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**Integration strategies of the
supply chain: the case of
Morellato & Sector ltd in
Hong Kong**

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INTRODUCTION

Strategic management literature has highlighted the practice in recent years of many companies to favor the implementation of the outsourcing practice rather than the supply chain integration strategy. The choice of hiring a different company to perform activities that otherwise have to be performed in-house has as the main driver the preservation of the flexibility and agility of the supply chain, two fundamental characteristics to adapt and survive the modern business environment, characterized by volatile demand and fast-changing conditions, which can be economic, political or social. Moreover, outsourcing can bring many benefits especially to start-ups and companies in difficulty, such as avoiding huge initial investments for the integration of specific activities to complete the supply chain, avoiding costs of physical assets, and being able to rely on third-party companies that should be specialized and experienced in the function they are requested to perform. Considering such information, the practice of the integration of the supply chain seems like a practice of the past, where the rigidity brought by integration could still withstand changes in the business environment.

However, for some industrial sectors, there has been a return to the integration of the supply chain's strategy, especially for the high-tech, fashion, and manufacturing industries. The return is a direct consequence of the increase of risks of global supply chains, more efficient than the local ones, but which carries a greater risk given the higher number of factors that can influence it. By integrating, companies are trying to reduce, or at least mitigate, these risks. Integration strategies increase the control over the supply chain by bringing in-house the activities that were carried out before.

The focus of the thesis is thus to present the different advantages, as well as disadvantages, in the implementation of a horizontally and vertically integrated supply chain, it tries to understand the conditions in which integration is more suitable than outsourcing and the factors that every company have to take into account when implementing such strategies. The work uses the case study of the Morellato Group to analyze the drivers behind the strategic choice of integrating its supply chain. The Italian company has been studied and cited several times because it is part of the medium-large enterprises of northern Italy that has been able to stand out for various factors and to achieve steady growth in the recent years. From the blue ocean strategy adoption of the revolutionary "Gioelli da Vivere", the massive use of testimonials and media advertising in early 2000, to the internationalization process of the Group, many aspects have been studied to understand the competitive advantage that the company managed to achieve in respect to its competitors. Even if the strategy of the final distribution has been already been explored, the supply chain as a whole has not

been analyzed yet: Morellato, indeed, has the peculiarity of almost owning almost completely its supply chain, through a policy developed over time of both vertical and horizontal integration. Such strategy can be an important example to follow for a company that aims to expand internationally remaining always faithful to its core business model but at the same time being able to catch and anticipate the market's trends and movements to adapt to sudden changes, remaining among the top players of its industry. Additionally, outsourcing has been a management paradigm in recent years, indicated as the most suitable solution in too many situations. Morellato has adopted instead a solution in which it integrated the fundamental parts of the supply chain, using the outsourcing practice only for the secondary activities, which are those according to the company less profitable and create less competitive advantage.

The company is also characterized by numerous operational business offices in different countries abroad, each of one used to monitor the markets that Morellato is willing to expand the Italian brand and reputation. Particular attention is given to the operational unit in Hong Kong, in which I had the opportunity to do an internship in the supply chain department, which manages the whole Morellato's supply chain. Also because of this experience, I decided to present this topic since I was able to see closely the various steps of the supply chain made by the company to collect actual information in the decision-making process that managers have to face in the integration activity. The key aspects from the beginning have been attributed as the main drivers of Morellato's success and competitive advantage are the parts of the supply chain that have been integrated. Regarding the horizontal direction, having a diversified portfolio containing different brands allows Morellato to differentiate its offer for every segment of the market and customer. Instead, directing the final part of the vertical dimension of the value chain permits control and the independence to third parties and distributors that the company is searching to remain close to the business core values.

The work is structured in three main sections, starting from the general features of the supply chain, to lay the foundations for understanding the various aspects in the following ones, to become more specific in the second chapter dealing with the concept of the two directions of integration, horizontal and vertical, concluding then with the case of Morellato Group and the impact of the strategy of integrating the supply chain had in its business.

The first chapter regards the aspects of supply chain management, going through the configuration decisions that companies have to face when structuring the architecture of their networks, evaluating the extent of vertical integration, strategic outsourcing, location decisions, and capacity planning. Is

then analyzed the evolution of supply chains, with the two concepts of Lean and Agile supply chain management and the differences with the traditional one. The last two sections of chapter one deal with the key decisions around the supply chain that form the network of a company, as the strategic role of purchasing, the supplier selection and the type of relationship or alliance that can be formed, concluding with the most known strategies adopted by global supply chains risk management to mitigate some recurrent risk events present in the global environment.

The second chapter concerns specifically the vertical and horizontal integration strategies. The first two paragraphs are an in-depth analysis of the vertical dimension, defining the two directions that vertical integration can take, and the advantages and disadvantages that the implementation of this strategy can bring. Two theories are presented, TCE (Transaction Cost Economics) and RBV (Resource Based View), which can be used in the decision-making process of how much to vertically integrate an activity. The focus is then shifted to the horizontal integration of the supply chain, the differences between the two directions of integration, and the characteristics to accomplish the most indicated horizontal expansion depending on the situation.

The third and final chapter concerns the case study of the Morellato Group and how the supply chain integration strategy has led the company to be one of the major players in the European watchmakers and jewelry scene. A careful analysis is carried out, retracing the history of the Padua company, and then presenting its economic situation since 2015, the various operational business units in the world that structure the Group, the business model, and brief SWOT analysis. This information is also useful to understand the drivers behind the choices made by Morellato over the years to be able to build such an integrated supply chain model. The final section represents the main part and focus of the work, where the company's supply chain is presented step by step, especially the part carried out by the office Morellato & Sector located in Hong Kong, and its ancillary unit in China. Most of the process is managed among these two offices, from sample creation, mass production, quality control, and shipment to Italy. The last paragraph, after analyzing how the vertical and horizontal integration has shaped the business of Morellato, and vice versa reaches the conclusion that the great merit of the Paduan company has been not only of being able to correctly implement the two directions of integration but also of knowing how to exploit the synergies that have come out between the two dimensions, producing an output from the process that led the company to the European and global levels it is covering in recent years. Thanks also to the fresh acquisitions both in Italy and in France, completed in the last part of 2019 and early 2020. The paper concludes with the future problems that the Paduan company may encounter, especially due to the recent limitations of global supply chains

that have been highlighted by the COVID-19 virus. Given the enormous impact it has had on the supply chains of the world, it is presented a small final excursus on the consequences worldwide, and specifically Italian, of this disease with some solutions that all the supply chains can adopt, Morellato as well, to complete the elaborate.

CHAPTER 1. SUPPLY CHAIN MANAGEMENT: AN OVERVIEW

The importance of supply chain management has become notable over the last three decades because the concept of business management itself has changed and developed. Many old ways of doing business have been challenged with new approaches, from reinventing and improving engineering practices to new strategic management approaches, such as agile manufacturing, blue ocean strategy, lean thinking, balanced scorecard, and so on (Lu, 2011). Supply chain management has been for sure one of the most influenced by the globalization and digitalization processes, creating new possibilities reducing physical and virtual distances and barriers.

Globalization has created a more concrete competition, it raised customer expectations, the technological disruptive impact, and extended the geopolitical factors. In this new scenario, an internal organization focused management approach is no longer sufficient, but managers must understand that their businesses are part of the wider supply chain that is, at its extreme, the whole world intended as an integrated business scenario. The survival of a company is no longer ancillary on the internal ability to compete, but rather on the ability to cooperate within and outside the supply chain.

For these reasons, focusing on achieving an excellent business only through an inward-looking management approach is not enough, and this is why supply chain management (SCM) has become so crucial and important. It is quite hard to find any aspect of business that is not related to the supply chain domain, so to manage a successful business is to direct it along the supply chain, with an appropriate strategic positioning, structural configuration, collaboration, and integration (Lu, 2011).

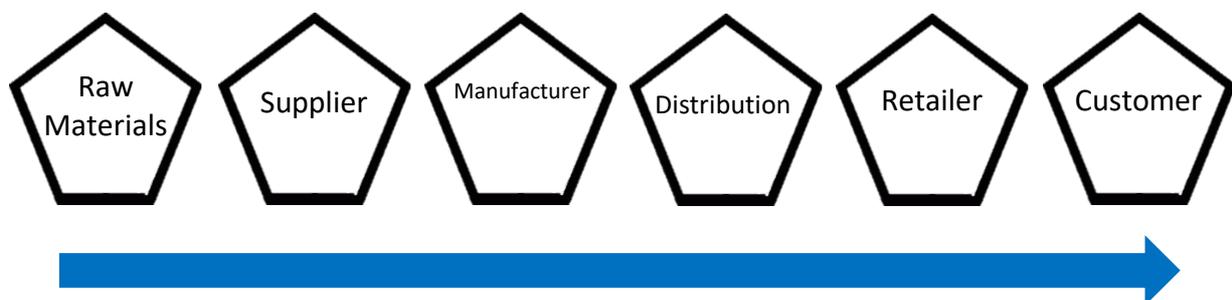
1.1 Supply Chain Management Design and Planning

1.1.1 The Definition of Supply Chain Management

The traditional supply chain has been defined by Beamon (1999), as the “*integrated manufacturing process wherein raw materials are manufactured into final products, then delivered to customers (via distribution, retail, or both)*”. In other words, it can be described as a network between a company and its supplier with the final goal of producing and then distributing a final product or service to the final customer. It can also represent the various steps it takes to bring the product or service from the raw material phase to the customer.

Looking at these definitions, the key aspects of a supply chain are clear and ready to be explored. The first significant characteristic is that a supply chain can only be formed if there are more participating companies and usually, they don't belong to the same business ownership, meaning that there is legal independence between them. These companies are connected by the common goal of adding value to the product or service that runs through the supply chain. For these reasons, a supply chain can be imagined as a proper chain in which the links are the participating companies, as showed in Figure 1. The link on the upstream side of the chain is the supplier's supplier and on the downstream side, there always be the customer. The vital reason for a supply chain's existence is to provide a product or a service to the final consumer in the marketplace, and the level of efficiency of how well it can serve this purpose undoubtedly defined its competitive power in the market (Lu, 2011).

Figure 1. Common Structure of a Supply Chain.



Source: Author elaboration.

As pictured in Figure 1, representing the relationships of a supply chain as links of a chain is a simplified version of a real-world model, in which different levels and directions influence and push the members and their decisions. Even if every supply chain is unique and has its structure, Mentzer et al (2001) attempted to categorize them according to their different degree of complexity, resulting in three levels: direct, extended, and ultimate, as showed by Table 1 in the next page.

Table 1. Levels of Supply Chain Complexity.

Levels of supply chain complexity	Include
Level 1: Direct supply chain	A company, supplier and a customer involved in the upstream and/or downstream flow
Level 2: Extended supply chain	Suppliers of the immediate supplier of the immediate customer. All the members are involved in the upstream and/or downstream flows
Level 3: Ultimate supply chain	A third-party logistics (3PL) company, a financial provider, and a market research company participate to support the supply chain. All parties are involved in the upstream and downstream flows.

Source: Adaptation from Mentzer et al., 2001.

When talking about supply chains' flows three distinctive types can be described as first, a physical flow that includes the movement of products and services from suppliers to customers, second, the information flow involves order transmission and delivery status, and third, the financial flow comprising payment schedules, credit terms, and consignment arrangements. The flow of a supply chain has two directions, upstream and downstream. The upstream is directed toward supplier, while the downstream toward customers (Lu, 2011).

Regarding the customer orientation aspect, it is important to state that the end consumer is not part of the supply chain, which domain extends from raw materials to the retailer. The logical reason is that in a supply chain every member supplies, but the consumer by definition demands instead of supplying. As a consequence, the consumer "consumes" the product and its market value, it doesn't add value as a typical member of a supply chain. For this motive, it is appropriate to separate the consumer away from the supply chain's domain, but this aspect will not diminish the importance of its contributions. The fundamental role in the existence and the management of the supply chain is the core notion of supply chain management (SCM). Because of this essential role, a supply chain should be driven by the needs and wants of the end consumer. The importance of consumer doesn't stop as the ultimate objective, but it also provides information and practical assistance to the decision-making process.

Supply chain management (SCM) can be referred to as the management of multiple relationships across the supply chain (Lambert and Cooper, 2000). Because the supply chain, as seen before, is not a one-to-one, business-to-business, relationships, but a network of multiple businesses and

relationships (Lambert and Cooper, 2000). SCM offers the opportunity to capture the synergies that can be created between internal and external integration of companies, dealing with the totality of the business. The Global Supply Chain Forum (GSCF), a group of firms and academic researchers, developed a definition of SCM to improve the clarity of this concept:

"Supply Chain Management is the integration of key business processes from end-user through original suppliers that provides products, services, and information that add value for customers and other stakeholders".

A successful supply chain management requires many capabilities in structuring the supply chain to adapt to the industry, but also the possible sudden changes. The configuration of supply chains implies many options aimed to find the best architecture which maximizes the value and minimizes the overall costs. The aspects where management can intervene are configuration, the extent of vertical and horizontal integration, strategic outsourcing, location decisions, capacity planning, and resolving the bullwhip effect (Lu, 2011).

1.1.2 Supply Chain Configuration and Vertical Integration

Supply chain configuration displays how the members of the chain are connected to deliver the value to consumers. All the choices of configuration to an OEM are how many suppliers it uses, how they are tiered, the geographical location, the ownership of suppliers, and the choice of channels of distribution. From the network relationship perspective, the configuration of supply chains can take two different routes, when the OEM's supply network is formed by medium- and long-term tiered suppliers and distributors it represents the so-called "Stable Network". On the contrary, if the network is formed mostly by short-term suppliers and distributors resulting in a high degree of flexibility and agility, it is called "Dynamic Network" (Lu, 2011).

Each type of network has its pros and cons, the stable network has more control over the operations of suppliers and distributors, however, the flexibility and the fast response to sudden changes is achieved by the dynamic network, as well as the ability to upgrade technology and receive innovations.

Another focus of supply chain design is the degree of vertical and horizontal integration, intended as the unique ownership of consecutive processes or in similar value chain stages (Lu, 2011). Vertical and horizontal integration have to be separated by the definition of good integration because it refers to the level of ownership with suppliers, distributors, or other similar companies at the same stage,

regardless of how good is integrated, in terms of common goals and harmonization, the whole supply chain.

1.1.3 Outsourcing, Offshoring and Location Decisions

Looking at the opposite direction of integration, management can outsource a considerable amount of the supply chain's operation to independent external suppliers. This type of decision known also as "make-or-buy decision" is called strategic outsourcing. Outsourcing, besides minimizing costs and maximizing the value-adding, may bring different potential benefits such as developing core competencies, increase business flexibility, improve supply chain responsiveness, raise entry barriers and differentiate competitive power (Lu, 2011). The level of outsourced activities in the last decade has risen drastically through increasing operations moved in different countries. The cause of this trend is the constant growth of market volatility and demand instability that push supply chains to be more responsive and more agile. A related concept in the design of the supply chain architecture is offshoring activities, defined as transfer local operations to different locations, taking advantage of local resources, reducing costs, and create a market presence (Lu, 2011). This concept is related but not the same as outsourcing because the ownership of the operation moved to a different location remains the same.

Outsourcing is not an easy choice and many considerations have to be taken into account from all levels of management. Many tools have been developed to support managers, as the following matrix decision tool for outsourcing represented on the next page by Table 2.

Table 2. The Matrix Tool for Outsourcing.

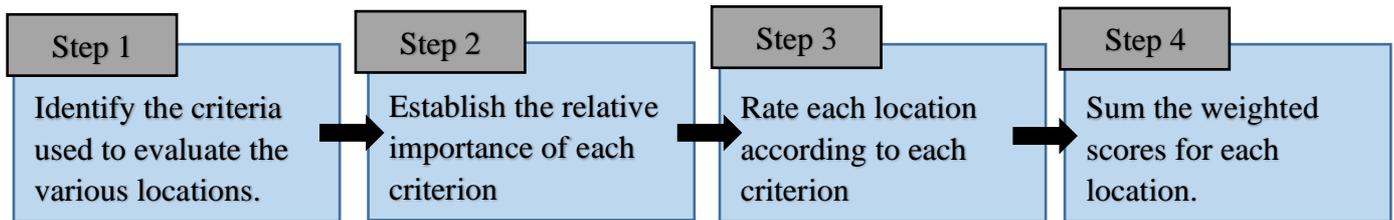
		IMPORTANCE OF BUSINESS		
		High	Medium	Low
COMPETITIVE POSITION	High	Continue to Invest Maintain Capability	Consolidate Keep pace	License / joint venture, reduce investment
	Neutral	Invest and Develop	Partnership	Outsourcing
	Weak	Initiate R&D Examine for investment Find co-maker	Partnership	Sell / license Design out Find Supplier

Source: Adaptation from Abetti, 1997.

Because of the complexity of the decision outsourcing comes not without any risks, like loss of control over the strategic task, creation of tomorrow's competition, may lead to a short-term approach that constrains innovation, risks about intellectual property rights, and also foreign currency exchange risk.

Correlated to these decisions, the choice of geographical locations of operations is important as well for the architecture of supply chains, regarding the positions of functions as distribution or manufacturing. A location decision has a deep impact on the supply chain due to the diversity of locations: labor costs, material costs, legal regulations, currency, and taxation differ in each country (Lu, 2011). To support managers in the location decision making a common weighted scoring method is indicated, useful also for just spot the best option among the different locations, as shown by Figure 2, next page.

Figure 2. The Weighted Scoring Method.



Source: Adaptation from Slack et al., 2006.

Step 1: Isolate the criteria used for the evaluation of different locations. The criteria used have to follow the strategic aim of the decision, which will be different for each unique environment of locations.

Step 2: Through discussions assess the relative importance of each factor assigning the weighting factors to each of them. The sum of the total score must be equal to 100, so the scores are the representation of the proportion of the weight.

Step 3: Rate each location with the criteria chosen on the defined scale, preferably by a group of people to make the score more unbiased.

Step 4: The weight assigned to each criterion has to be multiplied by the score in each location, thus every location will have an overall score (the sum of criteria per weight of criteria), showing that the most appropriate location is the one with the highest score.

1.1.4 Capacity Planning and Bullwhip Effect

Capacity planning is a fundamental subject to explore in supply chain design and planning. To figure better the capacity of a supply chain it comes in hand to represent it as a piece of water pipe with different diameters (capacity) at different sections (members). The total capacity of the supply chain depends on the smallest diameter section, the member with the smallest capacity. This type of configuration reveals the capacity bottleneck problem, an issue that can be resolved by management by constantly identifying and increasing the smallest member (Lu, 2011). Besides the representation, in practice management has to work on capacity planning on three different levels. The first level is the actual internal capacity planning and management of a company, the second level is the external capacity coordination and synchronization of a company with other members of the supply chain, and the third and last level is about the capacity responsiveness to the market demand changes of a

company. To develop an effective capacity strategy management has to deal with all levels to synchronize the supply chain with customer demand.

Capacity synchronization helps management to relieve the Bullwhip Effect, a common problem that brings negative effects on the performance. The Bullwhip Effect can be defined as a supply chain phenomenon about the change of customer demand which is distorted and amplified on each step of the upstream part of the supply chain, resulting in large variations of orders placed in the beginning (Lu, 2011). The small changes when they reach the final stage, the factory, have significantly increased becoming almost unrecognizable. Bullwhip effect has been generalized as a model because of the spread of this problem in each supply chain. The main issue of Bullwhip Effect is that it can be alleviated but not resolved because it comes from many factors that are almost impossible to control, such as delays in order processing and shipping, over-ordering as well as under-ordering, overreacting, lack of coordination and poor forecasting, batching, facility breakdown and poor maintenance, lack of communication and many more. To at least reduce the Bullwhip effect there some common countermeasures like improving information sharing through EDI (electronic data interchange) and POS (point of sale systems), improving IS, stressing the importance of coordinate capacity and production planning, and apply safety stock to reduce the oscillation (Lu, 2011).

1.1.5 Global Supply Chain Trends

The supply chain concept has been continuously evolving partially because of the big changes in the overall business environment and the increased globalization. The global market is ruled mostly by many well-established global companies resulting in a constant trend of global market convergence, which is *“the inclination of native markets to start converging on a set of similar products or services across the world”* (Lu, 2011). The final consequence of this convergence is that global supply chains have a higher competitive advantage, being able to access to cheaper labor and raw materials, more convenient financing, legal and fiscal conditions, larger market share opportunities (Al Hashim, 1980; Kogut and Kulatilaka, 1994). Still, the higher the benefits that companies can incur in the global environment, the higher are the uncertainties and the risks that firms have to face in global supply chains (Manuj and Mentzer, 2008).

A global supply chain is defined as *“a series of firms networking and outsourcing throughout the globe”* (Lu, 2011). Such new configuration allows companies to exploit a greater number and alternative suppliers of raw materials, products, and labor as well as getting physically closer to customers located in different parts of the world and with different needs to be fulfilled. The new

global business environment is now characterized by being borderless as supply chain development now faces no more limits as national borders, both in physical terms as visible material flows, sourcing, manufacturing and delivering, but also in the invisible dimension of the development of brands, services, technology, and collaboration. In the past the business environment was a group of many independent local markets, now it has converted into an almost single connected market where virtual connections are becoming increasingly crucial. Without strong technology development for globally present multinational supply chain would be impossible to transfer quickly and reliably such amounts of data. It is deregulated, meaning that a new level of playing field on the global stage has been created thanks to simplified and removed rules and regulation, shaping economic and free-trade zones around the world with open and fair competition, and aimed to stimulate global economic growth (Lu, 2011). It is mindful of the environment, thanks to the growing interest in the damaging impact of business on the natural environment in the last decade. The development of a greener and more sustainable strategies for a global supply chain is a pivotal aspect today, pushed also by governments that are involved in promoting environmentally friendly activities in business. As a consequence, social responsibility such as fair-trade and business ethics have become key factors for business decision making in the mind of the consumer and a crucial part of a company's brand (Lu, 2011). Nowadays, more and more consumers make purchase decisions based on the supply chain's ethical standard and social responsibility.

Every global supply chain management has to face some possible strategic challenges at a macro level: market, technology, resource, time dimensions (Lu, 2011). The increasing demand volatility in the market has troubled many supply chains stressing the need for effective responsiveness. Geopolitical instability, quicker technology development, product innovation, and emerging economies, are all factors that contribute to market instability. Also, the internet-based distribution channels development has decreased over time the customer loyalty because of the many possibilities for consumers to switch their usual brand. Many B2B and end customers now basically shop for the lowest price, overseeing their loyalty to specific brands or products.

A long time recognized a key strategic challenge for competitive advantage is technology, even more in the global context for the supply chain management. For companies being able to keep up with the technological advancement coming from all parts of the world has become a crucial challenge to face. Visibility, speed, efficiency, and integration of the supply chain are brought by the advancement of information and communications technology (ITC), supporting information sharing, and the ability to handle supply and demand variations. Important investments have been made in enterprise software and systems for every phase of the supply chain, such as material requirements planning

(MRP), enterprise resource planning (ERP) and customer relationship management (CRM). ITC allows the supply chain to recognize business situations and respond to them efficiently and quickly enough to remain competitive. MRP is an information system that supports companies with net requirements as well as the time of the requirement because it translates the finished product requirements into time-phased steps of needed parts and raw materials. It works backward using information such as due date or lead times to determine when and how much to order. ERP systems' core competence is to integrate all the business functions into a single information system. The single storage of information enables the companies to retrieve, analyze, and report data more efficiently. ERP support the companies in viewing business operations as a common aspect for each part of the supply chain, based on unified information allowing the company to answer quickly to the reorganized information. CRM is another information system that enables companies to collect a huge amount of data for every specific customer, learning more about the requests, the trends, and preferences. CRM software helps to build relationships and loyalty with a group of customers.

Resource development, intended as any strategically important resources, has become a key challenge to face for a global supply chain (Lu, 2011). Searching for new and specific resources at a lower cost in different countries is now an essential part to acquire competitive advantages. It has become a common strategic practice for multinationals companies to outsource their workforce, material, and energy from different locations, with the final aim of reducing the costs and at the same time obtaining more specialized ones. Offshoring and outsourcing activities are the means of this “race for resources”.

Time differences are critical for global supply chains, when new opportunities arise is the first to get into the market that acquires almost all advantages. Demand competition is simply who develops first the desired product at the lowest price. But time also relates to the internal supply chain perspective one of the most important challenges that supply chain management has to face is about agility and responsiveness. Is how fast the supply chain can respond to unpredictable and rapid changes in market demand: in the volatile and unstable global market, implementing an agile supply chain network is crucial to surviving.

To survive the challenges of this new and constantly changing business environment, despite all the literature on supply chain management, there is not a universal and single path to follow. Some common approaches have emerged when facing these challenges and succeed (Lu, 2011). The first answer from global supply chain management is to stop competing but rather start collaborating and partnering with other companies to accomplish a common objective. Collaboration's content depends

on business to business and from project to project: it can result in a research and development collaboration, marketing, or a logistics one. Various advantages come from collaboration such as sharing complementary resources, achieving synergy, sharing business risk, and innovation through technology development. Another approach to avoid competition in an already congested market is the known strategic tactic developed by Prof. Cham Kim and Renee Mauborgne, the so-called "Blue Ocean Strategy". Creating an uncontested market space perfect for business growth is a winning move, instead of keep competing within a red ocean where profitability is unlikely to rise. Because for a global supply chain the network is mostly composed of independent companies in different countries around the world, which participant members are possibly antagonistic, to be able to integrate is one of the most important aspects to manage.

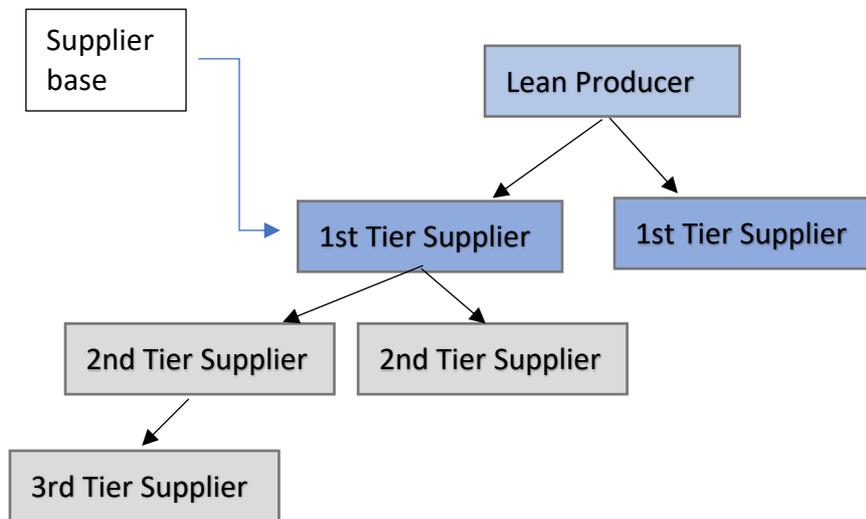
1.2 Lean and Agile Supply Management

1.2.1 Origins and Principles of the Lean Manufacturing

The general approach of Lean Manufacturing aims at reducing waste and variability in the supply chain's steps, adding more value to customers and improve operational performance (Shah and Ward, 2003). Before known as the Toyota Production System (TPS), because brought forward by the Japanese automotive company Toyota in the late 80s, is now more commonly referred to as Lean Manufacturing. The main concept behind this approach is that to improve competitiveness suppliers and customer integration emerges as a crucial element (Flynn et al., 2010; Frazzon et al., 2015). Lean supply chain management (LSCM) can be thus defined as *"a set of organizations directly linked by upstream and downstream flows of products, services, information and funds that collaboratively work to reduce cost and waste by efficiently pulling what is needed to meet the needs of individual customers"* (Vitasek et al., 2005). The adoption of such approach aims to improve profits from the cooperation rather than bargaining or imposing power over the supply chain's partners (Alves Filho et al., 2004; Naim and Gosling, 2011; Chiromo et al., 2015).

In the standard supply structure, the process is simply a one-step-one-time sequence from the design to the contract, making the cost the most important driver in the supplier selection (Lu, 2011). Suppliers will offer a lower price in the beginning to win the bid and then raise the price through the year. The stream of information between suppliers is nothing more than the volume and price. The lean supply system develops different practices and has a different focus from the mass supply system.

Figure 3. Lean Supply Chain Structure.



Source: Adaptation from Lu, 2011.

As represented by Figure 3 above, the lean producer manages a large number of suppliers in a tiered structure, the ones that directly deal with the producer are called first-tier supplier, or supply base, and they get all the supply subsystems (Lu, 2011). Using a smaller supply base permits the producer to spare time and resources instead of interacting with every single one. As a consequence, the relationship between first-tier suppliers and lean producer becomes closer and allows to create new opportunities like sharing vision and mission, joint development of products, coordination, and capacity synchronization. Moreover, the selection of suppliers changes as well, where the price is no longer the only driver but higher-level performance criteria, like quality, R&D, delivery reliability, and commitment are now the most important aspects. The price will be always considered as a fundamental criterion but in a relative way of what the supplier can offer.

Another difference is how the pricing issue is treated as in the mass supply chain the component price is simply determined by the unit cost of production plus a profit margin, the so-called “supplier cost plus margin” (Lu, 2011). The lean supply system uses instead the “market price minus” approach, starting from determining the market price of the component, an agreed and rational profit margin that the supplier has to make on each unit is subtracted leaving the target cost. If the target cost obtained is lower than the supplier's actual cost both the lean producer and the supplier have to work jointly to lower the cost and trying to meet the target cost. The ways the cost is lowered bring to another difference between the two systems. In the mass supply system, suppliers have no involvement in the design stage, the job is simply to follow the guidelines given by the producer. In

the lean supply system, the supplier is involved in the design and manufacturing stage of the new product, permitting the supplier to contribute to with their expertise, creating synergy, and lowering the price.

1.2.2 Agile Supply Chain Management

The growing demand volatility has imposed on organizations the need of becoming more responsive to the changing conditions of competition, the needs of customers, and the interest in the concept of "agility" (Power et al., 2001). There is a clear distinction to be defined between speed, expressing the meeting customer demand, leanness concepts of reducing wastes, and agility, responding quickly to changes of volume and variety in demand (Christopher, 2000). Agility has also been referred by Naylor et al. (1999, p. 108) as *"using market knowledge and a virtual corporation to exploit profitable opportunities in a volatile marketplace"*.

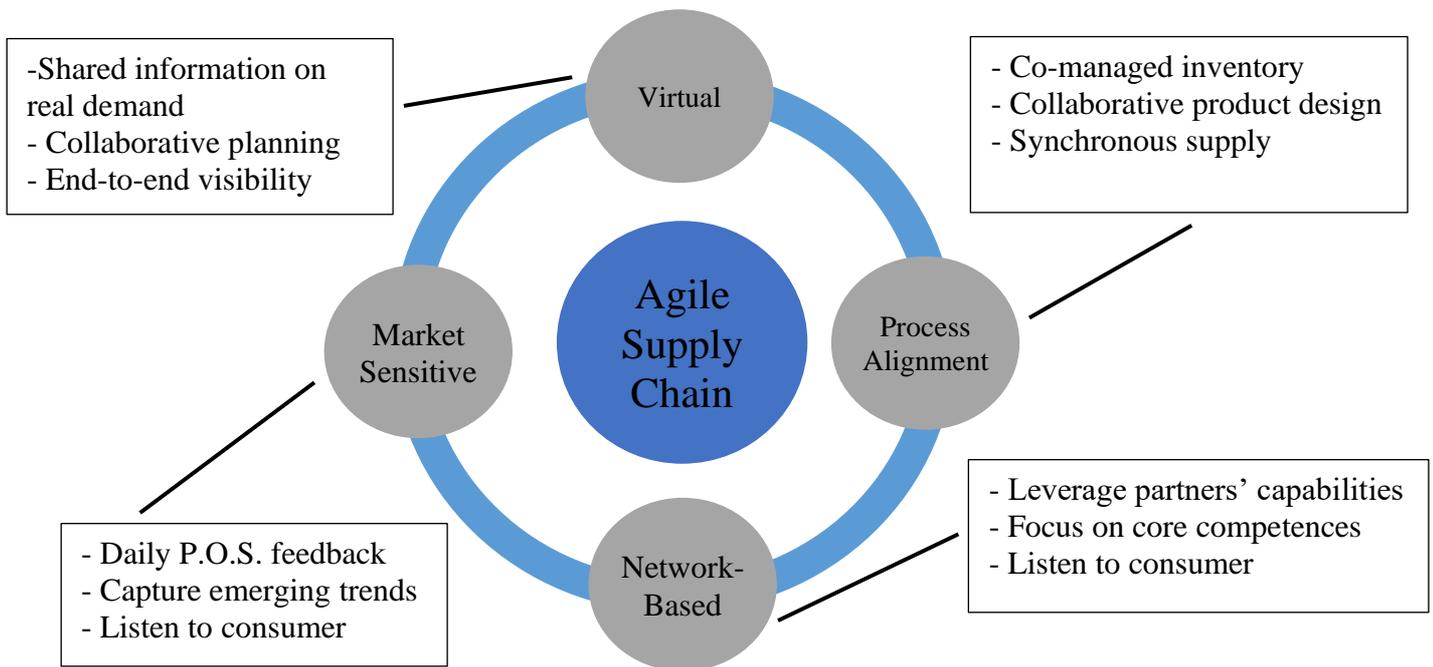
The concept of agility has been extended beyond the boundaries of the individual organization, including the domain in which the supply chain operates (Power et al., 2001). A supply chain must embrace the concept of flexibility both from the internal perspective, being able to change configuration and structure, and from the external perspective delivering products in time and always updated with the last customer needs (Lu, 2011). To achieve such effectiveness of an organization's response to the changing market conditions is necessary that all the trading partners of the supply chain own enough capabilities (Power et al., 2001). Considering a stable environment, an organization in which the supply chain is composed of a key supplier that has poor quality and reliability will find it difficult to provide a high level of products for customers. The same organization placed in a rapidly changing environment will be eliminated from the competition. In such a context the reliability of suppliers is an essential factor that can become a critical issue as well as the best response of organizations, by sharing accurate and timely information with the supplier's base (Power et al., 2001).

Christopher (2000, pp. 38-39) has identified four characteristics that a supply chain must have to be addressed as agile. These characteristics include market sensitivity, capturing and transmitting points of sale's data, creation of virtual supply chains, relying more on information than inventory, process integration, a collaboration between the various parts of the chain, and networks, different partners linked together as a single organization (Power et al., 2001). It is evident that the importance of this model of the sharing of information and the use of technology to create "connectivity", meaning the ability of organizations to share information in real-time (Christopher, 2000).

1.2.3 Agile Supply Chain Framework

The characteristics of an agile supply chain identified by Christopher (2000, pp. 38-39) derives from one of the earliest attempts to build a model of the agile approach made by Professor Alan Harrison of Cranfield University (Harrison, 1999). To understand the concept of the agile supply chain a framework has been developed representing four key components of an agile system, as showed in Figure 4 below.

Figure 4. Agile Supply Chain Framework.



Source: Adaptation from Harrison, 2005.

An agile supply chain can respond quickly to the market changes and to achieve this ability, it must be able to leverage assets, skills, and resources across all divisional units, and it must be able to create a concrete shared goal to communicate across the supply chain. The message has to be communicated not necessarily where ownership is present, that's why it is called virtual integration (Harrison, 2005). This kind of integration is an informal and dynamic relationship between the divisional units but also different sectors of the supply chain, excluding initiatives that are specific to individual business and rewarding overall supply chain initiatives that can support and create benefits to many parts.

Too often performance measures are based and compared on the data deriving from internal operations of the supply chain, misleading the management, creating noise, and driving away from

the supply chain from its final aim of serving the market. To accomplish the needs of markets management has to compare the supply chain performance with data and information directly from the external market, thus setting up a high level of market sensitivity.

A high level of integration between internal operational processes (sales forecasting, sourcing, production planning, delivery...) is required for an agile supply chain (Harrison, 2005). When a market movement triggers a "chain reaction", the supply chain without an integrated and fast-changing ability of internal processes is not able to respond quickly or to re-correct itself. Integration aims to create almost a single responsive entity, market-based, and not business unit-based.

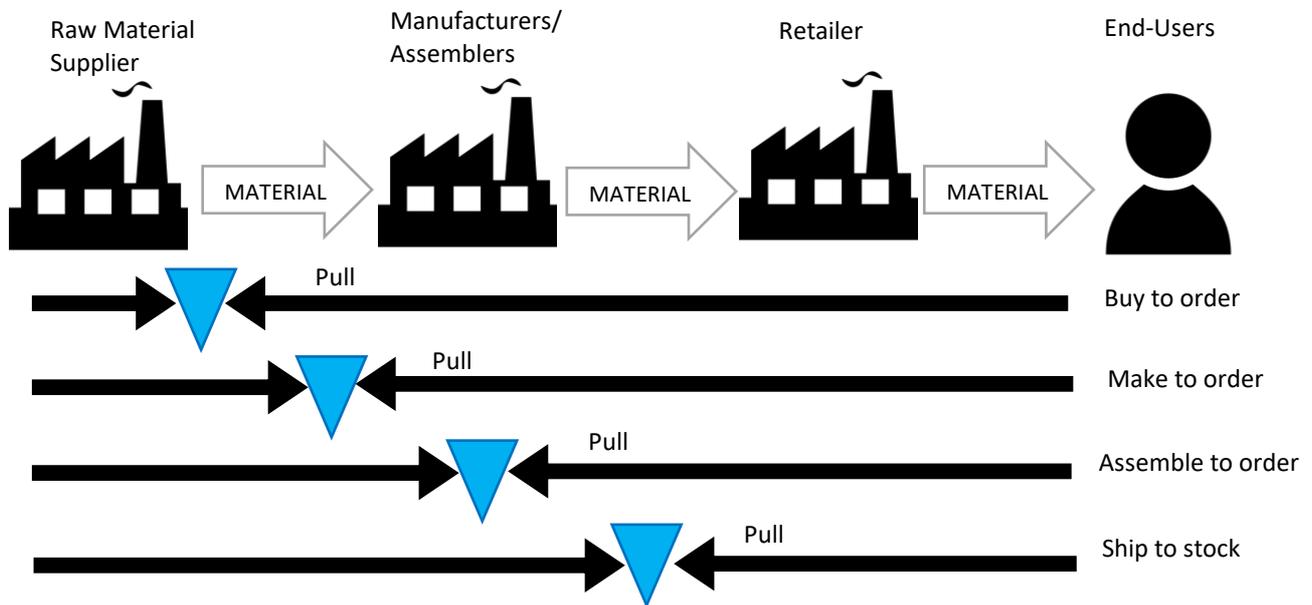
As explained earlier regarding the supply chain configuration possibilities, the configuration can be divided into two types of systems: a stable or dynamic network (Lu, 2011). The latter one is the most preferred by the agile supply chain, due to the less tight suppliers-buyers relationship compared to the stable network, where short-term contracts are the most common in dynamic networks.

1.2.4 Postponement strategy

Because of the quick response to unpredictable demand is the most important value proposition of an agile supply chain the best method to measure the performance is responsiveness. To obtain this responsiveness capacity there is a trade-off that companies have to face, like holding spare or redundant capacity to handle all necessities. Zara, for example, has two large distribution centers in Spain, which sometimes are utilized only by 50% (Lu, 2011). This is due to Zara's strategy, knowing and managing the cost of redundancy, and focusing more on the benefits of having an always ready capacity to support their business model.

The most used strategy to achieve supply chain responsiveness is the so-called postponement or also known as delay configuration. To develop this configuration the supply chain has to be designed and prepared in a particular way. Before explaining the postponement strategy, it is useful to present the concept of the "order decoupling point". The order decoupling point defines how distant the customer orders will insert into the supply chain (the triangles in Figure 5 on the next page). The point position is different for each supply chain depending on the design, for example for a ship-to-stock supply chain the decoupling point is almost at the end, while for make-to-order one the point is usually near the manufacturing stage.

Figure 5. Supply Chain Order De-Coupling.



Source: Adaptation from Hoekstra and Romme, 2001.

The purpose of the postponement strategy is to achieve the fundamental market responsiveness, the right variety at the right quantity, and do it at a mass-production price. To be able to put it in practice the decoupling point has to be postponed as later as possible, close to the product delivery stage. In this way, the supply chain can produce a predictable volume of generic component for manufacturing that are easier to forecast, and keep them at the inventory stage (now referred as strategic inventory), but postpone the product configuration to the last stage when the volumes are more clear and the demand is more specific (Lu, 2011). Because the generic components are ready to be assembled or even customized to the required configuration, the response to the customer demand will be faster and there won't be costs associated with unused and redundant finished goods because the volume is produced looking at the exact demand. The segment of the supply chain before the decoupling point (where generic components are manufactured) can be reconducted to lean principles, forecasted-based, and push-based. After the strategic inventory, the supply chain focuses on the configuration of products to satisfy the changing needs of customer demand: this part refers to the agile principles of the supply chain because it is demand-based and pull-based.

1.3 Purchasing, Supplier Selection, Relationship, and Integration

1.3.1 Strategic Role of Purchasing and Supplier Selection

In supply chain management a fundamental function to cover is the purchasing activity, described as the process made by the organizational unit responsible for acquiring materials and services in the right quantity, price, quality and time, and responsible of managing them to create value for the business, through cost-saving, quality improvement, and developed supplier relationship. The process of purchasing is essentially the intermediate of the company's operations with suppliers and most importantly ensuring that the best supplier that suits the internal operations is employed.

Among the numerous attempts to analyze what is the best strategy for purchasing, Dr. Peter Kraljic published a paper "Purchasing Must Become Supply Management" in Harvard Business Review in 1983 regarding strategies for purchasing, and suggested the well-know Kraljic Purchasing Portfolio Model, a matrix used in all types of management represented in Table 3 below.

Table 3. Kraljic Purchasing Portfolio Matrix

High	<p style="text-align: center;">Leverage products</p> <ul style="list-style-type: none"> - Alternative sources of supply available - Substitution possible <p style="text-align: center; color: #0070c0;">Competitive bidding</p>	<p style="text-align: center;">Strategic products</p> <ul style="list-style-type: none"> - Critical for product's cost price - Dependence on supplier <p style="text-align: center; color: #0070c0;">Performance-based partnership</p>
Supply's impact on financial results	<p style="text-align: center;">Routine products</p> <ul style="list-style-type: none"> - Large product variety - High logistics complexity - Labor intensive <p style="text-align: center; color: #0070c0;">System contracting + E-commerce solutions</p>	<p style="text-align: center;">Bottleneck products</p> <ul style="list-style-type: none"> - Monopolistic market - Large entry barriers <p style="text-align: center; color: #0070c0;">Secure supply + Search for alternatives</p>
Low	Low	High
	Supply Risk	

Source: Adaptation from Kraljic,1983.

According to Kraljic (1983), the matrix has to be interpreted as even if there is no universal best way of purchasing strategy, knowing which product category, there is an optimal way for each group. The next step according to his work is to categorize all the purchasable products. The two variables used to categorize are the supply risk of the product (how easy/hard is to gather) and the financial impact of the purchased material relative to the total cost of the final product. The result is a four categories matrix with four specific types of a purchased product (Kraljic, 1983).

Leverage products: are those types of products that have an important impact on the finance of the final product but are easy to find and buy from suppliers, so with low market risk. A good example is wood for a furniture manufacturer, where wood's price is a large part of the cost of the furniture price and at the same time is easy to acquire in the marketplace because the supply of wood is abundant. Kraljic (1983) for leverage products indicates as the best strategy the competitive bidding, a perfect strategy when there are numerous suppliers to choose among and the buyer has to try to lower the price due to the high financial impact on the final good.

Routine products: If a product has a little financial impact on the buyer and also it is easy to find substitute suppliers in the marketplace it can be categorized as routine products. Examples are all the standard components. There is no risk of supply for those products and the cost is really small compared to the total cost of the final product. For routine products, the best strategy proposed by Kraljic (1983) is a system of contracting together with e-commerce solutions, where computer-based system ordering is perfect for this type of product, and bidding is not worth it because of the relatively low cost.

Strategic products: are those components that due to the high cost of developing and manufacturing have a great level of a financial burden on the final product and are hard to find substitute suppliers in the marketplace, with high supply risk, such as automobile engines. For this kind of product, Kraljic (1983) suggested a performance-based partnership as a purchasing strategy, creating a long-term relationship with the supplier to develop and manufacture the components. The strategy fits perfectly because due to the complexity of these components they usually have to be designed and develop together with the suppliers, and they are not made to be stocked.

Bottleneck Products: the last type of products to be purchased are the ones that may not have a high cost in comparison with the final product cost, but they are essential and very hard to be gathered. The supply risk is high, and the availability is low. Because of the high supply risk, the best strategy for Kraljic (1983) is to secure the supply, and besides searching for alternative suppliers because of

the risk of being cut-off by the market. Re-designing the product in a way in which it uses different materials that are not at risk of supply is a possible alternative.

One of the critical and most strategically important parts of the purchasing function is to identify and select the right supplier, which quality and reliability will have a direct impact on the supply chain performance and long-term competitiveness. There are three broad approaches for supplier selection: the first is product-based, looking at the product prototype to see if the quality and technical specifications are acceptable (Lu, 2011). The second is capability-based, checking if the supplier has the development capabilities, enough investment in technology, and skills to meet the buyer's requests, present, and future ones. This kind of approach is usually adopted for a long-term relationship to start working jointly on the product before the physical prototype. The third approach is the combination of the first and the second, based on product and capability selection: it is not enough for the supplier to meet the product requirements and specifics, but it must have also the capabilities of improving and if necessary redesign the product in the long-run. These long-run capabilities are often identified as quality management, in-house design, ability to implement last technique (JIT, EDI...), constant delivery reliability, product quality, flexibility to change, and long-term investment plan.

It can be observed from this distinction the evolution of the purchasing function, which is now a more complex process because of the big impact on business performance. The focus has significantly changed, from short-term toward long-term, from function to processes and from just cost saving to performance improvement. It is safe to address purchasing a knowledge-based function, knowledge regarding the overall business objectives, about suppliers' capabilities and potential, about technology development and also about people, relationships, and culture.

1.3.2 Supply Relationship, Close Partnership, and Strategic Alliance

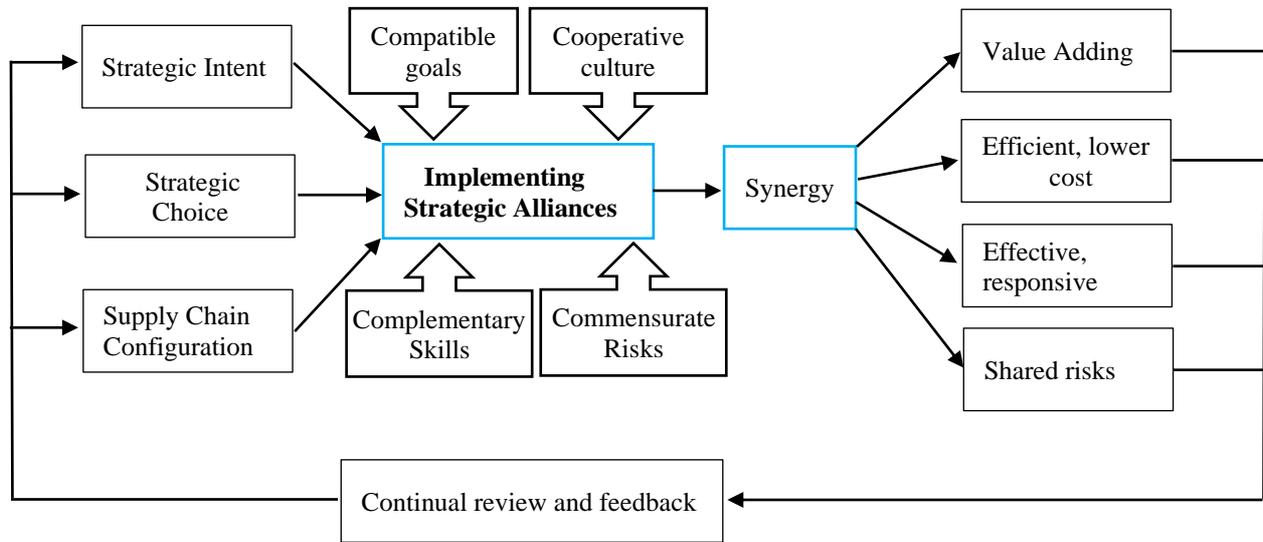
Supply relationship is defined as all the interaction and exchange between participating members of a supply chain, in the upstream direction with suppliers, in the downstream side with buyers (Lu, 2011). The most common supply relationship is the so-called partnership relation, a specific arrangement in which the parties jointly cooperate to bring forward their mutual benefits. The relationship as it is presented later in the paragraph has evolved from "*an antagonistic transaction-oriented to a relationship-oriented perspective of cooperation*" (Moeller et al., 2006).

Because in a relationship is present exchange, the value that a relationship can be measured by the contents of that specific exchange. If the exchange is only about price and volume of goods the

relationship can be addressed as arm's length, if two companies have exchanged more, their mission, value, they jointly worked on the design and in the product development, the relationship is defined close (Lu, 2011). The traditional relationship is based on the unit price and the information exchange is almost inexistent. The close partnership relation, a practice introduced by the Japanese automotive company Toyota, changed many aspects of the supply chain management: reduction of the supplier base formed now by a tiered structure, use of a long-term contract with suppliers, vertical disintegration, jointly cooperation in the product introduction process with the supplier, shifting away from a price-based purchasing system to the knowledge-based one and developing of a new form of synchronization, such as JIT production system.

The building of the relationship of creating value alongside with suppliers is a long process that has to be managed by both parties. Such a relationship starts when two or more companies with a common business objective agreed on an informal or informal agreement, giving birth to a strategic alliance. Supplier Relationship Management (SRM) has been defined by Moeller et al., (2006) as *"the process of engaging in activities of setting up, developing, stabilizing and dissolving relationship with a supplier to create and enhance value within the relationship"*. This inter-organizational relationship is aimed to achieve the strategic objectives of the companies by merging skills and resources. There are three types of strategic alliance: vertical when it is among firms on different levels of the same supply chain, horizontal as it is in the same level but of different supply chains, and lateral alliance when it is formed with provider firms, companies that serve different supply chains so they are not categorized as internal. The benefits of a strategic alliance are numerous, starting from sharing complimentary resources as well as market risks, achieving an economy of scale and scope, cost-saving and value-adding, and joint product or process development. The process of forming a strategic alliance is not easy and it is not immediate, it has to be planned carefully to evaluate all the benefits and the disadvantages that may bring cooperation. It especially requests a constant process of development to make the agreement work from all the parties and many steps to follow as indicated by Figure 6 on the next page.

Figure 6. Continuous Processes of Alliance Development.

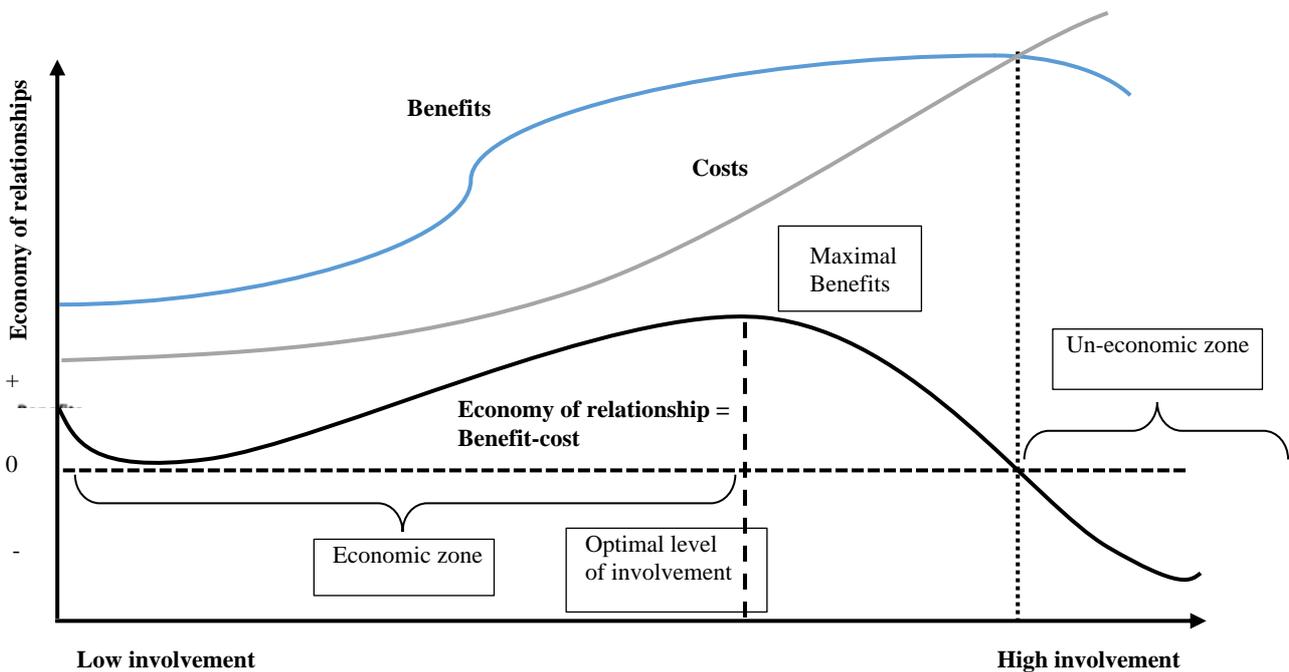


Source: Adaptation from Lu, 2011.

As presented in Figure 6 after the strategic intent, choice and configuration have been aligned, the practical moment when the alliance is made is the most critical point. The implementation of strategic alliances is constrained by the 4 Cs if they have compatible goals, complementary skills, cooperative culture, and appropriate risks (Lu, 2011). If the alliance passes all these constraints it is expected to generate synergy, usually under the form of value-adding, lowering costs and risk and becoming more effective. The results of the alliance have to be continually reviewed and corrected, completing the cyclical model of alliance development.

The last point to analyze is the trade-off between benefits gained by the relationship and the level of commitment. With the level of commitment is intended the investment cost, including activities and expenditures, that a company has to face to get a closer relationship with suppliers, while benefits are all the factors that a relationship brings in favor of the stakeholders' interests and objectives. As shown in figure 7 the benefit from the close relationship (the blue line) increases when the degree of relationship gets closer, but after a certain point when the relationship is too close the benefits gain starts to decrease slowly. In the same way, the cost level of commitment rises when the supplier-buyer relationship gets closer (grey line). Subtracting from the benefit of the costs, combining the two curves, the economics model for the relationship can be drawn: the model display (the black line) the cost-benefit trade-off helpful to determine the level of relationship between supplier and buyer (Lu, 2011).

Figure 7. Relationship Trade-Off Graph: Costs and Benefits.



Source: Adaptation from Lu, 2011.

1.3.3 Supply Chain Integration

A close relationship is a fundamental concept that managers have to take into account during the implementation of an integrated supply chain. As explained before, supply chain integration is defined as when two or more legally independent firms coordinate their activities like a single company with the final result of achieving a common goal (Lu, 2011). More practically, a company within a supply chain has to coordinate also with the outside of its boundaries to increase the competitive advantage.

The flexibility needed to react to changing market environments is obtainable only with developed coordination between independent firms of a supply chain. If this coordination is lacking poor operational performance is the natural consequence with higher inventory costs and transportation costs, longer delivery times, and lower customer service. The supply chain performance is always a combined performance formed by all the companies that build the relationship, companies that are legally independent but strictly economically dependent, as changes that occur in one of them will affect the performance of the other and the whole supply chain. For this reason, to improve the supply chain performance only a joint and coordinated approach will bring results, which is probably the most efficient approach to respond to the high demand instability.

1.4 Risk Management for Global Supply Chains

1.4.1 Definitions of Global Supply Chains and Risk

The last part of the overview deals with risk management, an aspect that is crucial especially among global supply chains. As seen before in the chapter, the global configuration of supply chains provide access to many benefits, cheap labor, and raw materials, larger market share, better legal and fiscal opportunities (Al Hashim, 1980; Kogut and Kulatilaka, 1994). These competitive advantages however are directly proportional to the consequent risks that managers have to face in the global environment (Manuj and Mentzer, 2008).

The concept of risk provided by supply chain managers and the corresponding literature suggests two components of risk, potential losses, and the likelihood of those losses to happen. Potential losses are the losses that will result and the consequence when the risk is realized (Harland et al., 2003; Manuj and Mentzer, 2008; Mitchell, 1995), and the likelihood of those losses, meaning the occurrence of events that can lead to the realization of the risk. Two more risk dimensions are less commonly discussed, which are speed and frequency. The speed of risk is the rate at which the event happens resulting in a loss, and frequency is a measure of how often such risks event happens (Manuj and Mentzer, 2008). In the specific case of global supply chains, the literature suggests four main categories of risk, supply, demand, operational and security risks (Christopher and Peck, 2004; Manuj and Mentzer, 2008). Supply risk, according to Zsidisin (2003b), is the range of outcomes related to adverse events that affect the ability of the leading company of the supply chain to meet the customer needs, time issues, or possible threats to customer safety. Demand risk regards the customers placing orders and the variation in the volume and type requested by the customer with the focal firm, while the risk of the operations is about the possible events that affect a company's ability to produce and deliver goods and services, with the appropriate quality and time. The last category of risk according to Zsidisin (2003b) is the security risk, which represents the outcome that can threaten human resources and breaches in the information systems that can lead to stolen data, vandalism, and crime.

Another widely used classification of risk is proposed by Ghoshal (1987):

- The risks associated with interest rates, exchange rates, and prices are defined as macroeconomic risks;
- Possible actions made by national governments are referred to as policy risks;
- Competitor activities in foreign markets that can create uncertainty are defined as competitive risks;

- Resource risks are the unanticipated differences in resource requirements in foreign markets.

The most frequent risk events in global supply chains are currency, forecast, quality, transit time variability, quality, safety, culture, oil price fluctuation, and inventory ownership (Manuj and Mentzer, 2008). An interesting pattern that emerged is that one risk leads to another, or it influences the outcome of other risks, links that are also present in domestic supply chains, but with a lower impact.

1.4.2 Global Supply Chain risk management

The appropriate strategies to respond and mitigate risk events in the global supply chain domain are contextual and structured depending on the characteristics of the situation. The three main factors influencing the choice of a risk management strategy are the temporal focus, supply chain flexibility, and supply chain environment (Manuj and Mentzer, 2008).

The choice of the temporal focus is the first factor that affects a risk management strategy, meaning that a short-term focus leads to adopting strategies that usually provide immediate results, involving low investments, while the long-term focus is the opposite. Risk management has been indicated by Giunipero and Eltantawy (2004), as a constant process that involves a long-term focus strategy by each member of the supply chain.

Flexibility is a concept already seen in the agile supply chain paragraph, and it is defined by Upton (1994) as *“the ability to change or react with little penalty in time, effort, cost or performance”*. In the global supply chain environment, characterized by a high uncertainty in supply and demand markets, a more flexible supply chain can adapt and respond faster than its competitors, more specifically support the coordination process and the management of global operations (Manuj and Mentzer, 2008). In other words, flexibility provides supply chains the capacity to responds to events that are not able to be planned (Welch, 1996).

The last factor that can affect the risk management strategy choice is the supply chain environment. Several studies revealed that supply chain managers are mostly concerned with supply and demand sides of the supply chain risks, not considering the operation's risks (Manuj and Mentzer, 2008), because are usually addressed to other departments as corporate risk or finance.

The notion of contextual strategy reflecting the corresponding environment can be associated to the concept of fit in the strategy domain, which suggest that the company's capacity to perform is mainly dependent on the fit of the internal strategy to the external environment (Amit and Schoemaker, 1993;

Porter, 1991; Wernerfelt and Karnani, 1987). Based on the previous definitions of risk events and the factors influencing global supply chains strategies, the following definition of global supply chain risk management has been developed by Manuj and Mentzer (2008):

“Global supply chain risk management is the identification [...] of risks and consequent losses in the global supply chain, and implementation of appropriate strategies through a coordinated approach among supply chain members to reduce - [...] losses, [...], the time for detection of the events, frequency, or exposure – for supply chain outcomes that in turn lead to close matching of actual cost savings and profitability with those desired”.

1.4.3 Risk management strategies for global supply chains.

Six risk management strategies have emerged from the literature as the most used in the global supply chain risk management environment: postponement (Bucklin, 1965; Chiou et al., 2002; Zinn and Bowersox, 1988), speculation (Bucklin, 1965), hedging, control/share/transfer (Achrol et al., 1983; Agrawal and Seshadri, 2000; Cachon, 2004), security (Downey, 2004), and avoidance (Miller, 1992).

The postponement has already been discussed as a possible solution to achieve the desired flexibility and responsiveness of an agile supply chain, delaying at the last possible stage the actual commitment of resources (Bucklin, 1965). Form postponement includes assembly, manufacturing, and packaging, while time postponement refers to the movement of goods from the manufacturing plant (Zinn and Bowersox, 1988). Even if the postponement strategy is one of the most known approaches, the implementation in the global supply chain context can result in difficulty: the distance and logistics management makes such strategy expensive to realize (Manuj and Mentzer, 2008).

Considered as the opposite of postponements, speculation (also known as selective risk-taking), is a risk management strategy in which decisions are made as soon as possible to anticipate customer demand. The principle of speculation, according to Bucklin (1965, p. 27), *“holds that changes in form, and the movement of goods to forward inventories, should be made at the earliest possible time in the marketing flow to reduce the costs of the marketing system”*. By bringing the decoupling point at the earliest stage, it is possible to benefit from factors such as economies of scale in both production and transportation, and different costs savings. An example of speculation is serving customers with similar demographic characteristics in culturally similar countries instead of developing brand new products for the new markets (Manuj and Mentzer, 2008). The implementation of this strategy requires very low demand demands risk conditions, meaning low demand uncertainty, as well as high-quality measures and forecasts of demand.

Hedging, in the global supply chain context, is having a diversified portfolio of suppliers and facilities, to avoid that a single event, such as currency fluctuation or a political change, can affect the entire supply chain. Because it involves multiple options for each decision and variable, it is an expensive strategy that should be implemented only when a supply chain is inside a high supply risk context.

Vertical integration, contracts, and agreements can take the form of control, share, or transfer of risks. Such strategy improves the ability of the focal member of the supply chain to control many factors, as processes, methods, decisions, and outcomes. In this way the control increases and the risk is reduced, however, as indicated in the next chapter, the implementation of such strategies requires consistent initial investment and reduces the flexibility by changing variable costs into fixed costs.

Security strategy comprehends the ability of the supply chain to work closely with different governments complying with regulations and border-crossing points, as well as the ability to sort out possible security breaches along the supply chain.

Avoidance strategy according to Miller (1992) *“takes the form of exiting through divestment of specialized assets, delay of entry into a market, or participating only in low uncertainty markets”*. In other words, is trying to ensure that a risk event does not even exist by driving the probabilities of such event of a decision to zero, or at least trying to prevent it (Manuj and Mentzer, 2008).

CHAPTER 2: VERTICAL AND HORIZONTAL INTEGRATION OF THE SUPPLY CHAIN

After a general analysis of all the most important aspects and functions of supply chains, this section starts to go deeper into the main focus of this work: the concept of vertical and horizontal integration. One of the most fundamental features of the supply chain's architecture also referred to as the decision of "to buy or to make", it is generally perceived as an important aspect because the decisions of integrating firms have significant consequences internally the company but also to the external business environment. This chapter not only serves the purpose of exploring the concept of integration, its implications, results, and trade-offs, but has also the function of connecting the general aspects of the supply chain to the case of this work, the Italian group Morellato. Starting with analyzing the definition and main characteristic of a vertically integrated supply chain and a horizontally integrated one, it is presented the prerequisites and consequence of these types of decisions, the trade-off that companies have to face when choosing the degree and the advantages as well disadvantages. A short paragraph will describe the features in common and the differences between the two types of integration to see if these two strategies can be applied simultaneously by the same company. A section of the chapter will try to understand when the company should decide to integrate or not and tries to measure the degree of integration to create a model to follow.

2.1 Vertical Integration of the Supply Chain

2.1.1 The Trend of Vertical (dis)Integration

Before starting with the definition of vertical integration and its characteristics it is useful to analyze the trend of this practice, focusing on the timeless dilemma between integration and disintegration. The latter which may also be substituted by the concept of outsourcing has been nowadays more evident as phenomena and more discussed in many studies and real business examples. Since the 1990s vertical disintegration has been and rising tendency in most of the manufacturing industries, fitting the already established management standard of outsourcing non-core competencies and focus mainly on core competencies of a company to achieve improved firm performance and cost savings (Kaiser and Obermaier, 2020). Following this management paradigm, many studies have assumed a positive linear relationship between the level of vertical disintegration and the firm performance, or in other words, the performance is estimated to drop when vertical integration increases (Kaiser and Obermaier, 2020). This paradigm has been tied up during the last decades to the concept of supply chain management, equally perceived as key drivers for the companies' financial performance.

The model of a high degree of vertical integration and "owning the value chain" has been a prevalent strategy during the beginning of the industrialization of which Henry Ford's River Rouge complex is the most appropriate example (Harrigan, 1984). The structured network allowed the company to accomplish a complete level of vertical integration from raw materials gathering to the final assembly of the car, ensuring complete control over the whole supply chain. But the effective approach of vertical integration has been substituted recently from the vertical disintegration strategy.

Is vertical integration a strategy of the past? On the contrary, it seems to be making a return, especially in high techs companies. As is now labeled in a fancier and more innovative way by businesses in Silicon Valley as the "full-stack" business model, many colossuses and established companies are adopting vertical integration, downward as well as forward. Netflix and Amazon are getting into the original purpose of their business, other companies such as Tesla are accomplishing to integrate into every direction, bypassing traditional car dealerships while building the world's largest factory to manufacture its batteries. Many non-tech companies are adopting vertical integration as well. The Italian chocolate company Ferrero made in 2014 its first-ever acquisition, a Turkish company that deals hazelnuts, a fundamental ingredient for its famous chocolate cream, or Starbuck's business models that includes buying all its coffee and selling it through owned stores.

What can be derived from these examples is that there is no universally precise strategy or model that works for every company, because of any difference in structures and business environments, but even if the modern approach is outsourcing, there are companies that show the advantages of a vertically integrated supply chain.

2.1.2 The definition of Vertical Integration

Supply chain integration has been a recurrently studied and discussed subject in the management field. Within all judgments that companies have to face to grow or because forced to adapt to new business environments, decisions about governance models are essential for an efficient supply chain (Guan and Rehme, 2012). Governance model evaluations involve considering every hybrid form of collaboration, joint venture, alliances, contracting, and degree of integration (Hobbs, 1996). These collaborative strategies permit companies to achieve strategic concentration, an approach by which a business focuses on a single market allowing the company to deploy more resources in production and market in a single area, an important factor for manufacturing firms in a supply chain (Guan and Rehme, 2012). Various researchers in the process of identifying the choices that companies have to confront to build a well-functioning supply chain, the role of integration has been marked as the most important to challenge.

Vertical integration is defined as a strategy used by companies to control its value chain by owning its suppliers, distributors or retail locations, or in other words can be defined as “ *the combination, under single ownership, of two or more stages of production or distribution (or both) that are usually separated*” (Buzzell, 1983). Instead of vertical disintegration defined as “*the emergence of new intermediate markets that divide a previously integrated production process between two sets of specialized firms in the same industry*” (Jacobides, 2005). Another way of defining vertical integration centered on large companies' practice (Stonebraker and Liao, 2006) of this strategy is that it involves “*a variety of decisions concerning whether corporations [...] should provide certain goods or service in-house or purchase them from outsiders instead*” (Harrigan, 1985).

Vertical integration can be accomplished through financial ownership or contracts (Guan and Rehme, 2012). If companies adopt the strategy of mergers and acquisitions to integrate and thus eliminates business boundaries than the integration is born by vertical financial ownership (Mahoney, 1992). Instead of contracting which integrate vertically with law instruments such as exclusive dealing, an arrangement by which a retailer is tied to the purchase from a single supplier in return of the exclusive distribution, or resale price maintenance, an agreement between a manufacturer and its distributor to agree about selling price that the distributor will set the manufacturer's products above a price floor (minimum resale price) or below a price ceiling (maximum resale price), or again exclusive territories, that consist in the right of a franchisee to operate in a certain geographic area while the franchisor is limited from establishing other units. A company with a vertically integrated supply chain assumes control over more than one stage of the production and/or distribution processes crucial for the creation and development of its products or services. It implicates purchasing back part of the activities that were formerly outsourced to have it done in-house.

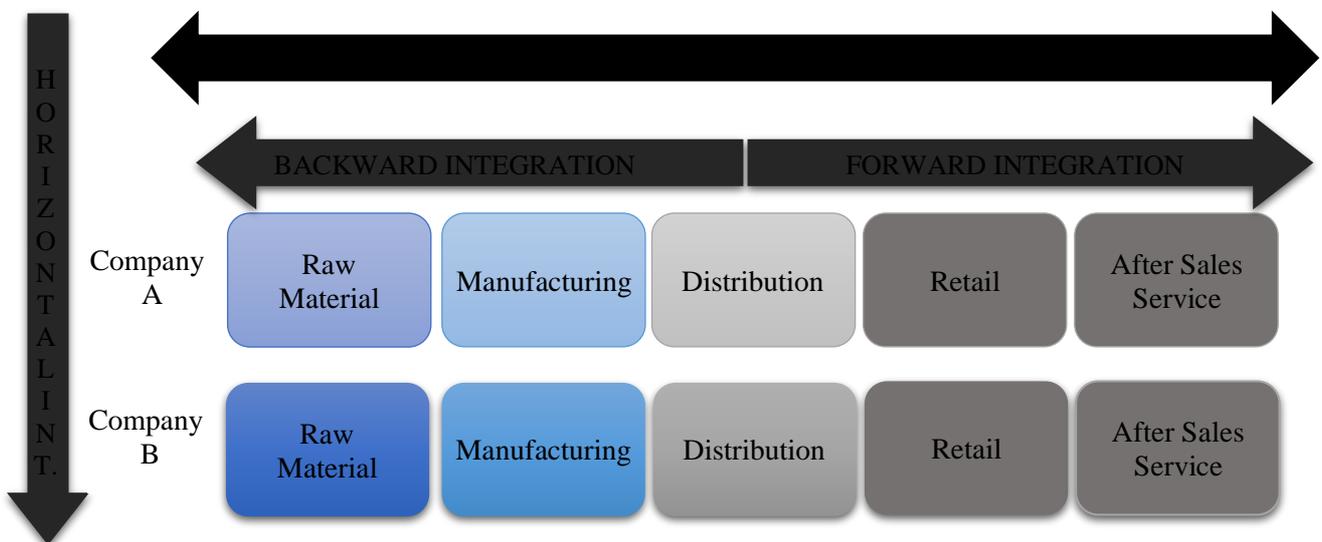
Netflix is an interesting example of vertical integration of the processes: starting as a simple rental company supplying movies and TV contents until the management recognized that the company could generate more revenues by shifting to an original and independent content creator. Nowadays, the distribution model of Netflix sponsors its original content together with movies from main studios. Another company successful in the vertical integration of its supply chain is the technology colossus Apple, which is an example of both backward and forward integration, concepts that will be elaborated after this paragraph. The company was able to integrate retail locations to sell its products, which are almost exclusively sold at company-owned stores or carefully selected retailers, allowing the business to be controlled in its distribution, sale to customers as well as the after-sale process. Looking at the backward vertical integration of Apple thanks to many investments in manufacturing

facilities around the world the company was able to achieve fundamental flexibility and freedom in its manufacturing capabilities for some components.

2.1.3 Types of Vertical Supply Chain Integration

As seen in the previous chapter there are two strategies that a company can use to extend its control on various segments of the supply chain. The two approaches of vertical integration involve backward and forward integration. Even if the concept of horizontal integration is explored in the next section, it is presented as well to picture a complete analysis and to illustrate all the types of strategies showed in Figure 8 below.

Figure 8. Different Strategies of Integration.



Source: Author elaboration.

Backward Integration

Backward integration occurs when a company expands its control on the manufacturing and raw materials segments of its supply chains, or in other words that a company acquires the manufacturer of its product. By owning a supplier in its supply chain, the company can integrate its operations and it permits to acquire control over the raw material manufacturers by assimilating them with their business. This vertical integration strategy is profitable to the focal company if the owned segment downstream of the supply chain can deliver an assured supply of inputs.

By integrating backward companies can benefit many advantages. Usually, the primary driver for this choice is cost-cutting because by integrating the business companies can avoid the markup costs

and transportation costs when goods are sold between two different legal firms. There is increased control resulting in more efficient use of its supply chain such as securing specific raw materials, having a larger control on the quality of them to be used in the production, and also it can decide which material to produce and how much. It allows companies to raise the competitive advantage and to create barriers to entry by acquiring the supplier and accessing and controlling technology, patents, or distinctive resources, keeping in this way the competition out of the market. The last important advantage of integrating backward is the ability to maintain differentiated products from its competitors, since now the production is internal the company can meet the customers' demand and customize products without the need to sourcing them from the market.

Besides the advantages that this strategy can bring to a company, there are some issues with backward integration. Integrating part of the supply chain will require a huge investment for the merging or the acquisition of the manufacturer. This financial burden may also be amplified if the company is not able to achieve the economies of scale with the supplier, resulting in higher costs. Moreover, these acquisitions will increase the size of companies bringing in new policies and bureaucracy with the possibility of slowing down the business mechanisms. If because of the integration less competition is present in the market, companies may become less efficient and less motivated, slowing down the innovation and the development process.

As seen before, Apple is one of the most famous examples of backward vertical integration (as well as forward integration). The company's software products are utilized for its own electronic devices and computers, assembled by Apple using components also manufactured by the company. Apple's almost complete backward vertically integrated system has been one of the major factors of its success because it has permitted the company to innovate its products and technology faster than its competitors.

Companies should take into account all the advantages and the issues that backward integration may bring, considering if the long-term benefits are enough to justify the initial investment and carefully check the capabilities and resources, such as equipment, processes, and workforce of the suppliers to be acquired are going to synergies with the ones of the acquiring company.

Forward Integration

The other strategy of vertical integration is expanding the control to the forward part of the supply chain, controlling the direct distributor of a company's products. For example, for a clothing manufacturing forward integration means opening its retail locations to sell its products. Companies

that adopt the forward integration, often referred to as "cutting out the middleman", can increase its market power, especially gaining control of the demand side by acquiring ownership over the companies that were once customers, thus over retailers and after-sale services firms. Alongside increasing its industry market share, economies of scale are another aspect that businesses are aiming for when implementing forward integration strategies. The growing possibilities that new web-based technologies and the industry 4.0 digitalization have brought and keep bringing made more accessible and more widespread approach forward integration as a business strategy. Nowadays a manufacturer can build up an online store and use digital marketing to sell its products, without the need of using physical retail and marketing companies to bring forward successfully its business.

The costs and scope associated with a forward integration must be carefully taken into account by companies because, besides all the advantages that may bring, this type of integration can dilute the current competencies of the company. After considering all the aspects, if a business is not able to implement a successful vertical integration it should rely on already established specialized retailers and vendors rather than expand on its own. Many benefits derive from an accurate forward integration, such as lowering costs because of the reduction of market and transportation costs, increased coordination between supply and demand within the supply chain, bigger market share, and creating entry barriers to potential competitors. On the opposite side, a poor forward integrate can bring many issues, leading to higher costs if the newly acquired activities are not managed correctly, lower quality of the product due to the lack of competition, and the possibility of monopoly rising. The most common issue that companies have to face when integrating forward is the rise of bureaucracy and the initial significant investment can lead to a consistent loss of flexibility, a factor that managers consider essential in supply chain management.

Amazon has one of the most interesting examples of forwarding integration strategy in the current years. Publishing its books as well as other independent writers and having its transportation and distribution (Amazon Transportation Center) allow the company a wide degree of integration, backward integration toward suppliers, and forward integration concerning consumers. Regarding the forward integration part, recently Amazon made a big bet on physical stores and the business of food with the acquisition of a new company, Whole Foods, that will continue to operate as a separate unit of the company. Creating outlets in which selling its product or have the customer pick them up is the first to become a top player in the grocery business and extending the vertical forward integration wider.

To summarize the two types of strategies, in Table 4 underneath are presented the four key differences between forward and backward integration.

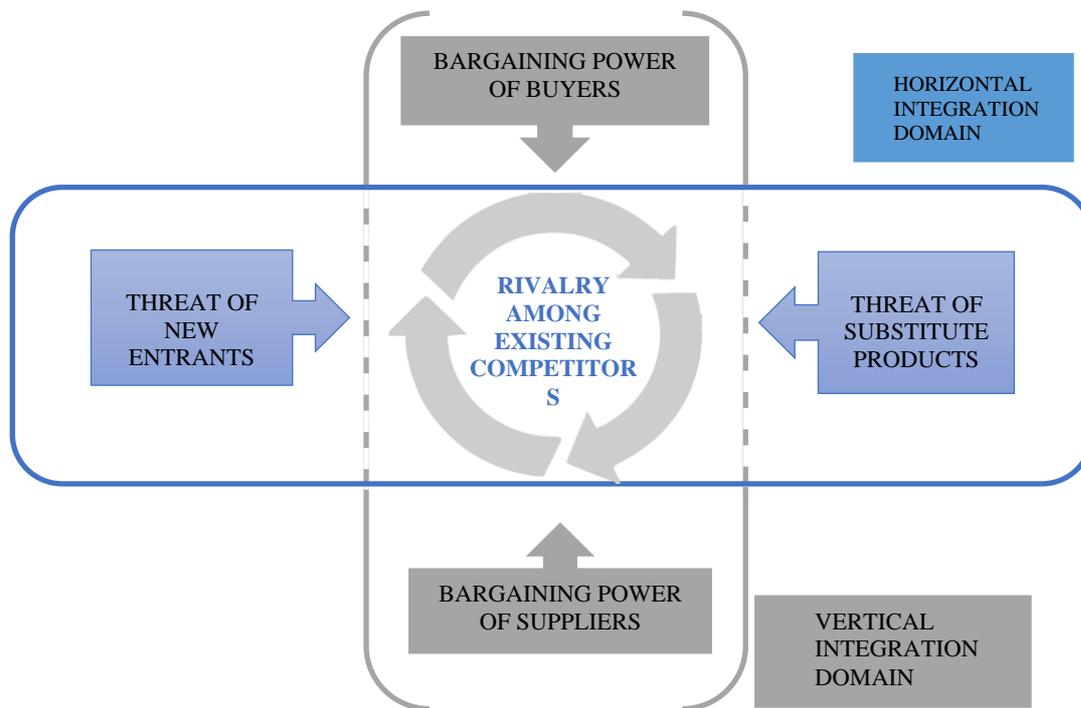
Table 4. Key Difference Between Backward and Forward Integration.

Backward Integration	Forward Integration
The company acquires or merges with its supplier or manufacturer	The company acquires or merges with a distributor.
The main objective is to achieve economies of scale	The main objective is to achieve a larger market share
The internal objective of reducing dependency on suppliers and service providers.	The external objective of expanding distribution and improving the placement of products in a specific market
Gives control over purchasing power (Supply)	Gives control over selling power (Demand)

Source: Author elaboration.

To conclude this analysis of the different strategies of supply chain integration it is interesting to see how integration applies to Porter's Five Forces Model (1979-80). As it will be explained later in the chapter regarding the horizontal integration, three of the five competitive forces that outline every industry acknowledged by Porter's model are the reason behind almost every horizontal merger: reduce the competitive power of substitutes, of new entrants and established rivals. The two remaining forces of the model, the power of suppliers and customers are related to vertical integration, the first to the backward, and the latter to the forward. The two dimensions are highlighted in Figure 9 on the next page to show which forces of Porter's model are influencing.

Figure 9. Porter's 5 Five Forces Model.



Source: Adaptation from Porter's five forces model.

2.1.4 Advantages and Disadvantages of Vertical Integration

To understand under which business environment and circumstances adopting the strategy of vertical integration is beneficial or counterproductive for a company, listing and analyzing advantages and disadvantages of such a strategy is an essential step to undergo with. Presenting the consequence of vertical integration can also help to recognize which category of industry and more specific which type of companies can benefit most.

When companies implement correctly and accurately vertical integration strategy, forward as well as backward, in general, they can benefit from different advantages:

- Reduction of transportation costs and of delivery turnaround (the time gap between when customers place the order and when the product/service gets delivered to customers) as well as better delivery performance.
- Building a supply assurance for essential materials that have to be continuously delivered for manufacturing processes and enhancing the coordination between different stages of production increase the overall efficiency and the responsiveness time of the supply chain.

Reduction of supply interruptions from suppliers that might be unable to respect deadlines and volume of orders because of financial hardship, occurring when a company is incapable of meeting their financial obligation.

- Being less dependent on external suppliers can bring savings reducing the costs of factors such as cost of searching, negotiation, drawing up contracts, monitoring, and enforcing costs which are requested when engaging with external suppliers.
- Increase of the market share by creating new market possibilities and the competitiveness in the already consolidated market, by being able to deliver products or services directly and faster than the competition, assuring at the same time a high product quality standard.
- Achieving the cost advantage of economies of scale, hence lower the per-unit cost, indicating the total expenditure sustained to produce, store, and sell one unit of certain product or service, by purchasing large quantities of raw materials or restructuring and organizing smoothly the manufacturing process.
- Improve both profitability and sales volume by building its company brand and trying to focus on the sale of own products or services through an internal channel to increase the customer's experience from the purchase to the after-sale phase, improving customer satisfaction and loyalty toward the brand.
- Thanks to integration technology and processes development can result in easier due to the shared knowledge across the supply chain. Adopting the technology of another member of the chain or working together is one fundamental benefit that brings many companies to vertically integrate. Correlated to this advantage, keeping the knowledge inside unique ownership helps the protection of proprietary products and process technology.
- Being able to control and to choose its production and distribution "policy", it can create credibility for new products or for the brand itself if the supply chain is respecting ethical and environmental principles and regulations. Consumers nowadays have more tools and are more interested to acquire information about the geographical origin and the environmental consequences of the production, changing its purchasing behavior towards a greener and cleaner supply chain.

On the other hand, implementing poorly or at the wrong timing a vertically integrated supply chain can burden on companies in the following ways:

- A direct consequence of integration is the increase in the procedural and organic size of companies that may bring to a mismanaging and slowing down the overall process: if a business is not prepared to mitigate the various aspects and forces (different cultures, style of

management and different employees policy) of integration and the heavier bureaucracy derived the organizational structure will be affected in terms of efficiency, responsiveness and most importantly flexibility.

- Correlated to the previous one, the increase in the size of a company if not followed by an accurate strategy can lead to higher coordination and agency costs, issues that every business has to face when merging more than one reality.
- Companies before undertaking in such a process must consider its potentials and resources as well the suppliers and vendors' ones, which might be more efficient and expert because of their specialization. In that case, companies should think about outsourcing rather than integrating.
- The investment needed to complete a vertical integration strategy such as acquiring a supplier is usually a very significant cost, and a business has to consider all the financial factors behind such types of investments. For example, dealing with increased amounts of the company's debt if borrowing is needed for capital expenditures.
- Integration can lead to the issue of pooling together non-distinctive resources and non-core operations of different members of the supply chain, with the risk of concentrating on the wrong ones.
- When the alignment of all the members' capabilities and resources brought by integration results in too few outputs it can become a restraint for the business. Focusing on a certain process or adopting the same business model for excessively long can create high market exit barriers difficult to overcome, which constraints the entire supply chain in the case of changing or adapting to a new business environment.
- A too high degree of vertical integration can lead to production cost disadvantages, such as higher fixed costs, which result in higher operating leverage and a higher break-even point.

The advantages of vertical integration can be perceived as disadvantages of vertical disintegration, hence outsourcing, and the opposite way (Kaiser and Obermaier, 2020).

2.2 - Measuring Vertical Integration

2.2.1 When to integrate

As seen in the previous paragraphs vertical integration can bring many benefits to a company, but at the same time is a very risky strategy, difficult to implement successfully due to its complexity, hard to reverse because of the structural changes and costly, both in the initial investment and in the

necessity of fixing it in the case it turns out to be the wrong strategy (Stuckey and White, 1993). For these reasons, the management of a company has to carefully decide if it is the right path to follow or not. This section tries to answer the questions of when to vertically integrate or not, and thus start looking for alternative hybrid approaches.

The following table 5 shows the most important types of costs, risks, and possible coordination issues that every company has to consider when vertically integrating. As every significant structural decision, some criteria are in contrast with each other: vertical integration usually eases risks and transaction costs while heavy investment costs and coordination issues are amplified (Stuckey and White, 1993).

Table 5. Factors to consider when integrating.

Setup Cost	Transaction Cost	Transaction Risks	Coordination Effectiveness
Capital for an acquisition or new equipment	Information collection and processing	Possibility of unexpected price changes	Inventory levels and bigger length to run
Systems development	Legal and regulations	Supply limitation	Capacity utilization
Employees training	Sales and purchasing	Isolation from technical changes or new products	Delivery performance
			Quality issues

Source: Adaptation from Stuckey and White, 1993.

There are mainly three reasons that push a company to implement a vertical integration strategy, some of them are more significant than others.

The first reason is when the market starts to become too risky and unpredictable. Also appointed as market failure, it is the most meaningful factor in decision making. A vertical market is said to "fail" when the transactions inside it are too risky and there is no contractual power to lower these risks without incurring high costs (Stuckey and White, 1993). The most common characteristics of a failed vertical market are the number of buyers and sellers, the most critical yet the most mutable feature, and appear when within the market there are only a restricted number (bilateral oligopoly) or even just one buyer and one seller (bilateral monopoly). Because in such markets the common supply and demand dynamisms do not establish transaction prices and volumes, rather are determined by the

equilibrium of power between buyers and seller, a balance that is volatile, insecure and specific for every situation. When the buyer has no options to change its supplier because of the limited selection and as a consequence the seller has the edge by imposing a higher price the market is failing, and the company is almost forced to integrate to reduce transaction costs. The second characteristic of a failed market explains how these groupings of buyers and sellers are formed, due to the high specificity of assets that bear a raise of the switching costs to the limit that the seller is accessible to a small segment of buyers, and vice versa, creating a monopolistic and oligopolistic situation. Specificity can occur when the assets are situated nearby to minimize the transport costs, when a buyer or a seller or both parties invest in assets that only fit their type of transaction and has less usefulness in alternative procedures, and when the asset is composed by human skills that are developed for a specific buyer or seller relationship (Stuckey and White, 1993). The last features are uncertainties and opportunism, secondary features but together with the other can create issues for companies. In case of high uncertainty when companies meet difficulties in drawing up contracts that can guide them, the business is better off vertically integrated with the specific part of the chain that interest that specific risky activities to progress more efficiently, with lower costs and mostly with minor risk. The concept of opportunism is simply that people have a possibility may trick and mislead in commercial agreements when they can achieve a long-term return.

The second reason to integrate vertically the supply chain is the possibility of creating new or exploiting the already existing market power by raising barriers to entry. If most of the competitors in an industry are vertically integrated, it can be difficult to insert for non-integrated companies because they have to enter all stages to compete, increasing the investment costs and the time to achieve the same level of efficiency of the already established competitors. Exploiting such a strategy to raise entry barriers vertical integration is quite expensive and realization is not always guaranteed, as potential players find a small spot to enter if the economic surplus is large enough (Stuckey and White, 1993).

The third and last reason is when companies have to respond to the industry life cycle. Two cases of answers are when the industry is young, in which companies integrate forwardly to develop a market, or when the industry is declining in which companies can incorporate the activities left by the weakest members that are getting out the market. The strategy of vertically integrating the supply chain in these cases is effective only when the core business retains exclusive technology or a strong brand that gives the product some real competitive advantage over competitors.

2.2.2 When not to integrate

Due to the costs, risks, and difficulty to reverse, the strategy of vertical integration shouldn't be utilized unless necessary, but often companies make the mistake of excessive integration. This happens mostly because or management's decisions to integrate are based on forced motives or the management is not able to consider the range of quasi-integration strategies that may result in greater benefits than the full integration.

The superficial and often forced reasons used to justify a vertical integration strategy are usually “diminishing cyclical or volatility in earnings” and “capturing more value by shifting into the high value-added stage or closer to customers” (Stuckey and White, 1993). The first common wrong belief to vertically integrate it is a forced variation of the evergreen concept of internal portfolio diversification that can reduce volatility and cyclical of earnings, thus creating value to shareholders. This reason is not suitable to justify a vertical integration because returns in nearby stages of an industry chain are almost often positively correlated and influenced by the same powers, thus building a portfolio with the combination of them has little or even no effect on the overall portfolio risk.

The second reason often used to start a vertical integration strategy is another management belief that firms should move closer to their customers, thus integrating forward, indicated as the stage of an industry chain in which a company should move to catch higher value. This correlation is not correct, because it is not value-added or closeness to customers that bring greater returns, but the economic surplus, which is the difference between the costs of running the business for a company and the returns in excess received by it. Getting closer to customers allows the company to hook the consumer surplus, and that is the reason why usually the economic surplus is easier to catch close to customers.

Managers before thinking about implementing a full vertical integration should consider some form of quasi-integration strategies, which allow greater flexibility and fewer capital costs for the initial investments. Strategies such as joint ventures and strategic alliances, asset ownership, technology licenses, and franchise can also protect from vertical market failure and forces of suppliers and customers (Stuckey and White, 1993). One of the most used forms of quasi-integration is joint ventures and strategic alliances, common processes because they consent companies to mutually exchange goods, information, or expertise while retaining their corporate identities and formal trade relationship on others. Another arrangement is asset ownership, in which the most important assets are retained by the host firm while all the other aspects of ownership and control are contracted out. The franchise is the most common practice of forwarding quasi-integration, where the host firm can

control distribution avoiding ownership and costs of the physical assets, but it still maintains property and brand rights. The firm providing the franchise can also control standards to apply like McDonald's does with its franchisees.

2.2.3 Measuring Vertical Integration: TCE and RBV

Transaction costs economics (TCE) formally developed in the early 1970s by Williamson (1971, 1975, 1991b), even if already in 1937 Ronald H. Coase understood the importance of the cost of transactions, tries to make an empirical prediction about "the make-or-buy decision" (Kaiser and Obermaier, 2020). It has developed and became one of the most famous and influential management theories, focusing also on many internal aspects of firms, like governance and organization design.

The central part of TCE is showing that using the market system is not free of charges, but companies can incur into costs for using it, known as transaction costs (Kaiser and Obermaier, 2020). Companies should decide the best option, the one that has a lower financial impact, after comparing the transaction costs of using the market system with the costs of internal solutions as implementing a vertical integration strategy. Generally, in economics, a transaction cost is "*a cost incurred in making an economic exchange*". Search and information costs, incurred while collecting information such as availability and low prices in the market, or bargaining costs, which companies have to bear in the process of conducting agreements between the parties of the transaction and drawing up the contract, or policing and enforcement costs, including all the procedures used to ensure that all the parties respect the terms of the contract, are all examples of transactions costs. In the precise situation of the implementation of a vertical integration strategy, these can be tracked down in costs of searching for the best supplier or partner, costs of building a solid contract, and costs of enforcing such a contract. The TCE suggests that in-house strategies and production, or in other words a more rigid and integrated hierarchy structure of a company, can be favored by these costs and issues related to market transactions (Kaiser and Obermaier, 2020). Naturally, intermediate solutions between full vertical integration and outsourcing practices, known as hybrid integration or relation mechanisms, are also considered.

Another method that can be used in the understanding of "the make-or-buy decisions" is the resource-based view of the firm (RBV), developed by Penrose (1959), Wernerfelt (1984) and Barney (1991) which generally states that "*vertical integration is mainly influenced by the competitive advantage a firm has in a particular stage of the value chain relative to the market*" (Jacobides and Hitt 2005, Jacobides and Winter 2005). These resources and capabilities to lead to a competitive advantage have to be distinctive, meaning valuable, rare, and difficult to imitate (Levinthal 1997, Jacobides and

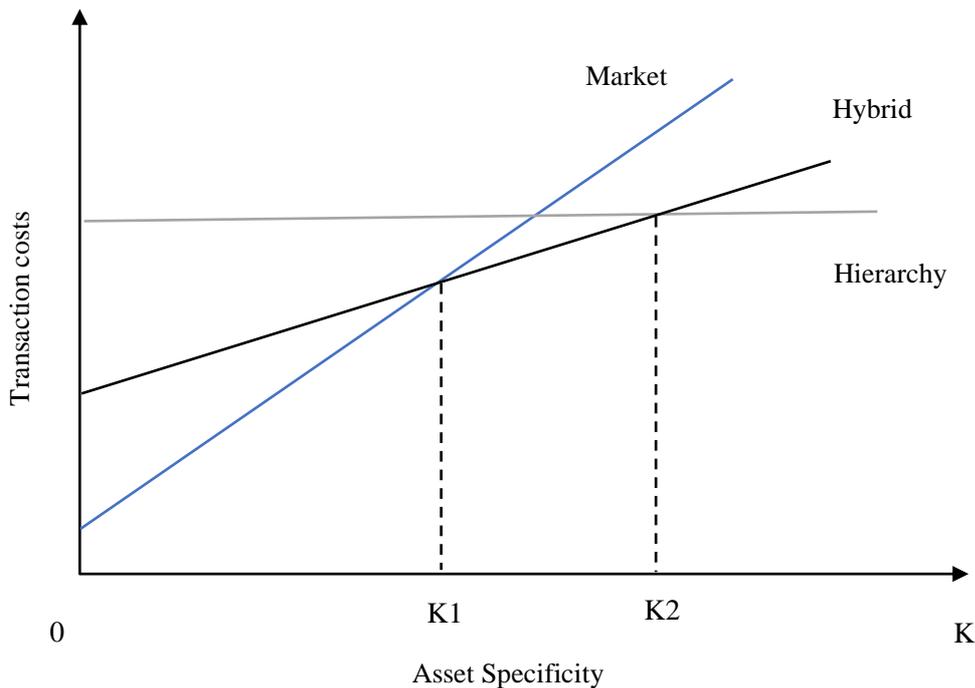
Winter 2005). The fundamental concept of RBV is that companies should focus on core activities, the ones that have more possibilities of achieving a competitive advantage and higher returns. TCE and RBV can be both used to create some guidelines in the decisions to integrate vertically or to not (McIvor, 2009).

As seen in the previous section, according to the degree of vertical integration companies may encounter benefits as well as drawbacks, highlighting again that the advantages of a vertical integration strategy can be seen as the disadvantages of outsourcing and vice versa (Kaiser and Obermaier, 2020). The impact of vertical integration on the financial performance of a supply chain is usually expressed with cost savings, which derive mainly by the reduction in the transaction costs associated with a lower dependency on external suppliers. The higher the degree of vertical integration the lower the cost of searching, negotiating, drawing up a contract, and monitoring with external suppliers, reducing, in other words, the components of transaction costs (Mahoney, 1992). Moreover, besides lowering transaction costs, vertically integrating the supply chain can achieve cost savings by improving the coordination or by eliminating steps (Buzzel 1983, Harrigan 1984). The critical point for a company is to understand when vertical integration is not beneficial anymore, meaning the possibility of identifying a certain point beyond that vertical integration could have a negative performance on the financial position of the company (Kaiser and Obermaier, 2020).

The answer to the question of deciding which activities should be integrated or outsourced, based on TCE is that transactions are indicated to be internalized if they are described with a high degree of asset specificity, frequency, and uncertainty (Picot and Franck, 1993). If these transactions are not characterized by such factors, the company should select the market or a hybrid solution. It is related to the first reason that may bring a market “to fail”, as explained in the previous paragraph.

The graph of Figure 10 on the next page represents the relationship between asset specificity and transaction costs.

Figure 10. Asset specificity, transaction costs, and structural form



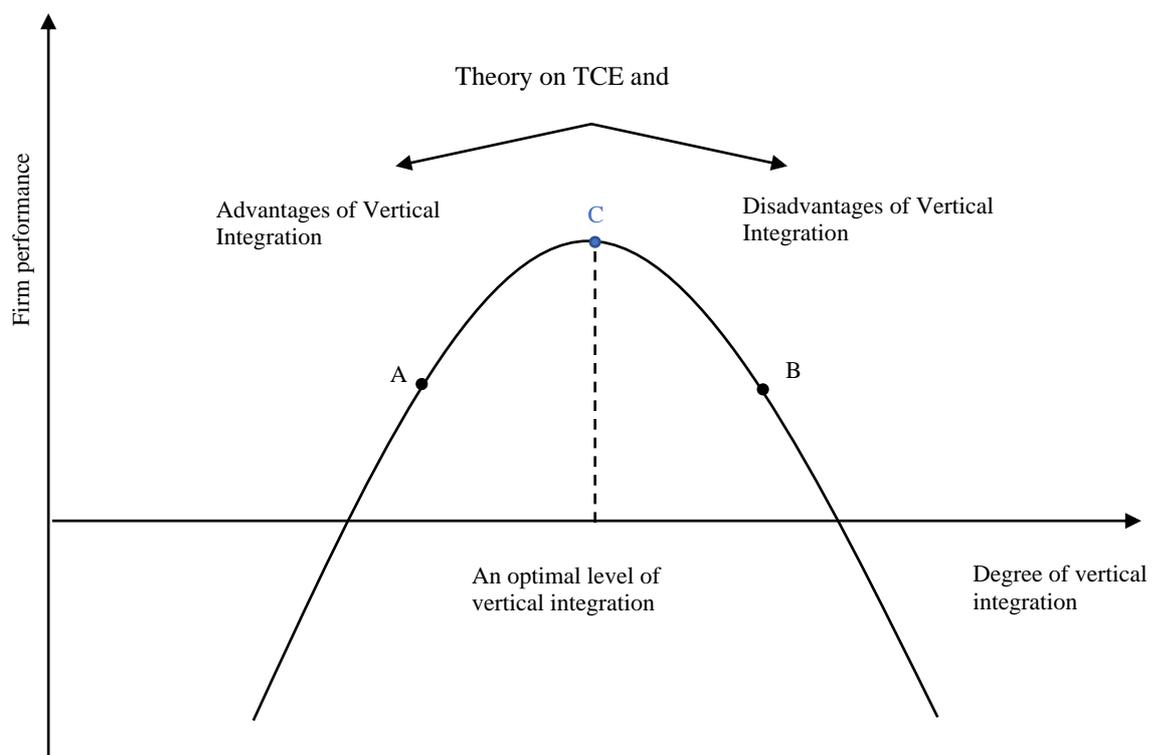
Source: Adaptation from Williamson, 1991.

Every activity of a company is characterized by a distinctive level of asset specificity. Integrating, or outsourcing, all the activities will not bring an optimal level of output, because the level of transaction costs would not be the lowest possible (Kaiser and Obermaier, 2020). When the activities are characterized by low asset specificity companies should be outsourced, while when they are characterized by high asset specificity should be integrated. The RBV approach goes in line with this concept because it states that a company should decide to outsource non-core activities, and should concentrate on core competencies, the ones that are aimed to achieve a competitive advantage and greater financial performance. The optimal degree of vertical integration for both theories it is assumed to be the result of a firm's specific decision. Meaning that to achieve the optimal amount of integration and becoming more profitable and efficient whether with a higher or lower degree, depends on the initial position of the company.

As shown in the graph of Figure 11, when a firm is situated in the left part, near the position A, the level of vertical integration is below the optimal point, indicating that the company is not vertically integrated enough, because it is operating in the market instead of utilizing a more profitable integration strategy. Moving from the initial position toward point C that represents the optimal level between integration and outsourcing, the benefits of a higher vertical integration would outbalance the disadvantages thus bringing an improvement in the general performance. As in the opposite

situation when the integration level of a company is too high, it would be positioned on the right part of the graph near the point B, meaning that the firm is running core and non-core activities as well or it has excessive use of integration rather than exploiting the market. When the company starts to concentrate more on core competencies and to adopt the outsourcing strategy its performance and efficiency of the supply chain will improve. Because the relationship between the degree of vertical integration and the financial performance of a company draws as an inverted u-shape, once the optimum is reached, point C, moving away from the optimal level would lower the performance, as shown in Figure 11 below (Kaiser and Obermaier, 2020).

Figure 11. Relationship Between the Degree of Vertical Integration and Firm Performance.



Source: Adaptation from Kaiser and Obermaier, 2020.

2.3 – Horizontal Integration of the Supply Chain

2.3.1 Definition of Horizontal Integration

Horizontal integration is defined as *"the process of acquiring or merging with competitors of the same level of the value chain, to lead to industry consolidation"* (Jurevicius, 2013), or again as *"the strategy where a company acquires, merges or takes over another company in the same industry"*

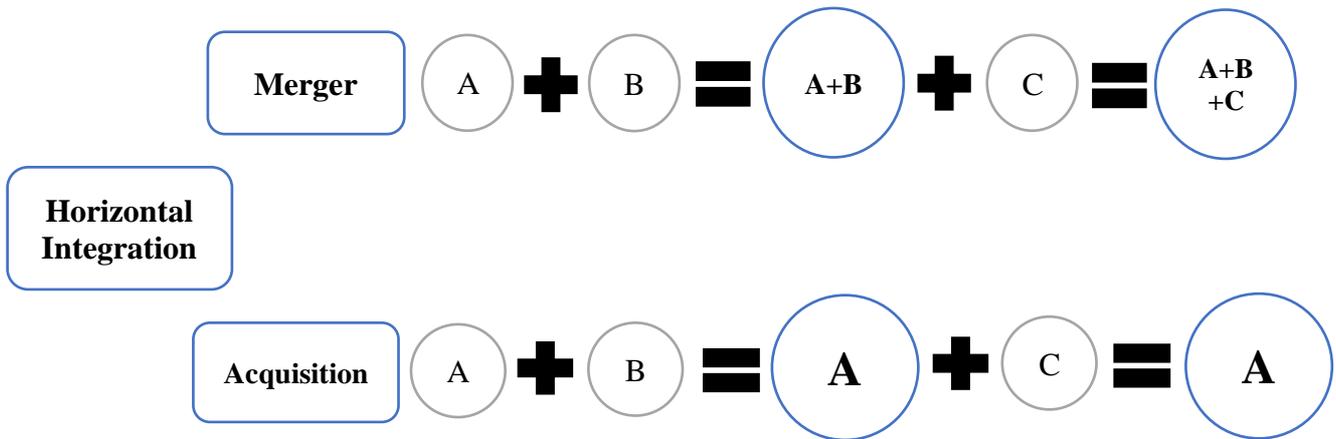
value chain” (Jurevicius, 2013). Companies deplete such an integration strategy to increase its industry position by merging or acquiring another business at the same level of production.

The domain of horizontal integration interest the external sphere, the relations between companies that perform related activities or distinct activity, and the internal sphere, which concerns the various strategic business units (SBU) inside the same entity and the company's capability of direct and manage them under one single goal (Kudelko et al., 2015). The deriving main characteristics of horizontal integration strategy are incorporating different business entities outside the company and by the same time consolidate and mix these business units and all the activities internally.

The goal of horizontal integration, as seen in Porter's 5 forces model is to reduce horizontal competition. It can also create economies of scale, increase market power over distributors and suppliers, extending the product range and differentiation, and support companies in consolidating their market power or in entering into new ones. If horizontal mergers succeed in many circumstances it is at the expense of consumers because they reduce competition in the market. In such cases, when the market share is concentrated among a few numbers of companies in the same industry, it can create an oligopoly. Or if the prevailing market share ends up in the hands of only one company, it is a monopoly. This is the reason why horizontal integrations are under the lens of antitrust laws.

Horizontal integration of the supply chain can be achieved through internal expansion, meaning when a company increases the range of products inside its internal portfolio, or through external expansion. This is accomplished by merging with another company, at the same stage of the value chain, increasing this way the degree of diversification with complementary but different products. Another way of achieving horizontal integration through external expansion is an acquisition, which is the purchasing of another company, generally buying the 51 percent or more of the shares and reaching a controlling interest. It is different from a merger because in an acquisition the acquired company is absorbed by the acquirer, while in a merger the firms are combined, and the output is one new entity. It can also occur a hostile takeover, which is still an acquisition but of another company that is not willing to be acquired. The difference between mergers and acquisitions is shown in Figure 12 on the next page.

Figure 12. Difference Between Merger and Acquisition.

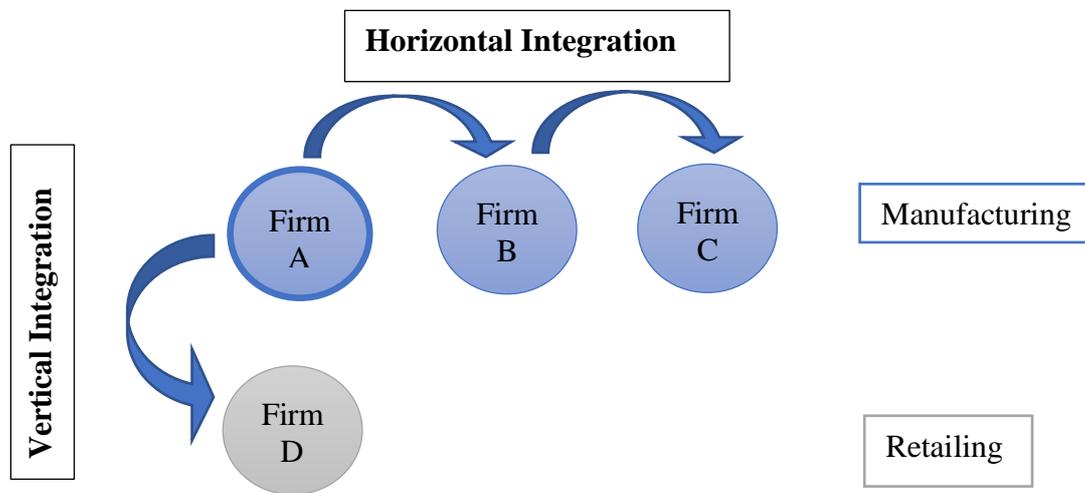


Source: Adaptation from Jurevicius, 2013.

Horizontal integration can be efficiently implemented when the company is contending in a growing industry, or when competitors are missing resources or capabilities that the company already holds, or the strategy may lead to a monopoly if allowed by a government. Each of these situations is subordinated by the primary conditions of knowing if the organization has sufficient resources to manage an M&A, in other words, if the resulting company can manage efficiently the operations and all the consequences of a larger organization.

Horizontal integration differs from the vertical one on the direction of expansion: in the vertical companies usually expand into a different production stage instead of merging or acquiring a company in the same level of production stage. Taking, for example, a manufacturing industry, when vertically integrating the expansion will be toward the retailing stage, while horizontal integration means keep expanding at the manufacturing level. The different direction between the two integrations is pictured in Figure 13 on the next page.

Figure 13. Examples of Horizontal and Vertical Integration.



Source: Adaptation from Jurevicius, 2013.

Two of the most famous and clear examples of horizontal integration were Facebook's acquisition of Instagram and Walt Disney's acquisition of Pixar Studios. In 2012, for a reported \$1 billion the creation of Zuckerberg acquired Instagram, both companies operated in the social media industry and share similar photo-sharing services. The Facebook intention was to strengthen its position, and with this acquisition was able to grow its market share, reduce the competition, and broadening the pool of audience. In 2018 the estimated value of Instagram according to Bloomberg was \$100 billion, creating a return from Facebook's horizontal integration of 100% in just six years. The second example of horizontal integration was the acquisition by Walt Disney Company in 2006 of the Pixar Animation Studios for \$7.4 billion. The initial competitive edge of Disney as animation studio targeting families and children was facing market saturation, while Pixar, even if it was operating in the same sector of animation studios, with its digitally animated movies using the latest technology was growing. To modernize itself and reach a much bigger number of customers, the Californian colossus acquired Pixar.

2.3.2 Similarities and Differences between the two integration strategies

When talking about features in common between vertically and horizontally supply chains, both strategies are aimed at optimizing the value chain processes and the overall performance, with the expected result of achieving competitive advantage through economies of scale and scope. Integrating

vertically and horizontally is a complex and capital-intensive strategy to implement, and companies for both have to carefully consider numerous factors before undertaking them.

Even if the same company can pursue vertical integration as well as the horizontal there is some difference in the implementation. In a vertically integrated supply chain, the company enters new industries to support and implement its core business without changing it, while when executing a horizontal integration, the company keeps competing in a single industry, but it expands its core business with mergers, acquisitions or collaborations. The result of this difference is that a vertical integration strategy is a more closed and in a certain aspect a more proprietary model compared to the horizontal integration that if which by definition is open because of the need for cooperation and involvement with the partners. The main differences in the implementation of the two strategies of integration are stated in Table 6 below.

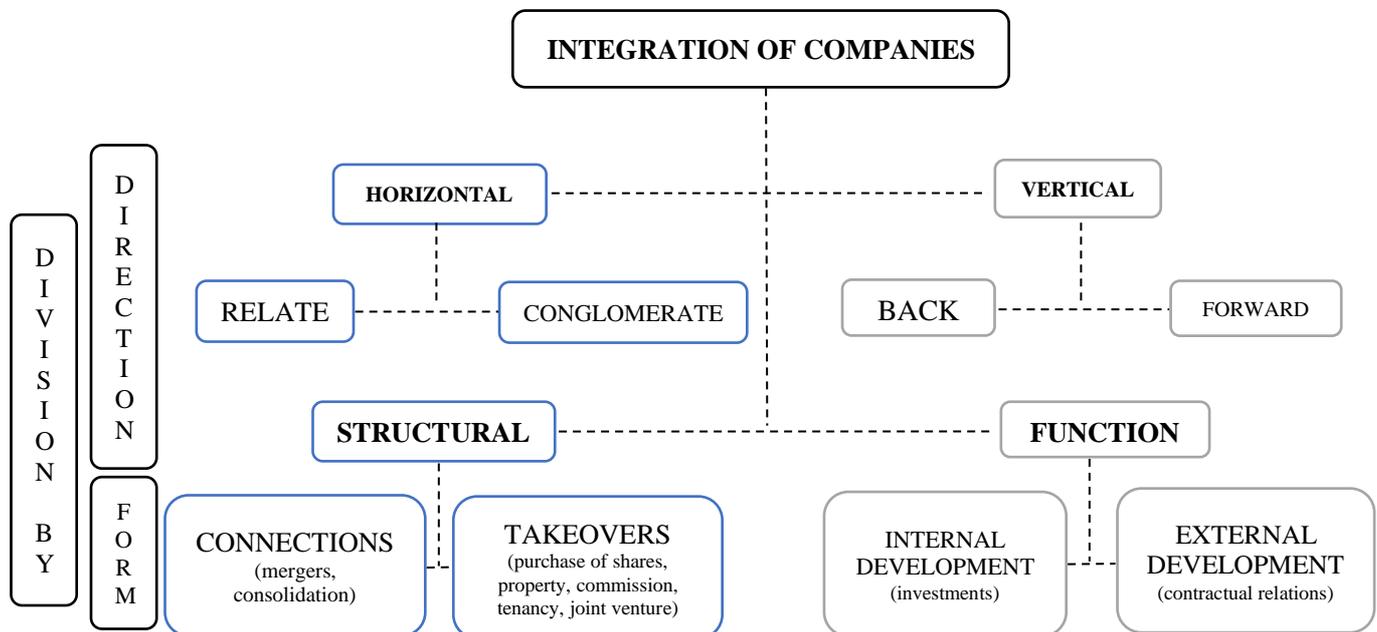
Table 6. The Differences in the Operational Implications between the two Strategies.

Vertical Integration	Horizontal Integration
More control, because of the ownership of the value-adding stages.	Less control, because of the dependence on other partners.
The company which is vertically integrated acquires the higher benefits.	Everyone in the value chain will benefit from the succeeding strategy.
It is more efficient over flexibility	It is more flexibility over efficiency
Higher capital required from the creation to the distribution of the final product.	It is required lower capital because of the shared ownership.

Source: Adaptation from Hill and Jones, 2012.

The proprietary nature of vertical integration's investments creates more closed and reserved interactions with partners as the organization will always try to protect its intellectual property and distinctive resources. Because the integration of business models is one of the key aspects to succeed when applying a horizontal integration strategy, the approach adopted will be more open and trusting with partners. An example of a more open approach is the one adopted by Microsoft and Google, in which the companies collaborate through open-source platforms. On the other hand, for example of a closed vertically integrated supply chain, Apple in its approaches and interactions strongly guards its intellectual properties and resources without sharing them. Figure 14 on the next page shows the choices that a company has to face when decides to integrate its supply chain.

Figure 14. Integration Options for a Company.



Source: Adaptation from Kudelko et al., 2015.

2.3.3 Advantages and Disadvantages of Horizontal Integration

Horizontal integration is a powerful strategy that companies can use to achieve many benefits, deriving from the acquisition or the merger with another business entity:

- Because what does result from a horizontal integration is a larger company, the productivity of services and products will be higher resulting in an increased number of outputs, greater economies of scale, and higher efficiency. From the perspective of consumers or investors, the increase in the size of the resulting company can create trust and confidence, adding value to the final product or service.
- It can increase the market power, due to the more control potential that a larger company has over its suppliers, distributors, and customers.
- It can also support access to new markets and new distribution channels, by integrating companies that manufacture similar goods but manage their businesses in different regions or are aimed at different market segments. For example, if the merger happens with an organization abroad, it allows the company to enter an unutilized foreign market.

- Horizontal integration is utilized to exploit all the benefits from synergies, such as economies of scale or cost synergies (are the savings in operating costs estimated after a merger) in numerous parts of the business as marketing, production, distribution and research and development.
- Companies may also benefit from economies of scope, making the manufacturing of different products more cost-effective than producing them separately.
- Product differentiation is another plus brought by horizontal integration. By diversifying the product offering it can lead to new cross-selling opportunities and raise the profitability of each business. Moreover, another benefit from product diversification is risk reduction, in practice when a business has lower profitability, on the other hand, another business may rise.
- The main reason for most of the horizontal integration is the companies' willingness to reduce, indeed, horizontal competition, coming from substitutes, potential new entrants, and already established rivals. As seen in the section of the different types of vertical integration, these are three of five competitive forces described in Porter's Model (Figure 9). While the other two forces, the power of suppliers and customers, are the domain of the vertical integration strategy.

Like any merger, the strategy of horizontal integration is not always developed right and can result in more disadvantages than benefits, such as:

- When expected synergies don't occur in the implementation of an M&A it can destroy or reduce the overall value created by the companies involved in the strategy.
- It can lead to legal repercussions when horizontal integration creates a monopoly, which brings a lack of competition and it is highly discouraged by many governments and the law. For this reason, before any large M&A starts governments have to approve them.
- Undoubtedly, after any merger or acquisition the size of the resulting company will be larger, with all the disadvantages that an organic and structural increase can bring if the companies are not prepared for such strategies, like a loss of flexibility, difficulties in introducing innovations to the market, and to make coexist different leadership style and different company cultures.
- The decisions and the analysis made before an important strategy as a merger or an acquisition has a deep influence on the long-term business strategy of a company and may create substantial costs and time-wasting even before the effective deployment.

2.4 – Directions, Targets, Intensity and Profitability of Horizontal Integration

2.4.1 Directions and Targets of Horizontal Integration

As seen in the previous section, the strategy of horizontal integration involves incorporating business entities conducting related or non-related activities, without counting in the entities situated in the same value chain of the focal company, so the purchaser and the suppliers. Focusing on the characteristics of such a strategy, four main dimensions can be analyzed (Kudelko et al., 2015):

1. Directions of the horizontal integration.
2. Targets of the integration
3. Intensity and forms of integration.
4. The profitability of the integration.

Starting with the direction, it is possible to distinguish between related horizontal integration and conglomerate horizontal integration. The former occurs in the case of a business expanding its activities in sectors where the companies can reutilize resources and skills, including aspects related to the product, market, and technology. The integration can be defined as related if the new product or service has at least one of these features: it is sold in a similar market previously operated by the company or with comparable distribution systems, it is manufactured with similar technologies, or shared research and development have been used for the new product. Belonging to the same sector or industry is not a sufficient condition to define such horizontal integration as related. The advantages deriving from a related integration are (Butra et al., 2010):

- A great synergy developed from more efficient use of resources.
- A more complete commercial offer because of the complementary effect of different offers.
- The pool of new competences deriving from related business units can increase their mutual efficiency.
- A renewal effect that can bring new motivations and incentives to the activities of a company.

On the other hand, the disadvantages of related integration are the growth reduction, and at the extreme, an oversaturation of the market sector in which the company had formerly been active can result in a fall of all the related business entities (Kudelko et al., 2015).

The second direction that a horizontal integration strategy can take is conglomerate integration, which involves the expansion of a business to sectors that are not directly associated with the same

technologies, markets, and products. The advantages of such strategy are growth potential of a company operating in different markets and the resulting risk smoothing because of the product diversification, while the disadvantages derive from the possibility of losing the identity and the specialization of a company, due to the need of expanding in new sectors and developing new competencies to overcome entry barriers.

A company that attempts to improve profitability most commonly practices related integration, while if it striving to growth it should start diversifying conglomerates because the probability of experiencing losses is higher in the latter one.

2.4.2 Different Targets of Horizontal Integration

The second dimension that characterizes horizontal integration is the different targets of integration, which can be divide through their hierarchy and type. Targets, because of their importance and presence in every company, have been classified in a base of their hierarchy, as it is shown in the figure below (Kudelko et al., 2015):

1. The main target, which is determined by a growth of value and income of the company.
2. Strategic target, that interest the entire company.
3. Tactical target, which concerns strategic business units of the company.
4. Operational targets, which are related to the functions of the company (production, marketing, logistics...) and are implemented by functional units.

The second characteristic that can be used to classify targets is their four directions: resource, market, efficiency, and competence (Butra et al., 2010). Depending on what the company wants to achieve when integrating another business, it can be categorized in one of four above directions. When the integration is aimed to acquire and possessing distinctive and thus valuable resources it can be defined as resource direction (Kudelko et al., 2015). This direction includes all the factors that determine the value of these resources for the specific company, such as location, infrastructure, technical, economic and social level of the site in which the assets are present.

The market direction instead relates to integrating business entities in segments of the market that would otherwise not possible to reach. Considering the market direction in the horizontal integration strategy, it is related to incorporate competitors, while buyers and suppliers are located in the vertical dimension.

The third direction used to classify the type of target of horizontal integration is called efficiency direction and concerns the integration with companies that usually have a weak financial condition. The consequences of such integrations are present in the material reserve and management domain, also in terms of tax savings. Magnified are such effects when integrating into foreign markets, where factors as diverse exchange rates and tax difference (Buckley, 2002).

The fourth and last direction that a horizontal integration can take is the competence direction, that means integrating with other companies to acquire new abilities (Tubielewicz, 2004). These newly acquired skills can be classified in three precise levels, a distinctive level, where competencies are difficult to imitate and thus they bring a competitive advantage and higher level of profitability, a key level, in which competencies are not hard to acquire but essential for the sector, and routine level where competences are common for all companies and are connected with all the activities that have to perform. To measure the effective value of such competencies they have to be compared with the ones of competitors. Usually, resources and skills create key or distinctive resources when their implementation (Stonehouse et al., 2011):

- Bring a concrete competitive advantage for a company such as increasing the product value perceived by the consumer.
- Add greater value than when they are implemented by competitors.
- It is complex and long-lasting, preventing competitors from imitating.
- It is unique, thus not available to competitors, and is not substitutive, hence it cannot be replaced by other resources or skills.
- It is adjustable and adaptable, meaning there are easy to manage and can be used efficiently in other markets.

2.4.3 Intensity, Forms, and Profitability of Horizontal Integration

Continuing with the analysis of the four dimensions of the horizontal integration strategy, the last two factors remaining to be analyzed are:

3. Intensity and forms of integration.
4. The profitability of the integration

The intensity and forms of integration of different business activities can be broadly distinguished in two major cases: capital integration and contractual integration (Johnson, 2000). Capital integration

is the case in which a company carries out an integration mainly in the form of mergers, acquisitions or takeovers, and joint ventures. A merger can be conducted in two ways, when the company takes over the ownership of another business and the owners of the resulting company receive the proper number of shares or stocks creating a legal personality it is called an incorporative merger, while it is called a consolidative one when the merging parties create a new company together with a new name, and always the owners of the resultant company will receive the appropriate shares or stocks (Kudelko et al., 2015). A Takeover is a transaction in which the acquiring company, usually the bigger one, purchase the shares of the targeted company, to completely integrate it into its structure. The difference with a merger is that the takeover, once it is finalized, forms a single entity under the name of the bigger acquiring company. They can have a friendly or hostile nature, depending on if the targeted company agrees to the acquisition. The last form that capital integration can take is as joint-venture, defined as the sharing of assets by two or more companies to build a new enterprise, serving a specific sector as technological or marketing, with a new name, but the companies that constitute that joint venture keeps operating under their names.

The other case characterizing the forms and intensity of a horizontal integration strategy is contractual integration, which occurs in the shape of strategic alliances, venture capital, and license agreements. Strategic alliances are agreements between companies used to reach a defined common goal that creates mutual benefits, in which the entities participating preserve the organizational separation. The reasons behind a strategic alliance are numerous, from the increasing of financial resources, the acquisition of raw materials, the raise the share in a market or the enter into other sectors, to obtaining new technologies and new competences. Alliances can be formed between competitors and between companies that are not competitors (Butra et al., 2010). The former can be divided further into functional alliances, in which the scope of integrating competitors is to mix and develop a specific function, like R&D, marketing and so, while both partners keep producing its product, or it can be classified as an additive alliance, which consists in integrating competitors to produce a single merged product, sharing responsibilities and tasks following their resources and competencies. While alliances between companies that are not competitors, also referred to as complementary alliances, are cross-sector agreements in which partners produce different products.

When dealing with a network of alliances, denoted as special-purpose clusters, to measure the economic results of an integration standard measures are used, such as net present value (NPV), payback periods, and value-added. It has to be taken into account that the economic effect resulting from integration is based on projecting the state of the company after the merger but also the states

of the entities before such integration. It can be expected that the value of the consequential integrated company is the sum of the merging business entities, therefore the resultant economic effect of integration can be portrayed by the formula (Jajuga & Jajuga, 1998):

$$W_{int} = W_1 + W_2$$

Where:

- W_{int} – is the value of the company resulting from the integration.
- W_1 – is the value of the company which is performing the integration.
- W_2 – is the value of the company that is subject to the integration.

The risk of the integration measured by the standard deviation of these values can be described using a similar formula to the one measuring the risk of a portfolio containing two assets:

$$\sigma_{int} = \sqrt{W_1^2 \sigma_1^2 + W_2^2 \sigma_2^2 + 2W_1W_2 \cdot \sigma_1\sigma_2 \cdot wk_{12}}$$

Where:

- σ_1, σ_2 - are the standard deviations of the values of the companies.
- wk_{12} – it is the coefficient of correlation between the values of the companies.

Moreover, one of the main reasons for companies to integrate is to benefit from all the types of synergies that can be obtained. To evaluate such effects, the following formula can be used (Lewandowski, 1998):

$$NAV = [V_{AB} - (V_A + V_B)] - (P + E)$$

Where:

- NAV – it is the net value of the takeover.
- V_A – it is the value of company A.
- V_B – it is the value of company B.
- V_{AB} – it is the value of the integrated company.
- P – it is the bonus paid for company B.
- E – it is the transaction costs of integration.

If the net value of the takeover is greater than zero ($NAV > 0$) it indicates that the overall process of consolidation can generate a positive value, thus a profitable effect deriving from the synergy created between companies.

CHAPTER 3: THE CASE: “MORELLATO & SECTOR LTD”

Morellato Group is one of the most important players in the jewelry and watches sector in Europe and worldwide leader in the watch's straps. The company has a unique organization as being one of the few in the sector to present an almost fully integrated supply chain from the production to the distribution, directly to the final consumer through a dense network of retail, both online and offline, with more than 200 stores in Italy and 140 stores in France. The last years' ambition of the Group is to consolidate the international presence of its brands in 70 countries, with more than 2.000 employees, but always preserving and representing the famous tradition of Italian jewelry in the world. With a turnover in 2019 around 270 million euros, the business model of the company is characterized by a large number of brands in its portfolio, allowing the company to control the market and reaching all the types of customer, through own brands such as Morellato, Sector No Limits, Philip Watch, Lucien Rochat, La Petite Story, Oui&Me, Bluspirit, and Cleor, but also brands in the worldwide license as Maserati and Trussardi, as well as in distribution as Scuderia Ferrari, Cluse and Paul Hewitt.

In this final chapter of the work, the history of the group is traced, from its birth in Bologna as a manufacturer of leather straps to the phase of the “Gioielli da Vivere”, and the latest important acquisitions in the European market. An analysis of the company is then proposed, with the various operational units in Europe and Asia, where the Morellato & Sector office based in Hong Kong deals with the mass production that is completely located in China. After presenting a simple business model of the Paduan company representing the main three points that characterize the Group, a financial analysis showing the rapid growth of the business after the numerous acquisitions and SWOT analysis, the supply chain of the Group is presented step-by-step. Starting from the idea creation in Milan to the delivery to Italy from China to distribute goods in all the retail points, the whole supply chain is analyzed to understand the key points that are giving the company a competitive advantage over its competitors.

The chapter ends with the impact that this supply chain configuration has on Morellato's business, with the advantages and disadvantages that vertical and horizontal integration can bring. The result is showing the ability of the company of exploiting different synergies between the two directions of integration, while at the same time avoiding some possible problems that can arise when implementing this strategy. The conclusion of the chapter and the work is a brief and general

reflection about a possible issue that may come in the future for Morellato but for most of the companies as well, that is the dependence on China for production, that has been highlighted by the global spread of COVID-19, with an attempt to find another similar country to locate the manufacturing in the South East Asia area or ways to mitigate the problem through supply chain risk management's approaches.

Figure 15. Morellato Logo and Headquarters in Santa Giustina in Colle (Padua, IT).



Source: www.morellatogroup.com

3.1 – Methodology: the use of the Case Study

The method of conducting research is dependent on the nature of the researched field, as well as the reason behind such research. Case studies, according to Anderson (1993) are used because they allow the investigation of a particular reality, highlighting the possible differences between the theory behind and what occurred in reality. In other words, the practice of case studies is intended to focus on a precise strategy, issues, or aspect, of an organization, and not, usually, for the study of a whole phenomenon. Even if as a research methodology has been criticized because of its lack scientific rigor and reliability (Johnson, 1994), some strengths support the use of case studies, such as the holistic views that give of a precise concept (Gummenson, 1991) and the use of many sources of evidence to build up an appropriate work.

According to Yin (2003) when designing a case study, it should be considered when:

- the central part of the study is to respond "how" and "why" questions,
- there is no possibility of manipulating the behavior of the part interested in the study;
- contextual conditions are relevant to the topic under study,
- or, the context and the actual phenomenon boundaries are not clear.

The following consideration is about deciding the type of case study that will be conducted, depending clearly by the purpose of the work. Regarding this topic, Yin (2003) categorized case studies in the category, explanatory, exploratory, and descriptive, and also differentiated between single and multiple case studies, while Stake (1995) between intrinsic, instrumental, and collective.

Definitions of the types of case studies are shown in Table 7.

Table 7. Definitions of the Types of Case Studies.

Category	Definition
Explanatory	Used when trying to explain a causal relationship in the real-life processes that are extremely complex (Yin, 2003).
Exploratory	Used when the phenomenon studied has not a single set of outcomes (Yin, 2003).
Descriptive	Used to describe a phenomenon in its real-life context (Yin, 2003).
Intrinsic	Used when the researcher is interested in the case: the purpose is not to build theory or models, but the case itself is interesting because of its particularity (Stake, 1995).
Instrumental	Used to build a theory, in which the case has a secondary function of supporting and facilitating the understanding (Stake, 1995)
Collective	Are similar in concepts and used to describe multiple case studies (Yin, 2003).
Multiple	Used when the research is intended to explore differences and similarities across cases (Yin, 2003).

Source: Adaptation from Baxter and Jack, 2008.

The use of multiple sources of information, as seen before, is one of the advantages of adopting case studies, improving this way the credibility of the final work (Patton, 1990; Yin, 2003) with the usage of documentation, interviews, records, direct observation, and academical papers. The data from the multiple sources of information are then converged in a single work, and analyzed as a whole, rather than individually, reaching in this way a holistic view of the phenomenon taken into consideration. The analysis has to be conducted to make sure that the data are converged to understand the whole

case or the factors behind, following in this way the purpose of the case study, and not analyzing each data source independently and the conclusions reported disjointedly (Baxter and Jack, 2008). Even the final reporting phase has to be carefully studied, exposing the findings concisely and clearly, a complex task considering the passage of converting a complex concept or phenomenon into an understandable format. One of the most important aspects is that the researcher has to portray the context in which the phenomenon or the concept is occurring, in addition to the phenomenon itself, without being confused by the enormous amount of data that can be redundant to the final purpose of the research (Baxter and Jack, 2008).

The case study of Morellato has been used to illustrate many applications in the real-world territory of the medium-large enterprises of northern Italy of different strategies, such as the blue ocean strategy in the "Gioielli da Vivere" phase of the company, the massive use of testimonial and media advertising, and the process of internationalization in China, India and Middle East. Also, the last step of the supply chain, the final distribution, has been studied to understand how the company was able to create during the year a consistent and adaptive competitive advantage. However, the entire supply chain, with the respective strategies of integration adopted, has not been fully explored, the topic that the business case of this work tries to accomplish.

The architecture of the company's supply chain allows a strategic mix and coexistence between the two directions of integration, moreover, it allows Morellato to accomplish different synergies that are supporting the firm to establish itself as one of the main players in the watchmaking and jewelry industry. The choice of choosing this company as a business case to demonstrate the possibilities given by the integration approaches of the supply chain is given by the peculiarity process of trying to replicate its business model in every expansion, remaining in this way faithful to the core value, being an Italian manufacturer of watches and jewelry. Additionally, I had the opportunity of working in the Hong Kong office of the company, Morellato & Sector, I was able to collect information about the strategic choices that the firm faced during the years to improve its supply chain and consequently the integration process.

For these reasons, the Paduan company is one of the closest and exhaustive examples to illustrate such approaches.

3.2 The Story of the Paduan Company

3.2.1 The Beginning of the Leather Straps

Giulio Morellato founded the company in 1930 in Bologna, beginning with the production of leather straps for watches. The idea behind this business was the opportunity of exploiting the high growth market of wristwatches, which was overtaking in those years the market of pocket watches (Zinola and Cappellari, 2013). After the War, the company relocated near Padua, and there the shares were distributed several times among shareholders until they pass under the total ownership of the Carraro brothers. In the first half of the 70s, the company was already established in the leather strap sector and become one of the world leaders, working as a supplier for some of the most prestigious watch manufacturers.

However, in the same period, it was becoming evident a new trend that could threaten the niche position occupied by Morellato: the growing share of the demand for straps was moving toward steel products (Cappellari et al., 2007). Concerned of being cut out by this part of the market, the company decided to also enter this sector, a strategic choice of homogeneous diversification (Rispoli, 1998), even if the two businesses are less interconnected than it might seem. Besides the aspects that they share, such as the distribution channels, the already established reputation of Morellato, and the same final customer, meaning that the knowledge acquired on purchasing behavior and the customer relationship management can be shared (Barney, 2002), there are significant differences between the two segments: while in the case of leather the main outlet is the spare parts business with the brand of Morellato, in the steel sector the central outlet is the first purchase and spare part plays a marginal role (Zinola and Cappellari, 2013). Moreover, the production process of the two different types of straps are completely dissimilar and are manufactured in distinctive factories.

Another diversification has been undertaken in the mid-eighties, with the creation of ARCA Astucci, a company destined to operate in the sector of jewelry boxes, in support of the display of bracelets, necklaces, and rings, and the materials for shop windows with personalized shopping bags, labels and more (Cappellari et al., 2007). The company rapidly achieved a major position among players in the Italian market. Also, in this case, the main foundation behind the diversification is the possibility of exploiting the synergies deriving from the same distribution channels and the know-how relating to customer management (Zinola and Cappellari, 2013).

The diversifications made by Morellato allowed the company to limit the effects of a contraction in the leather strap demand caused by the already stated movement of the market towards steel, but also

especially because of the spread of the phenomenon of the watch in plastic, triggered in the eighties by Swatch. As is known, the role of Swatch has been fundamental in redefining the entire competitive logic of the sector. The key success factor of the Swiss company was the definitive detach from the concept of the expensive "watch for life" (Carcano and Ceppi, 2006), instead, the watch was transformed into a fashion accessory purchasable in different seasonal collections. It has to be said that also Morellato had not missed this evolution in the role of the watch and the opportunities that the new market could offer: the straps of the Paduan company were indeed referred as "fashion straps" and were proposed as a complement of the look rather than as mere support to the watch (Cappellari et al., 2007).

In the nineties, another market trend had deeply influenced the company's future choices regarding which business will be exploited: the progressive concentration and convergence of watch manufacturers, with the expansion of the luxury clusters in watchmaking (Carcano and Ceppi, 2006). A sector that was previously fragmented and built by several small players, over the decade was transformed into a concentrated sector dominated by a few large groups (Zinola and Cappellari, 2013). Morellato became one of the exclusive suppliers of steel straps for one of these groups, the French LVMH. This mutual dependence was potentially risky for Morellato, and for this reason, the Paduan company accepted the LVMH's proposal to purchase the entire steel straps business unit. The company underwent a downsizing from turnover, but at the same time, the sale allowed to rebalance the financial situation, creating this way the conditions to be able to exploit any new opportunities.

3.2.2 Toward the "easy to wear" Phase of Morellato.

At the beginning of the 2000s, Morellato had indeed a leadership position in the markets in which it operates, straps and jewelry cases, but the evolution of the watches market and the ongoing convergence process was not creating sufficient opportunities for growth and profitability in the position of the company (Cappellari et al., 2007). It was, therefore, necessary to reconsider the definition of the core business of the company and to try to expand into different markets (Zook, 2007).

The most logical direction to explore, since the relationship developed with the distribution channels of the jewelers and the reputation built by Morellato was one of the most important assets of the company, was to diversify towards the industry of jewelry. However, the analysis of the sector of that period could consider the end of the nineties as near the maturity phases, with the internal market saturated and with little demand, suggesting to make some considerations before moving into that

sector. As seen in the famous contribution made by Kim and Mauborgne (2005) regarding the "Blue Ocean strategy", engaging in a move in an already saturated and highly competitive sector, in a so-called "Red Ocean", would not be profitable and smart, because sharing the competitive rules of other players will have the only result of struggling in the market. The companies able to make a strategic move based on a "value innovation", that is a "*set of managerial actions and decisions linked to the offer of new products or services so good as to create a new market in which competition does not exist yet*" (Kim and Mauborgne, 2005), can be profitable and create in this way value. The value innovation brought by Morellato to create a "Blue Ocean" was the invention of the "easy to wear jewel", or in other words, the fashion jewel.

The vision of Morellato about the product was radically transformed, from a precious object to an emotional part of the customer itself, full of symbolic values rather than a matter of expensive raw materials (Zinola and Cappellari, 2013). The company was able to redefine the boundaries of the market, different from the already existent high jewelry one, being able to gather different customers that want to express his personality, labeled as the "new luxury" (Silverstein and Fiske, 2004), instead of the traditional luxury, in which the customer wanted to purchase expensive objects to show the economic and social status (Zinola and Cappellari, 2013). Morellato was not the first mover in this market, as in the new sector of easy to wear jewelry other two important companies have to be mentioned: Nomination and Pomellato with the DoDo brand. Compared to its predecessors, however, Morellato understood the market potential and with the redefinition of the product concept at the core of its innovative strategy created a whole new value proposition: the value represented by the material used is reduced well below the industry standards, to add instead design content and immaterial value, endowing the product with emotional and identity meaning (Cappellari et al., 2007). This new conception of the product not only changed the value proposition for jewelry customers, but allowed the company to exploit an unexplored market in which non-customers are present, like the young for income reasons, or the part of the male consumer that were not attracted by what the sector proposed until then.

Also, the management of the brand had to be developed differently than before, through a definition of a clear stylistic identity and a communication strategy aimed directly to the final consumer. It was at that precise moment that the claim "Gioielli da Vivere" (jewels to be lived) was created. Another important aspect that Morellato immediately understood to be a fundamental feature to support the new strategy is the investments in communication. The company invested increasing amounts both in absolute value and in terms of incidence on company turnover, using channels such as radio and television, and deploying famous testimonials.

The existing distribution in the jewelry sector was not adequate for such a strategy, thus, Morellato's first change of this aspect consists of the development of selective distribution policy (Cappellari et al., 2007). The new ideal customer is a retailer able to adapt the store to the characteristics of the product and to understand the new way of jewelry, which is characterized by lower margins but much higher rotation in the store. This model must be supported by an appropriate layout and in-store communication, with a fundamental use of visual point of purchase (POP). The assimilation of jewelry into the world of fashion from purchasing behavior makes the availability of timely information on market reactions essential. Morellato entered into agreements with a few hundred points of sale in Italy and abroad to ensure the periodic sending of information on the trend of the collections in terms of sell-out, a figure rarely available in this sector, representing all the goods sold by a store to customers (different from the sell-in, representing the goods entering a store, thus much easier to measure and control).

The need to approach the market to communicate the company's image and products directly and to gather information without the step of intermediaries resulted in 2005 in the inauguration of the first flagship store points, where all the group brands were present, Morellato first but also the brands produced and distributed under license. At the beginning of 2007, there were a dozen stores, partly owned and partly franchised, in Italy and twenty-five in China, opened thanks to an initial joint venture with a local partner.

3.2.3 The Portfolio Diversification of the Group.

The results deriving from the new concept of fashion jewelry was for Morellato an immense success, from 32 million turnovers in 1999 to almost 135 million euros in 2006, a 400% increase in just seven-year, accompanied by an equal growth in profitability. The company in that stage of business had to defend its competitive advantage, while at the same time trying to improve the already existing strong points of Morellato. Because watches and jewelry were always two connected worlds, another step, permitted by the results achieved the years before, to keep the diversification going was the acquisition of the Sector Group, completed in late 2006, allowing the company to increase its competitive advantage. Sector Group is the oldest Italian wristwatch company, started under the Philip Watch brand in the mid-nineties, characterized by an innovative communication strategy for that time, consisting in the massive use of television advertising, but above all in content (Cappellari et al., 2007): it was the first watchmaking brand to offer a lifestyle, rather than focusing on the product itself, through the famous claim "No Limits" referring to the sportive challenge as a metaphor for the ability to go beyond one's limits (Saviolo, 1997).

With this acquisition, Morellato, which changed its name to the Morellato & Sector Group since January 2007, reached 195 million in sales in 2006 and a leading position in the Italian market for the creation and production of fashion jewelry and watches. In addition to Morellato, the group's brand portfolio now includes the following proprietary brands: Sector, watches, and jewelry characterized by a sportive image, Philip Watch, swiss made and more sophisticated watches, and Chronostar, watches for more everyday use.

In 2007, Morellato & Sector strengthened its position in the distribution market by acquiring 100% of the capital of D.I.P (Diffusione Italiana Preziosi), through a transaction worth approximately a total of 60 million euros (Zinola and Cappellari, 2013). D.I.P., with a 2006 turnover of 43 million euros and 287 points of sale worldwide, is the largest jewelry and watch retail chain in franchising, especially through the well-know Bluespirit brand. The acquisition of Bluespirit is part of Morellato & Sector's strategy to develop an international process, particularly in Europe, thanks to the 205 stores in Italy and 82 abroad (Spain and Germany). This strategy of internationalization was possible because of the synergies between Bluespirit's retail know-how and the strength of brands under the ownership or licenses of Morellato, such as Sector, Just Cavalli, Philip Watch and Miss Sixty. Today the retail chain has more 190 stores only under the signs Bluespirit and Joyè, another retail chain but with a different format.

From 2015 to 2018 the group continued the diversification and the expansion of the brands' portfolio through acquisitions and distributions under licenses (Zinola and Cappellari, 2013). In 2015 started the collaboration between Morellato & Sector and the car manufacturer Maserati, launching on the market all over the world "Maserati Time", a brand that will succeed abroad, especially in the Asian market. In 2016 the Lucien Rochat brand was acquired by the Paduan company, a brand that has a long tradition of Swiss-made watches, so aimed at a more expensive segment of the market. Still in 2016 Morellato Group signed a license agreement with Furla, allowing the company to the worldwide production and distribution of the new collections of Furla brand watches. The five-year agreement included the creative creation and development of all watches and was distributed through Furla single-brand boutiques, selected watches, and jewelers' corners in the most important department stores. In 2017 the Group acquired Kronoshop.com, the first Italian e-commerce website dedicated exclusively to the world of watches and jewelry. Created in 2008, it was the evolution from a long experience of traditional retail transformed into a web project. Through an omnichannel strategy and this new acquisition, Morellato can offer a complete service from the purchase to the after-sales phase, supporting the customer in each step with a new and web-based shopping experience.

3.2.4 The Present of the Company

In recent years the strategy of the company was to keep growing independently and following its business model, unique both in Italy and in Europe. An ambitious project considering that the two sectors, watches and jewelry, are dominated by large international groups. An ambitious but yet possible project due to a strong 2018 closed with revenues of 178.2 million euros, plus 8% than the previous year. The strong position of the company in 2019 allowed to make two really important moves during the year: the first one was the purchase of Mister Watch in January, an operation of 11.5 million structured to bring the owner into the corporate structure. Mister Watch is one of the leading players in the watch distributor in France. The second move of 2019 was the mandate received by UniCredit (the investment bank addressed for this task), to scout a new partner necessary to aspire to more important acquisitions, more than the one of Mister Watch, at a European level. As stated by the Massimo Carraro, the president of Morellato Group, the intention was to keep the base of the business model built around the concept of the Italian company and replicate it at the European level. Such a business model consists of a mix of own and licensed brands of watches and jewelry, and a strong distribution chain, led by Bluespirit, with twice as many as five years before points of sales. All shaped by a vertically and horizontally integrated supply chain that allows the company to control the entire process from the components to the cases and the final distribution, letting at the same time a great degree of flexibility.

In the same year, the opportunity of finding a new partner for a new acquisition has materialized with the announcement at the end of the year of the acquisition of the retail chain Cleor, one of the leading players in the French prêt-à-porter jewelry. The Cleor group, with more than 80 million euros in turnover in 2019, is composed of 800 employees and deploys 140 stores inside the most important centers in France, offering a high-level product and service. The overall investment was close to 50 million euros, and it was aligned with the intention of Morellato of expanding internationally launched the year before. With this acquisition the Group was able to become from just an Italian leader to one of the main European players in the watches and jewelry sector, projecting, as commented by the president Carraro, the turnover of the company over 270 euros, with a forecast close to 300 million euros for 2020, of which over 60% are made on foreign countries.

In February 2020, the company continued its project of expansion and growth announcing the acquisition of the Italian jewelry stores chain D'Amante, realized with an investment of 8 million euros. D'Amante Group has a big presence in the Italian market, with 35 stores present in the most important shopping centers, with 180 employees and 16 million euros of turnover in 2019. Morellato

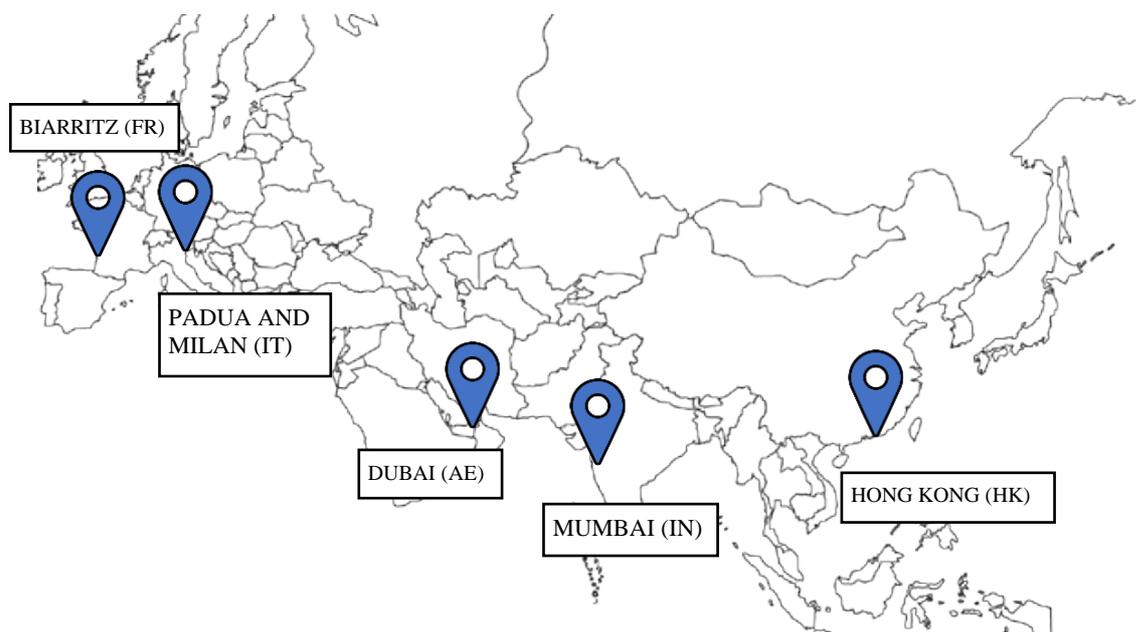
pursues its business model of integrating the supply chain with this new acquisition, the third in a year after the two in France, Mister Watch, and Cleor Group. D'Amante is intended to become the second brand of the retail chain in Italy after Bluespirit, strengthening the widespread presence on the Italian territory with a complex of 220 stores.

3.3 – Organizational Analysis of the Group

3.3.1 Operational Structure of the Company.

The organizational structure of Morellato Group is articulated and, especially in the last years, has been expanded by a heavy process of internationalization and growth. The Group deploys more than 2,000 employees worldwide, of which around 750 are in the two corporate offices in Italy. The main operational business companies of the Group are shown in Figure 16.

Figure 16. Map of Morellato's Main Operational Business Companies.



Source: Author elaboration.

The historical headquarter is situated in Santa Giustina in Colle, near Padua, north Italy, and has the function of connecting all the others operational companies, as well as managing the main functions as retailing, sales, merchandising, demand planning, IT office, marketing, CRM, HR, and accounting. In the headquarter are present also the Bluespirit and ARCA offices, now renamed ARCA Packaging

Solutions. Bluespirit has become more and more important during the years, as it developed from having exclusive a retail chain function to a complete company, designing its collections with unique design and defined segment for its products. Moreover, due to the great incidence in the overall sales of the company, many of these collections have become proper brands, for example, Le Petite Story or Dolci Coccole, two collections among the most successful ones. ARCA company has become essential as well for the company, dealing with a massive number of brands, each with its proper style and necessities, from the packaging to the visual materials for the POP, term used by marketers to indicated the planning of the placement of products, such as displays and showcases in stores. The second corporate office is located in Milan, in which the functions of design and style research are the core business. This allows the company to exploit the reputational power that characterized Morellato since the beginning of the "designed in Italy" and the great tradition of jewelry that Italy is famous around the world, a crucial aspect in the "package" of product sold especially abroad.

Apart from the two corporate offices in Italy, the Group runs four different operational business companies in four strategically important locations: Hong Kong, Dubai, Biarritz (France), and India. The choices of the international locations are followed by specific targeted strategy for each country, because of the different value perception of the product by consumers in different markets. This allows the company to differentiate the product depending on the market interested, implementing a complete market geographical segmentation, blending the unchangeable Italian style with the local inclination. The strategy is possible because of the numerous brands and products in the company's portfolio and permits the company to adjust the price according to the value that the product can be perceived.

At the end of 2006, Morellato joined a joint venture for the distribution in Asia, called "Morellato Shaotai", with the corporate headquarter located in Beijing. The decision of entering into a new market using a joint venture with a local partner is a common strategy that is needed to acquire experience and information about the market, smoothing the local barriers but also to acquire faster different cultural aspects and working conditions (Zinola and Cappellari, 2013). A crucial aspect considering that Morellato was entering the Chinese market. Because of the growing turnover of the Far East business, thanks to a marketing strategy based on the Italian style, Morellato decided to dissolve the joint venture and to start to act independently.

The choice of shifting from a joint venture to a fully owned business is a consolidated strategy (Harrigan, 1986), that exploits all the information acquired and, as said before, to overcome local barriers with the partner and then pursue independently, allowing Morellato to have greater control

over all the strategic activities that generate value in the eastern market. The new company, located in Honk Hong with a financial office in Shanghai, kept the name Morellato & Sector, and it is managed by mainly local staff, to immediately decline the core of the brand in the Greater China (Popular Republic, Hong Kong, Macao) cultural context, reflecting the upper image positioning of the brand in this kind of market, with the direct consequence of setting a higher average price. The operational office of Hong Kong functions as a connecting hub for all the supply chain of Morellato, and it is composed by the project management and R&D departments of watches, jewelry, packaging and straps, the logistics department, the sales department for the APAC area, and the financial department. Managers divide its presence between the office in Hong Kong and an ancillary office in Dongguan, located in the mainland of China, right above Shenzhen and Hong Kong. The CQC (China Quality Control) was born indeed as a quality control office to test goods before shipping them to Europe, for assuming now a more concrete and important function. The role of control quality today even if it is still present in the CQC is lightened, because part of the goods is controlled by external companies, leaving more space for the remaining functions, some of them shared with the Hong Kong office, such as R&D and project management of all units (watches, jewelry, straps, and packaging), while some of them are mostly specific to the CQC, like data and systems management department. Because the suppliers are mostly in that region of China, for the R&D and project management department having an office near the suppliers' factories is an immense advantage, allowing managers to control the production directly in the factories and also having constant and updated feedback regarding the projects, or problems that can arise.

In 2007 the Group decided to expand its project of internationalization in India, adopting also this time a joint venture with Gitanjali Gems Limited, an important leader in Indian jewelry, to “force” its entrance into the market, giving birth to Morellato India Ltd (Zinola and Cappellari, 2013). The objective of this decision was not only to receive support in the new market but also for the consolidation and diffusion of the brand. The Indian market presents more challenges to face, mainly because of the already strong established goldsmith tradition but at the same time the presence of an underdeveloped distribution network that doesn't allow to achieve efficiency in logistics and transportation. For these reasons, the Indian is market difficult to approach for Morellato, destined to gain importance in the long period, but not as an already emerged market.

An already relevant investment for the Group is the Middle East area, including Dubai, Saudi Arabia, and Lebanon. To exploit such a rich and growing market, Morellato decided to create a company located in Dubai, with the function of controlling the Middle East Market and opening a chain of mono-brand stores as well as flagship stores in the most famous spots. In this case, as well, the offer

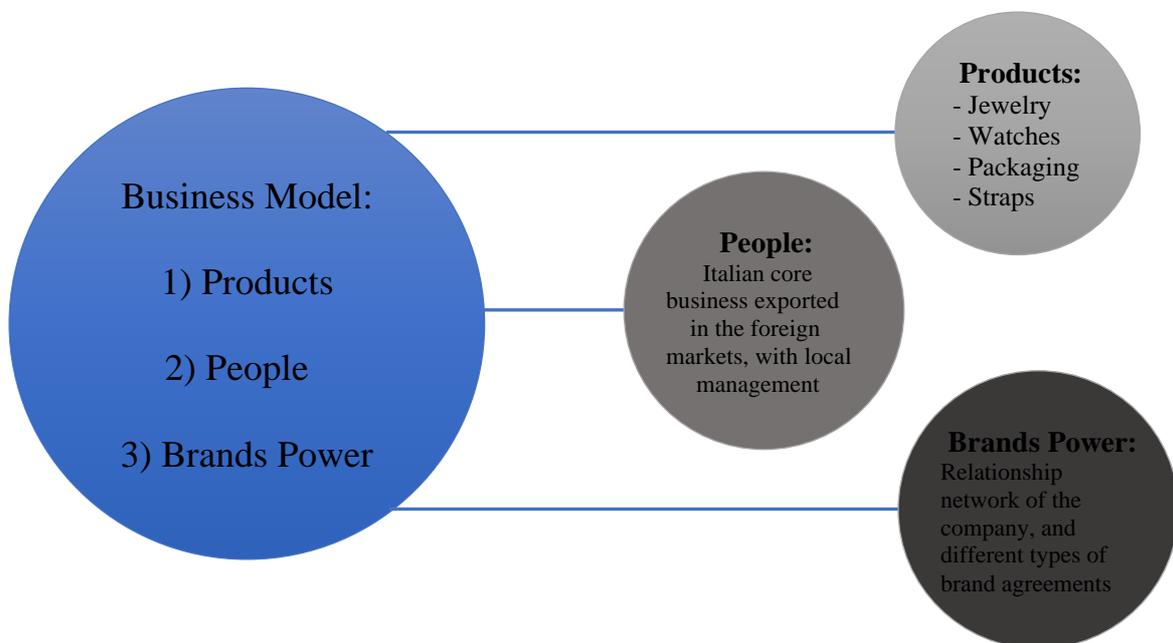
of the company is adjusted for the type of market, upgrading materials, and final products, with a much higher final cost and many limited editions to create a feeling of exclusivity.

The last and more recent expansion project of the company is in Europe, more specifically in France and Italy. As seen in the previous paragraph, Morellato is pursuing a strategy of market consolidation in the Italian territory with boosting the numbers of Bluespirit stores' opening and with the acquisition of the retail jewelry chain company D'Amante. In the same way in France, through the purchase of first Mister Watch and then Cleor, the intention is to build a diffused network of sales, to move afterward into other countries in Europe.

3.3.2 Business Model and SWOT Analysis of Morellato.

The business model of the company is founded on three pillars that since the beginning has been central in the growth and expansion of the group, as well as the lifeblood of the organization. The three factors that build the business model are the products, people, and the brands' power, as pictured in Figure 17 below.

Figure 167 The three pillars of Morellato's Business Model.



Source: <https://prezi.com>.

Regarding the first factor, full control over the supply chain allows the company to achieve a competitive advantage on each of its products' categories: jewelry, watches, packaging, and straps. This research of competitive advantage is based on the distinctive core competence of its products

and by the diversification of its portfolio. The second pillar of the company's business model is people, including more than 2000 employees as human capital, located in Europe, the Middle East, and Asia. Even if the Italian core business of the company is exported in these foreign countries, the company makes use of local employees to smooth the cultural barriers but also to learn different aspects of the business. The third and last factor is the power of the company's brands, a relational capital power represented by the network of relationships that Morellato and its members establish both internally and externally the business environment. The brand strategy is composed by owned brands, which include Morellato, Sector, Philip Watch, Chronostar, Lucien Rochat, Bluespirit, La Petite Story, Oui&Me, Cleor, and D'Amante, by brands in a license agreement, such as Maserati, Furla, and Trussardi, and by brands in the distribution agreement, like Cluse, Scuderia Ferrari, Paul Hewitt, and Tayroc. The strategy of having many brands inside its portfolio allows the company to reach different customer segments, widening the opportunity of exploiting old and new markets, as well as conquer "non-customers".

These three pillars are located in the strengths of a hypothetical SWOT analysis of Morellato Group. Besides the portfolio diversification of owned and licensed brands, the reputation power, and the people of the group, as strength of the company the integration of the supply chain of Morellato is one of the factors that has more incidence in the overall performance. The extensive distribution with more than 4.000 dealers in Europe, the Middle East, and Asia allowed by such integration is the last point that concludes the strengths of the company.

Table 8. SWOT Analysis of Morellato Group.

Strengths	Weaknesses	Opportunities	Threats
Brand diversification	The dominance of some brands	Increasing diversification by entering new markets	Already established competitors can take away market share
Reputation Power	Lack of cross-collaborations with other brands	Increasing horizontally the portfolio	Social and political instability in the Asian market
Management and people	Lack of geographical diversification of suppliers	Use of collaboration with other companies or brands	Difficulties in merging different realities and cultures
Full integration of the supply chain Extensive distribution	Not enough focus on social media		

Source: Author elaboration.

Referring to Table 8 above which represents the SWOT analysis of Morellato, going through the weaknesses, having such a diversified portfolio of brands can create internal competition, constraining the company to push some of them. Market segmentation and geographical diversification, as seen before, is a strong factor of the group, but focusing only on the brand or product that in a specific market is performing better than the others doesn't allow the company to reach some untapped customer's segments and as a consequence not catch maximum profits. Considering a business entity with a normal degree of integration, pushing more brands would create more costs than benefits, but in the specific case of Morellato and its integrated supply chain, exploiting the same distribution and sales channels can make such strategy profitable. Even if the company has a long tradition of testimonials, now called "influencers", and great use of media to advertise its products, it focuses mainly on television, lacking the social media aspects of the group. One successful scheme of advertising of the recent years, especially in the fashion industry, is the cross-collaboration between brands, a well-established strategy that permits the brand to be recognized by the customers of the other collaborating brand and to create something unique and exclusive, given the nature of limited edition that usually is given to such collaborations. For example, Pandora, a competitor of Morellato, recently launched two partnerships, merging its products with Star Wars and Harry Potter worlds. Moreover, launching these cross-brands collections during a

specific event, like the release of a movie, can boost sales by exploiting the already growing interest of customers. The last weakness of the group is also a possible threat that can occur in the future is the lack of geographical diversification of suppliers, also referred to as "put all your eggs in a basket" (Toh and Kim, 2013). Since most suppliers are located in China, and the Chinese market, besides for its efficiency is known for its political and social instability, it can lead to some issues, like raising in labor costs because of some new regulations in the logistics area, import, and export or the salary of workers. In recent years the South-East Asian countries started a growth process that allows companies to locate parts of their operational functions, an option that was not possible before and creates now an alternative to the Chinese market.

The lack of cross-collaborations with other brands and the lack of intensive use of social media for advertising can be used as an opportunity to grow, exploiting marketing areas that were not considered before. Keep pursuing the company's project of expansion is another way of creating new opportunities. Searching new markets to enter with acquisitions or joint venture, increasing the portfolio brands or stretching horizontally the already owned ones, are all strategies that Morellato has already done and can use again to continue growing.

Concluding with the possible threats that Morellato can face, besides from the already established competitors of the same size and reputation which can take away part of the market share, the late expansion of the company can lead to some difficulties in merging different realities and cultures, Italian, French, Asian and the Middle East. The strong identity that the firm is bringing abroad in different markets can become an issue if it is not managed together with the necessities and requests of the other operational business units around the world.

3.3.3 Financial Analysis of the Group

Figure 18. Morellato Group's Consolidated Turnover (2015-2020).



Source: Author Elaboration.

The 2015 marks for the company the beginning of the diversification of its portfolio period. After the 2% decrease in revenues recorded at the end of 2014, Morellato Group closed the 2015 financial year with a turnover of 160 million euros, up to 3% on the previous year. Also, the EBITDA grew by 23% compared to 2014, reaching 21.7 million euros, followed in the same positive path by the net financial position that went from (-)55.9 million in 2014 to (-)32 million in 2015, with an improvement of 43%. The focus of the year was indeed a profitability strategy and heavy cash generation, to be ready for expansion in 2016, the year in which the European market returned to growth.

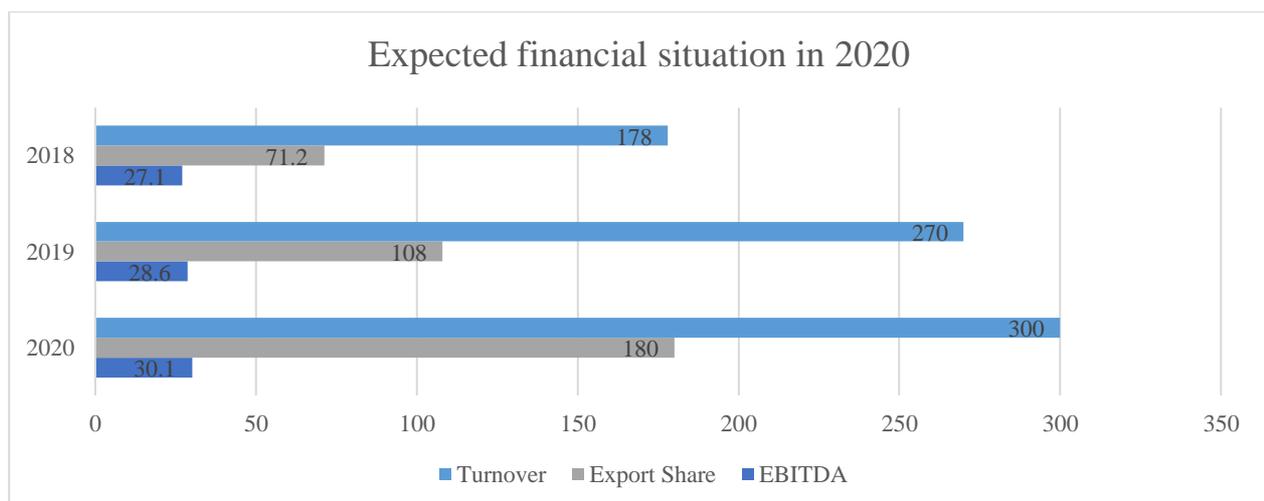
In 2016, the Group kept concentrating on the strategy that has pursued in the previous years: the Italian and international development of the wholesale business, together with the growth of owned brands and the acquisition of new ones, and the improvement of the distribution, with the integration between wholesale and retail. Even if it was a difficult year because of many economic and financial obstacles, the company managed to close 2016 with a turnover of 166 million, plus 2.3% growth than the previous year, and the EBITDA rose from 27.8% to 28.5 million. The group decided to allocate part of the resources to the net financial position, which went from (-)32 million to (-)21.7 million, resulting in an improvement of 30.7%, to remain independent and to be able to support the medium-long term project of development and expansion.

Morellato Group closed 2017 in line with 2016, with a turnover of 166 million euros, plus 0.3%, but the EBITDA, on the other hand, decreased to 25.5 million, compared to 28.5 million euros in the previous year. This is the result of the company's choice of favoring the development and consolidation activities especially in the main foreign markets, and the implementation of new e-commerce platforms, with particular attention to the multi-channel offer. The export share of the group rose to 40%, with a specific concentration in Europe, Middle East, and Asia, because of the strengthening of exports, travel retail and duty-free placements, not only in already established and mature markets, but also in emerging ones.

In 2018, Morellato Group achieved a turnover of 178 million euros, up 8% on the previous year. Moreover, the EBITDA returned to growth as well, arriving at 27.1 million euros, meaning an increase of 6.2% compared to 2017. The wholesale export share was relatively the same as the previous year.

It is in 2019 that the company had the largest growth of the last years. Starting with the acquisition of Mister watch, and then with the one of Cleor, the company has become from an Italian leader to one of the main European players of its sectors. The consolidated turnover of the company in 2019 was more than 270 million euros, with a forecast of achieving by 2020 the 300 million euros of turnover, of which more the 60% made in foreign markets, as shown in Figure 19 below.

Figure 19. Estimated Financial Performance of the Group in 2020.



Source: Author elaboration.

3.4 Supply Chain of Morellato Group.

3.4.1 The First Steps of the Chain

Before analyzing the benefits and the limits that such an integrated strategy is bringing to the Group, it is useful to portrait the whole picture of Morellato's supply chain, step by step. The process starts in Italy with the idea creation and the first design of the products, going through the operational business companies in Hong Kong and China for the sample creation, mass production, concluding with the shipment of the goods back to Italy for the final distribution in the retail stores.

Starting with the first step, the idea creation and the initial design of products are almost exclusively made in the headquarters in Milan, where the team of designers collects information from various sources to start working on projects. The directions come from a careful study about the market and other competitors, to understand which collections and trends are in vogue in that particular period or year. For example, the 2020 focus of the company will be the protection of the environment, with several projects about sustainability and recycling to reduce the pollution and especially the waste, within the steps of the supply chain and also in the final product itself. Environment and pollution concern to build a greener product and image of the business is a common path that the fashion companies are following in the recent years, because yes the level of interest in the environment has rightly grown, but also because more regulations about a greener supply chain have been introduced by various governments. Moreover, as said in the first chapter of the work, customers themselves have become more interested in this topic, resulting in more active research for the product that respects the environment more, avoiding fueling the recent phenomenon of "fast fashion". Besides the study of trends and collections, many ideas come inside the organization, thanks to the different realities that a company touches and to an upper-level management that since the beginning of a project is committed and interested in the idea creation stage.

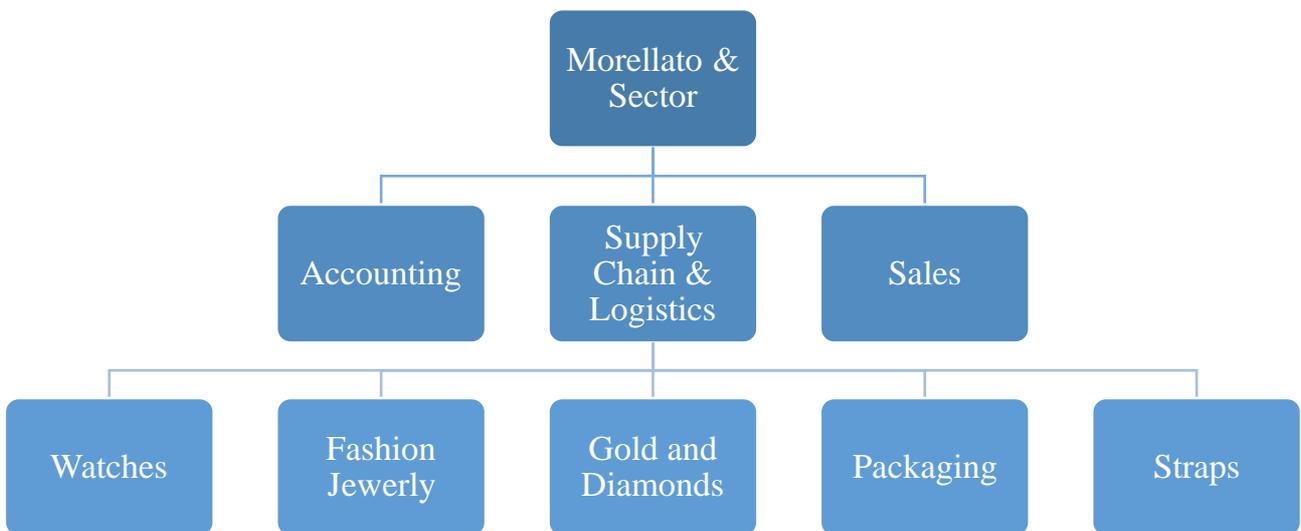
Regarding the trends and collections, the fashion industry has the peculiarity of the higher possibility to imitate competitors compared to other sectors. Especially in the watch and jewelry industry, given the speed of bringing a finished product to the market (30-50 days in average) and the various specific period in which launch collections, called *Canvass* (Spring/Summer, Fall/Winter, Christmas...), it is common to follow the path that others companies have just undertaken. With this premise, Morellato can be considered both a pioneer and a follower, because many products are made by following the trend that competitors may have created, and many others are unique to the company. The last point about the first step of idea creation is that for *Bluespirit* collections and brands the design is not made

in the Milan headquarters as the others but is the Bluespirit office in Padua that is responsible for its products.

Once the design arrives at the Hong Kong office, in the form of technical drawings, it begins the next step of the supply chain. From this point is the responsibility of the projects and R&D managers to find the right supplier to start working on the prototype. Given the reputation and the long period of business in the sector, Morellato has an already established and efficient network of suppliers, and in the case of need of finding new ones, it has fewer difficulties to locate a similar partner. This is a fundamental aspect, meaning that the company has power over the suppliers and not vice versa, and it will not incur high costs in switching to another one. Here two choices made by the group already have a defined impact at the beginning of the supply chain. First, the decision of having a second office in the Chinese territory permits the managers to be closer to suppliers, with the possibility of visiting the factories to check in real-time the development of the project. And second, since the beginning of Morellato & Sector in Hong Kong, the management was composed of both Italians and locals, bringing many benefits not only in the initial stage of introduction in a new country with different business culture but also in the overall process efficiency. The Italian part of the management helps the local one to interface with the directive coming from the Italian offices and on the other hand, the local management of Hong Kong and China support the relationship with the local suppliers, to avoid some issues like language and different digital platforms and applications that may slow down the process.

Regarding the internal organization of the company, Morellato and Sector have four main business units inside: the sales unit, the accounting unit, the logistic unit, and the supply chain unit. The sales department is responsible for the whole Asian market, from the regular instore sale to the duty-free and the after-sale phase. The supply chain unit is divided again into five departments depending on the type of product is responsible for: watches, fashion jewelry, gold and diamonds, packaging, and straps. To facilitate the operational structure, some of these departments are divided further according to some general specificity of their goods, for example, the watch department separates the stainless-steel watches with the swiss made one, or the fashion jewelry the silver products from the rest. The organizational structure of Morellato & Sector in Hong Kong is shown in Figure 20 on the next page.

Figure 20. Organizational Map of Morellato & Sector (HK).



Source: Author elaboration.

3.4.2 Demand Planning and the Indicators used for the Analysis

Once the prototype is ready and tested the quality and the functionality for the first time, it is sent to Italy to have feedbacks about the result. Naturally, if problems arise before this shipment the office in Hong Kong will inform the headquarter in Padua or Milan about the effective possibility of mass-producing such products, and if there is the certainty of keeping the production costs under the defined thresholds. In the case that some products aspects are not meeting the requisites, or some manufacturing problems arise from the supplier appointed for that project, the management in Hong Kong has to work together with contractors to resolve any possible complications. The R&D managers have the responsibility to control the sample received and carefully review every aspect. The relationship between Morellato and its suppliers is agile and very direct, thanks principally to two factors: first, the local management inside the company assists undoubtedly to interface with suppliers, building a close relationship, also because some of them are working with the company since the beginning of Morellato & Sector. The second factor that gives such agility is the type of relationship: Morellato decided to work with the final contractor, meaning that given a project to one supplier the company is concerned only about the final assembled product, and not all the components and the respective sub-suppliers. For example, when a project of a watch has been entrusted, it is the supplier's task to find the right sub-suppliers for the manufacturing of all the components (crown, dial, case, and so on). This allows Morellato to save time because it has a restricted supplier base to

refer to in case of some product issues. It has to be said that the company is almost constrained to have such a relationship otherwise the number of suppliers would be too much to be controlled, even if the number is still high because of the great number of products, brands, and collections.

The way of conducting the launch of the products of Morellato is in line with any other company in the fashion industry: the year is divided into canvasses, which usually corresponds to the beginning of seasons, or specific festivity that is known to be profitable periods. Morellato divides the year into five canvasses, and in each new collection are launched, together with the ones that are being profitable, and sometimes along with a capsule, a smaller version of a collection with fewer items, often limited edition, which is not connected to any season or trend.

When the collection has been approved, the demand planning office in the headquarters in Padua starts with the analysis of the market trends, the sales results of the previous year and the volume and types of goods sold in each store to determine how much to produce and how much to allocate in them, using indicators such as sell-in and sell-out. The former indicates the measure of the sales coming into the stores, or in other words, the sales made by the manufacturing company to commercial intermediaries. Such an indicator can be expressed both in value and volume, on be the basis of the number of goods sold, like pieces, boxes, kilograms, and so on. The sell-in has a commercial strategy related to the activities, techniques, and tools aimed at promoting the entry of a product into the stores because it also includes all the initiatives that a manufacturer can use to push the distributor to insert, keep in assortment, or display a certain product or brand. This measure is used by Morellato for the points of sales that are not integrated within the company, given that the sell-in an immediate and easy to collect information, that it doesn't involve the participation of the commercial intermediaries, and it is quite straightforward to understand: the products and brands more requested by the distributors are the ones that are selling more.

In contrast, the sell-out as a performance indicator is a measure of the outgoing sales from the points of sales, that is, the sales that occur with the exits if the goods from the retailers to end customers. As the sell-in, the sell-out can be expressed both in value and in volume, and it also involves the commercial strategies and activities around the purchase of the product by the final consumer, aiming at influencing its behavior in terms of choices, quantities, and timing. To achieve the objective of affective the customer, various forms of incentives are commonly used to increase the appealing of the product through price reductions, or quantity increases, with discounts, coupons, sales, refunds, and gifts. Morellato can use this precious performance indicator, thanks to the forward vertical

integration of its supply chain, to decide how much to produce and how much to allocate in each owned distributors, supporting the demand planning initially for the launch of collections, but also the retail planning department for the entire year in every occasion of providing the scheduling of sales and purchase budget for all the stores in the network. The sell-out is more accurate than the sell-in because it represents the actual purchase behavior of customers, but both indicators can be used together using the so-called relationship sell-through, which expresses the percentage of goods that are effectively sold on the total input received by the store:

$$(Sell - out / Sell - in) \times 100$$

3.4.3 Mass Production and Standard Costs

After the demand planning has decided the quantities and the prices of every product of each collection, the results are sent to the office in Hong Kong to start working on mass production. The projects of collections and products are discussed every year, usually around the last quarter, when the management of Morellato starts to meet the suppliers involved, to agree on the cost of every product, according to the previous performance and a historical record about prices and volume sold.

Morellato uses SAP as ERP (Enterprise Resource Planning) software to manage its business operations and customer relations. The whole group, including all the operational units abroad, are connected in a single platform, in which every department has its domain inside the software corresponding to the relative function, called modules, such as FI (Finance and accountability), CO (Controlling), MM (Material Management), SD (Sales Distribution), PP (Production Planning), QM (Quality Management), WM (Warehouse Management), LE (Logistic Execution), etc. In each of these SAP modules, with various transaction codes, users can find the specific database or functionality that they are searching for. Every department can access and monitor the status of each office abroad, thanks to a sub-division made by an operational business unit, allowing to make changes only in the interested one. Moreover, the use of custom-made transaction codes tailored for the company makes the whole platform more precise and complete, including all the required features to run smoother the business operation management.

In the SAP system, every product managed by the company is assigned to a unique identification code, referred to as SKU (Stock Keeping Unit), permitting an easier identification and better control of the inventory. In this way, SAP keeps a record of every SKU, allowing employees to find the most

updated location of stocks, if they are in warehouses and in which one, and also if they are moving between business units or have been shipped. Thanks to this record, in the moment of discussing the prices of the SKUs with suppliers the company has all the information needed. This process involves different rounds of bargaining and agreements to reach a final price that both for the supplier and Morellato can be fair for each SKU. Different indicators are used for the bargaining, such as the total number of SKUs or collections that were given to a supplier, the price and the volume produced the previous years, and also the standard cost. It is expressed as an estimated expense that normally occurs during the production of a product. The new price of the SKU has to be aligned with its defined standard cost, and it is allowed to oscillate within a certain range decided by the company. This standard cost indicator, however, cannot be used for some type of products, like the gold and silver jewelry or diamonds, which value for gram can fluctuate depending on markets. Once the agreement about the price is reached, the suppliers can start with mass production.

During the phase of mass production, the managers in Hong Kong have to keep monitoring the production with a continuous exchange of information and updates with suppliers and visits to factories to control the quality and try to prevent problems from slowing down the process with the consequence of causing shipping delays. To evaluate the quality of products, some samples of the products are brought to the CQC in China, office that is equipped with different laboratory tools, which allow engineers to check the specifications of the products, which must comply with the various certificates and the requirements of design and quality. The samples are tested through some standard controls using machines that for example test the impermeability and condensed water for watches, or rotation and durability for the other products. Keeping updated the quality control and the overall situation about the suppliers' production, allows the project managers to remain within the deadlines of shipment indicated by the office in Italy.

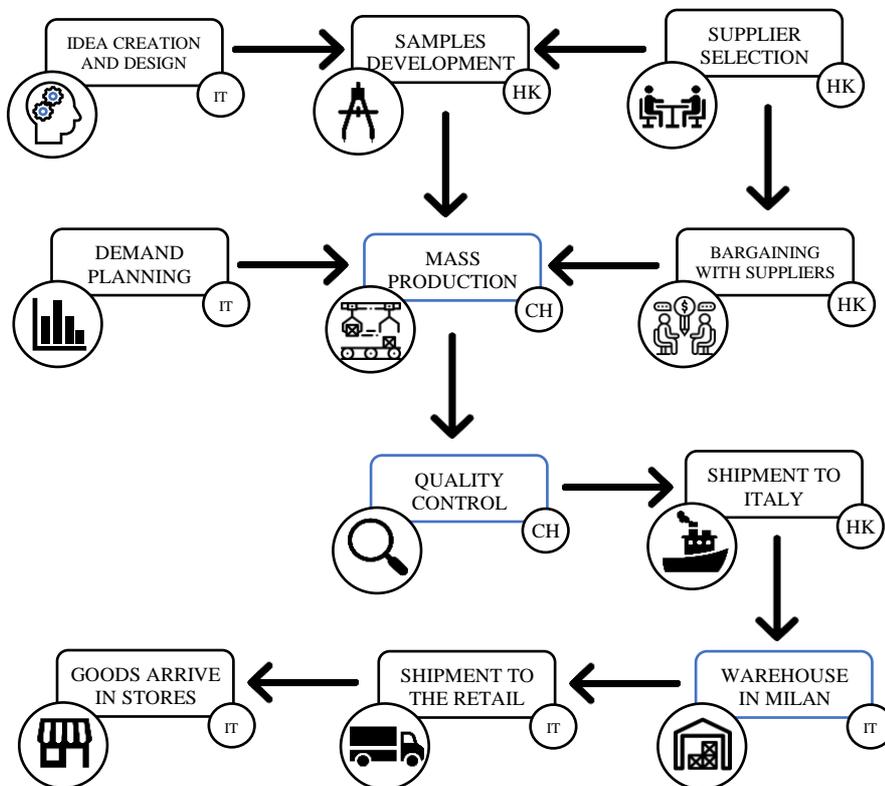
3.4.4 Shipment of Goods and Final Distribution

When the mass production is finished, the quality of goods is checked for the last time before the shipment to Italy. Because of the large number of products, Morellato relies on external quality control companies, which once completed the work report directly to the Hong Kong office. If the lots of goods meet the quality prerequisites then they are ready to be shipped, otherwise, the suppliers may incur penalties and will have to re-supply with improved products. The quality control is made in two methods, depending on the size of the lot: if the number is not large then the control can be made for every product, instead of the quantity is too big to permit to check every single one it is used

a method of dividing the lot, and if the defective goods exceed a certain percentage of the total quantity of the unit created, then the lot is entirely rejected. When the quality control in China is completed, the goods can be shipped by air or by ship to a warehouse in Milan if the products are planned to be sold in the Italian market, or France or other foreign countries. The warehouse in Milan is owned by an external company that provides storage, control, and initial distribution services. It also supports with secondary functions as certifications application and control, as the laser tag that is engraved in each gold product to certify its authenticity and the possibility of being sold in Italy. Selling certain goods in various markets has additional research costs to be carried out regarding certifications, which may vary from one country to another. Selling a product in the European market requires different certifications compared to the same product sold in the Asian market. After this passage, the new goods, as well as the supplies to replenish the sold products, are shipped to the retail points, ready to be exposed in the stores appointed by the retail planning.

To recap each step of the supply chain of the Group, Figure 21 can be used to have an overall picture and to understand the importance that the office in Hong Kong has during the process.

Figure 21. Supply Chain of Morellato Group.



Source: Author elaboration.

3.5 Discussions

3.5.1 The Impact on the Business of the Horizontal Integration

The trend of the last decade of outsourcing part of the value chain activities has brought many advantages to firms, especially in the initial phase of the company's life cycle, in which start-ups can begin their businesses without the initial large investments. However, in the last years, there has been a return of the strategy of integrating the supply chain, adopted especially by the big companies which heavily rely on technology, like Apple or Amazon.

In Italy, a particular case of an almost fully integrated supply chain is the Group Morellato. The aim to preserve the initial core business, of the Northern Italy tradition of jewelry and watchmaker, brought the company to adopt a strategy of expansion but at the same time replicating such business model in every acquisition or development. To maintain these values, the Group decided to increase its supply chain integration, both horizontally, with a portfolio consisting of a large number and types of brands, and vertically by implementing a policy of expansion of the owned retail network to increase the control over the final part of the supply chain. For such a high level of integration, the supply chain of Morellato can be considered having a rigid structure, because the level of integration is usually inversely proportional to the agility of the supply chain. However, some aspects of Morellato's process can be associated with the agile framework elaborate in the first chapter (Lu, 2011). The relationship between the company and its suppliers can be categorized as partnership relations, as the exchange is not only about price and volume of goods like the traditional one, but the project is shared and developed jointly in each step, from sample creation to the mass production. Moreover, the Morellato supplier base is formed by a tiered structure, allowing the company to interface with fewer suppliers, reducing costs and time.

As seen in the second chapter, the advantages of integrating the supply chain are several, as well as the disadvantages that a poor realization can bring. Analyzing the impact on the business that the horizontal integration had for Morellato since the beginning of the company's life it was clear that the implementation of such a strategy was a central part of its business model. When the opportunity or the need of being able to diversify its offer came, the Paduan company has always managed to seize it. For example, when the business of leather straps was being overtaken by steel ones, Morellato managed to expand its internal offer, always remaining faithful to its business model. During the years it was able to expand horizontally through external acquisitions as well, such as the one of Sector, or D.I.P, and the most recent of Cleor and D'Amante. The merit of Morellato in the

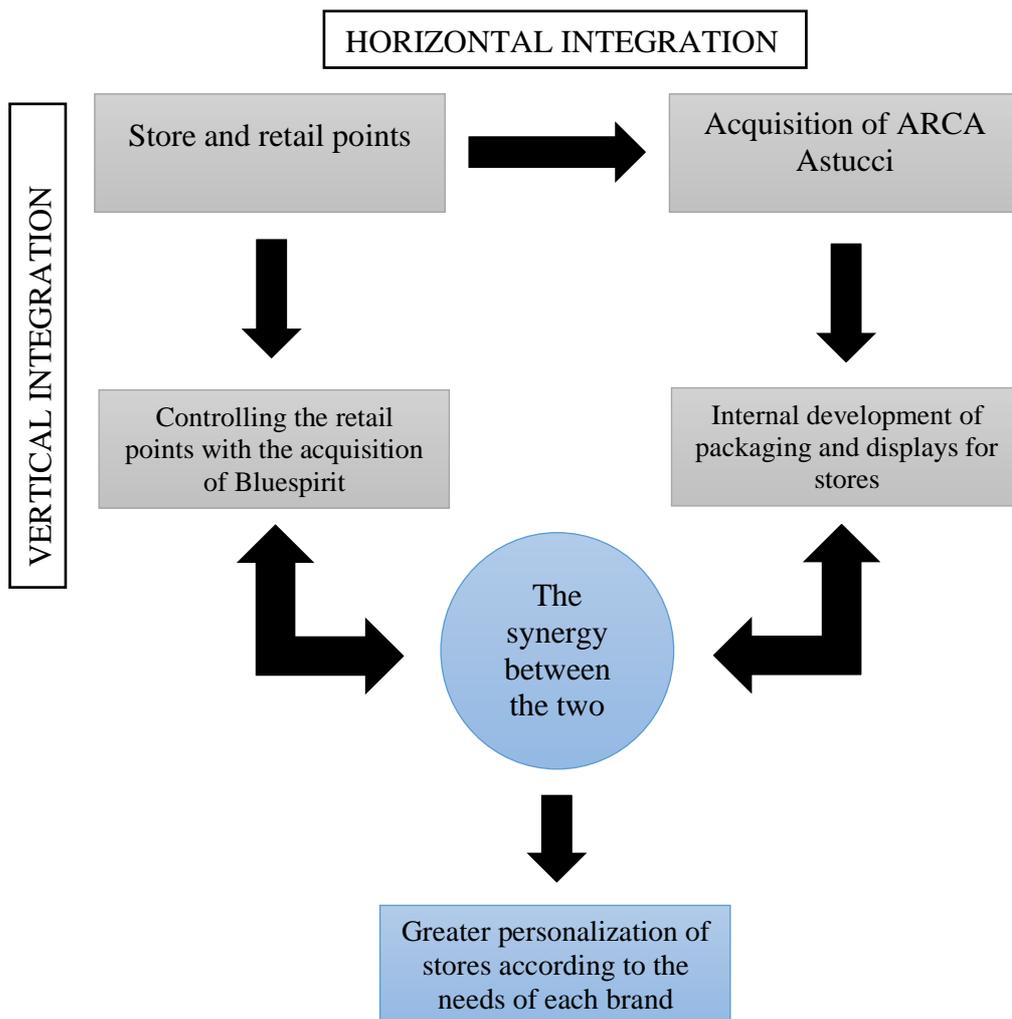
implementation of this diversification lies mainly in the ability to have built such a rich portfolio avoiding at the same time a horizontal competition between the various brands, which are not taking away market shares from each other and consequently reducing the potential profitability. Every brand is aimed at a particular segment of consumers or a distinctive lifestyle, for example, for the watches Sector No Limits is pointed to sportive customers, Philip Watch to the ones demanding a swiss-made product, OUI&ME is indicated most for the female customers.

The identity of each brand is composed of the products and the packaging, displays, and showcases that are made ad-hoc, stressing the distinctiveness between the others. Such a strategy allows the company an easier entrance in a new market, from the more luxurious and exclusive as the Middle East to the more emotionally centered product European, because it has already in its portfolio a diversified offer with particular product segments that fit perfectly for each type. In other words, the strategy is not to acquire brands in the countries that the company is interested to penetrate the market but is rather to bring the brands already possessed and enter the market as an already expert of the sector, keeping this way the core of Italian products. For this reason, Morellato decided when entering the Asian market to first use a joint venture with a local partner to gather information and experience to overcome easily the cultural and professional barriers, for then shifting to a fully owned company once the business has reached a certain level of profitability to continue independently and having greater control to maintain the core value of the Group. It is a common strategy to enter new markets, especially the most difficult ones, initially with a joint venture and when the company is profitable enough and has acquired sufficient experience, it can switch to an independent business (Zinola and Cappellari, 2013).

Part of this strategy of being able to shape the sales point according to the brand identity is due to the high level of vertical integration that permits the personalization of the stores as needed, but at the same time, it is also because of to the synergies that the company has managed to achieve during the horizontal integration of the supply chain. The management of Morellato could expand through aimed acquisitions, each of them is connected strategically with the result of completing the offer but also the functions of each other. The diversification made by creating ARCA Astucci is still bringing benefits to the company, supporting every brand in the packaging aspect but also in the personalization of the retail points with displays and showcases. This is an example of the Group of creating a synergy between a horizontal and a vertical integration: owning a company specialized in packaging and displays permits the tailoring of the sale points, and because at the same time Morellato owns these sale points, it creates an unmatched result by allowing a deeper and structural personalization for every request made by the company. With the same outcome, the horizontal

acquisition of Kronoshop.com was able to exploit a different synergy with the vertical integration of retail points by extending the channels of vending by implementing the web-based sale, putting together a vast marketplace of watches with the possibility of collecting the purchase in one of the numerous stores. An example of how the company was able to build such synergies between the two directions of integration is showed in Figure 22.

Figure 22. Example of Synergy Between the two Directions of Integration.



Source: Author elaboration.

3.5.2 The Unique Level of Vertical Integration of the Company

The Group Morellato presents also a high degree of vertical integration, a strategy that was implemented with the acquisition of D.I.P back in 2007, the Italian largest jewelry and watches retail chain with the most known franchise Bluespirit brand. The purchase aimed to create a dense network of sale with fully-owned retail stores, to capture all the benefits of owning the last step of the supply

chain and to exploit the synergies that would have been formed with the numerous brands of the company's portfolio. Generally, as seen in chapter two, forward supply chain integration allows companies to maintain or increase profits while minimizing profit losses to intermediate entities because of the various transaction costs, resulting in at a lower final price for Morellato's products at the end of the chain.

The company, however, implemented such a strategy to achieve different objectives, first of all, the will to obtain control over the distribution channel in its industry. Control over distribution channels is crucial for companies that operate in sectors in which external distributors charge significant costs and permits the strategic independence of Morellato from third parties. The Group decided to implement a massive retail network to possess greater control over the brand and other intangible components related such as the reputation with customers as well as suppliers. This network has been built to support strategic objectives and it is linked to the presence of stores in Italian and International large cities. Moreover, the choice to allocate the points of sales inside the most famous shopping center is a fundamental aspect, and it was made possible only by the great expansion of DIP and the recent acquisitions both in Italy with D'Amante and in the French market, with Mister Watch and Cleor. With the implementation of such distribution strategy, as said before analyzing the synergies between the two directions of integration, allows Morellato to shape over time a retailer that would adapt the store to the characteristics of the products and the business model, and not the opposite way. The expansion of the jewelry distribution chain Bluespirit consents Morellato to exploit elements of layout and communication in the stores, with various POPs to display its marketing materials and advertising techniques, from a simple sign, poster or carton, to a more elaborate arrangement of products of a specific brand on an ad-hoc built showcase. The last two years were significant for the plan of the company to increase its network of retail, considering that only Bluespirit now has reached more than 200 points of sales in Italy and more than 300 around the world, and with the acquisitions in France with Cleor and in Italy with D'Amante, the consolidated number of stores of the Group is more than 480 owned retail points.

It also permits the company to analyze the consumer purchasing behavior and be able to immediately transmit the most updated information to the division responsible for the retail planning and the creation of the most profitable assortments. Having the possibility of relying on indicators as a sell-out and not only sell-in for the owned points of sale is one of the most significant benefits of the forward vertical integration. It allows the company to receive accurate information about every aspect of the sale of each store, from which brand is the best-selling or the worst, which category is selling

more or less, and gives the retail planning office precise data regarding the re assortment. The successful implementation of this strategy provides Morellato with a competitive advantage over its competitors, having lower costs but higher control over its distribution channels. The Group at the same time is pursuing a strategy aimed at not creating competition between the various intermediaries, limiting in this way the horizontal channel competition conflicts within distributors and the retail stores, mainly owned and under the direct control of the Paduan company.

Another advantage that the company can benefit from the forward integration is the reinforcement of its position in the industry, raising barriers to entry to potential rivals. The higher barriers are caused mainly by two consequences: first, if a competitor wants to enter in the same industry as Morellato, to be profitable and take away some the market share it has to build a similar integrated network of distribution, otherwise it will not be able to participate in the market. To implement a such high level of forward integration requires a large initial investment that Morellato was able to accomplish through many years. The second factor is that the integration a large industry retail points will limit the access to distribution channels from competitors, further limiting the possibility of taking away part of Morellato's market share, especially in the final part of the supply chain.

The company decided to outsource some functions of the supply chain because they were not considered stages of the process that could bring competitive advantage relative to the market, as stated in the resource-based view of the firm (RBV) developed by Barney (1991), the second chapter of the work. It is also correlated to the central part of Transaction cost economics (TCE) (Coase, 1937,1960; Williamson, 1981, 1985), which suggest outsourcing the activities that present a lower transaction cost of using the market system, rather than the costs of implementing internal solutions. The processes that lead to competitive advantage are the ones possessing distinctive resources and capabilities, and Morellato was able to focus on core activities, the ones that have more possibilities of achieving a competitive advantage and higher returns by integrating them. Steps as idea creation and product design and final distribution are the ones internalized by the Group, identified as key stages that can be more profitable than the outsourced ones, like the mass production and a portion of the quality control. The choice of outsourcing the mass production is in line with a common strategy that most of the companies in the same industry are adopting, which is to make a contract of production with an external firm, usually located in more favorable countries, in this particular case in China, to benefit both in the initial cost-saving of implementing internally a mass production, factories, raw materials, manufacturing, but also the cost of becoming an expert in the field, and exploiting at the same time the different business environment of the country chosen. For Morellato

having the mass production outsourced in China is a large advantage, because of the cheaper costs of production and for the growing tradition that China is gaining of watchmakers and jewelers, finding in this way suppliers already experts in the sector and with the tools to carry out a mass production comparable to the rest of the world. The second stage that has been outsourced by the company is quality control of the production, which was entrusted to third party companies in China and to a firm in Milan for when the goods arrive in Italy. Although, as seen earlier, the secondary office in China (CQC) had quality control as its primary function, it is now only partially used for this purpose. Given the large volume of goods that Morellato now has to deal, it was constrained to receive support from external companies, as in the moment of the arrival of the goods in Italy: the use of the external company in Milan was a strategic choice, because, in addition to providing quality control functions, it provides a warehouse and other secondaries support services.

3.5.3 Possible Threats in the Future for the Company

There are mainly three aspects connected that Morellato has to be careful in the implementation of the integration strategy. In the horizontal direction, even if until now the company has managed optimally the possible competition between its brands, with the growing portfolio only a proportional geographical expansion can limit such horizontal competition. With geographical expansion is intended approaching new markets, both the already exploited ones with a growing structured and dense network of retail, and in new ones, continuing the project of internationalization of the Group. A secondary problem that can emerge from this point is the market segmentation strategy that the company uses when approaching a new market. As seen before, the segmentation of the market comes almost naturally because each country has a different economic and social situation: in the Middle East, the type of products more profitable will be more expensive and exclusive than Europe. However, this can bring to a loss of possible profit because some brands are not exploited enough and are not taken into consideration, and they can become an additional source of income if sold side by side, perhaps with ad-hoc marketing and distributions choices, with the collections and brands that sell the most in the specific country.

The second factor to be kept under control is directly connected to the first, and concerns both the horizontal dimension with the purchase of new brands and the vertical one with the expansions aimed at different steps of the value chain. Like any merger, the difficulties that a company can face are many, and in the case of Morellato, the different geographical realities if not managed properly can collide with each other. Without considering the smaller markets, the Group is now made up generally of an Italian, Chinese and French part. He must, therefore, be able to merge them in the best possible

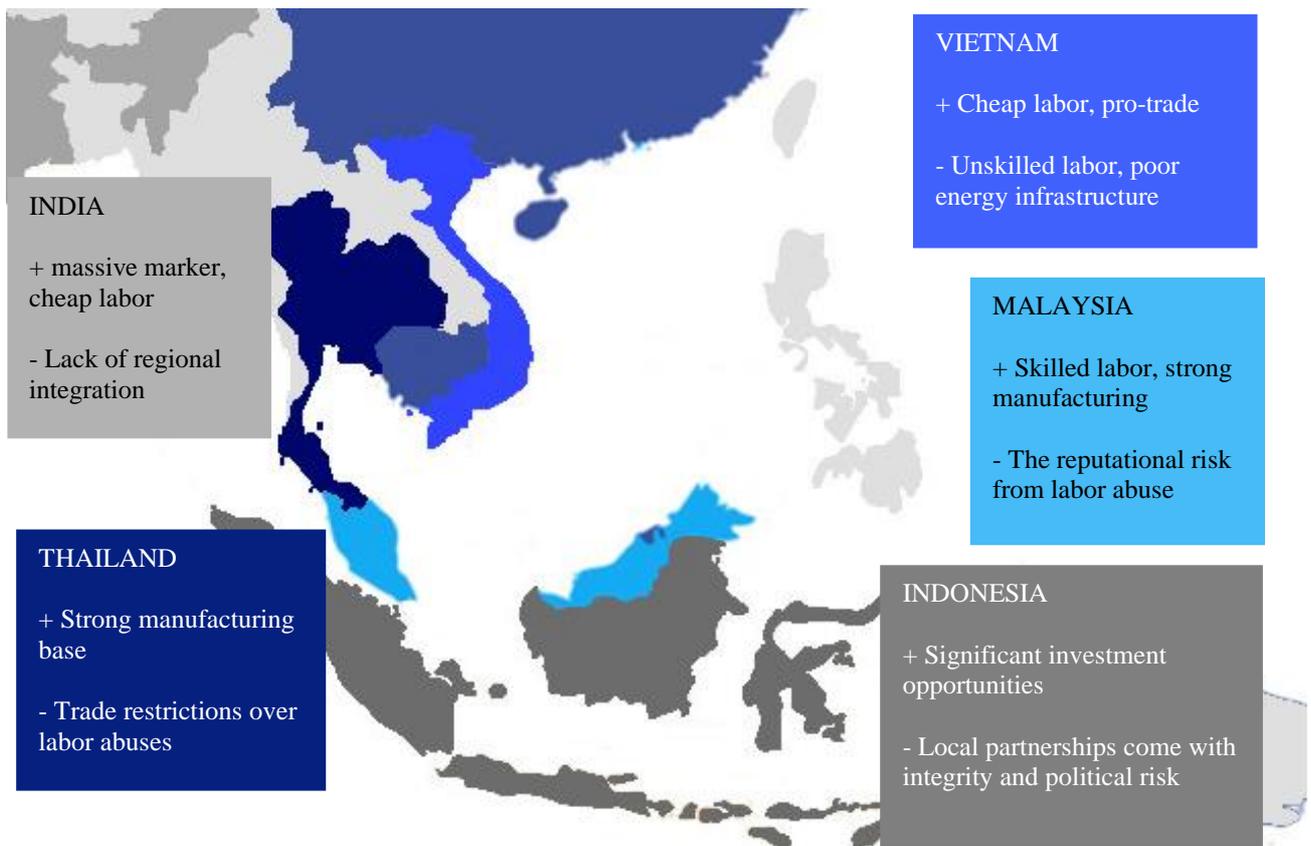
way, both from a cultural but also an economic point of view. The gears between Italy and Hong Kong are already consolidated and oiled, but between the latter and France, there could be the necessity of a mediation job of the Italian office, to smooth the differences and to support the integration, and transformation where needed of the French's supply chain into the Chinese one.

The last factor regards the vertical dimension, the network of suppliers has to be taken into consideration and analyzed for the future. Almost most of the supplier base of the Group is located in China, a common choice adopted by many companies for their supply chain dictated by the country's lowest production cost at the same time efficiency and reliability. However, as mentioned in the SWOT analysis paragraph, having all producers located in the same country can be risky in the long run. Economic, political, social, and not least health factors can change the balance of a business environment. Factors that in an unstable and very fast-changing setting as the Chinese market can become a risk to not underestimate. Correlated to this the concept of hedging, one of the possible strategies used to mitigate the risk presented in the last paragraph of the first chapter regarding global supply chain risk management, it suggests having a diversified portfolio of supplier and facilities, to avoid that a single event, such as currency fluctuation or a political change, can affect the entire supply chain (Manuj and Mentzer, 2008). Diversifying in several countries requires immense investments and the Paduan company decided to control the risks through vertical integration (Manuj and Mentzer, 2008), another strategy that is commonly used which can take the form of control, share, or transfer of risks. Vertical integration improves the ability of the focal member of the supply chain to control many factors, as processes, methods, decisions, and outcomes.

Many studies are taking place because of many important supply chain shifts, phenomena that can help companies to understand the drivers behind this shift to secure their supply chains in the future possibility of changes. The biggest long-term driver is rising cost, above all labor cost, especially in the last period cost related to US-China trade tariffs, has contributed to the growing instability. Second China is upgrading its manufacturing, substituting lower-tech and more emissions-intensive industries, raising the costs. And final some political factors which have led to limited supply chain shifts for now but remain a risk for technology companies in 2020. At the same time, there are many reasons for companies to keep their manufacturing base in China, particularly to produce large quantities. Some countries of South East Asia are emerging, both in terms of infrastructure and economically, however, they do not yet are an equal substitute for China for several reasons, countries as Vietnam, Thailand, Malaysia, India, and Indonesia. Vietnam has low labor costs and a pro-trade policy, but still does has but insufficient skilled labor, energy, and infrastructure. Thailand and

Malaysia have both a well-established manufacturing capacity but constrained by reputational risks and the recent suspension of trade preferences over labor rights abuses. India and Indonesia as well present a large potential market but blocked regional integration will reduce its potential role in the global supply chain, also because of requirements for local partnerships and often present political, integrity, and corruption risks. The possible alternatives for a shift of the supply chain from China to alternative South East emerging countries are shown in Figure 23 below.

Figure 23. Possible Alternative South East Emerging Countries for a Shift of the Supply Chain.



Source: <https://www.controlrisks.com/riskmap/analyst-picks/asia-supply-chains-options>

The result of this quick excursus about the possible alternative South East emerging countries, China remains the key location where implement the production in the short term, and Morellato is one of many enterprises that has chosen to move part of its supply chain in a more country where the labor and the raw material are cheaper and can create a competitive advantage. In other words, it is a common problem that may arise in the long run for almost all the companies that are in certain industries, such as technology, automotive, electronics, pharmaceutical, consumer goods, and fashion sectors, and Morellato is following the same path as many others "best in class". Unluckily the China-dependence of many productions has been revealed with the global spread of COVID-19. The country

has been built to become a factory of the world, implementing a precise political strategy and specializing in the production of components and products. It is difficult to find an alternative because the country has a monopoly on certain sectors and also in the last twenty years it has invested heavily to improve logistics. To comprehend the close dependence with China, and the results that consequently affect the companies related to it, the ISM (Institute for Supply Management) in its latest survey "Impacts on Global Supply Chains" highlights the following facts:

57% of companies worldwide had a significant deterioration in delivery times from China, the 62% of companies are having delays in receiving orders, and on average, companies in China are working at 50% of their production capacity. More than 44% of companies have no plans in place to manage supply disruption, and 23% of these have significant critical situations along their value chain.

To understand the phenomena and then trying to build some possible solutions for the global supply chains around the world, included Morellato, the first step is to identify the main risks that the system is currently facing:

- the risk that the distribution networks are limited in their operational capacity and that the supply and production chains may be interrupted;
- the risk that the availability of raw materials, semi-finished and finished products will disappear;
- there is a risk that there will be a shortage of direct and indirect labor;
- risk of supplier default and limited ability to identify and qualify new ones.

Given this context and considering the extreme speed with which it manifested itself, the greater value for a company now is the ability to react quickly more than to predict accurately. According to the article entitled "Supply-chain recovery in coronavirus times - plan for now and the future" made by McKinsey analysts, there are six actions to be taken to mitigate the impact of coronavirus on supply chains: first of all, create transparency on supply chains, meaning identifying alternative sources for the supply of critical components. Secondly, it will be necessary to estimate the stocks available along the entire value chain, including spare parts and those after-sales, to be used as a bridge to keep production active. It will also be useful to evaluate the realistic demand of the end customer as well as optimize the production and distribution capacity to ensure employee safety. Finally, identify and protect the logistics capacity and, where possible, be flexible on the mode of

transport. All through liquidity and net working capital management by carrying out stress tests to understand where problems in the supply chain could cause a financial impact.

3.6 Conclusions

The objectives of the thesis were to the different aspects in the implementation of a horizontally and vertically integrated supply chain and trying to understand the conditions behind the choices when choosing these two organizational strategies. The work used the case study of Morellato Group to analyze the drivers of the two directions of integration, an Italian company that has been studied and cited several times because it stood out for various factors and to achieve steady growth in recent years. The Paduan company has the peculiarity of almost owning almost completely its supply chain, through a process that can become an important example to follow for a company that aims to expand internationally but at the same time remaining faithful to its core business model.

Additionally, outsourcing has been a management paradigm in recent years, indicated as the most suitable solution in too many situations. Morellato has adopted instead a solution in which it integrated the fundamental parts of the supply chain, using the outsourcing practice only for the secondary activities, which are those according to the company less profitable and create less competitive advantage. As seen in paragraph 2.1 about the trend of vertical integration, literature has highlighted the outsourcing as the main practice, because of the numerous benefits that can bring, especially for start-ups, where the capital required for initial investments is usually hard to gather. The advantages are not only available for companies that are at the initial stage of the life cycle, but also for a more structured business which demands a high specialized partner to perform external activities. Moreover, the process of globalization has increased the possibility of outsourcing, allowing companies to exploit channels and partners that before was not possible to. This trend of globalization goes directly with the increase of risks of global supply chains, influenced by many factors as stated by Lu (2011), both from the demand side, because of the rising competition, higher customer expectations, and technological disruptive impact, and from the supply side, when the ability of the focal company of supply chains has to keep with the complex customer needs (Zsidisin, 2003b). Because of this risk, global supply chains are adopting strategies to mitigate and adapt to the increasing volatility, and one of this strategy is indeed the integration of the supply chain, a process that improves the ability of the focal company to control many factors, as unexpected outcomes from external partners, power in the decision making (Achrol et al., 1983; Agrawal and Seshadri, 2000; Cachon, 2004). By increasing control, the risk is reduced. Many companies are adopting this strategy,

from the high-tech industry to the manufacturing one. Morellato since the beginning has followed this path, by integrating the steps of its supply chain to mitigate possible adverse outcomes. Correlated to this aspect, one possible problem for Morellato is the absence of diversification of its suppliers, almost all presented in the Chinese territory, an unstable reality, showed by the recent spread of COVID-19. Morellato then, it should implement another management risk strategy defined by Achrol et al., (1983), Agrawal and Seshadri, (2000), and Cachon, (2004) as hedging, by which it can mitigate the uncertainty by diversifying the portfolio of suppliers and facilities, to avoid that a single event can affect the entire supply chain (Manuj and Mentzer, 2008).

Considering all the factors described in the previous paragraph, Morellato Group can be considered as an example of medium North-East Italian company that was able through a precise process of internationalization to build an efficient and complex supply chain structure, allowing the company to gain a competitive advantage over its competitors, especially in those phases in which the strategy of supply chain integration was implemented. The Group was able to exploit many synergies between the two directions of integration, keeping at the same time the core business value of the Italian design of watches and jewelry. The recent acquisitions of Mister Watch, Cleor and D'amante are an example of such synergies: while expanding vertically by acquiring retail chains, both in Italy and Europe, and in this way benefit from a dense network of retail points and the control over the last part of the supply chain, it is possible to exploit the large portfolio of brands built over time with many horizontal acquisitions. Besides, having located the production in China, with all the benefits and the possible future threats listed before in the section, is a clear advantage for the company, which can coordinate the manufacturing process from Hong Kong with the operational business unit Morellato & Sector ltd. If the Group will be able to manage all the different realities and the organically and structural growth that is accomplished, exploiting the synergies created between the two directions of integration of the supply chain but at the same time maintaining its core value of Italian company, will be sure become from a main European player to a world player in the industry of watches and jewelry.

Table 9 can be used as a final recap about the advantages that the two directions of integration of the supply chain are bringing to Morellato and the consequent synergies that have been exploited between vertical and horizontal integration.

Table 9. Supply Chain Integration Benefits and Synergies for Morellato.

MORELLATO'S SUPPLY CHAIN INTEGRATION		
HORIZONTAL INTEGRATION	SYNERGIES	VERTICAL INTEGRATION
Diversification of the portfolio while avoiding horizontal competition between brands		Reinforcement of its position in the industry, raising barriers to entry to potential rivals
Companies under the Group that complete strategically each other (ARCA Astucci, for example, is in charge of the packaging for the brands)	Morellato can shape over time a retailer that would adapt the store to the characteristics of the products and brands.	Control over distribution channels is crucial for companies that operate in sectors in which external distributors charge significant costs and permits strategic independence.
Different brands aimed at a particular market segment and each of them with a specific identity	Easier entrance in a new market because it has already in its portfolio a diversified offer that fit perfectly for each segment.	The dense network of sale with fully owned retail stores, to capture all the benefits of owning the last step of the supply chain
		The company can analyze the consumer purchasing behavior and be able to transmit the updated and precise information to the division responsible for the retail planning

Source: Author elaboration.

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