but there are three key elements that would enable it to succeed:

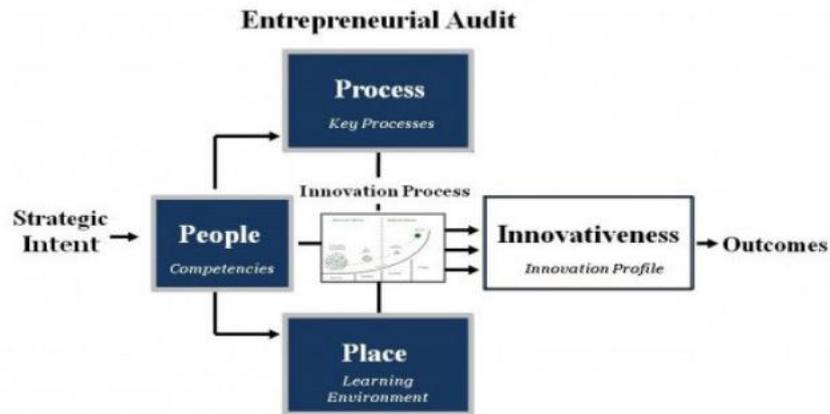


Figure 9: Elements of corporate entrepreneurship

People - individuals who possess a core set of competencies/skills and behaviors.

Process - the set of supporting systems and processes.

Place - the overall working environment beneficial for learning and growth

In conclusion, the research field of business development is the interaction between all three previously mentioned fields of research. Therefore, this implies the business development is a diversified field, in which no individual research field can solely cover. To this date, only a small number of researchers have been conducted on business development. The studies usually were qualitative researchers and mainly focused on selected individual industries. Only a few studies present a theoretical foundation of their work and provide concepts and definitions for business development.

### 3. what constitutes Business Development

In many cases business development is still a fuzzy term, despite the fact that the current literature provides us with a possible range of functions and processes, it all goes back to the specific characteristics upon which the study was designed for (the type of industry, size of the company, etc.)

Pinpointing the essential disciplines and structure of the business development function has been the target of many researchers in the academic field. Several case studies have been conducted in several industries and companies in different fields, ages, and sizes. Still, they mostly concluded that such a research field is still in its infancy, and a clear and accurate definition of these functions and responsibilities are not yet fully defined. Furthermore, depending on which industry or field we are looking at, that definition of business development functions will be different and might even include responsibilities that other industries or companies will never consider.

The following sections are the cumulation of the several available literature articles and case studies related to defining the main aspects of business development. The majority of these studies were done on companies related to the biotechnology industry (scientific approach and research) and the information technology (technical approach), this is due to their maturity and the high exposure to this field of continuous business development. Maybe in the general sense, not all of these aspects can be considered in others industry sectors (specifically that of our business case at Spesso Gaskets), however, a lot can be gained from that level of exposure and to be applied in an appropriate way that best suits each business.

Summing up all these analyses and results, we were able to identify an overall map/layout for the main principles and aspects that constitute business development. Each of those aspects is written in a subsection, in which the key findings of each reviewed research and case study have been aggregated, to get the most possible accurate and applicable definition of this aspect to our real-life application.

We will discuss in details the different functions and aspects attributed to business development through reviewing the past literature articles and case studies, covering the following six aspects: Tasks/Activities, Process, Skills and capabilities/people, structure/organization, instruments/tools, coordination (Managerial and planning activities).

The following bullet points summarize the questions that we were aiming at finding an answer for in this dissertation:

- How business development is understood in the business world?
- What activities are assigned in business development?
- Do we have a well-structured business development process?
- What are the skills required by a business developer?
- How business development is structured within an organization?
- How business development is coordinated and managed within an organization?

### 3.1 Tasks / Activities

Defining the activities required by a business developer is not an easy task in itself. It mainly depends on how the organization is structured and operates, how they define business development and its relation to growth opportunities, and hence what are the essential tasks required from the business developers to deliver these growth outcomes.

In the case study of (Kind Sonia, Knyphausen-Aufseß D. Zu 2007) they conducted interviews with key persons in companies in the biotechnology industry, they aimed to identify how these firms define the main tasks for their business development functions. And they concluded three main categories:

- Refilling the research pipeline and the partnering of projects.
- Commercialization of products and technologies.
- Network-building and pre-negotiation.

The first essential task is that companies need to keep their projects' pipeline full (a pipeline refers to the number of businesses that the company expects to have in the coming periods). It is the business developers responsibility to keep looking and scouting for possible external growth opportunities and projects and to continuously generate an inflow of new projects for the company's project portfolio and evaluate/decide how they can be integrated into the company, this is in case the company cannot generate their own projects. These new projects or opportunities could be in the form of products or even technologies related to the industry. Another way of business development that is very specific for the biotechnology industry is through M&A (mergers and acquisitions) with other firms that already have the technology, and in this case, both companies will benefit from each other's experience and products.

An important activity of a business developer is the commercialization step of the product. In the special case of the biotech industry, it is a substantial step for recognizing a return on the investments, it is how companies gain profit for all their efforts in research and development. Commercialization is the process of introducing the new product or technology to the market, meaning to move the idea from the research and development phase in the laboratories as an idea or a prototype to an actual product in the market through the product development phase.

For all of the previous activities to be successfully achieved the business developer needs to identify the right partners and establish a network with them. These development relationships, either with customers or business partners, should be built on a long-term basis. A good relationship with other companies enables the firms to form possible future alliances when needed. Negotiation is an important issue when it comes to making long-term contracts and deals. Establishing a win-win situation with the right terms and conditions is mandatory for maintaining stable cooperation between the partners.

The study concluded that the functions of business development are still not strategy making, on the other hand, their task is to align and fit together the corporation's strategy with their activities.

Followed by this study (Lorenzi V., Sorensen H. 2014) also discussed the tasks and processes that should be handled. However, in this dissertation, we made a distinction between these two functions, the business development process will be discussed in more detail in the following section. However, as we will see in the process section, the activities of a business developer might vary according to which phase within the development process we are considering. Based on the firm's business model, prior to any decision, a business developer should prepare a business plan for senior management before pursuing any particular growth opportunities. Business developer managers then organize and incorporate all the necessary data with due diligence and provide their inputs to decision-makers. This task requires close collaboration between the business developers and the corresponding specialists from the other business line functions for the retrieval of the necessary information. When the growth opportunity is worth pursuing and approved by the top management it's the business developer task to supervise the implementation of the initiative, this is because of his in-depth and wide knowledge of the opportunity. The business developer's activities play a fundamental part in the coordination and integration aspects of the pursuit and implementation of business development opportunities.

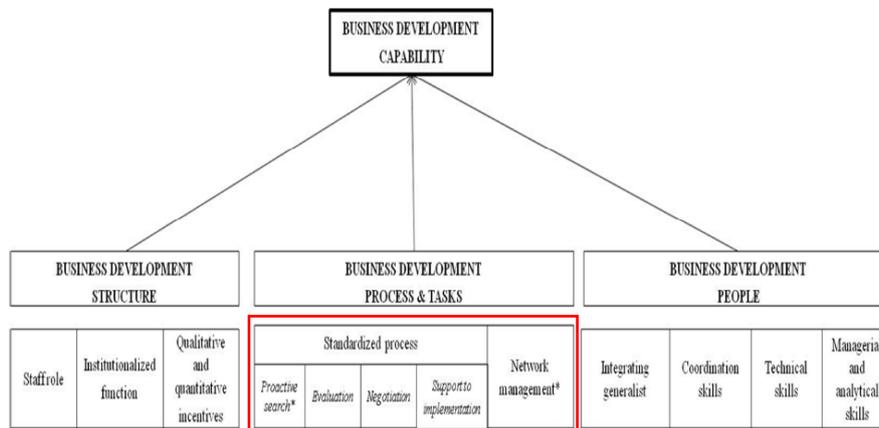


Figure 10: Main elements of a business development capability

Their finding in some way aligns with that of the three categories of the previous study. They add on it a fourth activity, which is called network management. After establishing an alliance with a potential partner, the relationship should be eventually monitored and carefully managed. This guarantees the best possible collaboration between the involved parties and builds an environment of trust that can add up to a solid and stable basis for possible future development agreements. As the organization becomes bigger in size and more specialized, these business development tasks will be the responsibility of a team or a department, thus the tasks and activities will become narrower in scope.

(Malte Torliene 2016) also stated the previously mentioned tasks as the core activities. The study then relates to Ansoff's product/market matrix as being an activity that should be managed by the business developer. The study emphasized the importance of this matrix model that covers many approaches for organizations to grow. However, it also pointed out that this model is very much based on external activities without taking into consideration the development possibilities from an internal perspective (as we will see later in the next section). In their results, they contradicted the notion of preparing a business plan to pursue an opportunity, since in many cases of SME's the basis of developmental projects does not follow any structural analysis or sequence.

In the most recent study, (Voeth, M., Poelzl, J. and Eidhoff, A.T. 2018) studied SME's in Germany and has drawn attention to differentiating between business development activities with internal or external focus. Activities with an internal focus aim at the internal processes to increase its efficiency and effectiveness. On the other side, activities with external focus concentrate on information and gaining more knowledge about the external market and its trend. The result of this study showed that the overall orientation of activities tends a bit more towards the external focus, but the ratio is nearly balanced. This leads to the conclusion that business development functions in companies are in accordance with the theory since it takes account of the market-based view (MBV) and

the resource-based view (RBV) by combining both internal and external activities. An example of the wide variety of activities is presented in the following table:

<i>Search for new growth potential</i>	<i>Development of new market strategies</i>	<i>Optimizing business processes</i>	<i>Key account management</i>
<i>Identification of market trends</i>	<i>Development of new product innovation</i>	<i>Support of business units</i>	<i>Merger and acquisition processes</i>
<i>Developing new market segments</i>	<i>General organization of BD projects</i>	<i>Increasing the diversification of the product portfolio</i>	<i>Human resources/personnel development</i>
<i>Developing new business models</i>	<i>Development of new country markets</i>	<i>Customer management / CRM</i>	<i>Venture capital management</i>
<i>Analysis of customer needs</i>	<i>Innovation management</i>	<i>Integration within the value chain</i>	
<i>Strategic orientation of the company</i>	<i>Coordination of cooperation with external partners</i>	<i>Cooperation with other companies</i>	

*Table 1: Business development activities*

These activities are generally associated with the scope of strategic management and corporate entrepreneurship, and the goal of finding new growth potentials. In addition, the focus on customers (developing new market segments, analysis of customer needs, CRM, key account management) and inter-functional coordination (general organization of BD projects, support of business units, integration within the value chain) conveys the activities' relevance to a market-orientation mindset which fits the scope of strategic marketing. In the end, these activities provide us with a clearer map of what the functions of a business developer comprise of and confirm the diversified nature of business development in practice.

### 3.2 Process

One of the main industries upon which studies have been conducted is the biotech and this is because of its maturity and well-structured definition of business development. During their research (Kind Sonia, Knyphausen-Aufseß D. Zu 2007) identified three major steps that maps the business development process within an organization, although their findings were mainly based on a specific industry requirement, it can still be regarded as a good and viable reference to be translated to other industries.

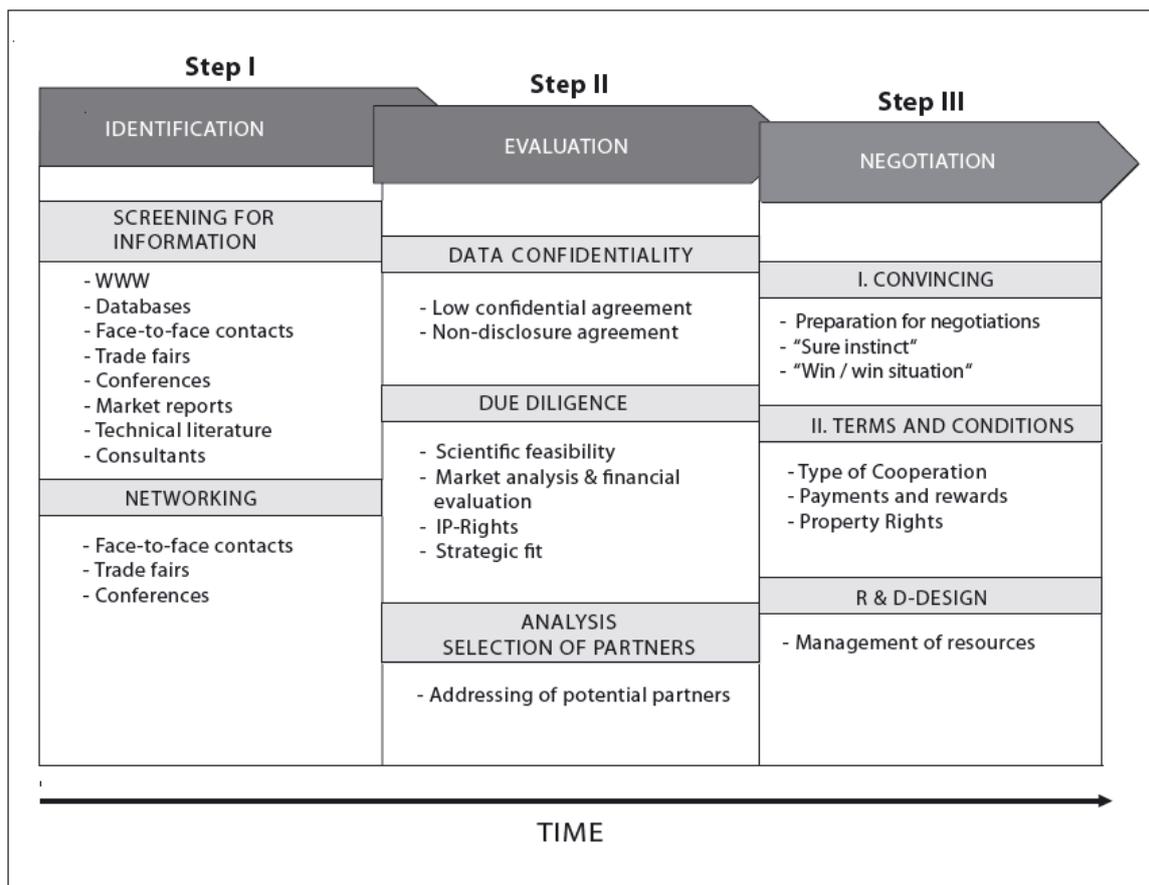


Figure 11: Business development process

As seen in the above picture each of the three steps (identification, evaluation, negotiation) is made up of work packages, which depending on the size and the way the company operates can be delegated to separate teams to work on. During these steps, the specialist team draws up some recommendations or resolutions based on their research and analysis to the top management who can then decide which plan to execute. In this case, since the work is structured and set in a well-defined order it is easy for the specialists to obtain more knowledge about the pros and cons of the development opportunities, and in this case, can be of more help when it comes to consulting the top

management team. This process is similar to what is known as the investment decision process in venture capital firms.

The first step is the identification of opportunities. It is an ongoing process, using as many sources of information to discover new business possibilities. Such resources could be available for free on the internet or accessed through special industry-related databases. It is a key element to stay up to date in the field through reading newspapers, newsletters, searches in databases - in simple terms "do your homework". In addition to these, one can be informed through private contacts or visiting industry-related conferences, workshops, trade fairs, or making appointments with companies to present their companies and meet with other key persons. Personal networks and connections are considered to be a highly valuable source of information. It is usually a process that takes up a lot of time and even might cost a considerable amount of money.

After identifying an opportunity, the evaluation step comes in. In this phase of the business development process, it is essential to find a strategic fit between the project/opportunity in hand and the company's long-term strategy and objectives. It is crucial to be very attentive concerning offers that might look tempting and might even promise high profits in the near future but are not manageable because of lack of resources or competencies, or simply they don't meet the firm's goals and strategy. The organization has to set clear goals and objectives upon which the decision of whether a specific opportunity fits the company's current strategy or portfolio can be easily made. For sure the work packages mentioned in the previous diagram are more specific and well-defined for the process of a biotech company, such as evaluating the scientific feasibility of the projects or reviewing the intellectual property rights. But these concepts could be easily translated to different industries and in turn, identify industry-specific work packages that best suit each industrial sector.

The last step is negotiation, which could be a debatable step across the different industries for its importance or relevance. Still, it is an essential step for concluding a project, creating a win-win situation between the involved partners is crucial, defining the appropriate terms and conditions for the contracts, its type, and payment conditions should be clearly defined in the early stages. According to the industry or the location of the companies, the partners should pay attention to the different legislative and contractual aspects - and surely building trust along the way. The key here is to be well prepared.

(Malte Torliene 2016) in his case study on German SME's, he also referred to the three process steps identified in the previous study, highlighting that these specific tasks are based upon the biotech industry which usually requires a higher level of R&D than other industries. The study also mentioned that business developers are responsible for finding and preparing new business opportunities. After this research and gathering of information step, they evaluate the opportunities and provide useful inputs to the decision-maker team. Such input could be in the form of project plans or closure along with the benefits. When it comes to the incorporation of business development within an organization, for practitioners, having a standardized model may result in increased effectiveness in their activities and hence more satisfying results. In addition, this study introduced an interesting point of view when it comes to applying the process of business development in a company. It is either handled as "projects" or as a "routine".

A different way of organizing the process of business development is by applying it through teams handling development projects. They were further characterized as development projects which aims at improving the current firm's performance and effectiveness, or development projects aiming at extending the firm's modes of operation. The focus of such projects is not that much focused on certain growth opportunities, but rather on improving business operations regarding its effectiveness. A good level of interaction between the strategy, processes and project should be maintained to guarantee a successful project. A project's success can have different dimensions or basis of success; entrepreneurial, project preparation, change management, project management, project success. The study stated that such business development projects take an inside perspective towards the improvement of the firm's performance, opposing the outwards development perspective suggested by Ansoff's product/market matrix.

On the other side, the process of business development can be organized or identified as a routine. Referring to Buckman et al. (1998) stated that business development is an organizational capability that consists of skills and routines that facilitate a firm to grow. These routines involve processes of opportunity identification, the generation, and assessment of these ideas, articulation of business concepts, product or service development, commercialization, licensing, acquisition.

After all, in SME's business development usually starts based on a reactive or random basis, not all the companies are actively searching for opportunities for growth. So, deciding which way to organize or implement business development depends entirely on how the company sees the business opportunities and their expectation of the outcomes lead by applying business development activities.

### 3.3 Skills and Capabilities / People

In this part, we are going to discuss a key factor that should be highly considered, which is the business developer himself - skills, professional background, abilities and capabilities of the people involved in the practice itself. (Davis C. H., Sun E. 2006) in their exploratory study in SMEs in the IT sector, analyzing the job descriptions for business developers across the different hierarchal levels within the organization. They concluded that two key aspects should exist in any business developer, inter-personal skills and know-how of the industry.

Later, (Voeth, M., Poelzl, J. and Eidhoff, A.T. 2018) in their descriptive quantitative empirical study conducted on German companies across different industries took the findings of (Davis C. H., Sun E. 2006) and further examined them. They defined two characteristics associated with a business developer. The first one is a professional background relating to their previous work experience and education - referring to the know-how of the industry. The second one is the necessary abilities that should be possessed by the business developer that would improve his chances of success - referring to the inter-personal skills.

<b>Professional background</b>		<b>Abilities</b>	
<i>Sales</i>	<i>Business and Engineering</i>	<i>Entrepreneurial thinking qualities</i>	<i>Decision-making quality</i>
<i>Marketing</i>	<i>Controlling</i>	<i>Analytical and methodological skills</i>	<i>Networking</i>
<i>Business administration and economics</i>	<i>Purchase</i>	<i>Communication skills</i>	<i>Visionary</i>
<i>Engineering</i>	<i>Law</i>	<i>Certain determination to implement new concepts</i>	<i>Working experience</i>
<i>R&amp;D</i>	<i>Accounting</i>	<i>Enthusiasm</i>	<i>Leadership experience</i>
<i>Consulting</i>	<i>Natural sciences</i>	<i>Creativity</i>	<i>International experience</i>
<i>Finance</i>		<i>Self-reliance or independence</i>	

Table 2: Business developer professional background and abilities

Their results showed that the employees holding a position of business development comes from a wide variety of professional background. The highest-ranked background positions were sales and marketing (43% and 40% of the obtained participants' answers respectively), followed by business administration and economics and engineering fields (scoring 39% and 32% respectively). These were the top four positions previously

acquired by the business developers, among others such as R&D, consulting, finance, accounting, and law. These findings emphasize the interdisciplinary characteristics of the people working in such a position.

(Voeth, M., Poelzl, J. and Eidhoff, A.T. 2018) also asked the participant of the study about the critical skills and abilities that a business developer should have, and the results showed a variety of skills that are crucial for holding such a position within an organization. Among the top of the answers were entrepreneurial thinking, analytical and methodological skills, and communication skills. Among other abilities are creativity, enthusiasm, and determination, etc. The overall findings confirm the idea of a "generalist" rather than a "specialist" when it comes to the characteristics of a business developer. A business developer should be capable of integrating the interdisciplinary knowledge gained throughout the years of experience and the various personal abilities required for the job.

This notion of being a "generalist" was mentioned previously by (Sorensen, H.E. 2012) describing the term as "integrating generalists", indicating that a business developer is able to integrate their knowledge constructively based on the various previous specializations. (Lorenzi V., Sorensen H. 2014), (Davis C. H., Sun E. 2006), as well as (Martin A. 2008) reached the same results about the person's abilities. First of all, an integrated level of technical competence along with managerial and analytical expertise is a must. Knowledge of products, the market, and the technologies used are of high importance. Furthermore, a significant capability of coordination and teamwork between the different functions within the organization is crucial. Also, a risk-taking and entrepreneurial mindset are essential in driving the business towards real change. It is needless to say that the overall environment within the organization itself is of great significance, without it all these personal skills would be of no effect. A working environment that would take advantage of its employee's skills and work on nurturing it in an ever-growing organizational culture would change these capabilities into a competitive edge.

### 3.4 Structure / Organization

When it comes to the organization of business development as a department or its structure within the corporation, our main reference in the literature is (Kind Sonia, Knyphausen-Aufseß D. Zu 2007). Their study was mainly aimed at the corporations in the German biotechnology industry. They identified three different levels at which business development is configured or is functioning within the company.

The *implicit* configuration is defined whenever the functions or tasks of business development within the company has no official description or arrangement. In this case the tasks of a business developer in almost entirely carried out without any intentional, methodical, or planned efforts by the management. In this context, there might not even exist an official label title for that position. Such activities might be held to a salesperson or even to one of the top management executives in addition to his/her daily tasks, it's not considered as an explicit function.

The second configuration is *Established*. In this situation, the tasks of business development are more relevant and recognized within the corporation. The activities and mission of the business developer are more in-line with the overall mission and goal of the company. In this regard, there is an official title for the business developer with a clearly defined task description.

The highest level of configuration is *institutionalized*. In the current case business development is well established within the company. It might be even no more a person's responsibility, but that of a whole business unit in which its structure and functionality are interwoven within the activities of the company. In this case, the top management itself would delegate the main tasks to the business development department or specialist. The staff refers directly to the top management but also works closely with the line functions such as production, marketing/sales, R&D, manufacturing, etc., who are involved with the daily activities of the organization.

(Voeth, M., Poelzl, J. and Eidhoff, A.T. 2018) in his empirical study indicated that the way the company implements and manages the growth opportunities is reflected in how it organizes or structure the business development functions within its business units. Their analyses for the evolution of business development functionality shows that this concept is still new. The business development tasks in a general sense are almost well-known, but they are not yet established as an independent function, instead, they are managed on the basis of cross-functional business development projects.

In their investigation; (Malte Torliene 2016) referred to Dulfner's (2001) and Bleicher's (1979) model of how business development functions are embraced within a company. In their model, the management structure differs in relation to the age of the company (young/mature) and the size of the company and their level of differentiation, which is well elaborated in the diagram below.

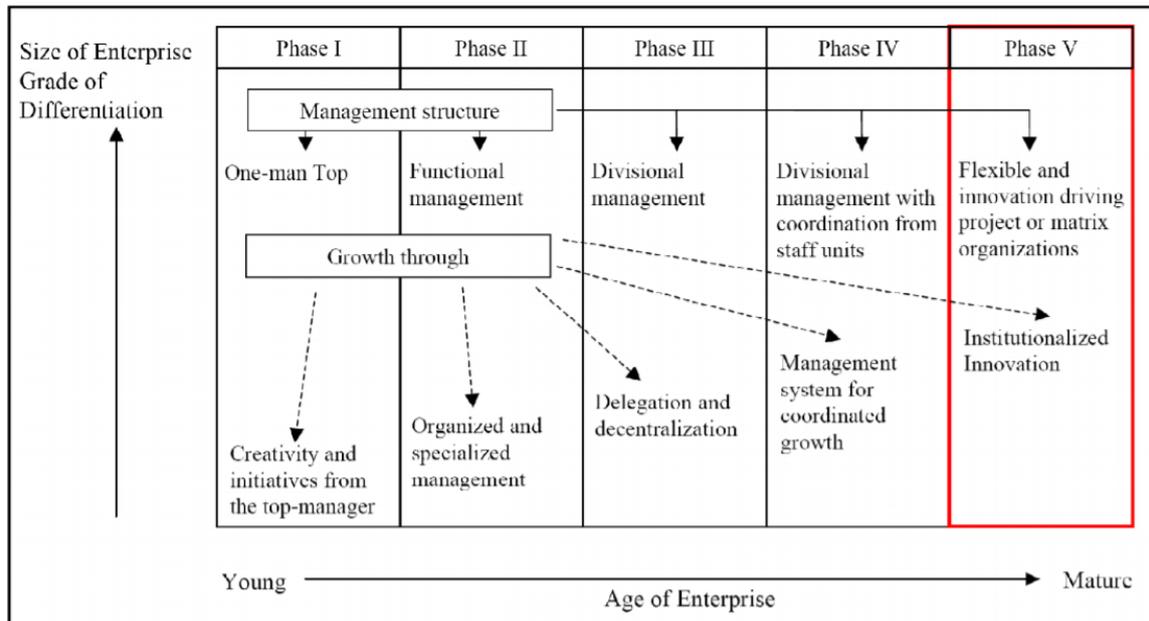


Figure 12: Approaches to Growth (cp. Dulfner, 2001, 146; Bleicher, 1979, 130)

As in the *implicit* configuration, when the firm is still young and small in size, the business development function is not well established within the company's business units, and it can be managed by one person (usually one of the top management depending on how the firm is structured). Then as the company grows and it gets bigger in size and develops levels of differentiation apart from their core business, more emphasis is directed towards creating and organizing a dedicated staff or even an independent department to manage such activities. At the highest level, an institutionalized organizational function should be established to handle all the activities related to growth opportunities.

In their further analysis of how business development is structured in a company (Lorenzi V., Sorensen H. 2014) studied three companies also in the biotechnology industry. Since in this industry business development as a concept is of vital importance to the company's performance, in all the case studies the configuration of business development was *institutionalized*, meaning that the firms decided on separating the business development functions from the rest of the business units to avoid that their efforts would be overwhelmed by the day-to-day tasks related to other functions. This was due to the proactive nature of the searching phase required. Although each of the

companies had its own ways of operation and evaluation of the situation an overall idea was obtained. A business developer is charged with the high responsibility of identifying, collecting, developing, integrating and spreading out of the significant business development-related knowledge and growth opportunities within the organization. In addition to this, they have the power to allocate resources from the other line functions whenever needed. Hence, in the overall picture, they are part of the strategy making.

The evaluation of a business developer's performance is partly based on a quantitative and qualitative way. The quantitative assessment is based on the number of deals closed; the qualitative evaluation is measured by how the performance of the company is positively shaped (ex. market share). The firm may also evaluate the information and data gathered by business developers during their searching phase, which is hard to do since tacit knowledge is the kind of knowledge that is difficult to transfer to others by means of writing or verbalizing it. Such knowledge is usually different from those found in classical market research, for instance, the emerging trends in a market, a possible future scenario or a potential shift in a supplier's or a competitor's strategy. Success is believed to depend on the bigger part upon the personal skills and abilities as discussed in the previous section. On the other side, the results of this study show the structural/organizational factors that are needed to guarantee the effectiveness of the whole function.

### 3.5 Instruments / Tools

As mentioned before there are several ways in which a business developer can initiate growth in the company. For instance, developing new internal or external processes, product or market development. Whatever the growth opportunity is, thoughtful and systematic analysis is preferable for this idea to be positively and successfully implemented. Such analysis comes in the way of instruments or tools that can be used by the business developer or any other specialist to identify, evaluate and choose the appropriate growth strategy. Previously it was only (Sorensen, H.E. 2012) who mentioned that making a business plan or a SWOT analysis were essential tools, but no other study further explored such methods. The only study that covered and investigated this idea of the different tools or methods that could be used by the business developer was (Voeth, M., Poelzl, J. and Eidhoff, A.T. 2018). The participants in their study were interviewed and asked to specify which methods they usually use and its frequency. The most used tool by the participants was a business plan (68% of the participants), followed by the key performance index (KPI's) with 63% of the participants use them. These were also followed by cost-benefit analysis, SWOT analysis, and benchmarking with 60%, 60%, 59% respectively, and the list goes on.

<i>Business plan</i>	<i>Determination of ROI</i>	<i>Scoring models</i>	<i>Customer equity analysis</i>	<i>Stakeholder analysis</i>
<i>KPI's</i>	<i>Assessment of market research</i>	<i>Product life cycle concept</i>	<i>ABC analysis</i>	<i>PESTEL analysis</i>
<i>Cost-benefit analysis</i>	<i>Customer survey</i>	<i>Porter's five forces</i>	<i>Core competence analysis</i>	<i>7-S model</i>
<i>SWOT analysis</i>	<i>McKinsey portfolio analysis</i>	<i>Simulation scenarios</i>	<i>Trend scenarios</i>	
<i>Benchmarking</i>	<i>BCG portfolio analysis</i>	<i>Net present value analysis</i>	<i>Cash flow statement</i>	
<i>Break-even analysis</i>	<i>Gap analysis</i>	<i>Target costing</i>	<i>Porter's competitive strategies</i>	
<i>Cost structure analysis</i>	<i>Balanced scorecard</i>	<i>Added value analysis</i>	<i>Ansoff matrix</i>	

*Table 3: Instrument and tools used by business developer*

The great majority of these tools can be found from other fields such as strategic management, strategic marketing or finance or corporate finance. However, only 3% of the participants stated that they use specifically developed instruments for their business development activities. An example of such tools can be customized internal reports, self-designed checklists that can be used to assess and evaluate the development projects as well as trending scenarios or industry-specific models. The study concluded that many of the companies use these instruments since they are already established and proven but should not neglect to measure the performance of the business development activities.

### 3.6 Coordination (Managerial and planning activities)

The only article that mentioned the coordination of business development concerning the managerial and planning aspects was (Malte Torliene 2016) in his study on SME's in Germany. Projects aimed at business development are the machinery upon which the organization learns and grows. And depending on the level of innovation the firm is seeking to be able to respond in such an unpredictable and unreliable working environment the higher the level of supervisory autonomy is needed when it comes to exploration. Hence it is necessary to consider the different managerial approaches to identify the various contributing factors concerning a successful integration of business development. According to the study, there are two main managerial concepts or strategic perspectives.

The first one is "entrepreneurial SME management". The main point in this type of management is being innovative in the development phase and already acquiring the competencies needed for such a task. Such developmental competencies are split into three interconnected dimensions:

- Organizational entrepreneurial mindset:
  - This dimension deals with the firms' ability (overall mindset) in managing risks and uncertainty, recognizing external opportunities and taking advantage of it.
- Organizational learning competencies:
  - This is concerned with the knowledge acquired by the employees and how it is used for faster and flexible responses that would benefit the company.
- Organizational implementation competencies:
  - This is related to the actual implementation steps accomplished to reach the set goals and initiate the process of change.

The second managerial perspective is called "strategic-as-practice" or in other words could be called active learning, the act of learning by doing. With reference to (Kind Sonia, Knyphausen-Aufseß D. Zu 2007) who stated that "strategizing and organizing are two sides of the same coin", hence considering that formulating and implementation of a strategy as being distinctive activities is no longer reasonable. Furthermore, researchers observed that business development is not similar to strategy making but rather seen as an operational activity.

After all, different managerial and planning methods/frameworks can be chosen depending on how the company perceives or sees business development and their expectations of the potential growth.

### 3.7 Challenges and future applicability

As concluded by (Kind Sonia, Knyphausen-Aufseß D. Zu 2007), it is evident that business development functions are heavily integrated within the organization, with tight connection with the top management and the line function units. However, for such integration to be successful, several factors and challenges must be considered. The business developer specialists need to have the right and solid scientific/technical education as well as the appropriate work experience that is related to the business or the industry. In addition, they need the kind of strong and reliable external networks and connections that can bring in the important and essential information the company needs.

On the other hand, (Lorenzi V., Sorensen H. 2014) deduced that having valuable and hard to imitate capabilities and resources are not the only sources for having a competitive edge over others. We need the correct configuration and organization of the business development functions within the whole firms' structure. The way the firm pursues its growth opportunities and the way they set up their business development activities and objectives are of high importance. Although their study was conducted on the biotech firms (which has its unique business model compared to other industries), but it was fundamental for gaining the knowledge about business development as they seem to be more mature as an industry and they have already established a well-structured idea about how business development functions.

It is imperative for the organization to identify how business development will function or operate. It was (Malte Torliene 2016) who referred to this process as being a fixed one (a routine) that is designed by the firm or a project that aims at improving the firms' effectiveness/performance or extending its mode of operation, where all should be aligned with the organizational goals. When it comes to deciding a strategy, a company should not only depend on Ansoff's matrix of product/market strategies, since it relies greatly on the size and age of the company and the industry, which does not cover all the possible aspects of business development such as downsizing (which in fact can be a positive strategy) or other performance-boosting activities.

Business development is crucial to advance and encourage growth in a company, and this implies changing the previously used managerial and operational approaches. One of the challenges that (Voeth, M., Poelzl, J. and Eidhoff, A.T. 2018) mentioned in their article (aligned with (Lorenzi V., Sorensen H. 2014) results) was that business developers in addition to their daily activities or development projects usually get distracted by tasks from other departments (ex. Sales or marketing) which are not directly related to their development tasks, which shows issues in terms of coordination and resource allocation. Other challenges that might face business developers were also stated by the study in the below table in order of significance:

<b>Challenges for business development within an organization</b>	
<i>Lack of human resources</i>	<i>Lack of monitoring of the implementation by BD</i>
<i>Too little budget</i>	<i>Wrong organizational positioning of BD</i>
<i>Lack of focus in BD</i>	<i>Too little experience of involved BD staff</i>
<i>Too little exchange of experience with business developers from other companies</i>	<i>Lack of instruments and tools</i>
<i>Resistance/rejection to BD projects by involved departments</i>	<i>Lack of experience of BD projects in the company in general</i>
<i>The large gap to daily operations of the business units</i>	<i>Lack of management support</i>

*Table 4: Business development challenges*

In their study also they discussed the question related to the future relevance of business development within the business context. About 58% of the participants in the study said that the future relevance of business development in their companies would increase, one third said that it would be the same, and only 3% said it would decrease. In line with the study's findings, 45% of the participants believe that there will be an increase in human resources within the next 3 years. Accordingly, it seems that the topic of business development is of an increasing priority to the companies.

In summary, we know certainly that the literature helps us explore the possible range of activities that might fall within the category of business development, however, it doesn't help us to that much in understanding how the functions of business development are carried out.

## 4. Case Study

### 4.1 The motivation behind business development

As we have seen, business development is crucial for businesses to sustain their growth, or even to survive in today's market. Either internally or externally, companies are facing many challenges, thus a comprehensive view of the causes is essential, and then a well-structured plan with clear objectives must be developed and acted upon with due diligence.

In our case study, we will go through the process of business development in an Italian company called "Spesso Gaskets". The first proposal for initiating business development activities came from the top management. They wanted to expand the product portfolio of the company as well as its customer base. The company knew that it was essential at this stage to start developing and expanding in new markets, and when necessary develop a new product range to be introduced to the current and new customers. A methodology was required, a new repeatable process that can be used in day-to-day activities. Following the previous description of Ansoff's product/market matrix, it was clear that the company needed to develop two distinct strategies. The first one would be a mix of the market penetration and market development strategies, promoting the current product range in existing and new potential markets. The second one is a mix of product development and diversification strategies, promoting newly developed or acquired product range in either existing or new potential markets depending on its competitiveness. Subsequently, it was decided to have a team with the responsibility to handle this development process.

Based on that, the team was built with three main objectives. First, to identify new business opportunities, scanning the external environment for new potential growth opportunities and analyzing its feasibility and compatibility with the company's overall strategy and vision. The second objective is to plan and monitor the business case assessment activities. The last objective is to formalize the business case/plan to be presented and submitted to the top management for their further assessment and final approval.

The business case assessment and approval process are divided into two main phases or documents to be submitted to the top management upon which further assessments are considered and a go- or no-go decision is made.

The first phase of the business case is a document that, starting from the market/customer analysis proposes new business initiatives that are supported by a macro-evaluation of the volumes, costs, process, investments, and profitability included with the new business opportunity. Upon approval, we move to the second phase in which a detailed analysis of the business proposal is done, accompanied by a what-if analysis for several variables such as prices, costs, investments, and volumes. After consideration of the possible scenarios and receiving the top management's approval the business plan becomes operational.

Monthly, the team conducts a meeting to follow-up on their operational activities. In each meeting, the team analyzes and updates the sales, economic, and financial figures for the previous month and comparing the results of the progressive year with that of previous years and budgets. New proposals and ideas are communicated and discussed with the team members and inserted into the business plan when approved. The various activities are consolidated. After the business case is formalized it is submitted to the top management for the operational approval

The participants of the business development team are as follows:

- CEO (Top Management)
- President (Top Management)
- OE Sales Manager
- AM Sales Manager (Team Coordinator)
- Production Manager
- Management Control Manager (Controller)
- Tutor

The responsibilities are assigned as follows:

- Top Management
  - Approves business case initiatives.
- Coordinator
  - Convene the meetings and defines their agenda. Insert and schedules the new proposals. Supports the team in overcoming the roadblocks throughout the development of the business cases. Records the decisions taken in the meetings and regularly updates the status of the projects. Every month with the team's collaboration, they update the competitive scenarios.

- Business case proposer
  - Responsible for the content and timing of the analysis presented and assisted by colleagues as far as they are concerned.
- Controller
  - Prepare the updates and certifies the analysis of the sales, economic, and financial figures of each month, progressive years, and the comparison with the previous years and budgets. Besides, monitoring of the results achieved throughout each step of the implementation process.

The activities conducted by the team members within each meeting is simplified in the following flow chart:

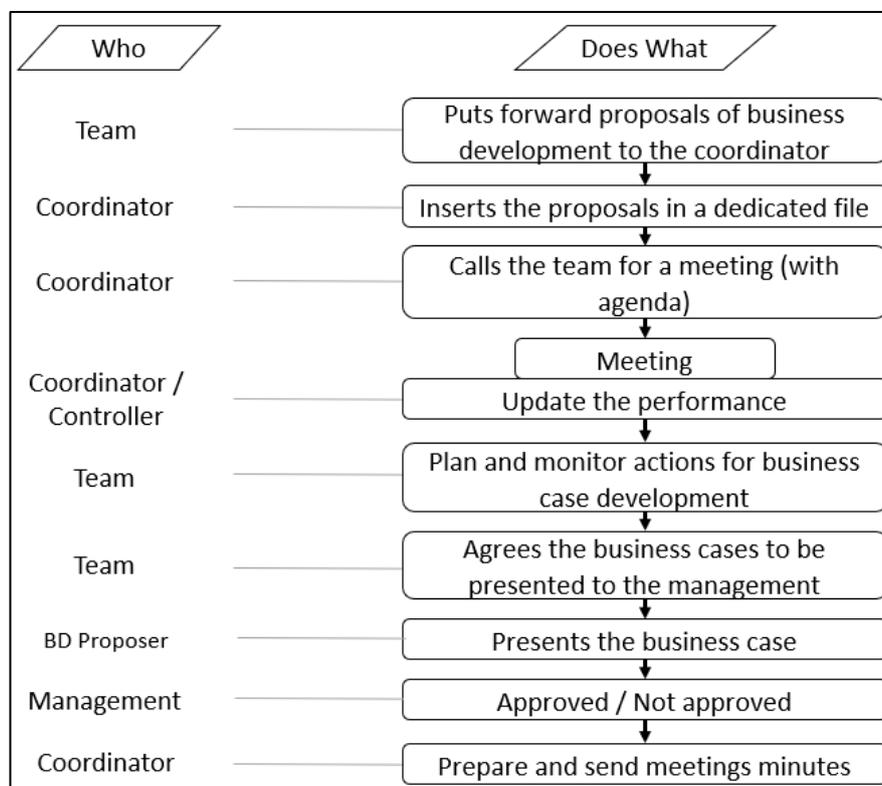


Figure 13: Internal activities flow chart

However, before going forward with the business development case at Spesso, it is important to have a brief introduction about the company, its background, and history, the range of products they produce and the technologies adopted, their customers, etc. the following section is dedicated for this, after that the details about the development process will be presented.

## 4.2 An Introduction about the company

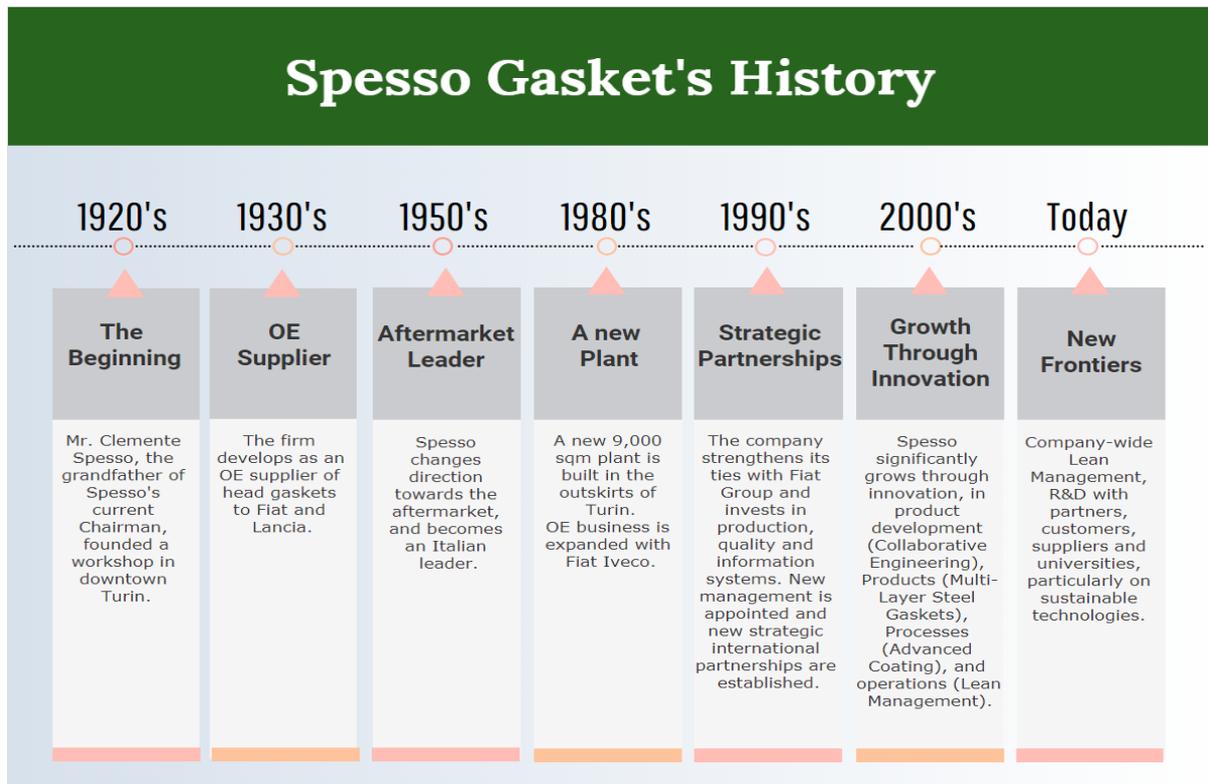


Figure 14: History of Spesso Gaskets S.R.L

Spesso Gasket S.R.L (an Independent Company) based in Torino, Italy - is an Original Equipment Manufacturer of engine gaskets primarily for the automotive sector. Since 1926, Spesso has been specialized in designing and manufacturing of high-quality engine gaskets and gasket sets, both for OEM (Original Equipment Manufacturer) and for AM (After-Market). And in the business of OEM and AM, 90 years of history and experience is a clear indication of reliability and trustworthiness.

Spesso's gaskets are used by major European brands as their tier 1 supplier for engine gaskets, covering the wide range of motor vehicles spectrum from motorcycles, passenger cars, marine equipment up to agricultural machinery and heavy-duty trucks. And the company is well known as one of the most successful distributors of spare parts worldwide.

The key factors for such success are the continuous improvement of customer value by providing innovative, high product and service quality products with affordable prices. Spesso's products are sold worldwide in more than 60 countries.

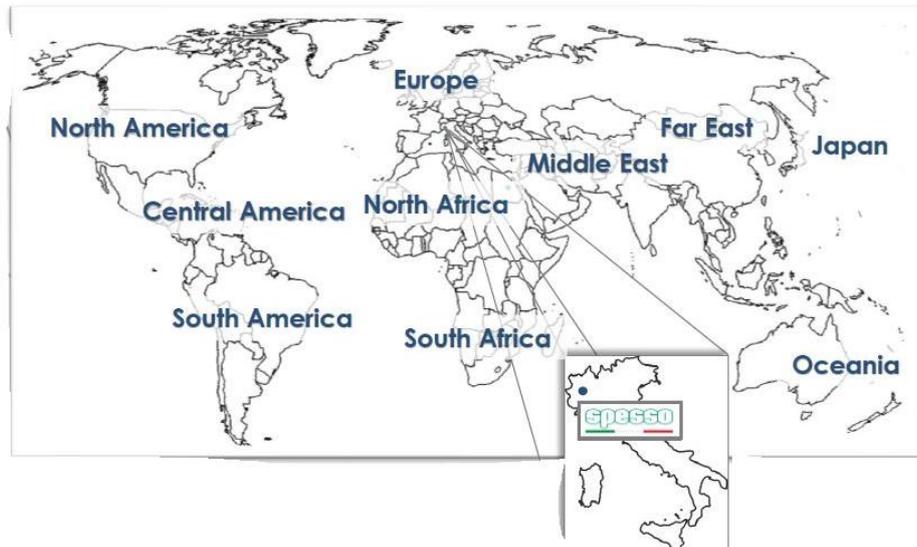


Figure 15: Spesso Gasket worldwide market

#### 4.2.1 International agreements:

The employees at Spesso are proud of their hometown, Torino (the city that hosted the 2006 Winter Olympics, a city that is rich in technological know-how, creativity, and beauty). Two major international agreements were established that gave Spesso its leverage when it comes to the product's technology and quality.

In March 1998, Spesso collaborated with "Ishikawa Gasket Co., LTD." The inventor of the Multi-Layer Steel Cylinder Head Gasket Technology. Today it is considered one of the world's leading gasket manufacturers. The agreement is that Ishikawa Gasket Co. would provide the technology to Spesso, and Spesso would be its manufacturer in Europe.



Figure 16: Spesso and Ishikawa Gasket collaboration

In July 2002, an agreement was made with "Interface Performance Materials"; a world leader in Fiber-based gasket materials that holds several patents in flat sealing technology, to be a raw material supplier to Spesso's rubber-coated fiber metal cylinder head gaskets.



Figure 17: Spesso and Interface agreement

#### 4.2.2 Spesso Management System (S.M.S):

Following the agreement with “Ishikawa Gasket Co., LTD.” a new Lean Management System was adopted, following the Japanese Toyota System. Spesso is continuously improving all its company-wide manufacturing and operations processes, with the aim of providing high standards of quality, competitive cost, and the fulfillment of the customer needs.

The pillars of the S.M.S are as follows:

- Autonomation (Intelligent Automation)
- Quick Set-up
- Just-in-Time
- Visual Management
- Knowledge Management
- Multi-skilled and empowered people

The spirit of innovation, supported by the international partnerships and the lean management philosophy, enabled Spesso gaskets to become the first Italian manufacturer of Multi-Steel cylinder head gaskets for OE (original equipment).

#### 4.2.3 Certifications:

- AVSQ-94
- QS 9000
- ISO 9001:2000
- IATF 6949
- ISO14001
- OHSAS 18001

#### 4.2.4 Range of Products:

##### 4.2.4.1 Engine gasket sets/kits:

a wide range of gasket sets is offered by Spesso. They are either manufactured internally in the plant or procured from external top suppliers worldwide according to the needs and requirements of the customer.

#### 4.2.4.2 Cylinder-Head Gaskets (CHG):

With the support of the international agreements and the innovative spirit within the company, Spesso is the 1<sup>st</sup> Italian manufacturer of Multi-Layer Steel cylinder head gaskets. With the development and refinement of the know-how along the many years, Spesso can now provide the highest quality for the OE, OES (Original Equipment Service) and IAM (Independent After Market). Maximum reliability is guaranteed with the use of the highest quality of available raw materials worldwide.



Figure 18: Example of cylinder head gaskets

#### 4.2.4.3 Exhaust gaskets:

Mono and Multi-layer steel exhaust gaskets are designed according to the requirements to perform in high temperatures and intense flange motion environments. High-quality elastomers and special steels are usually used for the gasket to perform under such stresses.



Figure 19: Example of exhaust gasket

#### 4.2.4.4 Valve cover gaskets and oil pan gaskets:

A wide range of cover, oil pan gaskets, and other special gaskets are offered according to the demand. High-quality rubber and metal rubber material are used to give maximum sealing with minimum tightening.

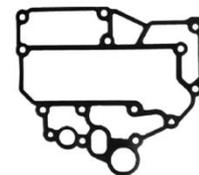


Figure 20: Example of valve cover gasket

#### 4.2.4.5 Secondary gaskets

- Distributors gaskets
- Packing gaskets
- Turbocharger gaskets
- Retrofit & Catalyzer gaskets
- EGR & Cooler gaskets



Figure 21: Example of secondary gaskets

The two main branches of sales operation to the company are mainly divided into two categories.

OE (Original Equipment); which is direct selling to the major OEMs for production purposes and AM (Aftermarket); which is selling to aftermarket distributors for spare parts purposes. These two branches are described below in more detail.

#### 4.2.5 Premium products as original equipment component manufacturers (OEM):

Through the Lean Management concept (which is adopted from Toyota Production System) Spesso seeks to eliminate all the possible wastes along the entire production value streams. Creating processes that need less effort, uses less space, capital and require less time to produce the products at lower costs and with fewer defects. As a result of such high quality and services along the years led the company to acquire an increasing number of Original Equipment Customers.

Such efforts and work were reflected in the company's growth when the OE businesses have grown in the last 10 years from 30% to 70% of the total business's revenue.



Figure 22: Previous and current AM Vs OE businesses revenue share

The main products for the OE are cylinder head and exhaust gaskets, however, some applications vary from 2-wheelers engine to heavy-duty trucks and agricultural machines.

There are two types of sealing technology for the gaskets; Linear and Surface sealing. In addition to this, Spesso combines both these technologies in Custom Coated Composite (CCC), which is an adaptable sealing technology that would suit the various customer demands.

#### 4.2.5.1 Original Equipment (OE) Customers:

The list of the OE customers includes a wide range of motor vehicle and engine manufacturers, from small motorcycle engines to medium and heavy-duty vehicle manufacturers. The below list is divided according to the size of the engine manufacturer.

##### 4.2.5.1.1 Medium/Big Engine Manufacturers:

- *FPT (Fiat Powertrain Technologies)*
- *MAN Trucks*
- *Fiat Group*
- *FCA Group*
- *Volkswagen*
- *Audi*
- *Suzuki*
- *GM & Isuzu*
- *Volvo & Renault Trucks*



Figure 23: OE medium and big engine manufacturers

##### 4.2.5.1.2 Small Engine Manufacturers:

- *Piaggio*
- *Peugeot Scooters*
- *Aprilia*
- *Honda Power Equipment*
- *Malossi*
- *Motori Minarelli & Yamaha*



Figure 24: OE small engine manufacturers

Under the category of the main OE customers, Spesso supplies products to a group of Tier 1 suppliers.

##### 4.2.5.1.3 Tier 1 Suppliers:

- *Magneti Marelli*
- *Knorr Bremse*
- *Bendix*
- *IHI*
- *BorgWarner*
- *Carraro*
- *Cornaglia Group*



Figure 25: Tier 1 suppliers

#### 4.2.5.2 Original Equipment Service (OES)

Spesso sells directly to the OEMs aftersales department, which is then responsible for the spare parts distribution to the certified dealerships. In this case, the products are packaged with the packaging provided by the customers with their brand.

#### 4.2.6 Aftermarket (AM):

For the aftermarket, the company has been developing the business – widening its distribution channel and increasing its customer base in other countries. It is vital for the firm to expand its businesses beyond the current market and expand to new territories.



Figure 26: Previous and current share between exports and sales in Italy

The company has been designing, developing and manufacturing reliable engine gaskets and engine gasket sets for three main categories in the aftermarket segments:

##### 4.2.6.1 Private Label (PL)

Spesso provides its products to other gasket suppliers or possibly other distributors using the other company's name as the brand cover.

##### 4.2.6.2 Independent Aftermarket (IAM) under the Spesso brand

Spesso sells directly to regional or global spare parts distributors using the “Spesso” brand as the cover of the product. In the aftermarket, Spesso provides a wide range of products.

##### 4.2.6.3 Independent Aftermarket (IAM) under Spesso Racing brand for racing and classic cars

Since the 1990s, Spesso initiated strong R&D activities on special Kevlar based materials for the manufacturing of high-performance cylinder head gaskets for the racing applications. Throughout the years, the company established close cooperation with racing teams and European tuning specialists for performance engines.

### 4.3 Business Development Case Study at Spesso Gaskets

There are two main courses of action for business development in the company.

Firstly, OE-related business development, which is concerned and focused on three main paths:

- Improve the technological skills and equipment of the companies to compete on bigger projects of the current customers to be able to reply to the requests for quotation for big volumes instead of small/medium ones only.
- Develop new products using the same current metal stamping technologies and equipment and propose it to current and new customers.
- Establishing new partnerships with other firms for developing new products and technologies that would strategically fit with the corporate's long-term goals and vision, mainly concerning the new powertrain scenarios.

Related to this last point, as it will be shown in the following sections, one of the researches conducted later during the internship was about business development activities on the future market trend and new emerging technologies in the automotive industry and how this is reflected in our business performance.

The second approach for business development is directed towards the aftermarket, and this will be the focus of the research done for this case study. The aftermarket sales were increasing but mainly depending on unstable markets (South America, North Africa, etc.) often facing a political and economic crisis, and this, in turn, was affecting the stability of businesses and aftermarket sales for the industry as a whole. Hence, it was of high importance to develop new opportunities in less fluctuating and risky markets. Another probable reason was that our sales were also dependent on the performance of the automotive manufacturers on which our product portfolio was based on. Some of the current product portfolio that the company was offering in the market was phasing out and even the new products for the Italian range were not taking off due to the lack of vehicle sales compared to vehicles with other brands. A new product range was needed, for both the current and new to-be-developed markets.

For these reasons, it became imperative to initiate business development activities, as identified in the previous chapter. Of course, the first step needed was to initiate a research and analysis of the market and its trend (more specifically in the European market); which is also an evident first step shown by the findings of the academic publications.

The first process of business development is identification and screening for information. Various sources have been used for conducting the following research; websites, online databases, and portals published market reports, etc.

The following bullet points consist of the sources used to conduct the entire researches and analysis in the following case study.

- *VDA: "Verband der Automobilindustrie" - German Association of the Automotive Industry.*
- *KBA: "Kraftfahrt-Bundesamt" - Federal Motor Transport Authority.*
- *CCFA: "Comité des Constructeurs Français d'Automobiles" - French Automobile Manufacturers Committee.*
- *ACEA: "Association des Constructeurs Européens d'Automobiles" - European Automobile Manufacturers' Association.*
- *ANFIA: "Associazione Nazionale Fra Industrie Automobilistiche" – National Association of Automotive Industries.*
- *OICA: "Organisation Internationale des Constructeurs d'Automobiles" - International Organization for Motor Vehicle Manufacturers.*
- *PZPM: "Polski Związek Przemysłu Motoryzacyjnego" - Polish Automotive Industry Association.*
- *www.best-selling-cars.com: Car Sales Statistics Website.*
- *Marklines Database: Automotive Industry Portal.*
- *Roland Berger: Global Consulting Company.*
- *Mckinsey & Company: Global Management Company.*

#### 4.3.1 European Aftermarket Research

Two scopes were explored during the market search, the production and registration/sales of both passenger cars (PC) and Commercial vehicles (CV), targeting the worldwide market for an overall view but with the main focus on the key European countries of potential growth opportunities. It was vital to identify the growing markets, and in turn to recognize the performance of our main selling customers/brands; namely FCA Group for passenger cars and light commercial vehicles, and Iveco for medium-heavy duty trucks. It was important also for us to identify which models are growing in which markets, to focus our promotional activities on such product portfolio.

When it came to data gathering it should be noted that this research was being conducted in the last few months of the year 2019 and the beginning of the year 2020. Therefore, some of the data represented will be updated (referring until the end of the year 2019), while others will be referring to the most recent updated year (mostly year 2018). It should also be noted that not all the data and charts acquired or developed

during the internship period will be presented in this dissertation due to its large-scale, and in some cases due to data confidentiality.

Motor vehicles sales or registrations are of more importance to us since it reflects exactly how much vehicles for each manufacturer and their models have been sold in which countries, and the accumulation of these numbers across the years somehow represents the aftermarket. It should be noted that the gasket’s industry aftermarket only starts taking effect after a car has been sold by around five years. A vehicle that was purchased in 2015 by a customer, will approximately start servicing the engine (replacing its gasket set) in the year 2020. That is why we were interested in collecting the data of vehicles registered for the past five to eight years (however not all this data will be presented here), and identifying the sales trend for each manufacturer (brand and models) in each market over the past few years, to be able to identify which brands/models are on the rise and which are falling.

The following figure shows the registrations of 2019 (with comparison to 2018 – indicated in the percentage; red/green) in the main automotive sales regions. Followed by that, is the data of registrations for PC and CV as well. We also tracked the performance of each manufacturer’s sales and their trend across several years, since it was crucial to understand the position of our major customers (ex. FCA) in the market with respect to other manufacturers in both our current and new-to-develop markets. Only the data that are enough to represent the case will be represented.

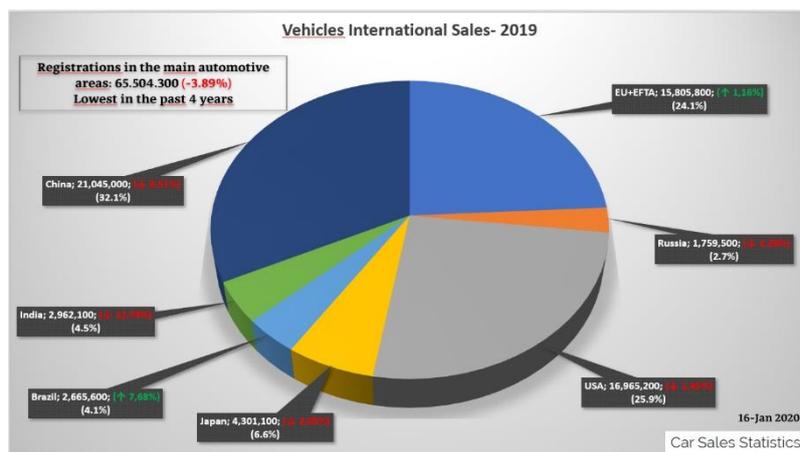


Figure 27: Motor vehicles sales figures in 2019 as per region

The chart shows that in general the global sales in 2019 has decreased by 4% compared to 2018, considered to be the lowest in the past four years. Only Europe (accounting to 24% of the global sales) and Brazil had an increase.

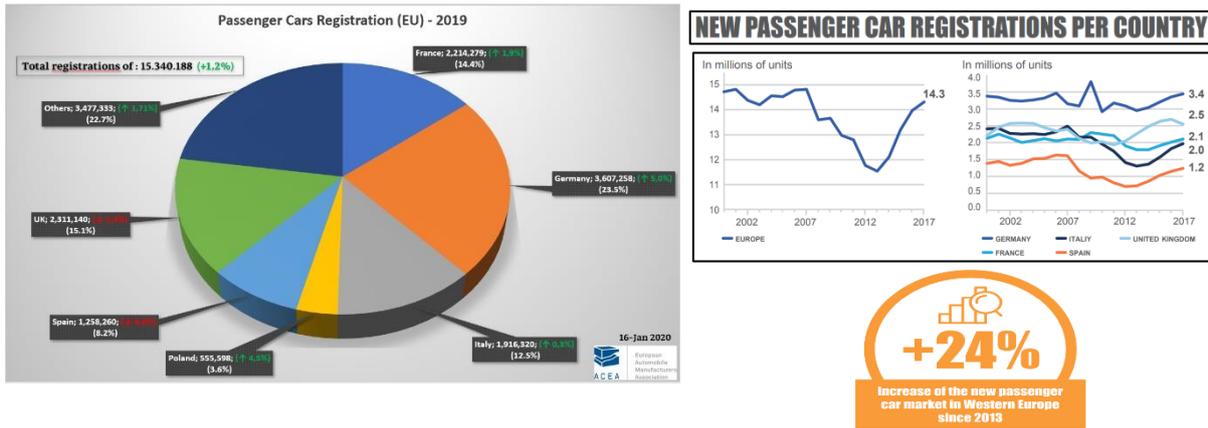


Figure 28: Passenger cars registration trend in European countries (2019)

In Europe, Italy was the lowest in terms of sales increase (+ 0.3%) with 12% of the European registration market share. The highest was Germany (+5%) with 23% of the European registration market share (a confirmation this is a big and growing market where we have to heavily invest in). The overall sales trend shows a continuous increase and indicates the four top countries to be Germany, the UK (no more part of the European Union), France, and Italy.

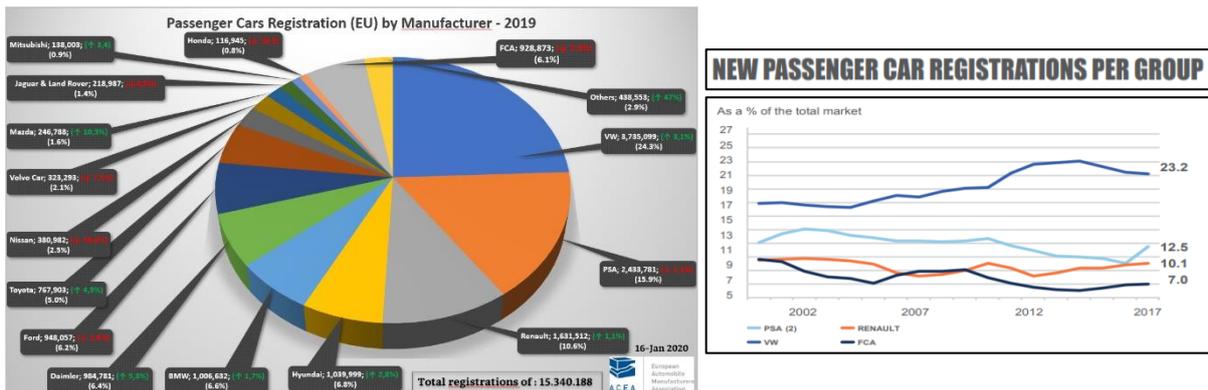


Figure 29: Passenger cars registrations in European countries (2019) per manufacturer

Upon deeper analysis, the FCA group our major customer was declining in sales (- 7%) and only accounted for 6% of the total share market of sales in 2019. The leading brand in sales in Europe is the VW group (24% market share in 2019) followed by the French manufacturers' PSA Group and Renault (16% and 11% respectively of market share in 2019).

As for the commercial vehicles sales, the market experienced an increase of 2.5% in 2019 compared to 2018. The highest of sales are in France and Germany (21% and 16% respectively of market share in 2019), followed by Spain and Italy (9.5% and 8.5% respectively).

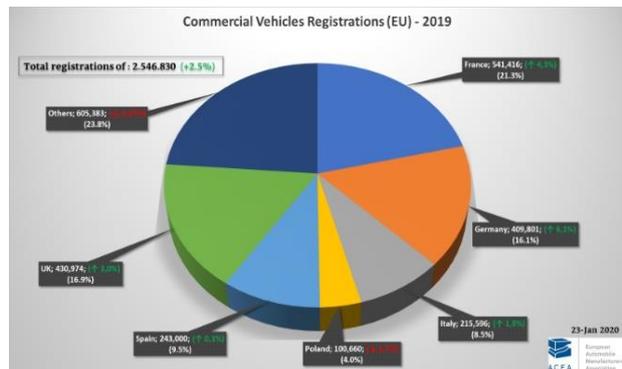


Figure 30: Commercial vehicles registrations in European countries (2019)

On the other side, it was important to analyze the Eastern European countries and determine if any would be considered as a potential market for our products. Collecting the data for registrations for PC and CV, we identified Poland (highlighted in red) to be the most potential country considering its growth trend compared to others in the same region, as shown in the charts below. In each of the vehicle's (PC and CV) segments, Poland account for almost 40% of the total registrations in the Eastern European market. Hence becoming the most promising country in terms of potential volumes.

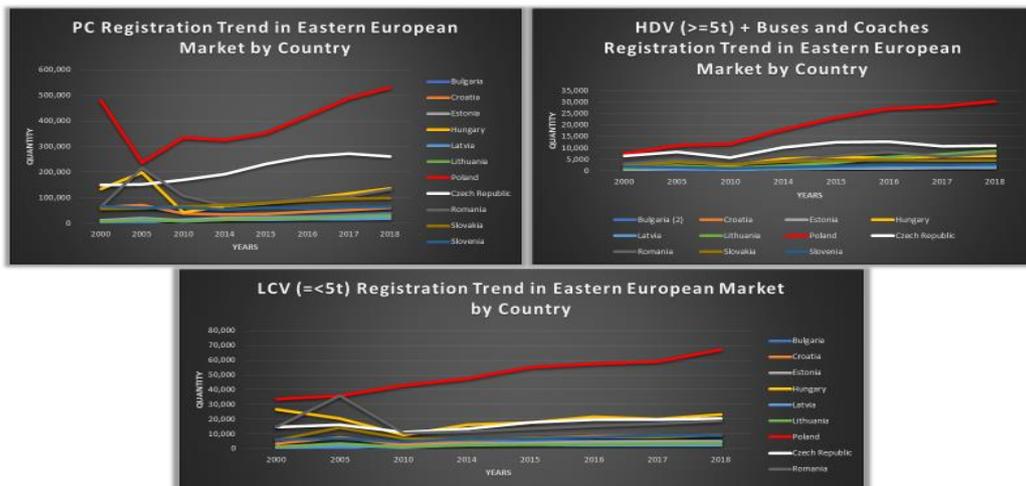


Figure 31: Motor vehicles registration trend in the Eastern European market

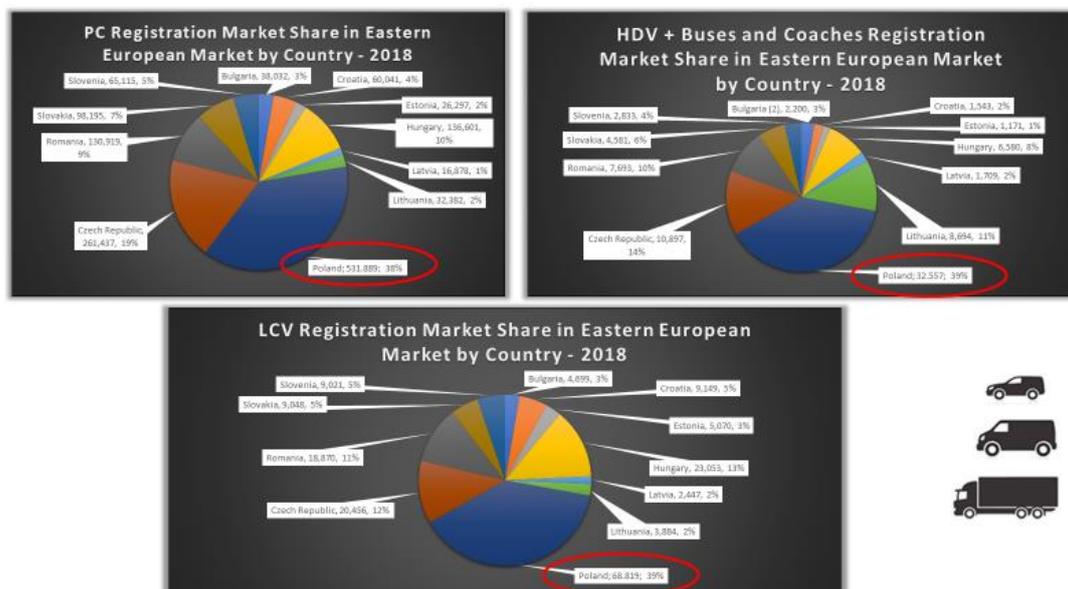


Figure 32: Motor vehicles registrations in the Eastern European market in 2018

In conclusion, it was decided that three markets should be pursued for further analysis; Germany, France, and Poland. In this research, we should be able to identify the most selling brands and growth/decline trends across the years for each of the motor vehicle segments (PC & CV). Accordingly, we would have a clearer point of view when it comes to deciding in which way our strategy and resources should be directed and utilized respectively.

### 4.3.1.1 German market

The results in the German market were sort of predicted, the sales market share is dominated by the German brands/manufacturers (VM, Mercedes, Audi, BMW). The market share for Italian brands (Fiat, Alfa Romeo) accounted in total for less than 3%, but altogether we have a circulating fleet of around 1,3 million vehicles and around 100K of new registrations per year. We also considered the highest-selling models and their growth/decline trend over the past years.

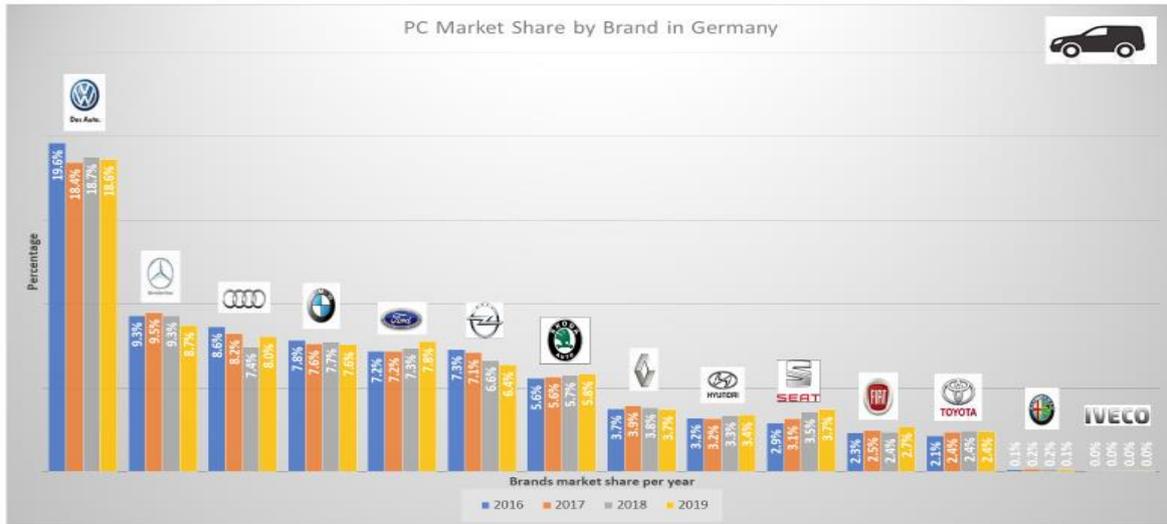


Figure 33: Passenger cars market share by brand in the German market

The history of data shows that from 2015 to 2018 the sales in Germany for passenger cars and light commercial vehicles have been steadily increasing, it is the biggest European market for these two segments. It is clear that the Italian models are not the top-selling in this market, although the total vehicle fleet is high, and we still don't have a direct channel of distribution.

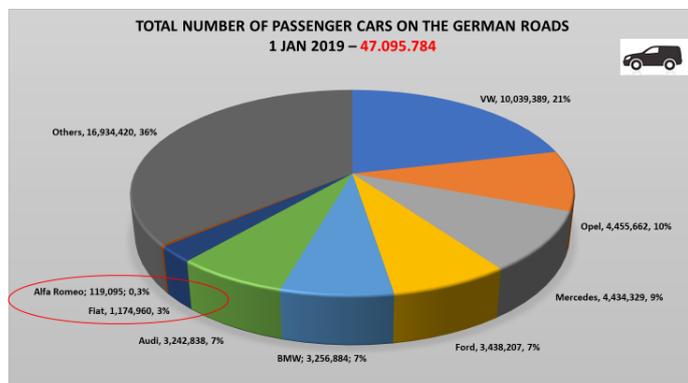


Figure 34: Total number of passenger cars on the German road as of January 2019

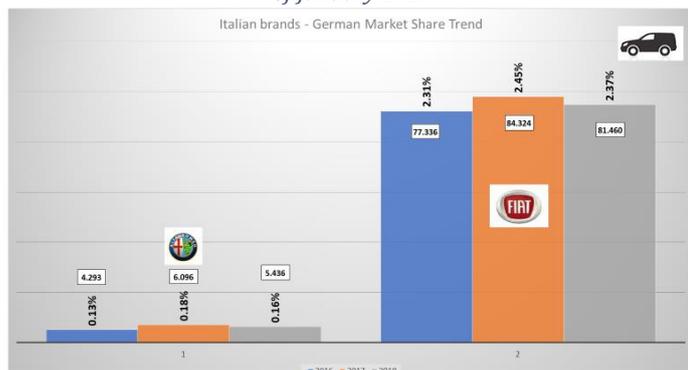


Figure 35: Italian brands market share trend in the German market

The same analysis was done for commercial vehicles; trucks, buses, and agricultural vehicles. Our focus was on the brands in which we cover a wide range of their product portfolio, Fiat brand for the light commercial vehicles (LCV) – DAF, CNH, and Iveco for the heavy-duty vehicles and agricultural tractors. From 2015 to 2018 the registrations in this category increased by around 2.5 million heavy-duty vehicles in Europe with 400K of these registrations in Germany alone. It is the third biggest market in Europe after France and the UK. Iveco brand (Eurocargo, Magirus) is stable within the market, although not the highest-selling but the volumes of sales is considerable (around 15K of new registrations/year).

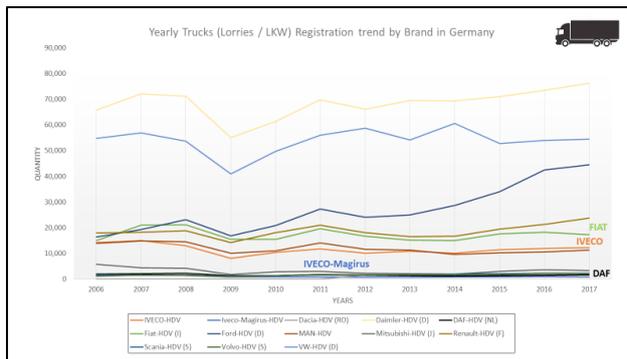


Figure 37: Yearly trucks registrations trend by brand in the German market

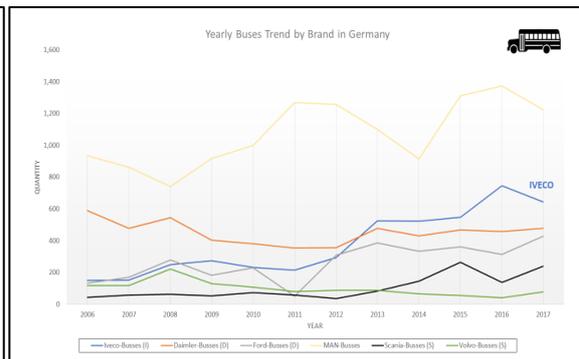


Figure 36: Yearly buses registrations trend by brand in the German market

the data shows that the Iveco brand in the bus's category has been increasing in the previous years, indicating a potential increasing market, ranking second after the "MAN" brand. DAF and CNH agricultural vehicles/tractors are competitive as well as ranking third and fifth overall.

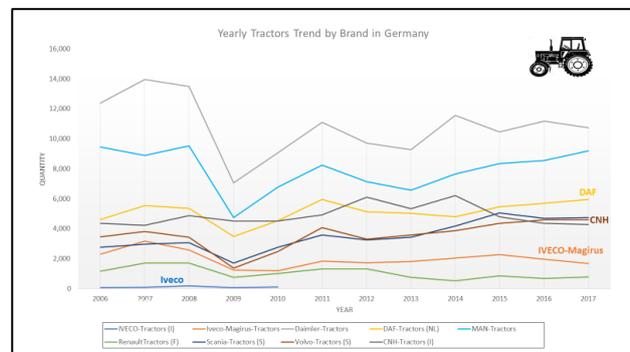


Figure 38: Yearly agricultural tractors registrations trend by brand in the German market

#### 4.3.1.2 French market

In France, as seen from the results of registrations in 2018, around 47% of the total sales are related to the French brands (Renault, Peugeot, Citroen), Italian brands on the other hand (Fiat, Alfa Romeo) accounted for only 4%, and that trend has not changed a lot for the past years.

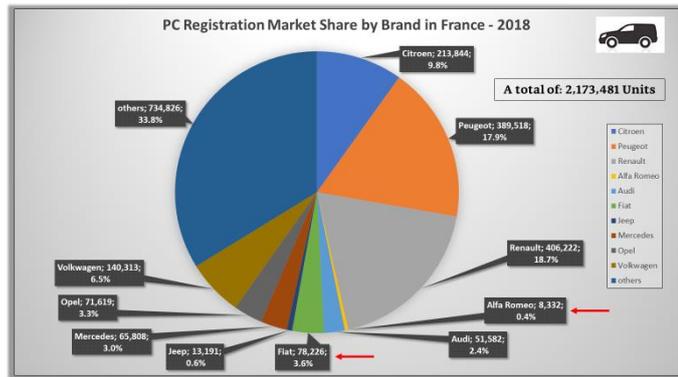


Figure 39: Passenger cars registrations market share by brand in the French market in 2018

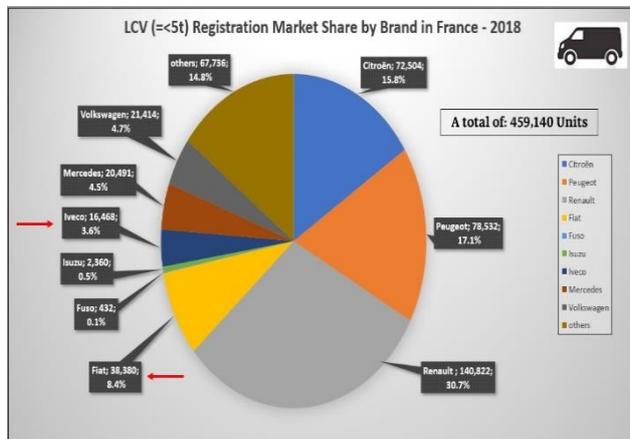


Figure 40: Light commercial vehicles registrations market share by brand in the French market in 2018

light commercial vehicles (LCV =<5tons) contribute to around 88.5% of the total sales within the commercial vehicles segment in the French market. The pie chart on the left of 2018's LCV registration, shows that the Fiat brand attains the fourth position with 8.4% of the market share, Iveco is seventh with 3.6%. the french brands combined account for around 64% of the market

sales.

In the Heavy-Duty Vehicles (HDV >=5tons) segment, Renault is the highest growing brand for trucks with almost 28% of the market share, while Iveco has a market share of 10%.

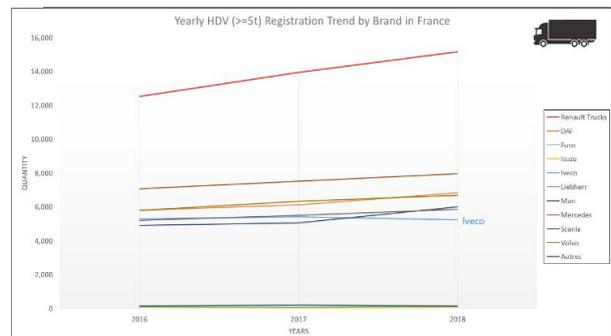


Figure 41: Yearly high-duty vehicles registration trend by brand in the French market

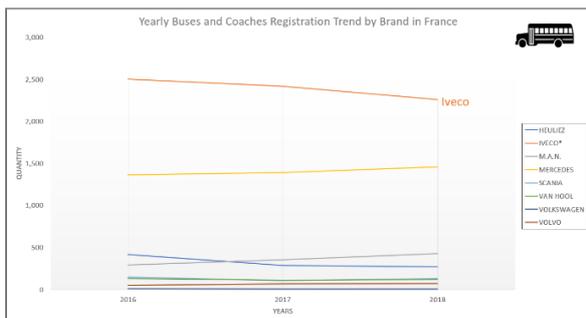


Figure 42: Yearly buses and coaches registration trend by brand in the French market

On the other hand, Iveco is ranked first in the category of buses and coaches with a market share of 39%.

### 4.3.1.3 Polish market

When considering the data obtained (as shown in the previous charts) about the magnitude of sales in Poland with respect to the other eastern European countries, it was appealing for us to search more and acquire data about the range of brands being sold and if it could be considered as a growth opportunity.

For the passenger car segment, the Italian brand was not among the bestselling compared to the mostly German brands. In 2018 the sales of Fiat accounted for 2.4% of the market share.

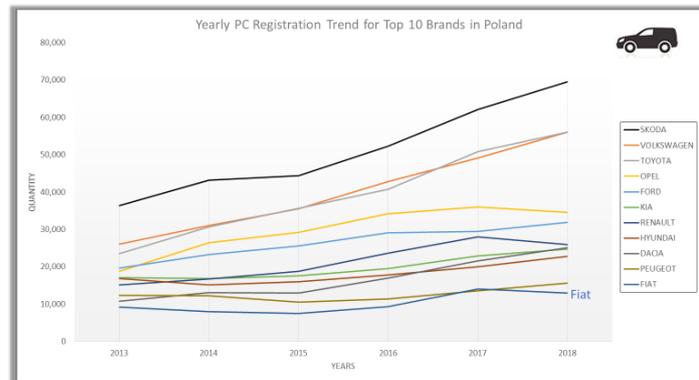


Figure 43: Yearly passenger cars registration trend for the top ten selling brands in the Polish market

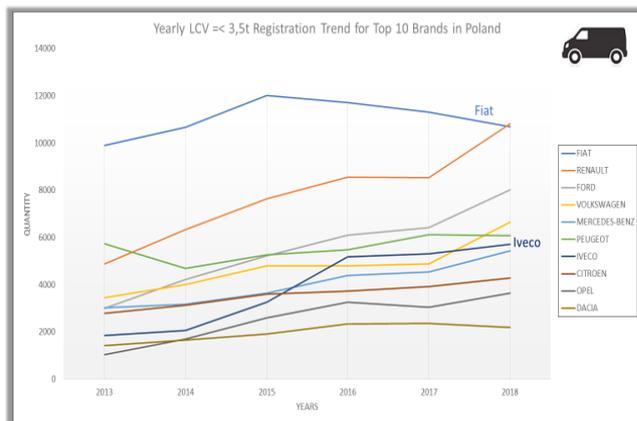


Figure 44: Yearly light commercial vehicles registration trend for the top ten selling brands in the Polish market

For the light commercial vehicle category, Fiat was the leading selling brand for the past years. According to the sales data of 2018, when Fiat sales were almost equal to that of Renault (noticing their continuous growth), it accounted for 15.5% of the market share. Iveco is also experiencing an increase in sales, reaching a market share of 8.3% in 2018.

When it came to the high-duty vehicles and bus segments, Iveco had a market share of 6% and 5% respectively, not among the top-selling but the figures could still be considered in mind.

#### 4.3.2 European Aftermarket research findings

The results of the research identified a potential growth opportunity in the three markets of Germany, France, and Poland. The in-depth analysis of each of the manufacturer's sales performance/trend throughout the past years in each region has enabled us to track down which models are the most sold, which ones are phasing out, especially for our Italian brands across the different vehicle's segments.

- In Germany: the biggest European market, the passenger car sales volume for the Fiat brand were promising and they were still increasing in 2019. The main models are the Fiat 500 and the Ducato in which we have a range of gaskets and gaskets sets to offer, and this is considered as a growth opportunity since there are no sales in Germany currently from our side. For the Alfa Romeo brand, the registrations are considered stable, with the rise in sales of the new model "Stelvio" which is not yet in our range, hence an opportunity to be considered for aftermarket sales growth. For the heavy-duty vehicle segment (trucks and buses), Iveco is a stable selling brand with a noticeable volume of sales every year. In the end, it is was considered worth the investment (time/money points of view) for promotions and finding new distribution channels.
- In France: although from the market share percentage the numbers don't seem high, however the sales volume for all segments is still interesting to be considered. A further opportunity in this market is related to the bus segment, with Iveco being the most sold brand with 39% of the market share.
- In Poland: the significant information is that of Fiat brand in the LCV segment, the number one selling brand for the previous years, to having around 15.5% of the market share, same as that of Renault. The volume of sales is sizeable considering that Poland was not apparent as a competitive market when seen from the overall European market perspective.

The expansion in the European market is promising even if considering we only used our existing product portfolio, hence dedicating resources (time, human resources, money) to this new market strategy was deemed worthy.

The second step/activity after the screening of the market and its trend is to identify possible potential growth opportunities. Thorough research for potential spare-parts suppliers and distributors in Europe was done, we started looking for new customers who would be interested in our products. The aim was to select distributors and big

retailers who would help in improving our distribution channel in these new markets. It was also considered that the selected potential customers should already have our products (gaskets) as one of their distributed categories, which would increase our chance of negotiating for a deal. In the end, a list of thirty potential new customers was created, covering different European countries (Germany, France, Poland, Belgium, Bulgaria, Croatia). As will be shown later, this list will be approached in a systematic, incremental way to get the maximum benefit.

In the same time, one of the goals that we were working on was widening the knowledge about the current Italian product portfolio (which would be mainly used for the European market) such as Iveco, CNH, and Fiat in order to use the additional information in our future offers and promotions. This meant that we needed to keep track of where and by whom our major client's products were used. In fact, Iveco signed several agreements with other truck and agricultural manufacturers, that used/are using their engines (and consequently our gaskets). Therefore, if we could identify the models (or the other range of products) in which our products are used (through our major client), that is an addition to our product portfolio and a new opportunity that should be realized properly. Such an identification process is not an easy one, it requires deep and continuous research (ex. through the web), finding the right contacts for accurate and updated information, and it is always a work in progress process.

When it came to deciding which strategic plan should be approached, for the European market it was clear that developing a solid presence in the targeted markets, expanding our networks of distribution for each of the targeted new markets.



Figure 45: Spesso's European market strategic plan based on Ansoff's product/market matrix

A forecast was done for the expected revenue from the potential opportunities. The below chart shows the total revenue expectation for the year 2020. The blue segment represents the revenues acquired with business-as-usual operations. The orange segments show the share of revenue (in percentages) for the projects handled in the European markets, regarding the potential customer’s list developed. The grey segments will be explained in detail in the next section (business development in non-European countries). The forecast was estimated based on historical information and their success rate. The forecast shows that around 17% of the year’s revenue will be attained from the market development in the European market, with an expectation for the sales revenue to increase by an additional 14% by the year 2022.

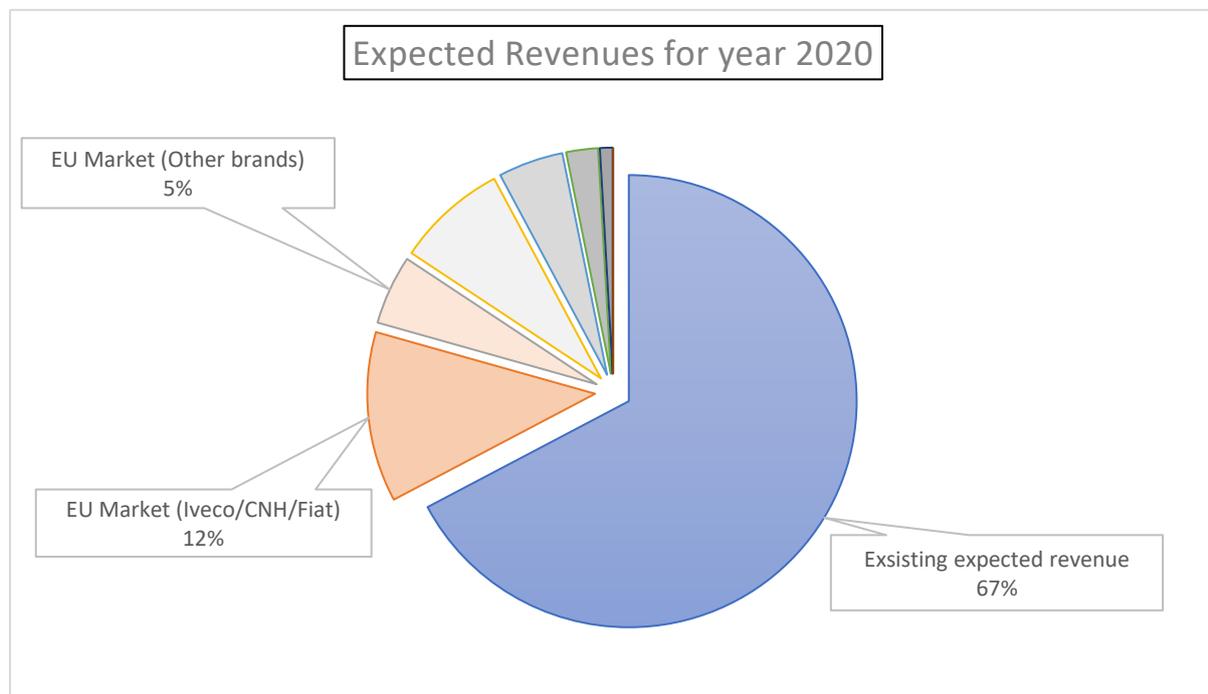


Figure 46: EU-market projects expected revenues for the year 2020

#### 4.3.3 Non-European Aftermarket Research

when it came to the non-EU aftermarket business development, a different approach was taken. Besides the Italian brands that are already well introduced in these markets, we needed to increase our turnover through other brands, that are more requested in those areas. In fact, we relied on the markets’ and customers’ requests and feedback about which manufacturers or product ranges they are looking for. And upon the requests and sales orders we received from the different customers from different markets, it was decided to consider the feasibility of developing this new product range specifically for those markets. We had to consider several aspects such as human resource availability, the expected revenue and the associated costs of investments and time needed to achieve those targets, and finally determining the feasibility of whether

to develop these new ranges internally or outsource it (make-it or buy-it decision). On the other hand, it was important to consider the top management’s opinion to make sure that targeting these markets and potential customers would align with the overall corporate strategy.

The targeted markets seemed promising; however, we still needed to have a competitive and acceptable price and offer a full range of products as required by the customers. We started checking internally and enquiring our suppliers to get closer to the target prices we received from our customers.

#### 4.3.4 Non-European Aftermarket Research findings

The RFQ’s (Request for Quotation) received from the customers were evaluated, and a forecast for the potential sales/revenue for the year 2020 was estimated. In total, we have five new range collections, each of them targeting a set of markets.

Referring to the Ansoff Matrix previously explained, the strategic approach for the non-European aftermarket is considered as a mix between product development and diversification (the right side of the matrix). Although the focus is on the development of the new ranges, in some cases we are working in new markets (establishing new distribution channels and developing a new customer base).

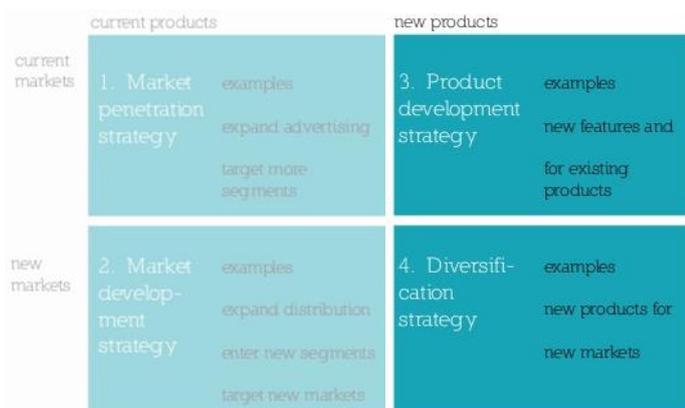


Figure 47: Spesso's non-European market strategic plan based on Ansoff's product/market matrix

Based on the quotations and ordering figures proposed by the potential customers, a forecast was done for the year 2020 (as shown in the chart) and the following two years for the expected revenue and compare it (as in % share – the grey segment of the pie chart) with the total amount of expected revenues attained with business-as-usual operations (blue segment). The five new ranges are expected to account for a total of around 16% of the total sales revenue of the year 2020, with an expectation that these sales revenue to almost double (+ 91% in sales figures) by the year 2022.

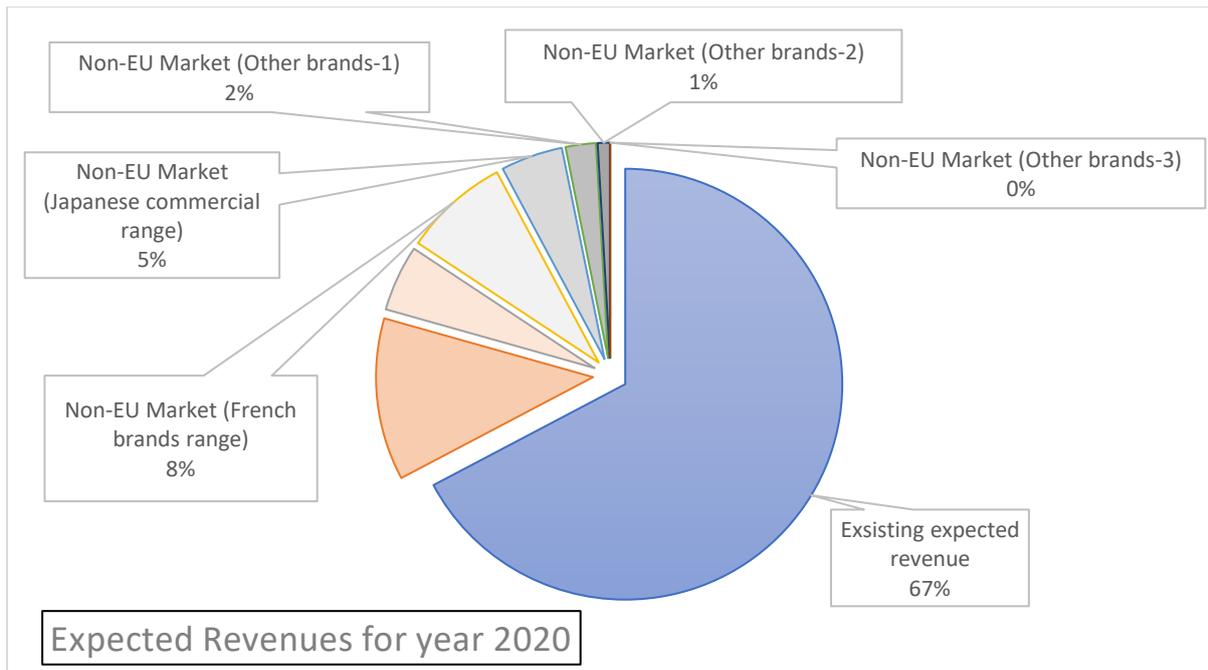


Figure 48: non-EU-market projects expected revenues for the year 2020

#### 4.3.5 The Improvement Kata Approach (Toyota Kata)

So, going a little off-topic, but for a good reason, we will discuss an approach that is adopted within the company when it comes to applying a business plan. The kata approach, in general, is a much broader concept than what we are going to consider in this dissertation. For the context and the purpose of the thesis, we are going only to discuss and focus on the important aspect of the improvement kata approach concept that is beneficial in our application of executing our strategic plan and attain the results we need. The kata approach is derived from Toyota practices and has been researched and developed across the years by several researchers (in our case it is Mike Rother, who studied Toyota’s management system for years and was a trainer for Spesso’s team as well), who then try to implement that mentality and practical approaches in other organizations in the most effective way.

Improvement kata mindset is a science-based approach in order to achieve things that we think we can’t achieve, things that are beyond our scope. It is about developing a system of habit in all the people in the organization. The approach is about trying to develop a systematic scientific habit for achieving challenging goals. The essence here is the following: a mindset is the basis of our behavior and in turn shapes the organizational culture. And having a good mindset and habits, which can be changed for better, is essential since it allows us (the organization) to achieve challenging target conditions that are critical to the long-term success to attain new and higher performance levels. In

addition, it develops the capabilities and skills of the people in the organization to work on more of these challenges in the future with increasing confidence. So, what is Kata?

Kata is practice routines that help us to adopt new ways of thinking and acting. The bigger concept of improvement kata is about taking scientific thinking patterns (this pattern is called improvement kata) and combine it with routines of deliberate practice (kata), thus making scientific thinking a skill that can be learned by almost anyone.

The model used to explain the methodology of improvement kata is the following:

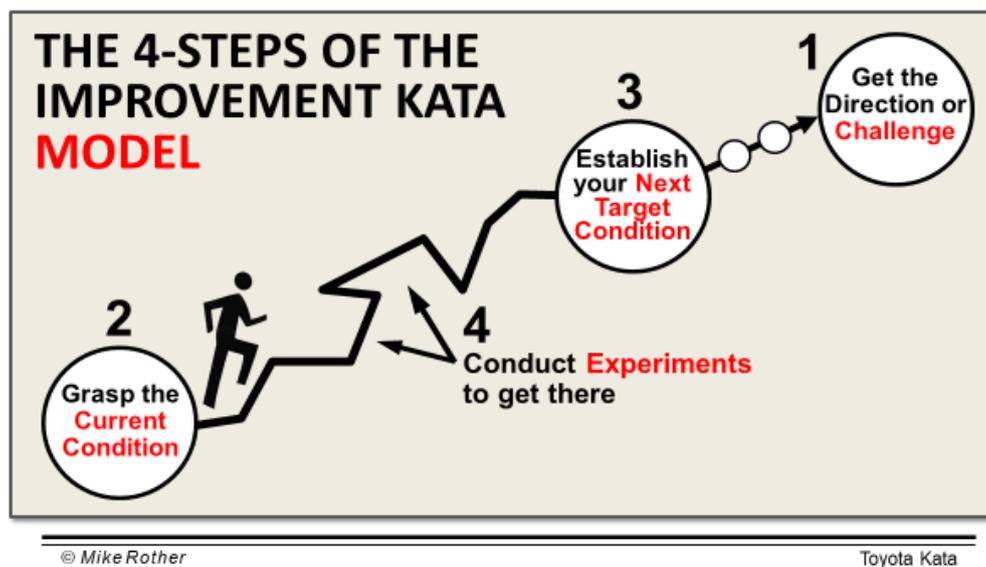


Figure 49: The four steps of the improvement kata model by Mike Rother

The first step of all is to understand and identify the corporate's direction (overall vision). Then we should get one's hands-on knowing the current position. In between those steps we start by establishing target conditions, these are the successive targets that we need to achieve. The fourth step is identified as conducting small, incremental experiments done to reach the next target condition. With this approach, we can tackle successive new target conditions that would move us steadily toward our goal and long-term vision. One of the benefits of applying these incremental experiments is reducing the risks (and consequent costs) in case of moving in a wrong direction, also in these stage we are usually dealing at what is called as the knowledge threshold (our limits), therefore it is more sensible to iterate/experiment our way forward instead of making decisions on big scales (basically testing if it will work or not, and why!). The following figure presents the five questions that are continuously asked (sort of a loop – a daily routine) by the person applying the improvement kata approach.

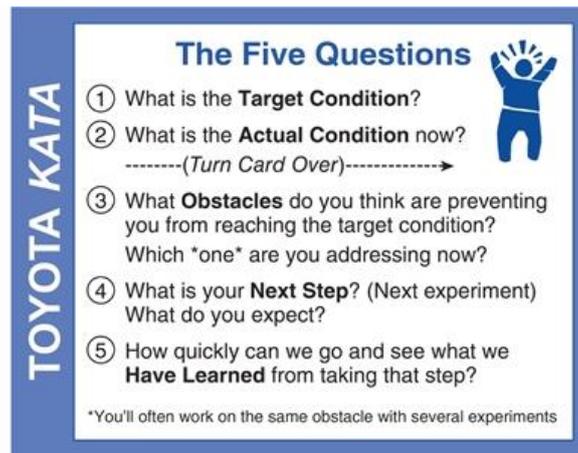


Figure 50: The five questions based on the Toyota kata model

Mike Rother defined scientific thinking as “the antidote to our cultural jump-to-conclusion nature.” The idea is that conducting experiments is useful for navigating towards goals that are usually dynamic, complex in nature, and within the unpredictable conditions. When mistakes appear, they reveal what we need to work on or adjust to achieve our next target. Scientific thinking is about knowing that ideas need to be tested before fully executing them and that we learn from comparing what we thought will happen (an idea or theory) with what actually happens (data and facts) as a result of the experiments, then work on it.

In order to move from our current position/condition to the next target condition, we can use the help of rapid PDCA cycles. The scientific learning cycle is defined as “the process for acquiring new knowledge”. PDCA is the acronym for “Plan-Do-Check-Act”.

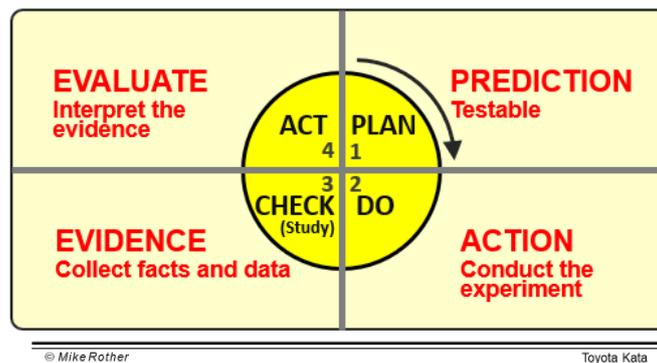


Figure 51: Rapid PDCA cycles by Mike Rother

This cycle simply provides us with an easy, practical way to reach new target conditions, by providing a systematic way of working in unknown territory. An idea is generated, a plan for testing is designed. Then, the experiment is conducted, data and results are collected, and finally, this information is evaluated and analyzed to indicate what the next step should be.

#### 4.3.6 Aftermarket business development plan

An important step when developing a strategic plan is the SWOT analysis. The brainstorming phase of identifying the key elements that would either enhance or weakens our endeavor to attain our goals. The following table presents the major elements distributed among the four quadrants of the SWOT analysis matrix. It is vital that all the points are taken into consideration (with respect to their prioritization) while setting-up the strategic business plan of the company.

	Helpful to achieving the objective	Harmful to achieving the objective
Internal origin (attributes of the organization)	<p><b>Strengths</b></p> <ul style="list-style-type: none"> <li>○ Spesso Image: OE manufacturer (Made in Europe).</li> <li>○ Competitive OE supplier in Italy.</li> </ul>	<p><b>Weaknesses</b></p> <ul style="list-style-type: none"> <li>○ For new ranges, long deadlines for identifying and validating suppliers.</li> <li>○ Contractual weakness with Asian suppliers, obsolescence risk and delivery delays.</li> </ul>
External origin (attributes of the environment)	<p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>○ Greater attention for “Made in EU”.</li> <li>○ Greater attention to the quality / price ratio also in developing countries.</li> <li>○ Abandonment of some areas by competitors.</li> </ul>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>○ Political instability of some areas interested in the new introduced ranges.</li> <li>○ Competitor’s commercial aggression.</li> </ul>

Figure 52: Spesso's SWOT analysis

Concluding all the previous activities of identifying market trends, and the potential growth opportunities in the different markets (EU and non-EU), a comprehensive business plan was developed by the end of the year 2019 for the first three months of 2020 a being the first milestone for approaching those opportunities. This business plan was presented and agreed upon by the top management, the outcome of this plan (the target conditions) will identify the next appropriate step to be taken in order to reach our goal. Following the insights from the improvement kata approach, we planned that we will not address all the potential customers altogether. The first months will be dedicated

to experimenting with only a few, agreed-on set of potential customers, analyze the communication process and their feedback, to evaluate how effective our offer and promotion were delivered. Subsequently, we can adjust and improve our way in the next experiment (our approach to the next potential customer).

The following table shows the business plan (not the complete one) that was discussed and approved to proceed with. Some details such as revenue figures, customers and product details were omitted from this table for confidentiality reasons, but the plan is kept the same for the purposes of the dissertation.

Customer expansion with existing product portfolio (Market development and expansion strategic plan)	The year 2020		
	January	February	March
Italian Range Iveco/CNH Fiat 1) Existing customers missing our full/updated product portfolio.	- Check what is absent in the range of existing European customers and identify an interest in receiving an offer from us. - Targeting potential predefined customers in the following markets: Germany, France, UK, Spain, and Greece.		Meeting organization with specific, predefined potential customers.
2) New customers and existing Iveco engines applied to other vehicles.	- Completion of the Iveco engine matrix applied to other vehicles and sending to all existing customers. - Promotional leaflet preparation for fairs.		Promotional leaflet preparation for fairs.
3) 30 new potential customers on the European market (Germany, France, Poland, Belgium, Bulgaria Croatia).	According to the kata approach, a set of experiments will be conducted on four of these thirty potential customers for data/information collection purposes.		According to the results of the experiment, sending contact email to the other new potential customers and acquiring positive or negative feedback to continue.
4) OE in phase-out to be proposed to private label.		Definition of the codes lists and send it to two of the current customers.	Verification with the main customers
5) European Truck Range (Other brands).		- Customer sampling(2customers) - Offer / Negotiation	Promotional leaflet preparation for fairs.

Table 5: Market development and expansion of strategic business plan

Expansion of customers with a new range (Product development and diversification strategic plan)	January	February	March
French brands range	Make it or buy it definition.	<ul style="list-style-type: none"> <li>- Sending samples to the agreed-on supplier.</li> <li>- Internal analysis for “Make it” decision.</li> </ul>	Receiving final offers from suppliers, evaluation from internal R&D team validation by product development and send final offer to the customer.
Japanese commercial range	Make it or buy it definition.	<ul style="list-style-type: none"> <li>- Sending samples to the agreed-on supplier.</li> <li>- Internal analysis for “Make it” decision.</li> </ul>	Receiving final offers from suppliers, evaluation from internal R&D team validation by product development and send final offer to the customer.

*Table 6: Product development and diversification strategic business plan*

#### 4.3.7 European OE market Research

In recent years, disruptive technologies have been altering the shape and the way industries and businesses are operating. We are now living in a world of continuous technological change and evolution. Every day, a new technology emerges, a new ground-breaking product shakes up an entire industry or even creates a new one. No industry is immune from the technological impacts and the automotive industry as a whole is now on its tipping point for a transition to a completely different state than the one we were used to know. In February 2019, the automotive industry was listed in the top ten industries on the cusp of technological disruption by the experts of Forbes Technological Council. The automotive industry is currently being bombarded and undertaking a profound technology-driven transformation, autonomous driving, artificial intelligence and electrification. In our case, at Spesso Gaskets, the main concern with our current technology is with the future of motor vehicle electrification. The transition to electric motors means that the gaskets (which is the main company's product and expertise) are phasing out and becoming obsolete. Therefore, an alternative product and technology should be considered.

Different business development projects were being determined and commenced in Spesso related to new powertrain technologies. The scheme that I was involved in that will be discussed in this section is concerned with the electrification of motor vehicles, related to the third path mentioned earlier as one of the three main paths approached by OE-related business development. It is concerned about analyzing the possible alternative propulsion scenarios that will occur in the future and how can we be part of it. However, it should be noted that only the main outcomes of the research will be presented without going into all the industry-related details, and until the publication of this dissertation there were no decisions taken by the company's management concerning this, thus no company-related results were achieved so far within the period of the internship.

##### 4.3.7.1 Analysis of alternative propulsion scenarios

The research was based on three main key points. First, gathering data about global sales and the current market share figures of electrified vehicles and identifying the types of alternative fuel or propulsion system. This can provide us with a realistic view of the market's current status and future trend based on which the car manufacturers and the industry as a whole are moving towards. Secondly, we reviewed the industry-related

experts' opinions about the market's future and how the automotive industry is being shaped. Thirdly, we focused on the potential current and future scenarios and plans being adopted by the major key players in the automotive industry. We were tracking the progress of the major automotive manufacturers, well-known consulting companies, and technology-related companies in order to have updated information about the market. All this information was collected and presented to the top management for their assessment and further consideration.

#### 4.3.7.1.1 Global sales and market share figure (electrified vehicles)

According to the e-mobility report published by the “Energy and Strategy group of the school of Management of the Politecnico di Milano” in 2018, almost 1.2 million electric cars (BEV and PHEV) were sold in 2017, 57% more than that of 2016.

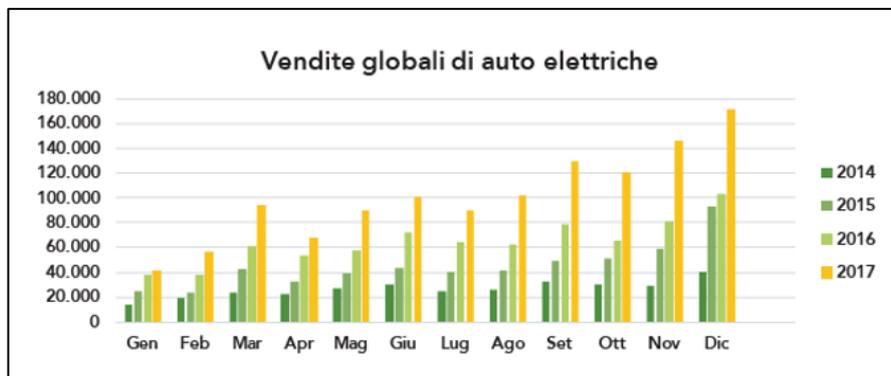


Figure 53: Global sales of electric vehicles

This positive trend was confirmed in 2018 with global sales reaching 2.1 million (2% of the global market share), a 64% increase from the previous year. And it was forecasted that around 3 million electric vehicles would be sold in 2019.

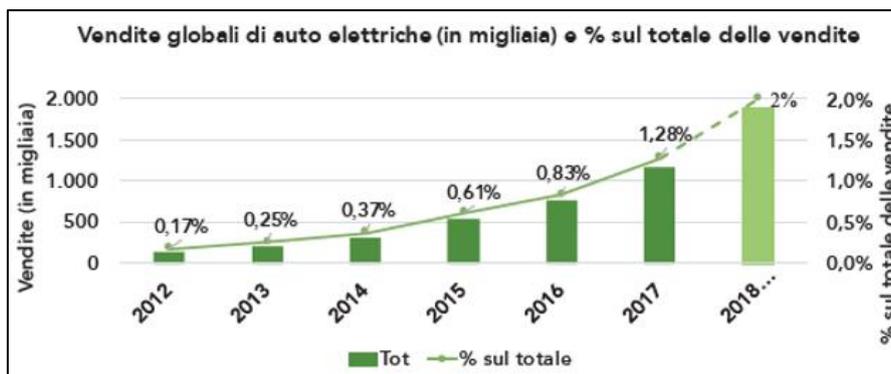


Figure 54: Global sales of electric vehicles and percentage of total motor vehicle sales

Concerning the regions at which the electric vehicles were sold, Europe (our area of interest) came in second place in terms of registrations after china, with Norway and Germany being the top countries embracing electrified vehicles.

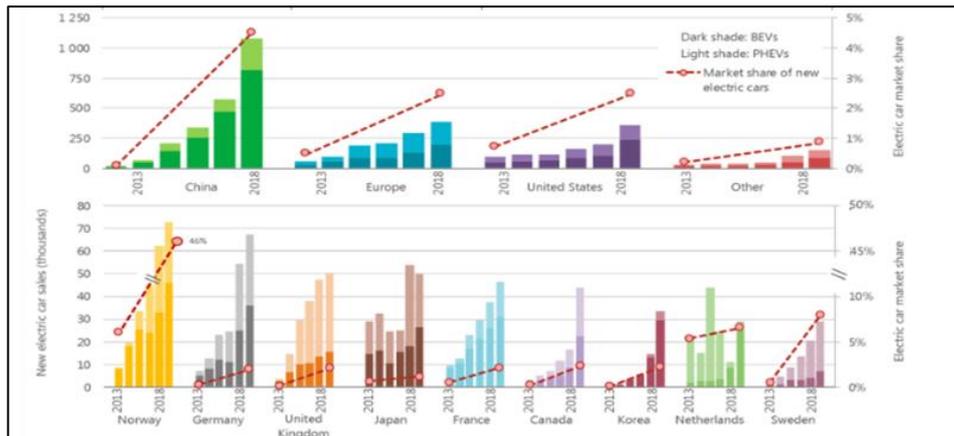


Figure 55: Electric vehicles sales per region and the corresponding sales market share

As for the types of fuel, or the source of energy used to power the vehicles using alternative fuels (other than diesel or gasoline), the majority of the registered cars had its source of energy derived from electric sources such as batteries (either fully electric or hybrid vehicles – with 80% of the total sales figure in 2018) with comparison to other non-electric alternative powered vehicles.

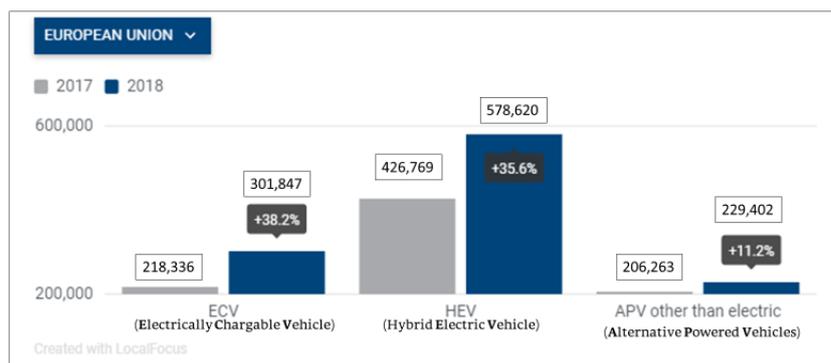


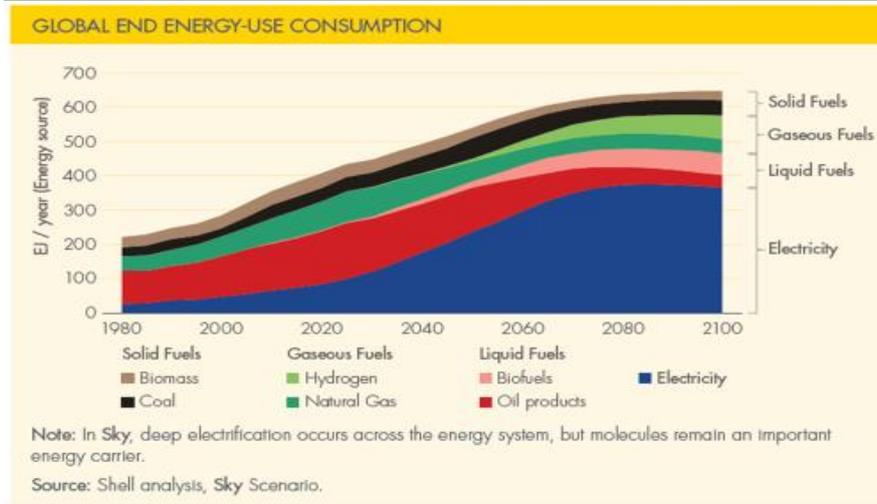
Figure 56: Sales of electric vehicles with alternative fuel types

#### 4.3.7.1.2 Experts' opinion about the market's future

One of the main driving forces for electrification is climate change. In April of 2016 under the UN framework convention on climate change, an international treaty called Paris Climate Agreement or COP21 was signed, bringing all nations towards the one goal of undertaking challenging efforts to combat climate change and outlining a map to face this global crisis.

Shell was one of the corporations that developed and presented in 2019 a scenario called "Sky Scenario", which is a technically possible yet demanding pathway. This scenario is what could possibly happen if governments' policies would support the transition to a low carbon economy, and at the same time if businesses could innovate in finding new ways of supplying and consuming energy.

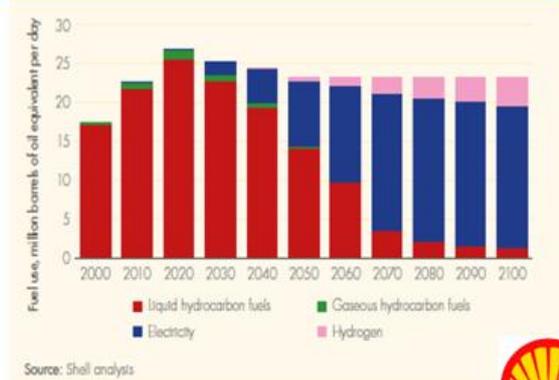
# Shell Analysis - Sky Scenario



IN SKY, HYDROGEN EMERGES AS A MATERIAL ENERGY CARRIER AFTER 2040, PRIMARILY FOR INDUSTRY AND TRANSPORT



THE FUEL MIX FOR PASSENGER VEHICLES SHIFTS RAPIDLY IN SKY, WITH ELECTRICITY DOMINATING BY 2070 AND LIQUID FUELS NEARLY HALVING FROM 2020 TO 2050



(2019) **Shell**

*Figure 57: Shell sky scenario with representation of the global energy consumption*

Considering the general context of the scenario, in the future electricity will be a huge source of global energy compared to other types such as liquid, gaseous, and solid fuels. Considering Spesso’s field of expertise and industry, it was more important for us to go deeper in the analysis to find the industry-related information. According to shell scenarios, the main contributors as a source of energy (a material of energy carrier) for the transport industry would be a mix between electricity (batteries) and hydrogen (fuel cells).

Experts within the automotive industry have been emphasizing the pace of which electric vehicles will be replacing conventional gas and petrol vehicles.

*“2030 could make electric and hybrid vehicles reach an overall share of approximately 50% of total sales”.*

***(Urane-National Union of Foreign Motor Representatives), same estimations as provided by Sky-Shell scenario***

*“On the other hand, the diesel market is in decline: it is estimated that it will fall to 4% by 2020-2025, starting from 30.5% where it is now. It will not disappear but will suffer a drastic reduction.”*

**- Randy J. Miller, EY Global Advanced Manufacturing & Mobility Leader (Oct 2017)**

*“By 2025 half of the cars produced in the world will be electrified and gas and petrol vehicles will give way to hybrid and electric cars. Car manufacturers have less than a decade to reinvent themselves or risk being overwhelmed by the change in the way they fuel, drive and buy vehicles”*

**- Sergio Marchionne, Previous CEO of FCA (Jan 2018)**

The two most emerging technologies for the future of electric and green mobility are the use of electric batteries and hydrogen fuel cells for the vehicle’s propulsion instead of the modern internal combustion engines using traditional sorts of liquid fuels. Subsequently, we further researched these two different pathways of electrification and their possible range of applications with a more focus on the transportation segment.

Although batteries are leading the news’ headlines, hydrogen fuel cell technology is making tremendous leaps and progress (especially in Europe – as shown below by a study from Roland Berger consultancy company) as an energy source overall.

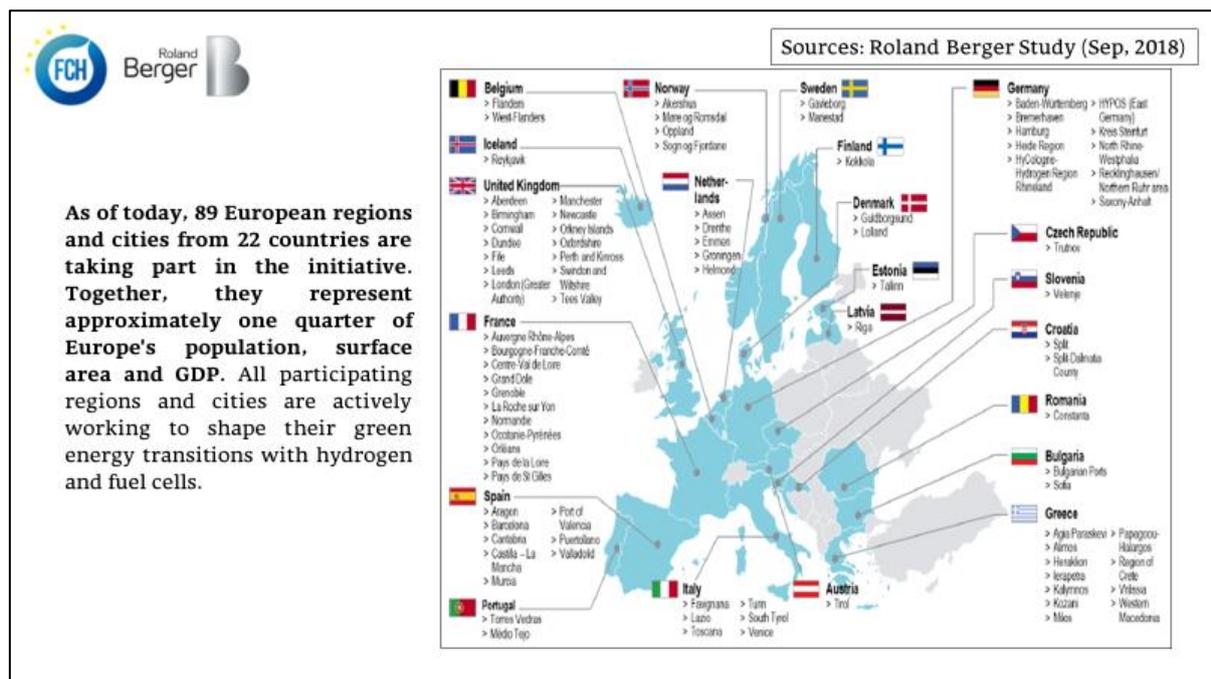


Figure 58: European countries taking the initiative for Hydrogen as a green energy source

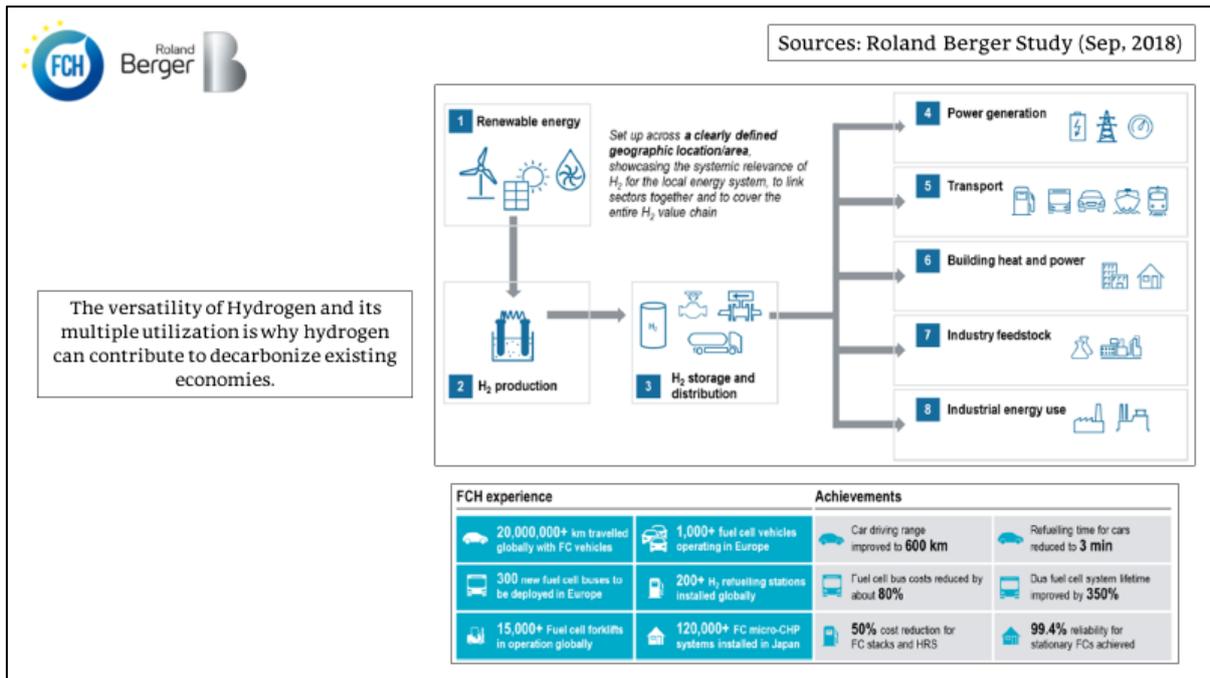


Figure 59: Diverse application for Hydrogen as a source of energy

The main reason behind the encouragement of using hydrogen as a source of energy is its adaptability and applicability to different industries. It can be easily generated from renewable sources, stored, and distributed. Later, it can be used to generate heat and power (in all its different forms – ex. factories, vehicles).

In the media, we usually observe these two technologies as competitive and only one should prevail, however, both are needed to complement each other's deficiencies in certain applications. Other studies were further exploring the versatility of each of the batteries and hydrogen fuel cell technologies and the level of their efficiency in a range of applications in the transportation sector.

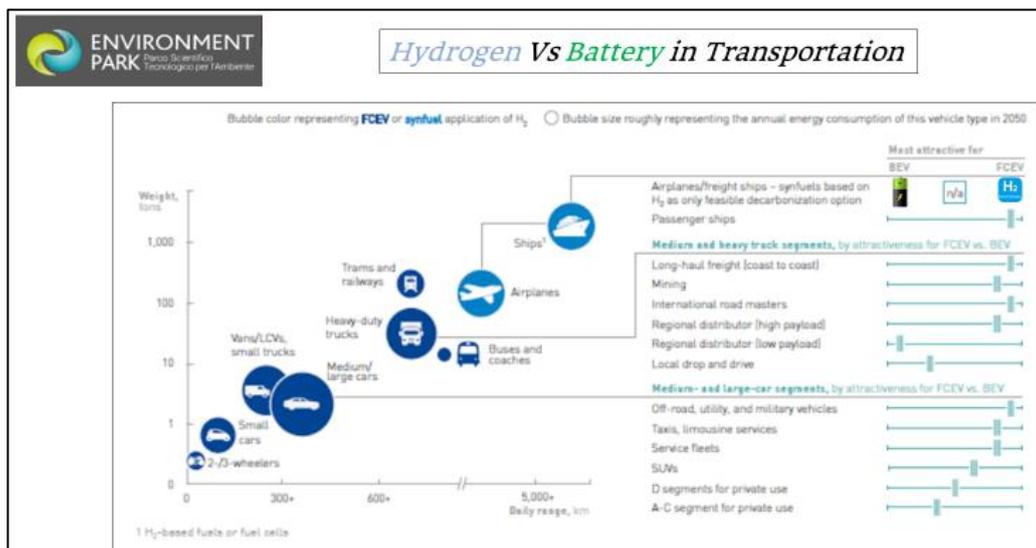


Figure 60: Comparison between the applicability of battery and hydrogen fuel cell technologies

The relative strengths and weaknesses of these technologies are as follows: battery electric vehicles have higher overall efficiency as long as they are not too heavy due to the large size of batteries, making them ideal for short distances and light vehicles. On the other hand, hydrogen can store more energy in less weight, making it (fuel cells) suitable for vehicles with heavier payloads and long ranges, in addition to the faster refueling which benefits commercial fleets in a near-continuous use. In the end, the way these two technologies will relate to each other is highly dependent on how battery technology will progress and how quickly cost reductions resulting from the scaling of fuel cell production can be realized (source: McKinsey & Company consultancy).

#### 4.3.7.1.3 Scenarios adopted by key players

Concerning this part of the research, we used several sources of information to gather as much updated and reliable information. We used social media, newspapers, online articles, etc. it was important to identify what the big players (ex. Manufacturers, suppliers) of the automotive industry in specific but also the transportation sector as a whole were currently doing and planning to do concerning the future of electric mobility. We followed the news about the new mergers, joint venture projects, foundation of committees, etc. As mentioned before all this information was collected and shared with the top management of the company with a sufficient amount of details. But for the purposes of this dissertation the data (main headlines) is presented in the following table:

<b>Sum-up of the strategies currently adopted by major players</b>	
<b>Battery Technology</b> 	<b>Hydrogen Fuel Cells</b> 
FCA adopting battery technology and building a new battery plant in Torino, Italy	Toyota-Eni example in Italy: HRS + Hydrogen fuel cell vehicles. Toyota’s focus is on hybrid-electric vehicles and developing the FCEV.
Iveco / Nikola (short-medium term): the Nikola “tre” is firstly powered by a battery in the IVECO range. Trevor Milton (Nikola CEO) expects pure electric to win the market in urban areas.	Iveco / Nikola (medium-long Term); the Nikola “tre” will later be provided with a hydrogen fuel cell-powered version. Trevor Milton (Nikola, CEO) believes hydrogen-fuel cell trucks make sense for long hauls.
German car manufacturers are in general adopting the battery technology in their passenger cars.	Hyundai collaborates with Hydrospyder in Switzerland.
Geely’s joint venture with LG Chem and partnering with CATL.	Weichai in turn, partnering with Ballard and Ceres power, having access to different hydrogen fuel cell technology.

<p>Battery production plants across Europe by different manufacturers.</p> <ul style="list-style-type: none"> <li>- Tesla Gigafactory 4 in Berlin.</li> <li>- Northvolt battery plant in Sweden (biggest investment by key European players) going head-to-head with Tesla.</li> <li>- Battery cells plants (Samsung, LG, Freyr, CATL, VW, etc.).</li> </ul>	<p>Bosch cooperating with Weichai for the innovation and production of hydrogen fuel cell technology.</p>
	<p>H2Bus Consortium in Europe to produce 1000 hydrogen buses for public transportation.</p>
	<p>Scania testing FC urban trucks in Sweden.</p>
	<p>Opportunities beyond the Car industry:</p> <ul style="list-style-type: none"> <li>- Transportation systems (ex. Train, buses, trucks).</li> <li>- Power and Heat Generation Stations.</li> </ul>

*Table 7: OE Key-players' strategies*

The end goal or objective of this research is for the management to have enough information about the emerging technologies (batteries and hydrogen fuel cells) and then can decide in which direction the company will invest. Spesso has the expertise and knowledge of metal-stamped parts (which is needed in both technologies) but understanding the market and knowing which pathway our main customers are going after will certainly shape the way we make decisions.

## 5. Conclusion and insights

As a final consideration, the first part of the thesis (the theoretical concept) was personally beneficial to understand the concept of business development and how it was applied in real-life cases through the case studies and academic publications. It gave me an overall insight into what is business development, what was required or expected from me (during the internship), and how it works. I acquired a comprehensive idea of the type of activities that I might be exposed to.

It was clear during the 6 months of the internship that achieving results (such as realized sales/revenues or finalized deals) was not possible in such a short amount of time. However, the outcomes of this research and analysis phase was an essential first step in the company's business development either for the OE or the AM business's portfolio. During the internship and under the supervision of the company's tutor (prof. Paolo/supervisor) and the sales manager (Linda/co-supervisor) we were able to present a strategic business plan to the top management. This business plan includes a potential list of business opportunities, that would benefit the company's business portfolio, and that are aligned with the company's long-term strategic vision. As shown before the business plan approach was developed for the first 3 months of the year 2020, and according to the feedback and results obtained from this exploratory phase, the next target conditions and actions will be determined to improve our approach and success rate towards these business opportunities.

I was mainly involved in the AM activities, in defining and following the business plan. Simultaneously, the team will be working on developing the new ranges (as requested by the customers) for the non-EU markets (French and Japanese Ranges), analyzing the make-it or buy-it decision. Evaluating and validating offers from different suppliers to provide the best offer for our customers. On the other hand, the team will be targeting the new potential customers of the EU market, updating the promotional leaflets and catalogs, contacting the customers and receiving feedback from them. According to the feedback, the team will improve its approach when trying to contact future potential customers and enhance its success rate for winning new businesses. At the time this dissertation was submitted, the team was aligned with the targets set by the business plan and working of the final phases indicated by the plan for the determined time.

Regarding my opinion about the whole experience, I found it to be a rich one, on the personal and professional level. Holding the position of a business developer within a company is not an easy task, it is full of responsibilities that should be met with diligence, commitment, a great deal of experience and interpersonal skills. However, it is an enriching job since you get the chance to be involved in multi-disciplinary activities and projects. The additional aspect that I would have preferred during my internship was having enough time to reach more tangible results that would present a more concrete case study.

## 6. Bibliography

### ARTICLES:

- Ajay K. Kohli, Bernard J. Jaworski. "Market Orientation: The Construct, Research Propositions, and Managerial Implications." (1990): 1-18.
- Ansoff, H. "Strategies for diversification." *Harvard Business Review* (1957): 113-124.
- Davis C. H., Sun E. "Business Development Capabilities in Information Technology Smes in a Regional Economy: An Exploratory Study." *Journal of Technology Transfer* (2006): 145-161.
- Kind Sonia, Knyphausen-Aufseß D. Zu. "What is "Business Development"? - The Case of Biotechnology." *Schmalenbach Business Review* (2007): 176-199.
- Lorenzi V., Sorensen H. "Business Development Capability: Insights from the Biotechnology Industry." *Symphonia Emerging Issues in Management* (2014): 45-60.
- Malte Torliene. "How Do SME's in Germany Incorporate Business Development?" (2016).
- Martin A. "Business Development for the Biotechnology and Pharmaceutical Industry." (2008).
- Michael Sturm. "Business Development Characteristics: Findings from Literature." *International Conference on Marketing and Business Development Journal* (2015): 130-137.
- Sorensen, H.E. "Business Development: A Market-Oriented Perspective." *John Wiley and Sons, Chichester* (2012).
- Voeth, M., Poelzl, J. and Eidhoff, A.T. "It's all about growth - an empirical status report of business development." *Int. J. Entrepreneurship and Innovation Management* (2018): 4-32.