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"DIGITAL TRANSFORMATION AND BUSINESS MODEL INNOVATION: NEW SERVICES AND GROWTH OPPORTUNITIES FOR AN ITALIAN MANUFACTURER."

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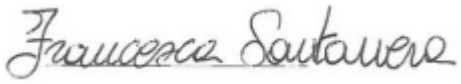


ABSTRACT

Digital transformation, business model innovation and service strategies are currently seen as key drivers for company growth. Starting from academic literature review, the present study is aimed to identify how a successful Italian manufacturing firm is currently facing and coping with new technologies and new market opportunities. In details, IoT products and Smart Home market outbreak have shaken up company's stability and introduced the urgency for change: the entire organization needs to develop a long-term and proactive attitude starting from the experimentation of new business model designs and services strategies.

KEYWORDS: Digital transformation, Smart Home market, business model innovation, servitization, service strategy, manufacturing.

INTRODUCTION

The level of complexity in business administration is increasing day by day, especially due to blurred industries boundaries, high level of competitive pressure, adverse economic conditions and also scarcity of resources. Moreover, new technologies and their applications are shaking up not only companies' procedures, but also consumers' needs and behaviours.

Digital transformation has created a 24/7 mentality and connected consumers and products have increased expectations toward augmented services: urgency for digital change has become so critical, that is more an imperative, as well as investments allocation for digital intensity and transformation management.

Firms need to change their business logic, in order to survive in competitive markets and grow: the ultimate question is how companies do their business. Rather than investing in processes and products innovation, new ways of delivering and capturing value must be investigated and executed.

Business model design and innovation are seen as key drivers for new competitive advantages: firms may opt for evolutionary or revolutionary changes taking always into consideration the critical relevance of change management along as keep questioning about status quo.

Moreover, firms are shifting their focus from tangible to intangible goods integrating their physical offers with basic, intermediate or advanced services supporting either the product (SSP) or the customer (SSC). The development of service strategies will lead to the satisfaction of unmet customers' needs, competitive differentiation and overcome the saturation of installed based. In order to provide real valuable services and before launching any project, firms should clearly identify customers' value propositions.

Current academic debate is focusing on digital transformation, business model innovation and servitization opportunities for business growth, and scholars are providing guidelines for helping managers and organizations to control difficulties and barriers toward success.

Aim of this research is to find out the real response level toward new growth opportunities for an Italian manufacturer. Founded in 1945 and thanks to its products quality and design, Vimar is a market leader in the production of electrical components and systems. However, new digital technologies and the outbreak of Smart Home market are changing competitive scenarios for the manufacturing firm.

Starting from its customer segments, value propositions will be investigated: objectives for the present study are the identification of valuable business model innovation and services opportunities for the firm.

In order to reach these objectives, the research is structured in the following way:

- First chapter entails a literature review for digital transformation. Its definition, driving forces and maturity model are described, as well as managerial guidelines for digital strategy execution. An entire section is also dedicated to the Internet of Things, data revolution and Smart Home products, due to their relevance for case study analysis;
- Second chapter focuses on Business Model construct, with main definitions, meanings and link to corporate strategy. Business Model Canvas and its building blocks are presented in more details. Moreover, innovation opportunities and related critical barriers are investigated;
- Third chapter describes the phenomenon of servitization. A general shift from goods-dominant toward service-dominant logic is affecting the entire marketplace. Competitive strategies, drivers, main barriers and challenges toward servitization are discussed;
- Fourth chapter is assigned to the case study. Company's history, mission, vision, strategic approach, product portfolio, business model Canvas, SWOT analysis, distribution system and market analysis are provided. Moreover, opportunities for business model innovation and new services are tested through the execution of interviews.
- Last chapter entails research conclusions and managerial implications.

TABLE OF CONTENTS

1. THE MODERN IMPERATIVE: DIGITAL STRATEGY, CULTURE AND WORKFORCE FOR YOUR BUSINESS SURVIVAL

Companies are now facing a *digital imperative*: technology is everywhere and it is not only shaking up operating procedures for firms, but also customers' behaviours and needs.

Even if investments in innovation and new technologies are extremely relevant, however digital transformation doesn't rely only on these capital allocations, but it is also strictly dependent to strategy, culture and leadership. If managers are not able to craft and implement strategies based on digital culture and leadership, they will experiment technology obsolescence and won't outperform their competitors. Therefore, scholars and managers are increasing their focus and actions towards digital renovation.

In this first chapter, it is going to be provided a general dissertation of some of the most important elements of digital change and some guidelines for managers driving the transformation.

In more details, paragraph 1.1 it is going to present major definitions of digital transformation and its driving forces as well as advantages. The following sections are dedicated to digital maturity model and index across different industries and SMAC, i.e. the third platform for innovation. Moving on, paragraph 1.2 illustrates key features and applications for the Internet of Things (a.k.a. IoT) and the modern revolution of data, which is taking place and changing the rules of competition: companies are dealing with an huge amount of data and they need to invest in analytics tools to process all different pieces of information and make right operating decisions. The following section is dedicated to Smart Home, an application of IoT technology, which is rising its relevance in the Italian market and in 2017 generated €250 million revenues. Key trends and barriers for growth will also be discussed.

Finally, paragraph 1.3 provides managerial guidelines for digital transformation, always considering the primary role played by strategy. A digital renovation of the business is only possible, if strategy is matched with a clear and shared vision, supporting culture and strong leadership. The very last section is dedicated to new competences for the digital workforce: for driving the change novel capabilities, talents and culture development are requested. Workers should not only have digital fluency, but push forward and develop a digital mind-set.

1.1 Digital transformation: definition and driving forces

The rising relevance of digital transformation as a key driver for companies growth in every industry is becoming the centre of attention for scholars. They do not only consider it from an

academic perspective, but also focus on practical managerial guidelines for firms facing digital challenges.

In order to better comprehend the general idea behind digital transformation, in the following lines some definitions supplied by academics and advisory firms are reported. As always, literature shows no consistency and there is a lack of common understanding on concepts and practices.

According to Westerman et al. (2014), digital transformation is the use of technology implemented by companies, in order to radically improve their performances or reaches. The multinational research and advisory firm, Gartner, Inc., gives the following definition: it is "*the use of digital technologies to change a business model and provide new revenue and value-producing opportunities*" (www.gartner.com). In their "Embracing Digital Technology. A New Strategic Imperative", Fitzgerald et al. (2013) stress the opportunities deriving from digital transformation, which is the use of digital technologies to enable major business improvements. Moreover, from an organizational perspective, it is a strategy created and executed by taking advantage of digital resources, in order to create a differential value (Bharadwaj et al., 2013). And finally, according to Brynjolfsson and McAfee (2011), the concept represents a global reorganization of all businesses.

After giving some key definitions, it is going to be described why digitalization matters and what are its key drivers.

Firstly, as noticed by Fitzgerald et al. (2013), digital transformation doesn't depend on some individual enterprises, but it involves the entire world, because not only customers, but also equipments are turning into connected elements (a.k.a. Internet of Things, as it will be described in paragraph 1.2 "Internet of Things and Data Revolution"). According to the authors, the connected world realizes a *digital imperative* for enterprises. Moreover, firms following digital strategies can expect enhancements in one or more of the following three areas: *customer experience and engagement*, *optimized operations* and *new lines of business or business models* (Fitzgerald et al., 2013).

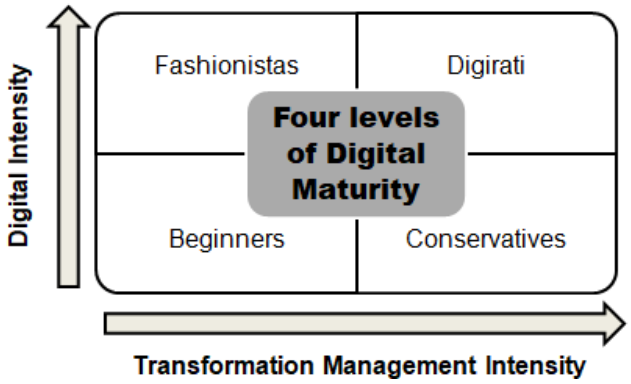
Drivers for digital change have been studied (but not fully described) by scholars. Literature as mainly focused on the critical role played by new technologies: businesses survival and growth are strictly dependant to their development and exploitation. The current pervasive nature of technology is also a consequence of the increased number of connected consumers, who are rapidly changing business landscapes and through their growing expectations are increasing pressure and urgency for new technologies (Fitzgerald et al., 2013).

1.1.1 Digital maturity index across different industries

Even if digital transformation is affecting global marketplace, it is essential to stress that not every single industry (and company) has the same level of digital maturity.

In order to measure these disparities, MIT Center for Digital Business and Capgemini Consulting have developed the "*index of digital maturity*" and, as reported by Westerman et al. (2012), companies can be divided in four different types according to their reaction toward technological opportunities. As represented in Image 1 below, Digital Maturity Model is the combination of two dimensions: the first, *digital intensity*, describes the level of investments in technology allocated by the company, in order to change the way in which it operates (such as for example customer engagement or internal operations); whereas the second, *transformation management intensity*, individuates the level of investments allocated for the creation of required leadership capabilities (i.e. vision, governance, engagement, IT-business relationships).

Image 1: Digital Maturity Model



Source: Westerman et al., 2012.

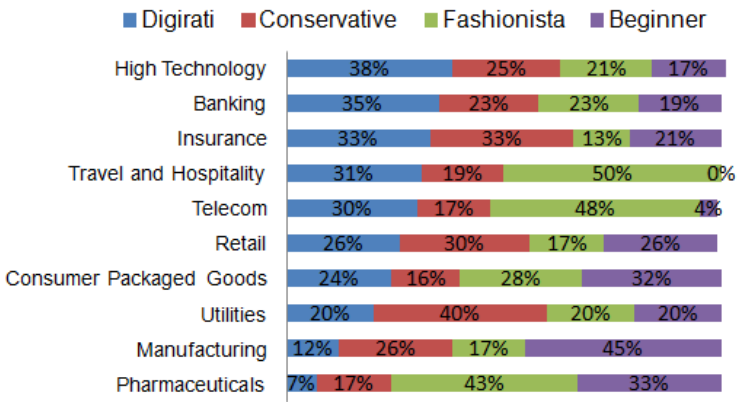
According to the combination of digital intensity and transformation management intensity, the model identifies four types of organizations:

- *Digital beginners*, low level of transformation management and also digital intensity. In most cases, these companies do not see opportunities coming from digitalization or are just at a beginning phase of investments without massive transformations inside their organizations;
- *Digital fashionistas*, low level of transformation management intensity, but high level of digital intensity. These firms are allocating high amount of resources for digitalization projects and some of their initiatives are actually creating value. However, their activities are not arranged inside an overall vision and neither designed to create synergies. Even if digital effort is observed, anyway there is a lack in governance;

- *Digital conservatives*, high transformation management, but low digital intensity. Companies, despite of innovation chances, prefer to operate in a prudence way. Although they are not completely sure on the value of new digital opportunities, however they do understand the role of a unified vision, governance and corporate culture. In this case executives by overthinking may miss valuable opportunities;
- *Digirati*, high transformation management and also digital intensity. Firms in this group feel perfectly confident: they know how to gain advantages and value from digital transformation experiences. There is a right combination of resources, vision and a well-established governance. In this way, the digital competitive advantage is improved on a continuous basis and firms are able to overtake competitors.

In "The Digital Advantage: How digital leaders outperform their peers in every industry" (2012), Digirati are described as 26% more profitable than competitors in the same industry according to the authors. They, as Kane et al. (2015), warn that in order to raise their maturity index, organizations and managers can't simply rely on technology: digital transformation is the result of *strategy*, *culture* and *leadership*, as it will be explained in paragraph 1.3 "Guidelines for digital transformation: the driver for success is strategy, not technology".
Moreover, digital transformation is dependent to the specific industry considered, even if each one (from manufacturing to high technology) has already achieved results from digital transformation activities (see Graph 1: Digital Maturity Level by Industry).

Graph 1: Digital Maturity Level by Industry



Source: own elaboration from Westerman et al., 2012.

Of course, travel and music industries had to face digital competition before others, and they have already accomplished significant and complex transformations. According to Westerman et al. (2012), high technology has the highest digital maturity level, followed by banking and retail industries: they all together belong to Digirati group. Telecom and, travel and hospitality are in the fashionistas group: they have undergone digital changes, but the transformation

management intensity is not sufficient. Belonging to Conservatives group, insurance and utilities industries are identified; whereas pharmaceuticals, consumer packaged goods (i.e. CPG) and manufacturing lies in beginner-quadrant.

Finally, it interesting to see that new digital products are actually changing and redefining industries: technology is not only reshaping the current state of competition for firms belonging to the same industry, but it is also *expanding industry boundaries*. As stated by Porter and Heppelmann (2014), there is a shift of the basis of competition: from single products, to smart products, then smart-connected products, followed by product systems composed by closely related products, and finally systems of systems, where different product systems operate together with external information (such as for example smart home, smart buildings, and so on).

1.1.2 SMAC platform: the third innovation framework

According to different scholars (such as for example Jayaraman and Mahajan, 2015), digital innovation for organizations is enabled by a new framework: the SMAC platform (a.k.a. the "third platform"), an acronym for *Social*, *Mobile*, *Analytics* and *Cloud*. This platform follows two other major ones: the first is the mainframe computer system, which began in the late 1950s, whereas the second is the client/server system lunched in the 1980s, when personal computers started to communicate with applications and databases. In the following lines, the four main elements of SMAC platform are described:

- *Social technology*, according to Gartner's definition, is "*any technology that facilitates social interactions and is enabled by a communications capability, such as the Internet or a mobile device*". It doesn't only include social media, but any type of technology allowing social interactions;
- *Mobile technology* is the combination of hardware (such as for example smartphone, tablets, laptops) and software (for example apps) giving users the possibility to have instant access for sending and receiving data;
- *Analytics/Big Data technology* stands for various statistical and mathematical techniques used for systematic data processing and analysis. As it will be described in following paragraph 1.2, companies are now able to quickly generate and collect huge and different amount of data. However, new data sources opportunities make mandatory for organizations to translate single pieces of information into operating procedures;

- *Cloud technology* is the final element of SMAC platform and it gives access to cloud hosted services for companies, without paying for installation.

1.2 Internet of Things and Data Revolution

Firms of every industry are investing to develop disruptive technologies, which were unconceivable just few years ago.

Some major examples, that are catching the attention of academics and enterprises, are: self-driving cars, drones, Internet of Things (a.k.a. IoT), Industrial Internet of Things (a.k.a. IIoT), artificial intelligence (a.k.a. AI), collaborative robots, virtual and augmented reality, 3D printers, blockchains, and so on.

Particularly interesting is the Internet of Things technology, which is providing several applications not only for enterprises, but also private citizens. The term IoT was coined by Kevin Ashton, cofounder of the Auto-ID Centre at the MIT. In his "That "Internet of Things" Thing" (2009), Ashton explains how empowered computers are becoming able to collect impressive and different amounts of data without any human activity.

Smart, connected products have been made possible through investments in processing power and device miniaturization, and by network benefits of wireless connectivity (Porter and Heppelmann, 2014). Always Porter and Heppelmann (2014) state that IoT, from home appliances to industrial equipments, has three main components:

- *physical* components (mechanical or electrical parts);
- *smart* components (sensors, data storage software, embedded operating systems, etc.);
- *connectivity* components (protocols, antennae, networks for communications between products and clouds, etc.).

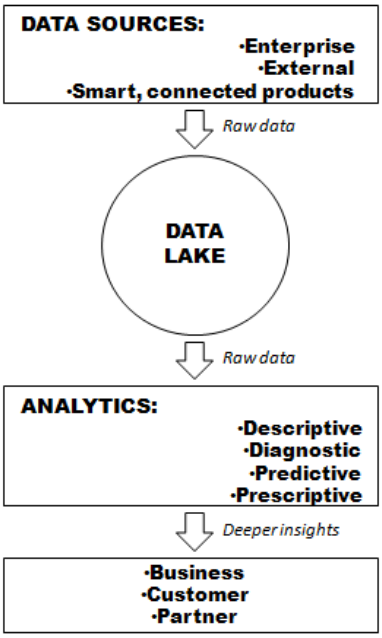
The capabilities of smart, connected products can be categorized into four areas: *monitoring*, *control*, *optimization* and *autonomy*. Each single capability is built on the preceding one: for example to have control capability, a product must have monitoring features.

IoT technology takes part to *Data Revolution*, a wide phenomenon affecting modern economy. Porter and Heppelmann (2015) stress that before smart and connected products, companies had to get data either from primarily sources exploiting internal operations and transactions across the value chain or from external sources.

Now, there is a third source: the *product itself*. As showed in Image 2: Data Management and Value Creation, modern challenges for companies regard the aggregation, processing and analysis of huge and different amount of data collected. Inside organizations the "data lake" is

where all data in different formats are stored and at this stage, analytics tools (such as descriptive, diagnostic, predictive and prescriptive) are involved.

Image 2: Data Management and Value Creation



Source: Porter and Heppelmann, 2015.

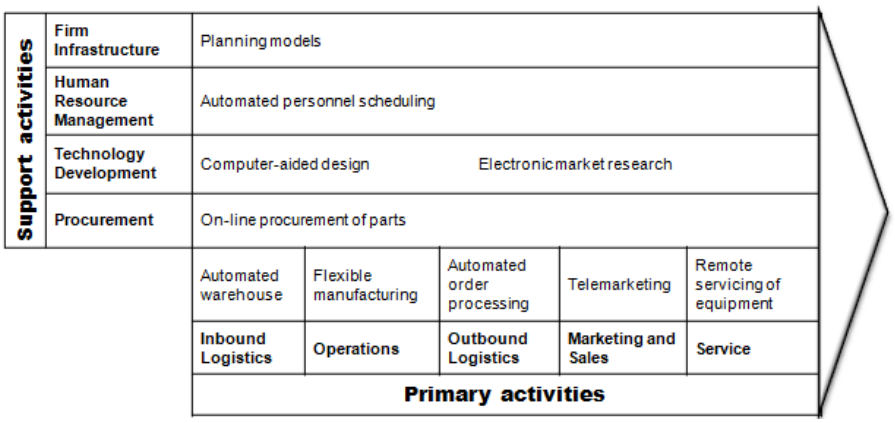
According to Porter and Millar (1985), information technology is advancing faster than technologies for physical processing: indeed costs of information storage, manipulation, and transmittal are decreasing very rapidly.

Based on Davenport (2006), companies are not anymore able to differentiate in the marketplace basing their strategies on the products they sell: to create a new competitive advantage, firms must become *analytics competitors*. This means the use of data mining, collection and analysis technologies, for the purpose of better understanding operating processes and customer's needs or desires. The need for new competitive advantages is caused by information revolution affecting competition in three different ways:

i. it changes industry structures and alters competition rules;
ii. it gives companies new ways to outperform competitors and create competitive advantages;
iii. it creates new businesses.

In "How Information gives You Competitive Advantage" (1985), it is showed how information technology is affecting all nine primary and support activities along the value chain (see Image 3: Information Technology and Value Chain): human effort is replaced by machines and there is an higher focus over optimization and control functions.

Image 3: Information Technology and Value Chain



Source: Porter and Millar, 1985.

As reported also by Porter and Heppelmann (2015), information management is transforming activities along the entire value chain and affecting not only product development (due to low-cost variability, new user interfaces, ongoing quality management and connected services), but also manufacturing (smart factories and simplified components), logistics, marketing&sales (new ways to segment and customize, new customer relationships, new business models) and after-sale service (remote service, augmented-reality-supported service).

1.2.1 Smart Home: an IoT application

Smart Home is classified as an application of the Internet of Things. Literature doesn't provide a unique definition for Smart Home, and the term is frequently used as synonymous of Domotics and Home Automation. For the purpose of this study, these concepts will be considered as equivalent: without going in further details, it will be just mentioned that Smart Home is mainly used to stress applications for residents' comfort, whereas domotics focuses more on technological components and systems.

According to Alam and Alaudin (2012), there can be found three macro functionalities areas for Smart Home applications: *comfort*, *health* and *security*. These macro functions are translated into practice through: air conditioning, ambient assisted living, blinds/curtains management, energy consumption monitoring, entertainment, environmental condition monitoring, heating, home appliances management, integration, lighting, security, smoke, water and fire monitoring, etc.

There are five key characteristics for Smart Homes (Lê et al., 2012):

i. *automation*, accommodating automatic devices or performing automatic functions;
ii. *multi-functionality*, performing various tasks and generating different outcomes;
iii. *adaptability*, adjusting to specific users' needs;
iv. *interactivity*, interacting or allowing interaction among users;

v. *efficiency*, saving time and costs for users.

According to Osservatorio IoT Polimi (2018), the Italian Smart Home market reached €250 million of revenues in 2017 (35% higher than 2016). Leading the growth are security appliances, followed by heating and home appliances management. According to Polimi 2018 report, key drivers for the sector are: the need of having *higher control on personal living spaces*, the possibility to *remotely control* habitual activities and the opportunity to *save energy costs*.

Although data show the growth of the market, however firms are facing different types of barriers: the most critical is the *installation of products*, which still relies on the work of qualified installers. OTT (i.e. Over-The-Top) companies such as Google, Amazon and Apple are pushing into the Do It Yourself (a.k.a. DIY) market segment developing solutions that can be installed and initialized autonomously by users. Other major barriers are the presence of already well-established brands and the integration of services of value for final users, because companies frequently *offer just basic services*.

Finally, as reported by Osservatorio IoT, a critical role for the success of Smart Home solutions is still played by *installers' selling skills*: this factor is extremely dangerous especially for manufacturers, who rely completely on intermediaries for their distribution system. Producers should step up and start designating right roles to the actors involved in the distribution system. Moreover, the reinforcement or the creation of direct customers relationship is seen as pivotal for the future.

Additional information will be provided in section 4.4.2 with a deeper analysis of Smart Home market.

1.3 Guidelines for digital transformation: the driver for success is strategy, not technology

Before going into more details on some general guidelines and practices for managing digital transformation, it is firstly essential to stress that is *strategy*, not technology, the driver for digital transformation (Kane et al., 2015). A digital renovation of the business is only possible, if strategy is matched with a clear and shared vision, supporting culture and strong leadership. Fitzgerald et al. (2013) noticed that even if executives see the potential of digitalization strategies, however they are not sure on how to achieve optimal results and the ultimate problem that companies need to face is that "*digital technologies change rapidly, but organizations and skills aren't keeping pace"* (Brynjolfsson and McAfee, 2011, p. 21).

Companies are facing a *digital imperative*: if they don't adopt new technologies, they will deal with competitive obsolescence (Fitzgerald et al., 2013).

Literature has identified three main barriers compromising digital renovation: *lack of strategy* (Kane et al., 2015), *lack of urgency* and *lack of general vision* (Fitzgerald et al., 2013). According to Westerman et al. (2014), executives for the digital renovation of their businesses are working on three main areas: *customer experience*, *operational processes* and *business models*.

General guidelines have been provided, in order to help managers overtake obstacles. Westerman et al. (2014) suggest "Nine elements for digital transformation" (see *infra*, Table 1), that have not necessarily to be addressed at the same time:

Table 1: Nine elements for digital transformation

1.	***Customer understanding***	Understand what makes customers happy and what generates dissatisfaction;
2.	***Top-line growth***	To develop better customized offers, companies are combining technology to in-person sales data;
3.	***Customer touch points***	Focus on customer service enhancement, especially self-service via digital tools;
4.	***Process digitization***	Automation has enabled the reconfiguration of labour force: now employees can fully take care of more strategic and creative activities;
5.	***Worker enablement***	It means the separation of work processes from work location: such as for example rotating sits or working from home;
6.	***Performance management***	High level of data allows the organization to better evaluate and compare performances or activities and thereafter reallocate resources;
7.	***Digitally modified businesses***	Companies have to find new ways to exploit digital opportunities for their offerings;
8.	***New digital businesses***	Digital products complementing the actual product portfolio;
9.	***Digital globalization***	A shift from multinational to global companies, using digital technology to gain global synergies, while keeping a local responsibility.

Source: Westerman et al., 2014.

In order to help firms in digital transitions, also McKinsey has developed a three-step roadmap: (1) *definition of value*, securing managers and leadership's commitment, setting goals and investments; (2) *launch and commitment*, starting projects and allocating right resources; and (3) *scaling up*, usually after 18 months the organization is ready for an upgrade and can build additional capabilities.

Finally, Porter and Heppelmann (2014) provide managers with ten strategic questions (reported in Table 2 here below) to be addressed: each question involves a trade-off and

before starting any type of transformation, each firm should consider its particular set of characteristics and circumstances. In any case, all ten choices have to reinforce one another and support the general strategic positioning of the firm.

Table 2: Ten strategic questions for digital transformation

1.	Which set of smart, connected **product capabilities and features**?
2.	**How much functionality should be embedded in the product and how much in the cloud**? (such as for example response time, level of automation, frequency of service or product upgrades, and so on);
3.	Should the company pursue an **open or closed system**?
4.	Should the company develop the full set of smart, connected product capabilities and infrastructure **internally or outsource** to vendors and partners?
5.	What **data** must the company capture, secure, and analyze to maximize the value of its offering?
6.	How does the company **manage ownership and access rights to its product data**?
7.	Should the company **fully or partially disintermediate distribution channels or service networks**? (new technologies allow firms to maintain a direct and deep customer relationships, reducing the need for distributors. Cutting out distribution partners, companies may boost margins and revenues, brand awareness and loyalty);
8.	Should the company **change its business model**?
9.	Should the company **enter new businesses by monetizing its product data** through selling it to outside parties?
10.	Should the company **expand its scope**?

Source: Porter and Heppelmann, 2014.

Although digital transformation is a new phenomenon and even mature industries are still going under renovations processes, Kane et al. (2015) consider that in the future three main trends will dominate digital strategies:

i. greater integration between online and offline experiences;
ii. data will be more tightly infused into processes;
iii. business models will reach their expire dates more quickly.

1.3.1 New competences for a digital workforce

According to Kane et al. (2015), simple investments on digital technologies are not enough for the transformation of the entire organization: the firm should also invest in *capabilities, talent* and *culture development*. In their work, Brynjolfsson and McAfee (2011) state that the solution for the "race with machines" is *organizational renovation*. Companies need to find new organizational structures, processes and business models that can take advantage from

new technologies and human skills. However, organizational changes will not bring the desired outcome, unless investments are allocated also for the education of human capital.

From an institutional perspective, there might be problems in workers' attitudes: elder people are seen as less willing to deal with technologic change and sometimes are "technophobic". The enthusiasm is very different between "*digital immigrants*" and "*digital natives*": according to Prensky (2001), the first are adults who have started to use technology as it has become available, whereas digital natives are people that cannot remember the first time they have surfed in Internet and feel completely confident with digital devices.

Colbert et al. (2016) show that digital workforce has developed many competencies through the use and interaction with IT devices. The most famous one is *digital fluency*, i.e. proficiency and confidence in getting desired outcomes and results using technology.

Beside digital fluency, workers should develop also a *digital mindset* and the new set of requested competencies involves: an understanding of future scenario possibilities, a general attitude toward risk and experimentation, virtual collaboration, fast problem solving using technologies, rapid individuation of information, multi-tasking skills and a general positive attitude toward e-learning tools. Soft skills are also considered essential for the digital workforce, such as for example leadership, team building, and creativity (Brynjolfsson and McAfee, 2011).

As regards working spaces, technology has changed the way in which identity is expressed, relationships are tuned and collaborations are conducted, causing severe implications for enterprises. Especially young adults ("digital natives") don't feel comfortable with face-to-face communications and have problems, when they need to speak in public or at the phone (Turkle, 2015).

According to Porter and Heppelmann (2015), a manufacturer of smart, connected products is something in between a software company and a traditional product company. Because of this hybrid nature, managers should be aware of the mix of skills required across the value chain. According to the authors, manufacturing companies need: new expertise, new cultures and new compensation models:

- *New expertise*. Managers experience a general lack of expertise and find extremely hard to hire employees: the actual state of competition requires a shift from mechanical engineering to software engineering, from selling products to selling services, and from repairing products to managing products. Moreover, the amount of data collected by organizations requires data scientists, who are able to translate pieces of information into action plans;

- *New culture* is mandatory for the coordination of different activities across the organization: this entails the integration of workers from different staffs and with different backgrounds;
- *New compensation models*, meaning that manufacturers need to find new ways to attract and motivate their employees. In order to hire the best possible talents, organizations are adopting different techniques, such as job flexibility, concierge services, sabbaticals, and free time to work on projects of personal interest.

Despite the opportunities coming from automated work, scholars are warning on the increasing displacement of human workers and difficulties deriving from the combination of automation and creativity.

According to Davenport and Kirby (2015), organizations should follow an *augmentation strategy*, which means human work helping automated machines and vice-versa. Also reported by Autor et al. (2007), augmentation should correspond to the complementary exploitation of human capital and computerized tasks. It means that those activities that are better performed by computers should be automated, but those better performed by humans should be preserved.

SUMMARY OF LITERATURE REVIEW FOR VIMAR'S CASE STUDY:

- Connected costumers, products and equipments are forcing a *digital imperative* for companies across all industries (Fitzgerald et al., 2013);
- Based on Digital Maturity Model (Wersterman et al., 2012), Vimar should be classified as "*digital beginner*". This is in line with manufacturing industry;
- IOT technologies are part of Data Revolution. Competition is changing in three ways: (1) changing industry structures and boundaries; (2) creating new competitive advantages and ways to outperform competitors; and (3) starting new businesses or business models (Porter and Millar, 1985). Is Vimar using its own products as a source of data or changing the value chain exploiting IT and analytics tools?
- As reported by Osservatorio IoT, manufacturing firms offering Smart Home solutions face the following obstacles: (1) their products rely too much on the intervention of qualified installers; (2) they offer just basic services; (3) due to their indirect distribution system, installers' selling skills are dangerously pivotal for their success;
- Critical barriers for Digital Maturity are a lack of strategy, urgency and general vision (Kane et al., 2015; Fitzgerald et al., 2013). How many elements of the nine identified by Westerman et al. (2014) are addressed by Vimar for its digital transformation? Is the company addressing any of the ten strategic questions enumerated by Porter and Heppelmann (2014)?;
- As regards digital workforce, is Vimar focusing on new expertise or new culture (Porter and Heppelmann, 2015)?

2. BUSINESS MODELS: FROM THE STUDY OF FIRM'S LOGIC TOWARD NEVER ENDING INNOVATION OPPORTUNITIES

Competitive pressure, digital transformation, adverse economic conditions and resource scarcity have driven the focus of organizations toward business model innovation.

Business Model construct, which is now extremely popular in academic and also business environment, has gained attention just at the beginning of the Millennial, thanks to the rise of the Internet, ICTs, E-Commerce and E-Business. In particular, the easiness and speed of data sharing has opened the possibility to create new ways of doing business and potentially infinite business models configurations.

Chapter 2 is going to analyze theoretical backgrounds and managerial implications for business model design and innovation. In more details, paragraph 2.1 reports some of the major definitions of business model construct, which concerns the logic of the company and describes how it operates, creates and captures value into a competitive marketplace. In the following paragraph, business model will be correlated to another major construct used for the description of companies, i.e. corporate strategy: coupling business model and strategy analysis is recommended for the protection of competitive advantage. Last section, paragraph 2.1.2, gives some general guidelines for business model components and explains the analogy with recipes.

Moving on, in "Business Model Canvas and its building blocks", the visual chart developed by Osterwalder and Pigneur (2010) is analyzed in greater details, covering all four key areas of a company: customer, offer, infrastructure and financial viability.

Last section is dedicated to business model innovation: paragraph 2.3.1 will describe what is meant with business model innovation, what are the reasons behind it as well as starting points. The following paragraph is a literature review of different points of view on how and when managers should drive business model innovation taking into account some major obstacles and barriers. Particularly critical for the success of the strategy is change management. Finally, "A five phases approach to Business Model Innovation" reports main activities, critical success factors and key dangers identified by Osterwalder and Pigneur (2010) for business model innovation.

2.1 Business Model definition and meaning

Business models have raised their popularity as study themes and corporate strategy tools just during the last decades: at its beginning, business model concept was intensely connected to the rise of the Internet during the 90s. Kodama (1999) provided an early analysis of the

concept, as frequently used for dot.com organizations, that were having a terrific success at that time. The popularity of dot.com firms was so high, that just naming them was enough to make business people think about profitable activities.
Business models haven't received for years the deserved attention, and just from the new Millennial, they started getting greater focus in management literature, especially with Porter, Chesbrough, and Osterwalder' works. Scholars wondered about the relevance of business models for organizations, such as for example Baden-Fuller and Morgan (2010), who explored the question: "Are Business Models useful?".

In general, it is straightforward that the way in which corporations make profits nowadays is particularly different, if compared to the industrial era. As stated by Amit and Zott (2010), managers and corporations are confident that in order to gain competitive advantage, it will be always more critical *how they do business rather than what they do*.
Teece (2010) individuates four driving factors, that have highlighted the relevance of business models studies:

- the emerging knowledge economy;
- the growth of the Internet and E-commerce;
- the outsourcing and off-shoring of many business activities,
- the restructuring of financial services industry.

Definitely, the "growth of the Internet" has caused the biggest effect. Consumers' power has tremendously increased and thanks to the easiness and speed of data sharing, firms need to study new ways for delivering value, and most importantly, how to capture it. Before Teece (2010), also Osterwalder (2004) made his point on this topic: ICTs, E-Commerce and E-Business have created new ways of doing business and infinite business configuration possibilities. According to the author, if business models were quite similar before the development of these technologies, now possible business horizons are very different and digital transformation of industries plays a critical role for the enhancement of *new lines of business* or *business models* (Fitzgerald et al., 2013).

Again Osterwalder (2004) has found four main changes on the way of doing business: the first is the *reduction of transaction and coordination costs* (i.e. time and money spent to search for sellers and buyers, negotiate contract terms, and enforce deals) – concepts that were introduced by Coase (1937) and Williamson (1975). Then new technologies have enabled companies to *deliver completely new products and services* to the marketplace. The third change has been the *creation of new product and service delivery systems* with the

exploitation of innovative channels and finally, the *adoption of new pricing mechanisms* and the exploitation of different revenue streams.

Many authors have provided their personal answers to the question: "What is a business model?" and in the table here below is reported a literature review on the topic (see Table 3: Main definitions for Business Model concept in management literature).

Table 3: Main definitions for Business Model concept in management literature

Authors	Definition	Article/Book	Year
Osterwalder and Pigneur	"*A business model describes the rationale of how an organization **creates, delivers and captures value***"	Business Model Generation, p.14.	2010
Afuah	"*The set of **which activities** a firm performs, **how** it performs them, and **when** it performs them as it uses its resources to perform activities given its industry, to **create superior customer value** (low cost or differentiated products) and put itself in a position **to appropriate the value***"	Business Models: a Strategic Management Approach	2004
Amit and Zott	"*We define a business model as the bundle of specific activities that are conducted to **satisfy the perceived needs of the market**, including the specification of the parties that conduct these activities (i.e., the focal firms and/or its partners), and how these activities are linked to each other*"	Business Model Innovation: creating value in times of change, p.2	2010
Teece	"*A business model defines how the enterprise **creates and delivers value** to customers, and then **converts payments received to profits***"	Business Models, Business Strategy and Innovation, p.173	2010
Baden-Fuller and Morgan	"*One role of business model is to provide a set of generic level descriptors of how a firm organises itself to **create and distribute value in a profitable manner***"	Business Models as Models, p.157	2010

Source: own elaboration.

All the statements mentioned in the table above can be summarized into an overall definition: business model concerns the logic of the company, how it operates, creates, and captures value into a competitive marketplace.

The ultimate meaning of business models in modern business environment lies in the high level of complexity. It needs to be broken down in smaller and more understandable elements, stressing business critical elements and pinpoints relationships (Osterwalder, 2004). According to Osterwalder and Pigneur (2010), "*The challenge is that the concept must be simple, relevant, and intuitively understandable, while not oversimplifying the complexities of how enterprises function*" (Osterwalder and Pigneur, 2010, p. 15).

Finally, Osterwalder (2004) lists the aims for business model design:

- to capture, visualise, understand and share the business logic;
- to measure, observe and compare different businesses;
- to improve the business management;
- to help the company follow new innovation paths and increase the ability to take advantage from market opportunities.

2.1.1 Business Models and Strategy

After providing a general definition of business model, it will be positioned inside the overall corporate strategy crafting process: as described in the following lines, business models are strongly correlated to strategy, but at the same time they do differ in some elements.

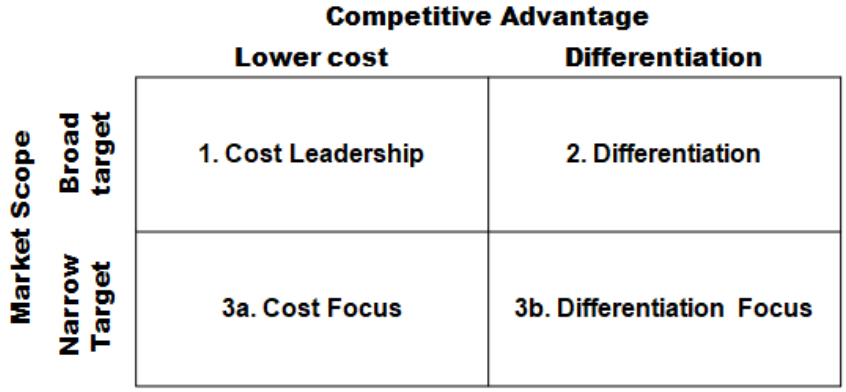
First thing first, it is reported Porter's definition for strategy: "*competitive strategy is about being different. It means deliberately choosing a different set of activities to deliver a unique mix of values*" (Porter, 1996, p.64). According to the scholar, companies can outperform competitors and achieve superior profitability, only if they can rely on sustainable competitive advantages. This condition can be reached in two ways:

- fulfilling customers' needs more **efficiently** by providing products and services at lower costs;
- fulfilling customers' needs more **effectively** by providing products and services with more benefits.

Moreover, Porter (1985) distinguishes between three generic competitive strategies, that are mostly used in management literature: low-cost, differentiation and focus strategy (see *infra*, Image 4). Of course, the possible strategies differ because of the competitive advantage (a trade-off between low-cost and differentiation), but also because of the market target. A single company may choose a broad or narrow scope for its customer segments.

Managers rely on different tools, in order to evaluate the level of sustainability of a particular strategy: such as Strength, Weakness, Opportunity and Threat (SWOT) analysis, Porter's five forces of competition, PESTEL (Political, Economical, Social, Technological, Ecological and Legal) analysis, Boston Consulting Group (BCG) Matrix model, and many others.

Image 4: Porter's three generic competitive strategies



Source: Porter, 1985.

"*Coupling strategy and business model analysis is needed to protect competitive advantage resulting from new business model design*" (Teece, 2010, p. 179). Although strongly correlated, anyway business model and strategy concepts are quite different.

As a matter of fact, even if business model collects revenues streams by creating and capturing value from customers, however on its own, it is not sufficient to build a competitive advantage for the firm (Teece, 2010), which is instead the first aim of strategy.

Moreover, according to Linder and Cantrell (2000), if business model concerns the "core logic" of creating value for the organization and its customers, then corporate strategy addresses more firms competition in the marketplace.

Although each business model is firm-specific, however some regularities may exist in the same industry and similar business models are usually shared among different competitors. Therefore, the imitation is not particularly difficult or uncommon: this cannot be referred also to corporate strategy. If business model is more generic, selecting the proper strategy is an heavier job and it individuates the action plan for outperforming competitors.

Finally, regarding the distinction between business model and strategy, Osterwalder's words can be reported: "*business models as the translation of a company's strategy into a blueprint of the company's logic of earning money*" (Osterwalder, 2004, p.14). The author uses a multi-layer approach to distinguish planning and architectural level inside the firm, as it is illustrated in Image 5.

Image 5: Business Layers

Planning level	**Strategic layer**	Vision, goals, and objectives
Architectural level	**Business Model layer**	Money earning logic
Implementation level	**Process layer**	Organization and workflow

Source: Osterwalder, 2004.

As it is showed, there are three main levels inside each organization. Business model works as a link between company's strategy, organization, and ICTs (hardware, software and systems). Translated into practice, managers individuate corporate vision, goals and objectives (planning level), and subsequently they convert these abstract concepts into more concrete tasks through the help of processes and ICT designers (implementation level). The linking help through the business model (architectural level) is critical for communicating to internal, but also external parties, a shared and common understanding of what the organization is actually doing to earn profits.

2.1.2 Guidelines for Business Model Components and Business Models as Recipes

Academics have tried to describe components of sustainable business models, in order to provide guidelines for their design.

In their work, Johnson et al. (2008) analyze the elements for a great business model, because: "*By systematically identifying all of its constituent parts, executives can understand how the model fulfils a potent value proposition in a profitable way using certain key resources and key processes*" (Johnson et al., 2008, p. 62).

Moreover, Teece (2010) states that for building a sustainable model, a four-step process is needed alongside a strategic analysis:

i. A segmentation of the market;
ii. Value propositions for each single customer segment;
iii. Design and implementation mechanism, in order to capture value from each segment;
iv. Implementation and isolation of each mechanism, for the purpose of hindering and blocking imitation threats.

Composing elements been studied by many scholars and, as well as there are different definitions possibilities, there are also different ways, in which Business Models can be designed (see *infra*, Table 4).

Table 4: Different business models composing elements and design

Business Model Elements and Design	Authors	Year
Six functions to be performed: value proposition expression, market segments identification, value chain description, cost and profit structure, positioning of the company inside the value network, and finally strategy crafting to compete in the marketplace.	Chesbrough and Rosenbloom	2000
Business models are built by three elements or streams – the value stream, the revenue stream and the logistical stream.	Mahadevan	2000
Six composing elements: mission, structure, processes, revenues, legal issues, and technology level.	Alt and Zimmermann	2001
Business model has to answer to different questions about costumer value, scope, pricing strategy, revenues source, key activities and their implementation, capabilities, and finally sustainability.	Afuah and Tucci	2003

Source: own elaboration.

As described by Baden-Fuller and Morgan (2010), business models act as models: they support the description and classification of a business, they guide scientific investigations, and also work as "recipes". The similes of "Business Models as recipes" is particularly interesting. By following the recipe/the business model, the executor can expect a well-defined outcome. Some recipes have already been created and tested by famous big players and other companies might desire to copy or follow them. Due to their success, some have become best cases examples, and they are used in literature in order to categorize other models, such as "South West Airlines business model", "Amazon business model", "Ikea business model" or "Razor and Blades business model" (Teece, 2010; Johnson et al., 2008). Moreover, there is always the possibility to end up with an even greater performance and outcome by adding some variations to the original one. But, the authors stress that not all managers can make the same business model work, as well as not everybody can success in every single recipe.

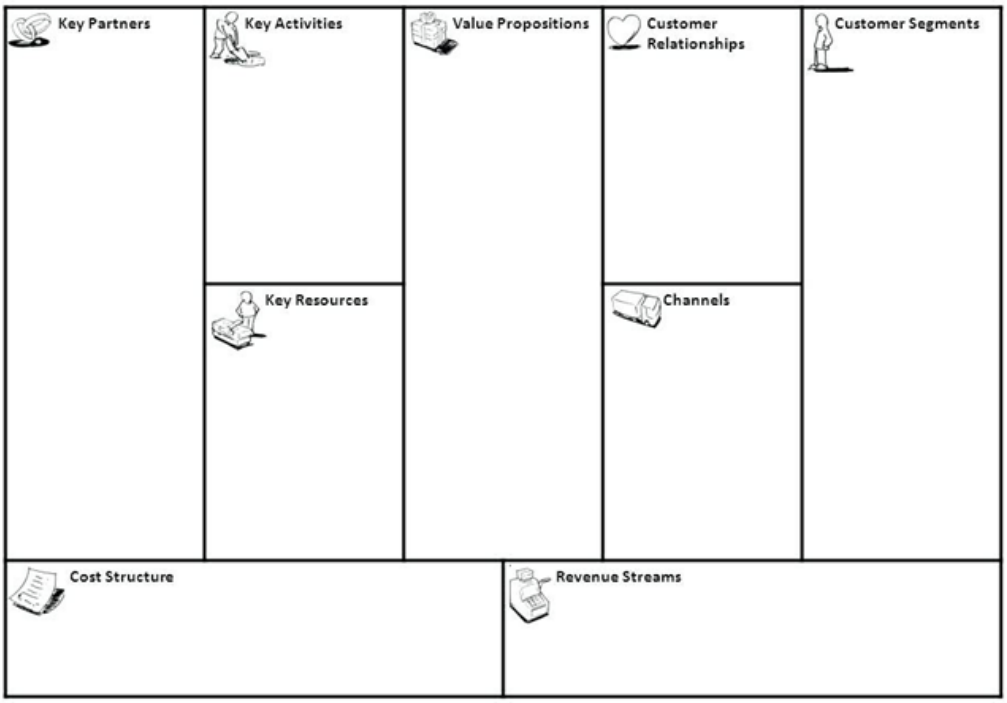
2.2 Business Model Canvas and its building blocks

Even if many scholars have worked on the development of a personal business model composition, however the most well-known and used (especially in the academic environment) is the "Business Model Canvas", which was designed by Osterwalder and Pigneur in 2010 (Osterwalder, back in 2004, firstly conceived the idea with his "Business Model Ontology").

As reported in Table 3 above, according to Osterwalder and Pigneur "*A business model describes the rationale of how an organization creates, delivers and captures value*" (Osterwalder and Pigneur, 2010, p. 14). Business Model Canvas is like a visual chart (see *infra*, Image 5: Business Model Canvas) in which nine blocks, the so called "building blocks", are presented. They cover the four key areas of a company: customers, offer, infrastructure, and financial viability. In the first area (customers), Customer Segments, Channels, and Customer Relationships are included. The second (offer) covers Value Proposition block. The third (infrastructure) factors in: Key Activities, Key Resources and Key Partnerships. Finally, the last area (financial viability) encompasses: Cost Structure and Revenues Streams.

With this business model design template the company is able to explain how it intends to make profits. Image 6 represents the Canvas model and its nine building blocks.

Image 6: Business Model Canvas



Source: Osterwalder and Pigneur, 2010.

It is interesting to see that of the nine building blocks some deal with value creation and the others with value distribution, and from the combination of both groups stands out the ability of the firm to capture value.

Now all nine building blocks are analyzed in more details:

1. **Customer Segments.** "*The Customer Segment Building Block defines the different groups of people or organizations an enterprise aims to reach and serve*"

(Osterwalder and Pigneur, 2010, p.20). Firms target one or more customer segments, which are distinct groups of people with common needs, behaviours and other characteristics. Customer segmentation activity enables the provision of better products and services to each particular client. It is essential for an enterprise to decide a priori which customer segments to target and which not: it will be impossible to fulfil the different needs and desires of all possible clients. The authors mention five different customer segments: mass market, niche market, segment, diversified, and multi-sided platforms.

2. **Value Propositions.** "*The Value Propositions Building Block describes the bundle of products and services that create value for a specific Customer Segment*" (Osterwalder and Pigneur, 2010, p. 22). VP must be conceived as customer's problems solver, or needs satisfier. It is specific for each single customer segment and it is the essential element for customer lock-in. Value creation is a mix of tangible (products) and intangible (services) elements: the authors suggest some elements that may contribute to customer value creation, such as newness, performance, customization, design, brand/status, price, and so on.
3. **Channels**. "*The Channels Building Block describes how a company communicates with and reaches its Customer Segments to deliver a Value Proposition*" (Osterwalder and Pigneur, 2010, p.26). Osterwalder and Pigneur describe five different functions served through channels: giving awareness for product and service offer, helping customers' evaluation of a value proposition, purchasing of a specific product or service, delivering of the value proposition, and providing after-sales customer support. There are two channel types: the direct and indirect one. The first type is when the company, in order to sell its products/services, uses no intermediaries and sells through sales force, own stores, and e-commerce. Whereas the second type is when along the delivery chain companies use intermediaries, such as partners or wholesalers. For the success of the distribution system an organization must find the proper mix of channels to serve its customers in the best possible way.
4. **Customer Relationships.** "*The Customer Relationships Building Block describes the types of relationships a company establishes with specific Customer Segments*" (Osterwalder and Pigneur, 2010, p. 28). According to the authors, Customer Relationship Management is driven by three reasons: customer acquisition, customer retention and boosting sales (up-selling). Relationships can range from personal to automated: personal assistance at the point of sale, dedicated personal assistance

(specifically for an individual client), self-service, automated service, communities and co-creation.

5. **Revenue Streams.** "*The Revenue Streams Building Block represents the cash a company generates from each Customer Segment*" (Osterwalder and Pigneur, 2010, p. 30). This building block represents for what kind of value customers are willing to pay. Revenues streams come from different customer segments and they can be of two kinds: transaction revenues from one-time customer payment and recurring revenues from ongoing payments. Customers can pay for an asset sale, an usage fee, a subscription fee, renting, licensing, and so on. The company can use two types of pricing mechanism (fixed or dynamic pricing) and they have an huge impact on revenue streams.
6. **Key Resources.** "*The Key Resources Building Block describes the most important assets required to make a business model work*" (Osterwalder and Pigneur, 2010, p. 34). The authors identify four groups of resources: physical, intellectual, human, and financial. They can either be owned or leased or the company can obtain them from key partners. Key resources are the fundamental asset to sustain business model.
7. **Key Activities.** "*The Key Activities Building Block describes the most important things a company must do to make its business model works*" (Osterwalder and Pigneur, 2010, p. 36). They are specific for the type of business model and can be categorized in: production (designing, making and delivering), problem solving (new solutions for specific customers' problems), and platform/network.
8. **Key Partnerships**. "*The Key Partnerships Building Block describes the network of suppliers and partners that make the business model work*" (Osterwalder and Pigneur, 2010, p. 38). The authors distinguish between four different types of partnerships: strategic alliances between non-competitors, coopetition with competitors, joint ventures, and buyer-supplier relationships. Furthermore, there are three main reasons for building a partnership: optimization and economies of scale, reduction of risk and uncertainty, and acquisition of key resources and activities.
9. **Cost Structure.** "*The Cost Structure Building Block describes all costs incurred to operate a business model*" (Osterwalder and Pigneur, 2010, p. 40). A difference between cost-driven and value-driven business models has been made according to the particular cost structure: the first model concentrates on cutting costs, whereas the second one on the creation of value. Main characteristics for cost structure are fixed and variable costs, and economies of scale and scope.

2.3 Business Model Innovation

2.3.1 What is Business Model innovation and why focus on it?

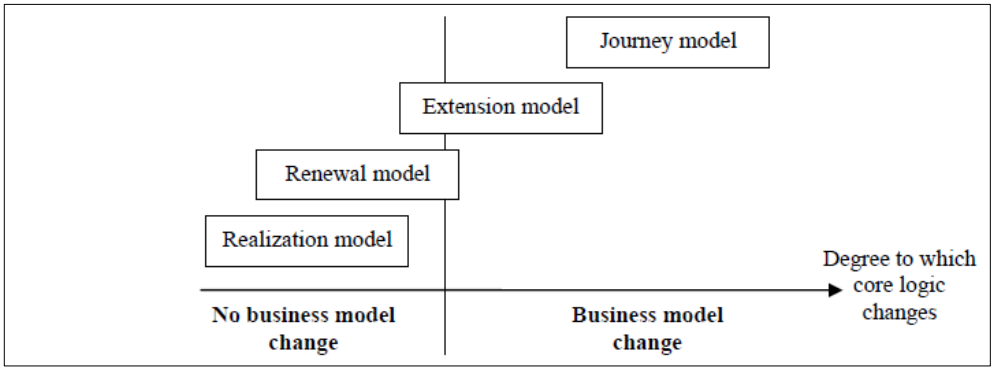
As already seen for the general definition of business model, again many scholars have proposed their personal view on "what is business model innovation?".

According to Mitchell and Coles (2003), business model innovation regards modifications in the "who", "what", "when", "why", "where", "how", or "how much" for the purpose of delivering a better value proposition to final customers. In "Reinventing Your Business Model" (2008), the authors consider it as a journey toward new growth opportunities or Amit and Zott (2010) state that business model innovation is not just related to a new product line or improved process, but it represents the design of a modified or new set of activities, by recombining existing resources without massive investments in R&D.

Linder and Cantrell (2000) distinguish between four different types of models according to the degree in which they change the previous one (see *infra*, Image 7):

- The *realization model* doesn't make massive changes inside the organization, but it focus more on small adjustments, in order to maximize corporate potential;
- The *renewal model* is when the firm operates relevant revitalizations of product and service platforms, cost structures, technology levels and brands;
- The *extension model* is able to expand the old organization involving forward, backward and horizontal integration along the value chain;
- The *journey model* is when the old business model is completely disrupted and the new one takes the organization to a completely new level.

Image 7: Linder and Cantrell's business models change



Source: Linder and Cantrell, 2000.

After providing some definitions, it will be now explained why managers should focus on business model innovation for developing their organizations.

In their work, Nidumolu et al. (2009) stress that it is crucial "*to find novel ways of delivering and capturing value, which will change the basis of competition*" (Nidumolu et al., 2009, p.

60). Moreover, companies usually make investments in processes and products innovation activities: these types of expenditures are onerous and also time-consuming. Therefore, during (and after) 2008-2009 global recession, many firms have decided to cut down investments, in order to survive (Amit and Zott, 2010). "*Especially in a world where financial resources are scarce, entrepreneurs and managers must look beyond the product and process levels to focus on ways to innovate their business model*" (Amit and Zott, 2010, p. 12). So, corporations facing economic problems have started to question about other innovative ways to be competitive on the market and make a change. In a study for IBM conducted by Pohle and Chapman (2006), it has been found out that competitive pressure and adverse economic conditions have increased the priority of business model innovation for CEOs; however, at the same time, worldwide only 10% of innovation investments are focused on developing new business models (Johnson et al., 2008).

Osterwalder and Pigneur (2010) have listed the reasons behind business model innovation effort. The authors have actually identified four main explanations:

(1) **Satisfy market**, fulfilling customers' needs that have not already been answered from other organizations;
(2) **Bring to market**, for the purpose of delivering new technologies, products, services or exploit an already existing intellectual property;
(3) **Improve market**, the aim is to enhance, disrupt, or transform an already established market with a new business model;
(4) **Create market**, through the invention of a completely novel one.

Many scholars have written about the unbreakable link between business model design effort and technological innovation. According to Chesbrough and Rosenbloom (2000), business model is the logic by which a technical potential is converted into economic value for the firm. Furthermore, by innovating the business model and not just the product, a firm can avoid the risk that other competitors may copy its business (Chesbrough, 2010). Also according to Teece (2010), the single introduction of revolutionary products is not enough, unless the innovator is able to supply them according to customers' value propositions, quality and price demand.

Christensen in his works (1997 and 2003) has examined the concept of "disruptive innovation", which is not a single product or service innovation, but it involves an entire process, an evolution of the product or service over time (Christensen et al., 2015). After the creation of a whole new process, disrupters usually imagine and build business models that are very innovative and different from those of competitors, in order to stand out in the

marketplace. Like in Amit and Zott's work (2001), Christensen et al. (2015) recognize in the tension toward disruptive innovation, a conflict between the current business model and the new one, which will better serve the novel technology.

2.3.2 How to, when and what are the barriers for Business Model innovation

Even if there are some regularities in business model innovation projects, however as stated by Teece, "*designing good business models is in part an art*" (Teece, 2010, p.190). According to the author, basic elements are: "*creativity, insight, and a good deal of customers, competitors and suppliers information and intelligence*" (Teece, 2010, p. 187). Moreover, Nidumolu et al. (2009) find that opportunities for business model innovation are strongly correlated with new technologies, value chain improvements, a combination of digital and physical infrastructure, or turning products into services.

Scholars have tried to describe possible guidelines for business model innovation and in order to simplify the journey for managers and organizations, a step approach or key questions are usually provided, as it exhibited in Table 5.

Table 5: Step and question approach for business model innovation

Step and question approach for business model innovation	Scholars	Year
Six-step approach: description of current value proposition, identification of entities contributing to value-creation, creative and new ways of doing business, recombination of all different elements, value map preparation.	Tapscott, Lowi, et al.	2000
Four-step approach: the innovation team should firstly identify the *actual players*, then highlight *value flows*, identify *key competitive drivers* and finally construct a *feedback chain*.	Papakiriakopoulos and Poulymenakou	2001
Three-step approach: experimentation, effectuation and leading change inside the organization. As it will be described below, change management and communication of new models are critical success factors for an innovation project.	Chesbrough	2010
Six-question approach: objective and customers' needs, business model content, business model structure, business model governance, value creation for each partner, revenue model and how to capture value.	Amit and Zott	2010

Source: own elaboration.

While managers experiment and take information for new business models, it is evident, that an organization can't simply stop its working activities, but has instead to continue using the old one. As a matter of fact, during these processes companies operate on two different business models at the same time. Chesbrough on the topic writes: "*At the same time, the organization's culture must find ways to embrace the new model, while maintaining the effectiveness of the current business model until the new one is ready to take over completely*" (Chesbrough, 2010, p. 362).

As just seen, even if general guidelines and approaches have been provide, however practice shows that managers find sometimes difficult to actualize plans or ideas. For this reason, critical success factors for business model innovation are: experimentation and learning from execution, space for manoeuvres and dynamic capabilities:

- *Experimentation* and *learning from execution*. Business model innovation is an ongoing journey of trial and error, learning by-doing and some adjustments have to be made along the way (Teece, 2010). Shirky (2008), who also shares this idea of unstable business models, states that they are "provisional solutions": managers must be willing to replace or adjust them overtime, if they want to benefit from technological or organizational innovation. Business models are not unchangeable, but they are dynamic representations of organizations: as reported by Baden-Fuller and Morgan (2010), managers change and re-invent business models for their firms;
- *Space for manoeuvres*. Especially when coping with emerging markets, the right model is difficult to concretize straightforward and for this reason managers have to keep monitoring external and internal environments and make adjustments;
- Furthermore, in order to survive the innovation journey, an organization requires *dynamic capabilities.* According to Teece and al. (1997), a business needs a set of dynamic capabilities to face changing markets. In general a firm capability is its capacity to perform some activities proficiently. In his work, Teece (2007) describes dynamic capabilities in terms of sensing, seizing and reconfiguring:
    i. *Sensing* is the general search for market information required for a company, in order to analyze and evaluate external opportunities and threats;
    ii. *Seizing*, relates to the ability of setting-up a business model once the opportunity is defined. The organization usually involves also R&D activities during this stage;

iii. *Reconfiguring* stays for the ability to recombine assets and arrange the organizational structure. The firm should also evaluate and find the right time to launch the change.

In the following lines, it will be described when business model innovation is needed and what are main starting points.

In their paper Johnson et al. (2008) individuate five strategic circumstances (three opportunities and two needs), in which companies must think about business model innovation:

Here below are listed the three opportunities for business model innovation:

i. When there is the **opportunity to address the needs** of a large segment of customers through the use of disruptive innovation;
ii. When there is the **opportunity to capitalize on new technologies**;
iii. When there is the **opportunity to focus before anyone else** on getting a particular job done.

And finally the two needs of business model innovation:

i. When there is the **need to fight low-end disrupters**;
ii. When there is the **need to respond to a shift in competition**.

Moreover, Osterwalder and Pigneur (2010) enumerate four specific starting points for business model innovation, if the firm under examination is an established one:

i. **Reactive approach,** when the organization is facing a crisis with the current business model;
ii. **Adaptive approach**, when external forces and changes in the environment compel the firm to adjust, improve or defend the existing business model;
iii. **Expansive approach**, when the company is delivering new products, services or technologies to the market;
iv. **Pro-active/exploring approach**, when instead of reacting to external forces, a firm is preparing for the future by testing changes and innovations in the business model.

Even if there are strategic moments in which companies should carefully think about business model changes, however always Johnson et al. (2008) warn that there is no rush for innovation, and managers have to carefully assess, if the opportunity is worth the effort. There is "*no point in instituting a new business model unless it is not only new to the company, but in some way game-changing to the industry or market*" (Johnson et al., 2008, p. 58).

Finally, barriers and problems to business model experimentation are described. Even though managers are actually able to recognize the right business model, however its development is sometimes impeded by conflicts with the current business model, or configuration of assets (Chesbrough, 2010; Christensen, 1997). Amit and Zott (2001) report that typically gross margins for the innovated business model are initially far below those of established models.
Changing the whole business model (instead of focusing on a single activity) may be very challenging, in particular when managers have to face an economic crisis or take advantage of a particular market opportunity. Hard work can be intimidating, and this is even worst, when there is a certain level of resistance to change: "*business models often look unattractive to internal and external stakeholders*" (Johnson et al., 2008, p. 60). According to the authors, there are two main problems for business model innovation:

- There is a *lack of definition of the topic in general*. Not many studies have been conducted on the dynamics of business model experimentation and managers have not received adequate training;
- The second problem is that only a *small number of organizations do actually understand their current model* – which is the starting point for change – and for this reason they don't know when and where to act.

Experimentation of different activities and change management are a complex task and they may cause conflicts among different parties. According to Lunenburg (2010), organizational change represents the movement of an organization away from its present state and toward some desired future condition, in order to increase effectiveness. There are two main categories of change: the *evolutionary change* and the *revolutionary* one. The first is when the transformation inside the organization is gradual, incremental and narrowly focused; whereas the second refers to rapid, dramatic and broadly focused changes.
Lewin (1951) has proposed a three-step approach for change management. i.e. unfreezing the organization, conduct the desired change, and finally refreeze the organization. According to the author change represents a temporary state of instability before the entire system returns to a state of homeostasis. Other methods for dealing with resistance to change inside organizations have been studied by Kotter and Schlesinger (2008) in their paper "Choosing Strategies for Change". They individuate six different approaches according to different situations: *education and communication; participation and involvement; facilitation and support; negotiation and agreement; manipulation and co-optation; and finally explicit and implicit coercion*. For each single method there are advantages and also disadvantages, as it is exhibited in Table 6: Methods for dealing with resistance to change.

Table 6: Methods for dealing with resistance to change

Approach	Commonly used in situations	Advantages	Drawbacks
Education + communication	Where there is a lack of information or inaccurate information and analysis.	Once persuaded, people will often help with the implementation of the change.	Can be very time consuming if lots of people are involved.
Participation + involvement	Where the initiators do not have all the information they need to design the change, and where others have considerable power to resist.	People who participate will be committed to implementing change, and any relevant information they have will be integrated into the change plan.	Can be very time consuming if participators design an inappropriate change.
Facilitation + support	Where people are resisting because of adjustment problems.	No other approach works as well with adjustment problems.	Can be time consuming, expensive, and still fail.
Negotiation + agreement	Where someone or some group will clearly lose out in a change, and where that group has considerable power to resist.	Sometimes it is a relatively easy way to avoid major resistance.	Can be too expensive in many cases if it alerts others to negotiate for compliance.
Manipulation + co-optation	Where other tactics will not work or are too expensive.	It can be a relatively quick and inexpensive solution to resistance problems.	Can lead to future problems if people feel manipulated.
Explicit + implicit coercion	Where speed is essential, and the change initiators possess considerable power.	It is speedy and can overcome any kind of resistance.	Can be risky if it leaves people mad at the initiators.

Source: Kotter and Schlesinger, 2008.

In order to introduce the following paragraph about Osterwalder and Pigneur' business model innovation approach, here are summarized the challenges that firms have to face according to these scholars: organizations have to find the right model, run a test, force the market to adopt the new model and adjust it according to external forces, while managing the uncertainty inside their organization (Osterwalder and Pigneur, 2010).

2.3.3 A five phases approach to Business Model Innovation.

As seen in paragraph 2.3.2, many authors have proposed their own method for business model change management. Now, it is going to be analyzed what Osterwalder and Pigneur (2010) have proposed in their "Business Model Generation": a five-phase approach for business model design. The five steps, that will be discussed in more details below, are: Mobilize, Understand, Design, Implement, and Manage.

Even if scholars try to give precise directions to managers on possible ways to innovate and design their business models, however it is important to keep in mind, that the entire process is subject to a certain degree of ambiguity and uncertainty, and it is unpredictable by nature. Moreover, each organization is different and unique: starting points and specific approaches used will be peculiar and adapted for each specific case. Even if the five steps are supposed to be a chronological progression, anyway in reality more steps may coexist at the same time.

Before moving on, main elements for business model innovation can be here summarized:

- The status-quo of the firm has to be constantly questioned;

- Business model innovation is not a one-time event;
- The organization should focus on the continuous scanning of current business model and external environment forces, in order to assess adjustments and modifications;
- It's essential to a have a long-term perspective and a proactive attitude;
- A cross-functional team is required for the creation of a new business model;
- Communicate and explain new business models is essential, in order to decrease the level of uncertainty.

In the following lines, the five phases for business model design are analyzed in more details and a quicker summary will be provided in Table 7:

Mobilize phase. In this first phase some key activities are usually undertaken, such as determine objectives, ratios and main scopes for the project, test preliminary ideas, plan the entire project, and finally appoint the team. A critical success factor is to take advantage of employees' different capabilities and skills, and appoint a cross-functional team with various experiences.

A very common mistake in the first stage is to overestimate the potential of initial business model ideas: workshops should be run quite frequently, therefore the team doesn't focus only on one single idea and is capable of exploring also other possibilities. When working in established organizations, board members and top managers should be involved from the beginning: their first line participation will give to the project a certain level of legitimacy. Also, managers should consider that not everybody inside the organization is actually interested in business model innovation: decision-makers must be oriented and educated on its relevance.

Understanding phase. The second phase consists in the development of a total and solid comprehension of the environment, in which the new business model will be played. Main activities undertaken are: scanning the environment with market researches, studying potential customers, interviewing main experts in the fields of study, and collecting ideas and options to depict a business model design space. Developing a comprehensive understanding of target market and customers segments, and question industry assumptions and current boundaries are the main success factors.

As in every single research activity, the team could run into the risk of over-researching: too many pieces of information and data are not desirable, because they increase the threat of analysis paralysis. When working inside an established company, it could be useful to map

the current business model of the firm and start questioning the status quo and look also toward different customers segments and markets.

Design phase. During this stage the team has to create the actual model. In order to complete the task, key success factors: co-creation together with people from the entire organization with cross-functional competences, expansive thinking, questioning the status quo and taking the right amount of time to investigate business model opportunities. A real danger is to "fall in love" with ideas to early and not give enough time to other options to be explored and analyzed. Inside established organizations, managers should encourage bold ideas. Moreover, in designing the new business model, the team should question if old and new business models should be separated or integrated into a single one (for example a firm may be willing to manage multiple business models at the same time).

Implement phase. After completing the design, the team is ready to communicate and involve other workers for the implementation of the new business model. Critical success factors are projections and provisions of threats and weaknesses coming from external and internal environments. The team should also focus in the communication of the new business model to the entire organization, and use different channels possibilities for its explanation: this will decrease the level of uncertainty, that change always brings.

Managing phase. Finally, it is described the last stage, which is not really an end, but instead represents the beginning of another process: business model innovation is not a one-time event and it continues also beyond implementation. Managing activities are directed to the scanning of the external environment and the questioning of current business model. In this way, the organization will be prompt, if adjustments or complete renovations are needed. Another key task is to control synergies or conflicts. Critical success factors are in general a proactive attitude and a long-term perspective, together with a strategic governance: the focus should be shared by all the people working for an organization, and not just a concern for top managers. A key danger, that every firm should keep in mind, is that each single organization, regardless of the level of success should always keep a "beginner mindset", do not let down the guard and fail to adapt.

Table 7: Five phases business model innovation approach summary

Phase	Description	Main activities	Critical success factors	Key dangers
Mobilize	Prepare the company for a successful business model project.	• Describe project objectives; • Test BM ideas; • Assemble the team.	• Individuate the right people for the cross-functional team.	• Overestimate initial ideas.
Understand	Research and analyze elements for BM innovation project.	• Scan environment; • Potential customers analysis; • Collect ideas; • See experts.	• Deep understanding of potential markets; • Explore other market boundaries.	• Biases in research effort; • Over-researching.
Design	Adapt and modify BMs according to internal and external forces.	• Brainstorms of ideas; • Test; • Select.	• Co-creation with people from the entire firm; • Question the status-quo; • Time to explore different BM idea.	• Abandon too bold ideas; • Choosing ideas too quickly.
Implement	Run the BM.	• Communicate and involve; • Execute the BM.	• Project management; • Ability to quickly adapt the BM; • Align “old” and “new” BMs.	• Not being able to communicate and explain the new BM inside the organization.
Manage	Adjust or modify BM according to market reactions.	• Scan the environment; • Keep questioning the BM; • Adjust or rethink completely the BM; • Manage conflicts inside the organization.	• Long-term attitude; • Being proactive; • Appropriate governance structure.	• Not focus on innovation and take for granted the current success.

Source: Osterwalder and Pigneur, 2010.

SUMMARY OF LITERATURE REVIEW FOR VIMAR'S CASE STUDY:

- Firstly the rise of the Internet, then ICTs, E-Commerce, E-Business and now digital transformation have created new ways of doing business and infinite business models configuration possibilities (Teece, 2010; Osterwalder, 2004, Fitzgerald et al., 2013);
- Is Vimar focusing on its business model as a link between planning, i.e. strategy, and implementing level, i.e. organization and ICTs (Osterwalder, 2004)?
- Business Model Canvas is used in order to describe how Vimar "*creates, delivers and captures value*" (Osterwalder and Pigneur, 2010, p.14);
- Manufacturing firms should be aware of the unbreakable link between business model design and technological innovation (Teece, 2010 and Chesbrough, 2010);
- As reported by Pohle and Chapman (2006), Johnson et al. (2008) and Amit and Zott (2010), business model innovation is becoming a priority for firms facing competitive pressure and adverse economic conditions. Key drivers are: satisfy market, bring to market, improve market and create market (Osterwalder and Pigneur, 2010); whereas the starting point for innovation may be found in: a reactive, adaptive, expansive or pro-active/exploring approach (Osterwalder and Pigneur, 2010);
- Vimar should investigate, if there is any opportunity or need for business model innovation and if there are any barriers or resistance to change (Johnson et al., 2008);
- Driving the change, the organization may opt for an evolutionary or revolutionary approach (Lunenburg, 2010): in any case, change management should be executed on a three-step approach (Lewin, 1951);
- The Five Phases approach to Business Model Innovation developed by Osterwalder and Pigneur (2010) may be useful for Vimar, in order to manage activities and avoid key dangers.

3. THE GOLDEN AGE OF SERVICES: A MANAGERIAL APPROACH FOR MANUFACTURING FIRMS APPROACHING SERVICE TRANSITIONS STRATEGIES

Chapter 3 will provide a literature overview for servitization key features, competitive strategies and barriers to overtake, stressing the perspective of manufacturing companies.

Since the early 1990s companies have stopped focusing just on product demand and started to deliver value through services, providing solutions rather than physical objects. The phenomenon has been referred to as servitization, but scholars have used also other expressions, such as service differentiation, product-service system, service transition, service infusion, service business development and transition from product to services.

Vandermerwe and Rada (1988), who firstly used and coined the expression servitization, noticed that an increasingly larger number of organizations were including in their offer also services, mainly in order to intensify competitive advantage, turnover and market power. The success of service transition strategies has become particularly interesting for management researches: scholars have illustrated to manufacturing firms different approaches and operational steps to follow, in order to succeed in service transition journeys. "*This is the golden age of service, and to survive and prosper, we're told, every company must transform itself into a services business*" (Cohen et al., 2006, p. 129).

In more details, paragraph 3.1 will provide some general definitions and key characteristics for services. Moving on to section 3.2, servitization phenomenon will be presented in different perspectives and major driving forces toward service differentiation will be described. Taking an overall marketing point of view, paragraph 3.2.1 illustrates the shift from Goods-Dominant Logic (GDL) toward Services-Dominant Logic (SDL). Concluding the general discussion on servitization, the following section explains some of the most relevant approaches used by scholars for service transition and the fundamental concept of Product-Service System (a.k.a. PSS).

Finally, service transition strategies for manufacturing firms are discussed: firstly, different types of services and strategy position possibilities are presented; then a deeper analysis of customer service and after-sales strategies is run, in order to better understand their relevance and potential; in the end, 3.3.3 section consists of a guide toward different possible managerial approaches and step to take, for succeeding in servitization challenges.

3.1 Service: definition and key characteristics

Before analyzing the phenomenon of servitization and different service transition approaches for manufacturing firms, first of all it is essential to provide a general definition of service and describe key characteristics and features differentiating it from tangible goods.

In Table 8 are reported the words of Grönroos (2000), Vargo and Lusch (2004) and Edvardsson, Gustafsson and Roos (2005), describing what they mean with "service":

Table 8: Service definitions

Authors	Definition	Article/Book	Year
Grönroos	"*A service is an activity or series of activities of a more or less intangible nature than normally, but not necessarily, take place in interaction between the customer and service employees and/or physical resources or goods and/or systems of the service provider, which are provided as solutions to customer problems*"	"Service Management and Marketing: A Customer Relationship Management Approach", p. 46	2000
Vargo and Lusch	"*We define services as the application of specialized competences (knowledge and skills) through deeds, processes, and performances for the benefit of another entity or the entity itself*"	"Evolving to a New Dominant Logic for Marketing", p. 2	2004
Edvardsson, Gustafsson and Roos	*"We suggest a new way of portraying service: service is a perspective on value creation rather than a category of market offerings; the focus is on value through the lens of the customer; and co-creation of value with customers is key and the interactive, processual, experiential, and relational nature form the basis for characterizing service".*	"Service portraits in service research: a critical review", p.118	2005

Source : own elaboration.

Differences between physical goods and services have been deeply discussed by experts and, even if different opinions can be found on the topic, however four main services characteristics seem to recur, i.e. intangibility, inseparability, perishability and heterogeneity. These properties will be described in more details here below and summarized in Table 9:

1. **Intangibility** refers to the inability to feel, see, taste and touch services, which is possibly the most important difference from physical goods (A. Parasuraman et al.,

1985). Services are seen as performances rather that objects, and for this reason consumers do not actually own services, but they experience them. Moreover, intangibility makes services more difficult than products on one hand for customers to evaluate (Gustafsson and Johnson, 2003) and on the other hand for marketers to sell (A. Parasuraman et al., 1985): they cannot be displayed or illustrated and selling expertise of providers is crucial for closing deals;

2. **Inseparability** concerns the indispensable nature of providers for services execution, which is why a good customer relationship management (CRM) becomes vital. The production of services cannot be divided from its consumption and there is also a co-production effort between providers and customers (Gustafsson and Johnson, 2003): if physical goods are manufactured, sold and then consumed, the same doesn't happen for services. They are instead sold and then at the same time supplied and consumed (Regan, 1963; A. Parasuraman et al., 1985). An effective service marketing strategy implies a great focus on customer relationships, because consumers' perceptions are also produced by employees' friendliness and knowledge. High quality standards can be improved by selecting, training and rewarding service providers;
3. **Perishability** is another characteristic, due to time and place dependency (Gustafsson and Johnson, 2003). It is impossible to inventory and store services for the future (A. Parasuraman et al., 1985) and in order to meet customers' demand, providers, who want to be proactive, should make projections and estimations. This activity of matching supply with demand is probably the hardest task for providers, but there are some helping measures: different pricing mechanisms according to peak periods, reservation systems, part-time employees, and so on (A. Parasuraman et al., 1985);
4. **Heterogeneity** is the result of human labour involved for service provision. Non-standardized activities prevent the delivery of services with consistent performance and quality. The single service depends on several factors, such as the actual provider, the single customer, the time of execution, and so on (A. Parasuraman et al., 1985). According to Edgett and Parkinson (1993), the level of heterogeneity of service provision is strictly correlated to the perceived risk associated with its purchase. In order to intensify standardization levels and decrease the perceived risk, providers need to develop and implement systematic procedures and steps, that must be undertaken each single time a particular service is requested. The use of computerized procedures and collective staff trainings may be helpful for this purpose (Berman et al., 2018).

The four service characteristics just described are also called "IHIP" features (as firstly stated by Lovelock and Gummesson, 2004): the authors also stress the benefits of exchanging a service, without an actual transfer of ownership, and supplying just a general access or provisional state of possession to final users. Finally, Gustafsson and Johnson (2003) identify another interesting key difference between goods and services: if physical goods give *means to a specific end*, services instead directly provide solutions to customers' problems, i.e. they *embody the actual end*.

Table 9: Differences between products and services

GOODS...	SERVICES...
Are a means to an end	Are ends per se (solutions to customer problems or experiences)
Are more homogeneous	Are more heterogeneous
Are more tangible	Are more intangible
Generally separate production and consumption	Are co-produced with customers (production and consumption are inseparable)
Are storable (can be inventoried)	Are perishable (can't be inventoried)
Embody technology	Use technology to provide customers more control

Source: Gustafsson and Johnson, 2003.

IHIP characteristics used to distinguish goods from services have been questioned by experts and in general it can be said, that nowadays it isn't any more useful to consider goods as separated from services, but it is instead more appropriate to adopt a comprehensive perspective: "*Customers do not buy goods or services ... The traditional division between goods and services is long out-dated ... The shift in focus to services is a shift from the means and the producer perspective to the utilization and the customer perspective*" (Gummesson, 1995, p. 250).

3.2 Servitization: definition and driving forces

Moving on to servitization, literature provides a various and complex amount of different perspectives and definitions, that will be discussed below.

In general, it seems that scholars have referred to the almost same concept using different expressions, such as *servitization, service differentiation, product-service system, service transition, service infusion, service business development* and *transition from product to services.* Vandemerwe and Rada in their "Adding Value by Adding Services" (1988) gave the

first definition of servitization, as "*the increased offering of fuller market packages or 'bundles' of customer focussed combinations of goods, services, support, self-service and knowledge in order to add value to core product offerings*" (Vandemerwe and Rada, 1988, p. 314). Another interesting explanation is provided by Baines et al. (2007), who propose that servitization represents the innovation of a manufacturing organization's capabilities and processes, in the transition from selling products to selling an integrated product and service offering. Moreover, Kowalkowski et al. (2017) state that it is "*the transformational process of shifting a product-centric business model and logic to a service-centric approach*" (Kowalkowski et al., 2017, p. 7).

After providing some general definitions and explanations, the origins and forces toward servitization processes are now examined.

Since the early 1990s companies have stopped focusing only on product demand and started to deliver value through services, offering solutions instead of physical goods (Cohen et al., 2006). Vandermerwe and Rada (1988) found in their research experience, that an increasingly larger number of organizations were including in their offerings also services, mainly in order to intensify *competitiveness*, *turnover* and *market power*.

"*This is the golden age of service, and to survive and prosper, we're told, every company must transform itself into a services business*" (Cohen et al. 2006, p. 129), Moreover, Gustafsson and Johnson (2003, p.13) affirm: "*Services have come to dominate our economy*". Companies see the potential of reaching competitive advantages on the marketplace through services provision: given their abstract nature and higher level of labour dependency, services are actually less easier to imitate than physical goods.

Another driving element stressed by Reinartz and Ulaga (2008) is customers lock-in, because of higher switching costs for changing service providers, if compared to products manufacturers. Kowalkowski et al. (2013) identify the most important driving force for servitization in the modern role played by technology and in particular information and communication technologies (a.k.a. ICTs).

Oliva and Kallenberg in their "Managing the Transition from Product to Service" (2003) found out that organizations are increasing their offerings of integrated services for three basic reasons: (1) *economic advantages*, such as higher margins and more stable sources of revenues; (2) the *increased demand of services from consumers;* and (3) *increased level of competition* on the marketplace. Other motivations driving manufacturers to offer services are enumerated by Baines et al. (2009) and they are: (1) improved ability to respond to customers' needs, (2) desire to increase revenues through the differentiation of offerings from

competitors and increased customer loyalty, (3) customers' pressure for new services, (4) setting barriers to competitors, and (5) responding to reducing profits on product sale.

Reduced profits on products sale are also reported in Reinartz and Ulaga's contribution in the Harvard Business Review titled "How to Sell Services More Profitably" (2008): here the scholars claim that an increased number of firms are following service strategies, because there is a saturation of the IB (i.e. installed base) and companies find very difficult to sell more products and grow, as they have always done.

The ultimate cause of service transition effort is summarized in the words of Cohen et al. (2006): "*They (companies) changed tack because demand slowed, competition intensified, and profit margins imploded*" (Cohen et al., 2006, p. 129).

3.2.1 From Goods-Dominant Logic (GDL) toward Services-Dominant Logic (SDL)

From a marketing perspective, scholars have found a shift on the dominant logic moving the attention from tangible goods toward the exchange of intangible products: according to Vargo and Lusch (2004) marketers need to focus more on a *comprehensive perspective* integrating goods with services offerings and paying more attention to intangibility, exchange mechanism and relationship management.

Especially starting from the Industrial Revolution, economics models and marketing strategies were based on the production of physical goods: the unit of analysis was the unit of output (or product). However, a shift of perspective has moved the focus from producers to consumers and from tangibles to intangibles features, such as for example information and knowledge. Vargo and Lusch (2004 and 2008) describe two different logics for understanding the transition from goods to services. The authors describe key characteristics of *good-dominant* logic and *service-dominant* logic: even if they are introduced as different, however it is interesting to mention the possibility of their coexistence inside organizations. Here below GDL and SDL are explained according their main characteristics (see also Table 10: Goods-dominant logic vs. Service-dominant logic):

- **Goods-dominant logic (GDL)**: according to Vargo and Lusch (2008), G-D logic is centred on the actual product, which includes both tangible (goods) and intangible (services) units. Product units are the exchange fundament. Organizations aim to manufacture and distribute products that can be sold. In order to be sold and beat competitors, items have to offer a superior value for customers. The ultimate goal for a firm is to maximize profits coming from products selling: for this purpose, the standardization of production is critical and allows better quality control and

efficiency. Production and consumers are usually set in different locations and product surplus can be inventoried for the future;

- **Services-dominant logic (SDL)**: according to Vargo and Lusch (2008), organizations with a S-D logic primarily focus on identifying and developing core competences and skills for better serving their customers. If for G-D logic services are used in their plural form, in S-D logic service is singular and it defines the application of competences (knowledge and skills) for the benefit of a different party. After the identification of knowledge and competences, organizations need to recognize customer segments benefiting from these skills. For the success of the strategy, customer relationships management (CRM) is critical and customers have to be involved in value proposition development. In order to preserve an economic growth, firms should keep questioning their status quo and getting feedbacks from customers on value offers.

Table 10: Goods-dominant logic vs. Service-dominant logic

	Traditional Goods-Centred Dominant Logic	**Emerging Service-Centred Dominant Logic**
Primary unit of exchange	People exchange for goods. These goods serve primarily as operand resources.	People exchange to acquire the benefits of specialized competences (knowledge and skills), or services. Knowledge and skills are operant resources.
Role of goods	Goods are operand resources and end products. Marketers take matter and change its form, place, time, and possession.	Goods are transmitters of operant resources (embedded knowledge); they are intermediate "products" that are used by other operant resources (customers) as appliances in value-creation processes.
Role of customer	The customer is the recipient of goods.	The costumer is a coproducer of service.
Determination and meaning of value	Value is determined by the producer and is defined in terms of "exchange-value".	Value is perceived and determined by the consumer on the basis of "value in use". Firms can only make value propositions.
Firm-customer interaction	Customers are acted on to create transactions with resources.	Customers are active participants in relational exchanges and coproduction.
Source of economic growth	Wealth is obtained from surplus tangible resources and goods.	Wealth is obtained through the application and exchange of specialized knowledge and skills.

Source: Vargo and Lusch, 2004.

According to Vargo and Lusch (2004), customers in service-centred organizations are no longer a simple target, but they become involved as co-producers in the actual production process. Consumers should understand their new role and take advantage from it, by addressing their specific needs to service providers: "*value for customers is created throughout the relationship by the customer, partly in interactions between the customer and the supplier or service provider*" (Grönroos, 2000, p. 24).

In conclusion, Vargo and Lusch (2008) describing major changes from G-D to S-D logics report: a shift of focus from the single product to the entire value creation process, the elimination of producer/consumer distinction due to the collaborative model of production, and finally, a transition from the condition of customers as isolated entities toward the consideration of customers as integrated part of specific networks.

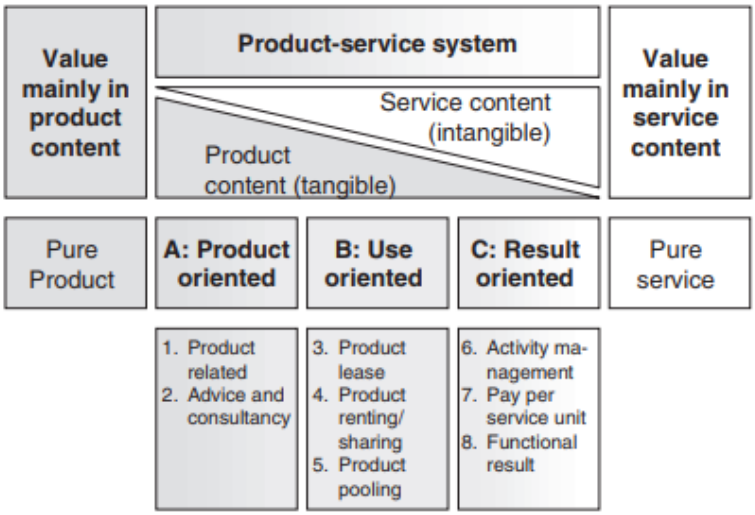
3.2.2 Product-service continuum positioning and product-service system (PSS)

Literature has illustrated different types, various forms and approaches toward servitization strategies.

One of the most relevant construct used for service transition description is *the product-service continuum positioning*. The construct was firstly used by Shostack (1982): her framework implied a pure goods and services distinction with different levels of in-between solutions.

Product-service continuum was proposed again by Oliva and Kallenberg (2003) and in 2004 by Tukker (see Image 8: Tukker's product-service continuum): it ranges from traditional manufacturers selling products with just some add-ons services through to organizations providing services as main value for customers.

Image 8: Tukker's product-service continuum



Source: Tukker, 2004.

Tukker (2004) identifies eight archetypal models (product related, advice and consultancy, product lease, product renting/sharing, product pooling, activity management, pay per service unit and functional result) for different organizational possibilities. All eight models can be attributed to one of the following categories:

i. **product-oriented service**: the product is actually owned by the costumer and services are included as "add-on". Moreover, the product is sold through a traditional channel system with the inclusion of additional services (Baines et al., 2007);
ii. **use-oriented services**: in this case the product still plays a critical role, but it doesn't represent a main focus for the business model. The product is owned by the provider and customer satisfaction is achieved through the sole product use. Users have different options, such as leasing, renting or sharing;
iii. **result-oriented service**: this business model doesn't provide the involvement of a simple product. Customer's satisfaction is achieved through an agreement between providers and clients on a specific result. The product component is owned and run by the provider.

Use- and result-oriented solutions play a great role in the environmental sustainability challenge: they expand product life-cycle, change consumption patterns and decrease the use of input materials (Chou et al., 2015).

Another interesting approach for the classification of different levels of servitization is the one proposed by Baines et al. (2013): they identify three main categories of services by focusing on value proposition. Manufacturing companies wanting to adopt servitization strategies need to recognize that different customers have different needs and desires. According to the authors, firms can identify three different value propositions across their customers: (1) "customers who want to do it themselves"; (2) "customers who want us to do it with them"; and (3) customers who want us to do it for them". Based on these value propositions, firms can offer:

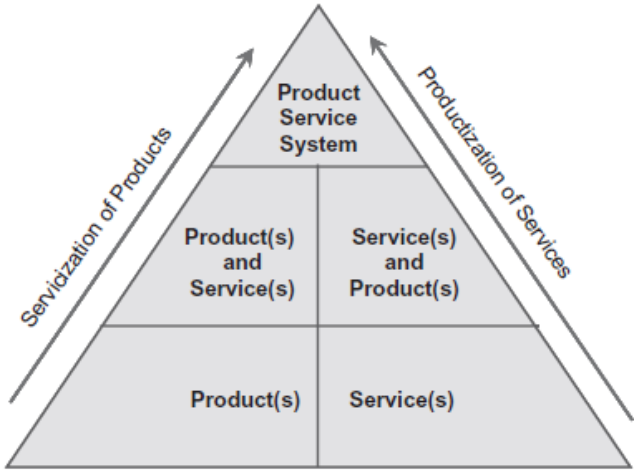
- *Base service,* focusing on simple product provision;
- *Intermediate services,* involving the use of production competences with the permanence of a product component;
- *Advanced services,* focusing on product performances and its capabilities of delivering value.

Some scholars use servitization and product-service system (PSS) as synonymous, other define PSS as a special case of servitization (Baines et al., 2007). PSS topic has gained an extraordinary success, especially for researches involved in sustainability (Tukker, 2013).
The term PSS was firstly coined by Goedkoop et al. (1999), who define it as "*a marketable set of products and services capable of jointly fulfilling a user's need*" (Goedkoop et al., 1999, p.20). Baines et al. (2007) refer to PSS as a market proposition increasing the general

functionality of a product by incorporating supplementary services. Moreover, for Tukker and Tischner (2006), a product-service system is a particular type of business model, that by nature focuses on the satisfaction of customers' needs or demands.

PSS is generated by the convergence of two different trends (see Image 9: PSS generation): servitization and productization. If for the first trend several definitions have already been provided, it is interesting to see what is meant by the authors with "productization": it is "*the evolution of the services component to include a product or a new service component marketed as a product*" (Baines et al., 2007, p. 4).

Image 9: PSS generation



Source: Baines et al., 2007.

As the result of product integration with services, PSS values performances, delivery of functionalities and utilization, instead of ownership: key features are value in use for customers and reduction of environmental impact for economic activities (Baines et al., 2007). Also Tukker (2004) stresses the ecological perspective of PSS and he states that this solution means to a *potential decoupling of environmental pressure* from economic growth focusing on asset use rather than ownership. There is a reduction of waste from consumers' perspective and organizations, finding new innovative ways of delivering value-in-use, reduce also the consumption of energy and other resources.

The actual benefits of PSS are summarized by Baines et al. (2007) taking the perspective of users and manufacturers: in the eyes of customers, PSS provides an higher degree of customization and general quality, given the fact that the flexible service component is able to adapt to specific customers' needs. Whereas considering manufacturers perspective, PSS allows to take advantage from market opportunities and gives an alternative to standardized production.

Even if PSS solutions have been deeply studied by experts, however in practice companies face some barriers in their implementation, such as: challenges in consumption and production schemes (Ceschin, 2013), consumers not willing to give up ownership (Wong, 2004) and also changes in organizational structures for manufacturing firms (Goedkoop et al., 1999). According to Baines et al. (2007), "*The principal barriers to the adoption of PSS are positioned at both side of the dyad: consumers may not be enthusiastic about ownerless consumption, and the manufacturers may be concerned with pricing absorbing risks and shifts in the organization, which requires time and money to facilitate*" (Baines et al., 2007, p.7).

In order to design a successful PSS, the organization needs a systemic approach and has to involve client perspectives, while making appropriate changes inside the firm.

Anyway, a deeper dissertation on managerial problems and solutions for servitization processes will be provided in the next paragraph (see *infra*, § 3.3).

The general idea is that organizations are moving from basic or product-oriented services toward more sophisticated offerings (including also PSS), in order to deliver solutions for customers (Kowalkowski et al., 2017). According to Gebauer (2008), organizations should look at their unique opportunities and challenge different positioning before finding the appropriate one. This process is not a one-time event and organizations dynamically position themselves along the continuum.

3.3 Service transition strategies: how to transform a manufacturing firm into a service-oriented one

Given the saturation of markets, companies in search of new growth possibilities are increasing their interest on services (Sawhney et al., 2004). The current state of competition suggests two new trends for manufacturing firms: a transition toward a more customer-centric logic and the use of service strategies for differentiation purpose (Gebauer et al., 2011).

As stressed by Vandermerwe and Rada (1988), service transition processes are not limited to manufacturing firms, but they can play a significant role also for firms already engaged in services provision. Sometimes, even if operating in service businesses, these organizations actually implement a product logic.

In general, firms are striving to get rid of the manufacturing-based model and shift toward a service or solution provider-model (Oliva and Kallenber, 2003; Vargo and Lusch, 2008). For a service provider, service differentiation represents the main strategic challenge and it is based on customer centricity and innovativeness (Gebauer et al., 2011).

In order to manage the shift from a condition to another, organizations need to develop a service strategy: the journey toward servitization is not an easy one and companies may find themselves in a complete different position from what was originally planned, i.e. a "mismatch" (Gebauer et al., 2010).

Even if scholars have written different studies on how manufacturing firms can succeed in servitization and obtain additional competitive advantages, however literature has not been able to recognize the best possible way to make such transformation and for this reason, in order to have a comprehensive understanding on the topic, it is necessary to mention some of the most relevant studies and suggestions.

3.3.1 Service strategy positioning: different types of services

Many authors have given their personal opinion on different service strategies, that organizations can adopt depending on internal resources and capabilities.

According to Vargo and Lusch (2008), a first step that organizations need to consider is to "*redirect the production and marketing strategy that they have adopted for manufactured goods by adjusting them for the distinguishing characteristics of services*" (Vargo and Lusch, 2008, p. 254). Managers should prefer an S-D logic and build a credibility for their service offering, both in internal and external environments (Oliva and Kallenberg, 2003). As reported by Baines et al. (2009), manufacturers usually take a "*top-down" approach* for the identification of the proper service strategy, they frequently involve customers in the creation of service offerings and develop additional skills for service provision, in particular technical, communication and management capabilities.

In order to adopt the best possible service strategy, the organization has to evaluate its own competitive position (Gebauer, 2008). The author identifies four possible service strategies (that are not exhaustive, but show some general directions):

i. **after-sales service provider**: the main goal of after-sales is to *answer in the quickest way to any possible product breakdown*. The organization opting for this strategy offers basic services, such as spare parts, repair, inspections and basic training, in order to help and guide clients for a proper product functioning;
ii. **customer support provider**: the main strategic goal for a customer support provider is instead to *prevent any product breakdown*. For this purpose, providers exploit optimization of product efficiency and effectiveness through advanced services, such as preventive maintenance, process optimization and training. Providers co-create value with their customers, while tailoring specific services to satisfy special requests

and needs. According to Oliva and Kallenberg (2003), organizations wanting to provide these services, must increase their ability of predicting failure rates and risks;

iii. **outsourcing partner**: the strategic goal is to *assume all the operating risk and responsibility for customer's operating processes*. The value proposition is to reduce client's capital employment, managing risks and reconfiguring responsibilities along the value chain. This involves an in-depth understanding of customers' involvement and operational requirements. Skills and specific knowledge on operational processes are essential;

iv. **development partner**: the aim is to achieve *outstanding customer performance within pre-sales phase through R&D services.* Development partners design and craft products/systems using not only internal skills and competences, but also customers' cooperation. They directly benefit from the development of competencies making more difficult for competitors to initiate imitation activities.

A fifth additional strategy can be identified, i.e. customer service strategy (Gebauer, 2010). Its description will be provided in the following 3.3.2 paragraph together with a deeper and more exhaustive dissertation on after-sales market opportunities.

Just for the purpose of having a wider perspective on different service strategy positioning theories, in Table 11 here below, the classifications of Sawhney et al. (2004), Baines et al. (2009) and Gebauer et al. (2010) will be reported:

Table 11: Different classifications to service strategy positioning

Service strategies	Authors	Year
According to the *focus* and *type of growth*, the authors identify four different strategies: (1) temporal expansion, (2) spatial expansion, (3) temporal reconfiguration, and (4) spatial reconfiguration.	Sawhney et al.	2004
The authors identify three different service strategies: (1) protective service, (2) proactive service, and (3) transitional service.	Baines et al.	2009
According to the specific skills and competences, an organization may adopt three different strategies: (1) system integration, (2) operational services and (3) business consulting.	Gebauer et al.	2010

Source: own elaboration.

3.3.2 Customer service strategy and after-market possibilities

Organizations through **customer service strategy** search for new business opportunities by adding customer service to sales phase.

Customers services can be divided into two main categories: expected customer service and augmented customer service (Berman et al., 2018). *Expected customer service* represents the service level that customers want to receive in their shopping sessions; whereas *augmented customer service*, by including activities enhancing shopping experience, gives to service providers a competitive advantage. In order to deliver the best possible customer service, organizations have understood that workers need the discretion to do what they believe is essential to satisfy customers: this phenomenon has been called "employee empowerment".

Customer's satisfaction occurs when the value of product/service purchased plus customer service provided meets or exceeds customer's expectations. For this reason, customer services, if well conducted, influence the overall level of customer satisfaction and increase the credibility of the firm.

The overall goal for manufacturing firms is to augment product offerings through supplementary services and enhance customer interactions (Mathieu, 2001). According to the author, marketing opportunities involve using services for the augmentation of product offering and the qualitative enhancement of customer interaction. In "Product Services: from a service supporting the product to service supporting the client" (2001), the scholar proposes a distinction between *services supporting the product* (SSP) and *services supporting the client*'s action in relation to the product (SSC). If the first category of services guarantees the proper functioning of the product (in other words it refers to after-sale services), the second one relates to customer activities and services linked to a more general service orientation transition for the entire organization.

Particularly interesting is the **after-sales service strategy**. Back in 1999, Wise and Baumgartner understood that manufacturing firms, even if focusing on productivity and quality, were facing a critical economic condition: the weak product demand and the growing number of installed base were pushing value downstream from companies. The traditional value chain has lost its attractiveness and the decrease in product demand combined with the accumulation of past purchases and the longer product life-cycle have moved firms toward the provision of services for the operation and maintenance of products.

In their "Winning in the Aftermarket", Cohen et al. (2006) take into consideration different opportunities coming from after-sales services. Under this category, authors comprehend

activities as repairs, upgrades installation, equipment reconditioning, day-to-day maintenance, inspections, technical support, training, and so on.

Customers expect that manufacturers respond to products break down or malfunctions within a short time. In addition, researchers find out a correlation between after-sales services and customer satisfaction/intent to repurchase. This strategy is seen as a source of differentiation from competitors and represents the basis for a sustainable competitive advantage. Moreover, through intensive relationships with customers, manufacturers are better able to get information on their clients, technologies levels and processes used.

Finally, the ultimate advantage of post-sales is that it represents the longest part of a product life cycle and it is the longest-lasting source of revenues for a producer.

Even if there are several advantages from focusing on after-sales activities, however most organizations have a poor management approach or ignore the potential. In order to help managers in developing a post-sales service strategy, Cohen et al. (2006) have created a six step approach to improve quality levels and reduce operating costs: (1) the first step involves the decision of which products need to be covered by post-sales. The organization can decide to support all or only some products; (2) managers should create a portfolio of services product and weigh the levels of response needed according to prices paid; (3) then, there is the selection of the business model to support the service; (4) after that, organizational structures need to be modified; (5) moreover, designing and managing after-sales supply chain, allocating resources and planning contingencies; and finally (6) evaluating performances and monitoring results.

According to Wise and Baumgartner (1999), there can be identified four main downstream business models:

i. *Embedded services*: thanks to new digital technologies, services are already built into a product and free the customer from their execution saving labour costs;
ii. *Comprehensive services*: sometimes services can't be built inside products, but manufacturing companies can still launch services for their customers;
iii. *Integrated solutions*: the combination of a product together with a service for a offering addressing critical customers' needs;
iv. *Distribution control*: if other business models focus on providing products and services to customers, this model moves forward along the value chain and gains control over distribution activities.

Price lining is an interesting mechanism, used in order to maximize profits from responding to breakdowns. Organizations can offer a range of different service products according to two

variables: price and response time (as shown in Image 10). The client can choose between a fast response time with an high price (i.e. platinum service) or a slow response time with a low price (i.e. silver service). Clearly, price is inversely proportional to response time.

Image 10: Post-sales service according to price and response time

Source: Cohen et al., 2006.

3.3.3 Managerial approaches to succeed in servitization challenges

Literature has provided manufacturing firms with managerial approaches and operational steps to follow for succeeding in service transition processes. "*The critical and common theme is rethinking the meaning and process of value creation rather than thinking about how to market to a different type of customer or how to make a different type of good*" (Vargo and Lusch, 2008, p. 256). In the following lines, some of the major findings will be reported. However, as noted by Oliva and Kallenberg (2003), scholars have not been able to fully describe how the integration should be carried out and what challenges firms have to face on a regular basis. Moreover, Baines et al. (2009) state: "*Guidance in the literature on how to approach organisational strategy is largely limited to anecdotal evidence from case studies that suggest good practices and processes for implementation*." (Baines et al., 2009, p. 562).

According to Gebauer et al. (2010), any of the possible strategies enumerated in paragraph 3.3.1 may be successful, but depending on each single case, the necessary organizational design factors may be very different. According to the authors, these factors cover three main dimensions:

i. S*ervice orientation of corporate culture*. Corporate culture usually refers to two different concepts, i.e. corporate values and employees' behaviour;
ii. S*ervice orientation of human resource management*. It refers to personnel recruitment, personnel training and personnel assessment/compensation;

iii. S*ervice orientation of organizational structure*, i.e. organizational distinctiveness (with the distinction between service and product business units) and the proximity of service organization to final costumers.

Gebauer and Kowalkowski (2012) state that when companies increase their focus on service strategies, two main patterns seem to emerge. The first pattern is emphasizing *service orientation* and it implies an organizational change inside the firm toward an higher attention in service provision. However, this approach doesn't take into consideration the set up of a new SBU, but it is more an adaptation of the product one. Whereas, the second pattern is *service-focused organizational structure*: in this case the organization creates distinct SBUs for all service functions. There are still some interdependencies between product and service SBUs and their collaboration is a critical success factor. Unlike the first pattern, the service SBU is also responsible for business growth and development.

According to Oliva and Kallenberg (2003), transitioning from product manufacturer to service provider represents a critical managerial challenge for the entire organization. The obstacles to overtake can be delimited at three: (1) a firm doesn't trust in the value of the service element for the product; (2) a firm even thought understands the potential of the service strategy, doesn't think to have the required competencies; and finally (3) after realizing the profit potential and entering the market, a firm is not able to craft a winning strategy, because of the unknown organizational principles, structures and processes.

In their "Managing the Transition from Products to Services" (2003) the authors enumerate four main stages, in order to transform in a S-D logic manufacturing companies:

i. *Consolidating product-related service offering*. During the first stage, firms should consolidate their product-related services and relocate them into a single organizational unit. Consolidation is driven by the desire to sell more products and its goal is to enhance and increase service performances;
ii. *Entering the IB service market*. Then organizations enter into the installed base or IB (i.e. organization's products already owned by customers) service market. The two major challenges in performing the transition into the IB services are: the cultural change of a product-centred organization toward a service-oriented one and the need to create a global service infrastructure capable of responding locally to customers' requests. At this stage, the organization should focus on building a well-functioning service offering, while developing key capabilities to meet customers and employees' satisfaction;

iii. *Expanding the IB service offering*. After running the first two phases, the firm is now ready to the following transformations. The first implies a change of focus from transaction-based interactions to relationship-based ones. In this way, the pricing mechanism of services changes: price is now fix and it covers different services for a specified period of time and therefore providers assume failure risk. The second transformation regards the focus on process-centred services: value proposition is shifted from product efficacy to product's efficiency and effectiveness within the end-user's process. Establishing process-centred services brings two more challenges: the organization needs to replicate for the service network human resources and knowledge developed and also marketers should develop new networks to work with a new distribution channel;

iv. *Taking over the end-user's operations*. Finally, the firm is ready to take over the end-users' operations and become a "pure service organization". A firm should take this step, only after its service organization is well established in maintenance and professional services market.

Reinartz and Ulaga in their "How to Sell Service More Profitably" (2008) state that unsuccessful companies have tried to transitioning into service too fast. Instead, according to the authors, firms have to move slowly into four main steps and they will have better chance of success. These steps are: "*recognize that you are already a service company*", "*industrialize the back office*", "*create a service-savvy sales force", "focus on customers' processes*". Services imply longer sales cycles and they are more complex and strategic than simple product selling. Product salespeople may be unwilling or resistant to change their tasks. So, organizations need to retrain sales personnel and, if training is not enough, also decide to fire and hire other workforce. Sometimes, it can be useful to divide product and service salespeople.

According to Fang et al. (2008) there are four main positive and negative effects on firm's value given by servitization strategies. The positive aspects are: a *leverage of knowledge and resources* from the extension toward services (Fang et al., 2008, p. 2) and *increased customer loyalty* (Fang et al., 2008, p.2), given the higher level of relationships and cooperation. However, there are also some drawbacks coming from service transition strategies: *loss of strategic focus* (Fang et al., 2008, p. 2), given the double purpose of the organization, resources for core product activities and service activities may be insufficient and jeopardize the success of the entire organization. The final negative effect reported is *organizational conflict* (Fang et al., 2008, p. 3), coming from different sets of organizational mechanisms that

may cause a reduction of employees' motivation and effort and cause a not optimal utilization of resources. In their study Fang et al. (2008) find that the drawbacks of service transition "*become less salient as managers and employees gain more experience or more service minded replacements*" (Fang et al., 2008, p. 11).

Even if some scholars, as it has been showed, have provided a step approach to servitization, however other scholars, such as Kowalkowski et al. (2013), contradict the idea that transition needs to be planned. The authors for example state that the phenomenon is actually incremental and emergent in its own nature, and therefore organizations need to adjust their strategies as they are implementing them.

To summarize, key challenges for product-centric firms involved in servitization activities are *cultural and attitudinal barriers of employees*, who have worked for years in a completely different mindset (Davies, Brady and Hobday, 2006). Service orientation of the organizational structure should involve an organizational distinctiveness and an increased proximity to customers (Oliva and Kallenberg, 2003). According to Wong (2004) there is also a geographic element: in his work the author states that the success of these strategies is strictly dependent to the culture in which they operate. Some countries, such as Scandinavia, the Netherlands, and Switzerland have been faster in accepting these types of solutions. Also, given the reliance of manufacturing firms on channel system members, the cultural change should not be limited inside the organization, but also to all business network members (Kowalkowski et al., 2017).

Finally, what is actually very challenging for decision-makers is to understand and plan in advanced all competitive strategies, especially when the best possible service strategy involves a never-ending modification, adaptation, and seizing process with the continuous recalibration of opportunities (Kowalkowski et al., 2012).

SUMMARY OF LITERATURE REVIEW FOR VIMAR'S CASE STUDY:

- Since the early 1990s companies have started to focus on new ways to deliver value through services offering solutions rather than physical goods (Cohen et al., 2006). Services are seen as a potential for reaching competitive advantage (Gustafsson and Johnson, 2003), intensify competitiveness, turnover and market power (Vandermerwe and Rada, 1988) and increase customer lock-in (Reinartz and Ulaga, 2008);
- Moreover, external driving factors for servitization are: an increased demand for services from customers (Oliva and Kallenberg, 2003), new advanced information and communication technologies (Kowalkowski et al., 2013) and the saturation of the installed base (Reinartz and Ulaga, 2008);
- Does Vimar have a G-D or a S-D logic (Vargo and Lusch, 2004 and 2008)?
- How does Vimar position itself along the product-service continuum (Oliva and Kallenberg, 2003; Tukker, 2004)?
- Manufacturing companies need to craft their servitization strategies according to customers' value propositions (Baines et al., 2013);
- Is Vimar opting for SSP or SSC (Mathieu, 2001)? How can the firm enhance its after-sales service (Cohen et al., 2006)?
- "Managing the Transition from Products to Services" (2003) enumerate four stages to transform manufacturing firms and according to Reinartz and Ulaga (2008), key elements for the success of the strategy are the creation of a service sale force and the focus on customers' processes.

4. CASE STUDY: VIMAR

4.1 The Company history: milestones

Vimar was founded by Walter Viaro and Francesco Gusi the first May (Labour Day) of 1945 in Marostica (VI). At that time, the production was pushed with the post-war reconstruction and the core business of the firm gravitated towards different types of products and systems in order to control and manage electricity. The lamp holder was the first product to appear; then followed by switches and wall sockets fabricated first with glass plates, then replaced by porcelain elements giving overall a better and safer performance.

During the 50s the company launched one of its most remarkable product: the pear switch. The success obtained with this product was so impressive that Vimar became known as the "pear factory".

Ten years later the firm was able to increase the production and open new departments, such as a turnery and a mechanic workshop: the production volume was sufficient to exploit the first manufacturing automatisms. Thanks to the research in the chemistry industry and the development of new thermoplastic materials, Vimar was able to launch the first residential series. Several internal researches were made on energy safety and, because of them, it was developed the "Sicury patent": a mechanism able of automatic closing once the plug is extracted, so that there is no possible contact with turned on elements. The patent was registered in 1968, but realizing the revolutionary impact of this invention for a safer everyday life, the company decided to make it available also to other operators in the same sector. In this way the patent became a standard in the market.

In 1980 the firm registered another patent for the multi-standard socket "Bpresa": the aim was to enter into the international market, fulfilling the needs of global clients. Starting from the 80s, Vimar focused more on the total quality of its products and, because of this orientation, several investments in particular on the production were allocated.

At the centre of attention there is now the search for a product simple to install and with a clear interface: this is why, even from the first design, the firm involves not only its internal human capital, but also its final customers generating an open innovation process.

From the focus on details comes the success of Idea series, still a symbol and guarantee of quality.

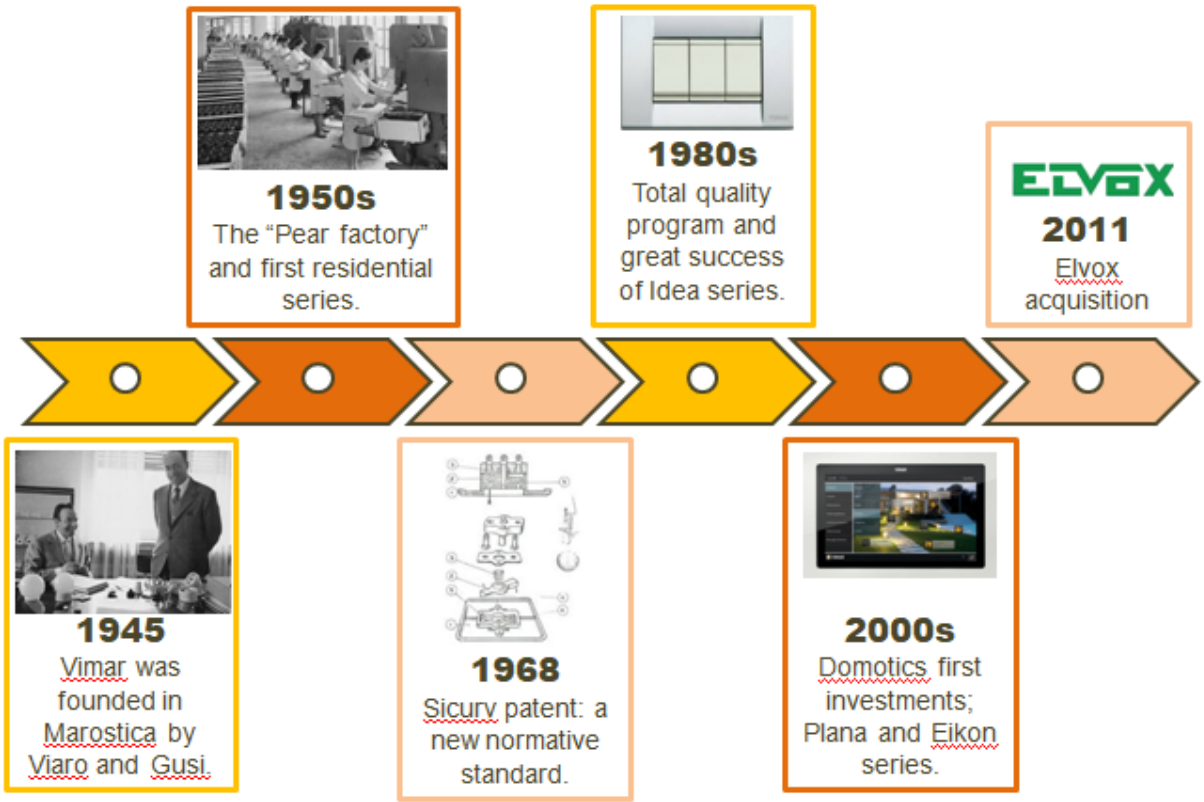
At the beginning of the millennium the whole sector has seen the development and rise of domotics systems and the entrance of new technologies into living spaces. Essentially the traditional electrical installation has become the central brain that allows different appliances to communicate with each other. This fact marks the shift from products to systems. During

this period, a growing attention to new aesthetics emerged. In 2000 the Plana residential series was launched with easy and immediate interfaces; whereas in 2005 the new top of the range series, Eikon, followed, defining a new housing style.

Starting from 2005, in an international perspective, all the residential series have the integrated system By-me, which is open to the standard Konnex, the most widespread in the world. In 2011, in the vision of extending the product portfolio and delivering not only in-door, but also out-door solutions, Vimar acquired Elvox: the Vimar Group was officially born. Elvox, founded in 1954 by Orlando Miozzo in Padua, produces intercommunicated products, intercoms and security systems (Vimar.com).

Image 11 shows company's milestones from the launch up to now.

Image 11: Vimar's milestones



Source: own elaboration.

4.2 Vimar's current strategy

4.2.1 Mission, Vision, Values and Ethics Statement

The Mission of the group is to produce electrical material for low voltage systems for civil and industrial use.

The firm Vision is VIEW, a pun recalling the desired future position of the company. VIEW stays for VImar Energy on Web, and it stresses the commitment towards digital technologies

and the Internet of Things world. Connected devices talking with each other and the final user are changing the rules of the market.

Quality of its products and services, environmental sustainability and job security with a constant reduction of risk factors are the Values of the group. Furthermore, Vimar believes in enhancing competitiveness through a wise human resources management, process organization and design, supply chain and environmental plants management.

And finally, also the Code of Ethics for the group has been drafted, and it represents the norm system that co-workers and all people operating in the name or on behalf of the company have to follow in performing their working activity. The ethics statement concerns not only the internal relationship management, but also all different kinds of relations with exogenous entities and people.

4.2.2 Strategic approach

After seeing what are the company mission and vision, it is essential to study the action plan that is driving the firm to the intended direction, or in other words, it's now discussed Vimar's competitive strategy.

As already discussed in section 2.1.1, Porter (1985) distinguishes between three generic competitive strategies: low-cost, differentiation and focus strategy. Of course the possible strategies differ because of the competitive advantage, but also because of the market target. Therefore, it is straightforward to position Vimar's current strategy as a "*focused differentiation strategy*" (see Image 12: Vimar's competitive strategy positioning): the company has a narrow buyer segment (as it will be explained in more details in paragraph 4.2.4 Vimar Business Model Canvas), that supplies with differentiated products and services. Again, Vimar targets and concentrates on the specific tastes and requirements of three different market niches: installers, distributors, architects and electrical system designers. For sure the company is not a low-cost manufacturer, and it uses some techniques in order to create differentiation advantages: such as for example, striving to create superior products characteristics, design, and performance; pursuing quality improvement and innovation processes on a continuous basis through the R&D department; guaranteeing input material quality; and delivering relationship-based customer after-sales services. All these elements create switching costs that lock in customers.

Image 12: Vimar's competitive strategy positioning

Source: Porter, 1985.

4.2.3 The product portfolio

Being "Made in Italy" is fundamental for the entire group as a symbol of quality and design. For this reason, the entire production - from the design studio to the product testing – is ran in the headquarters in Marostica, where also logistics, sales and management offices are located. Moving to the company production range:

- wiring devices: Eikon, Arkè, Plana and Idea residential series;
- H&B (home and building) automation:
    i. *By-me home automation*, it manages multiple functions in a coordinated manner for home and small tertiary sectors. Control, comfort, safety, energy saving and communication are perfectly integrated into a single system that grows over time. The system can be customized on the basis of various requirements of users and, thanks to the radio frequency devices, it can be extended without heavy masonry;
    ii. *Well-contact plus*, it is a system developed on the KNX standard that enables the user to programme, coordinate and supervise all different functions in the building (such as office, hotel, shop or gym), from lighting to access control, from monitoring consumption levels to working with different devices. The Well-contact Plus devices are coordinated with Vimar ranges: Eikon, Arké, Idea and Plana;
    iii. *Clima and Energy*, it is a selection of thermostats and timer-thermostats for recess and surface mounting, for climate control and energy management and supervision. They all have touch screen, slim profile, multifunctional input and the ecometer function. It is also available By-clima app, an user-friendly interface that makes possible to control the thermostats by smartphone or

tablet. Also the climate control and energy functions are coordinated with Vimar series;

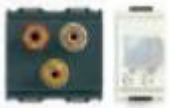
iv. *Call-way*, it is a nurse call system that can be installed in hospital buildings, private clinics or nursing homes.

- door entry, including entrance panels, entryphones and video entryphones;
- safety and security:
  - i. *By-alarm*, a certified intrusion detection system. It can be programmed through a dedicated software or from the digital keyboard. By-alarm is integrated with the By-me home automation through the installation of an IP interface;
  - ii. *Elvox CCTV*, video surveillance technologies;
- Elvox gates, automation for gates, doors and windows.
- sockets and plugs, including plugs, wall sockets, adapters, cable reels, and also lighting components, such as lampholders, cable controls, and so on;
- plant infrastructure, like boxes, enclosures, consumer units and cabling systems.

Here below, Image 13 provides a quick summary of Vimar's products portfolio.

Image 13: Vimar's products portfolio

<table>
<tr><td>Plugs and sockets</td><td>Plugs and sockets
  </td><td>Adapters
  </td><td>Industrial devices
  </td><td>Multiple mobile sockets
  </td><td>Cable reels and extension cables
  </td></tr>
<tr><td>Comfort, lighting and chargers</td><td colspan="2">Wall devices
  </td><td colspan="2">Lampholders and lamps
  </td><td>Mobile controls
  </td><td>Chargers
  </td></tr>
<tr><td>TV and telephony</td><td colspan="3">TV items
  </td><td colspan="3">Telephony items
  </td></tr>
<tr><td>Accessories</td><td colspan="3">Installation accessories
  </td><td colspan="3">Lamps and signal units
  </td></tr>
</table>

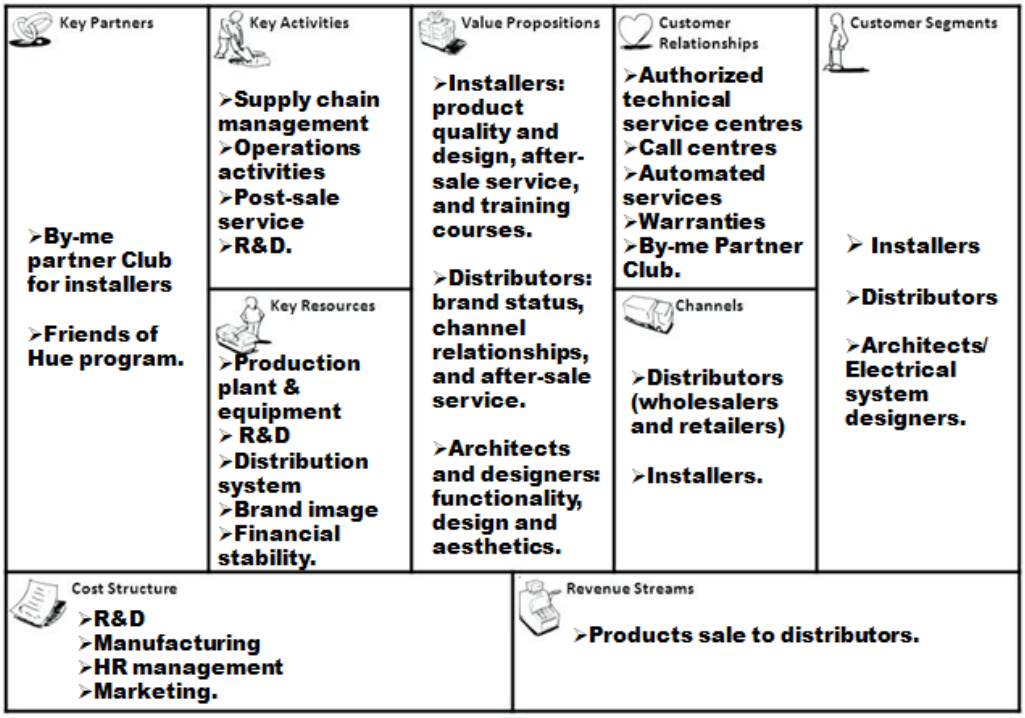
Eikon	Devices 	Supports 	Covers 	
Arkè	Devices 	Supports 	Covers 	
Idea	Devices 	Supports 	Covers 	
Plana	Devices 	Supports 	Covers 	
Other series	8000 Devices 	8000 Devices with covers 	Mascot 	Rialto 
Boxes and switchboards	Isoset IP44 and IP55 enclosures 	Boxes for civil series 	Recessed boxes 	Wall boxes 	Switchboards 
Elvox Video intercoms and doorphones	Video intercoms 	Doorphones 		
Elvox TVCC and Elvox automations	TVCC 	Automations 		

Source: own elaboration based on Vimar.com.

4.2.4 Vimar's Business Model Canvas

In this paragraph it will be analysed Vimar business model using the Business Model Canvas (for Osterwalder and Pigneur's definition see section 2.2). In particular, the company is divided in nine building blocks: customer segments; value proposition; channels; customer relationships; revenue streams; key resources; key activities; key partnerships; and finally cost structure. These blocks will cover the four main areas of the business: customers; offer; infrastructure and financial viability. In order to have a visual representation of the model, Image 14 is exhibited here below.

Image 14: Vimar's current Business Model Canvas



Source: own elaboration.

In the following pages Vimar's nine building blocks are described in details:

1. Customer segments. As concerns Vimar, a distinction between segmented customers has to be conducted. There are three main different customer segments:

a) the first one includes **installers**, who are in charge of selling and positioning different electric systems as requested by their final clients;

b) the second segment comprehends **distributors**, who connect the company with their final customers – it's important to stress the fact that the company considers as final customers the installers, and not people actually using their products in their living or working spaces;

c) Finally, the last segment is represented by **architects and electrical system designers**, who design from an esthetical and functional perspective the construction or the renovation of different types of buildings; and for this reason they have the power to increase the demand.

For a complete analysis, it must be mentioned that Vimar is also targeting the DIY customer segment, especially with plugs, sockets and adapters products. Because of the marginal relevance of this segment, the present study is focused on installers, distributors and architects main customer segments.

2. Value proposition. As seen above, in the case of Vimar the value proposition has to be crafted for each of the three customer segments.

a) In the first section, it is described the value proposition for **installers**. From the interviews conducted with electrician, three main themes emerged for this specific building block: products, after-sale service, and training courses.

- Regarding Vimar's **products**, installers value the status of the brand, which embodies quality and design in the eyes of final customers. Electricians are willing to install Vimar, because the company puts a lot of effort in the development of new solutions from a technological and aesthetics perspective. On one hand, especially for the Smart Home market, the firm is launching new products fulfilling customer needs for a connected home space; on the other, the search for new materials is a never-ending process for the company, that values the aesthetics sense of its customers. Functionality and design are the main features looked for by installers, and the firm reputation is a guarantee of quality helping installers to reduce the risk of their performances and maintenance interventions to final users. Furthermore, products, thanks to the wide distribution system, are easily available on a National basis and this simplifies installer's working activities. Finally, installers valuate the help that Vimar provides for the final setting up: nowadays installers have to become also programmers and the software released by the company follows the electrician step by step and makes much easier the entire job;
- Moving on to the second element, it is stressed the relevance of **after-sale service**. According to installers, it is essential that the producer supplies an efficient after-sales service and promptly answers to all different requests connected with its own products. It is common that some problems might

come up during the setting up, but if the company doesn't reply within a short time, then the electrician will change product/brand. It will be impossible for the installer to stick with something that is not working or that he doesn't know how to make it work. Vimar's after-sale service seems to satisfy efficiently all installers' questions and doubts: this service create a crucial lock-in for firm's customers, who will continue to repurchase its products knowing that they can count on a specialist assistance;

- Finally, installers value Vimar's training courses. The firm is particularly careful in promoting and communicating its newnesses. Moreover, it stands up in training process with online or classroom courses, where installers can learn how to use new technologies and improve their professional level. Lastly, the company offers the possibility to download a specific software for projecting and estimating electrical systems.

b) Moving on to the second segment, it is analyzed the value proposition for **distributors**. Wholesalers and retailers estimate in the producer three different characteristics: brand status, channel relationship, and post-sales service.

- They value **brand status:** the popularity of the brand and its geographic spread make it profitable for any distributor to include Vimar's products in the warehouse and this may decrease the probability of having an unsold surplus of inventory (which is particularly dangerous for wholesalers);
- Distributors, as members of the distribution channel, take part to the value delivery system, and in order to better serve final customer's needs, they have to establish positive **channel relationships**. In this regard, communication with the producer and easiness of sharing information about products characteristics, features and prices, are crucial. For the purpose of making the delivery system run, the producer must guarantee to the distributor the right quantity with the right quality at the right time. Vimar pays attention to its relationships with distributors, also considering its dependence to an indirect distribution system and the vital relevance of intermediaries. Inventory management, as part of the merchandise plan, is very important for the distributor and for this reason the merchandise shipments have to be accurate and well coordinated. Aside from personal contacts, the well-structured web site and online catalogue with an

immediate interface represent key tools to help distributors presenting the offer to final customers;

- As for installers, Vimar's **post-sales services** are valued by distributors, because they enhance a fair and reliable relationship.

c) Finally, the last segment includes **architects and electrical system designers**. They value the functionality and design of Vimar products.

- Regarding the **functionality**, architects must keep updated with new technologies and propose to their clients innovated solutions for their homes. The Smart Home market has opened a great number of possibilities for a better exploitation of spaces, reducing human effort and saving costs. Vimar is making a remarkable effort, in order to produce always more advanced products;
- In the last decades, the sense of **aesthetics and design** has reached new levels, becoming an integrated part of everyday life. For this reason, architects have to carefully plan spaces and their components. Vimar has embraced this commitment toward aesthetics and its uninterrupted search for new materials, styles, shapes, and colours is particularly appreciated and evaluated by architects and designers.

3. Channels. As it will be better described in section 4.3, Vimar has opted for an indirect distribution channel through the use of partner wholesalers selected by the company. It is a case of selective distribution, because the supplier trades on a moderate number of points of sale needing its authorization to sell the brand. In comparison with a direct distribution channel without the use of an intermediary, the indirect strategy leads to lower margins for the company, but it enables the organization to quickly expand in the market and exploit distributors' selling expertise and local market power. Distributors sell to installers (and less frequently to private citizens) and even if they are perceived by the company as final customers, however installers are not the actual users, but those who propose Vimar products to final users. Because of this key position between the firm and the final user, installers play a fundamental role in influencing the demand. Of course for more complex projects and buildings the final user usually consult an architect, who will also participate to the channel of distribution.

Other two considerations have to be made regarding Vimar's channels: for the DIY segment, the company is exploiting mainly large scale retail trade, which is used sometimes also by

installers. Moreover, some products (mainly plugs, switches, civil series supports and covers) are also delivered through Amazon e-retailer platform.

4. Customer relationships. There can be three main reasons for cultivating customer relationships: customer acquisitions, customer retention, and boosting sales (Osterwalder and Pigneur, 2010). Because of the different customer segments, Vimar has to use a differentiated marketing strategy and relationships can vary from automated to personal. Personal assistance, where the relationship is based on human interaction, includes thirty-nine authorized technical service centres (which can be individuated on the web site) or a call centre (in the call-centre work fifteen people, who receive approximately twenty calls a day for each single member of the staff). Moreover, the company supplies also installers with estimating services through technical promoters.

Automated services, a mixed form of self-service with automated processes, are provided on Vimar web site in form of FAQ (frequently asked questions), or technical files for the installation of some technologies, and video tutorials for installers and final users.

Vimar guarantees its products with a three-years warranty (twelve months more than required by law).

Finally it is interesting to mention the creation of a community, the By-me partner club. The member is an installer with a valid VAT number, who has taken part to specialization courses and is able to integrate the domotics system By-me in residential and industrial area. The By-me partner has also access to several web services by using its personal account in the Vimar virtual workspace.

5. Revenue streams. Vimar's revenue streams come from products sale to distributors. The pricing mechanism, which has a great impact on the revenue stream, can be classified as volume dependent, because it is function of the volume purchased by the distributor. Moreover the company applies different discounts according to the specific order and client. Another minor income is gained though training courses for installers.

6. Key resources. They can be classified in physical, intellectual, human and financial.

Vimar's key physical resources are: the production plants, the equipment and the R&D department, the latter being critical for the innovation process and the final product quality. Also raw materials, their suppliers, the distribution channel and all the people and vehicles involved enter into physical resources.

Regarding the intellectual resources of the firm, Vimar has been able to create a brand with a strong image in the eyes of the customers. From a financial perspective, Vimar can count on

an excellent financial record, that kicked in to the Best Performance Award 2017 awarded for the category "Medium company" (the award is promoted by SDA Bocconi, J.P. Morgan Private Bank, PwC, Thomson Reuters and Gruppo 24 ORE and it is devoted to the best Italian firms, that have been able to create an economic, technological, human, social, and environmental value by operating in a sustainable way) (vimar.com). Moreover, Vimar has won the Iconic Awards 2018 (organized by German Design Council), thanks to its touch screens and their technology as well as design features (vimar.com).

7. Key activities. Key activities for the company are those creating value for the customers. As regards primary activities (Porter, 1985), the Supply Chain Management is a key element for Vimar: the quality and characteristics of input materials are the basis for an excellent product, along with the Operations activity, that transforms raw materials into final products. Furthermore Service, as seen above, is a strategic and valuable activity for the company. Installers and other professionals value a lot the after-sales: the possibility to have an easy and fast contact with the producer and to get pieces of information or explanations about product installation, use or maintenance. Moving on to support activities (Porter, 1985), the Product R&D, Technology, and Systems Development is also critical for the innovation process: giving the always faster technological progress, Vimar invests in the R&D department to better provide customers with new and updated solutions.

8. Key partnerships. As mentioned above, Vimar has developed a membership club for its installers, the By-Me Partner Program: the company through its By-Me installers guarantees a better service for all different requests regarding control, comfort, security, energy saving, and communication.

Furthermore during the Light + Building 2018 trade fair in Frankfurt, Vimar presented the partnership with Philips Lighting, which establishes the entrance of Vimar in the "Friends of Hue" program. This initiative is devised for manufacturers of luminaries or lighting controls and it enables the development of products that integrate seamlessly with Philips Hue, a wireless lighting system.

9. Cost structure. As stated in Vimar 2017 Financial Statement, costs undertaken by the company for the operating management of the firm include: personnel costs (37% of total production costs), manufacturing activities (23% of total production costs), services (21% of total production costs) followed by R&D and marketing activities.

4.2.5 SWOT Analysis: size market opportunities and nullify external threats

One of the greatest mistake will be to think to the business model as a static and invariable pattern. Indeed every single business model is affected by different external forces, and the proper understanding of these forces and consequent shaping of the model help the company to reach better performances (Osterwalder and Pigneur, 2010). Companies should always consider and study the improvement of their business models. The analysis of internal and external forces will be conducted through the use of SWOT analysis.

For the purpose of having a quick understanding of the competitive advantage of the firm, and also a general picture of Vimar's strategy, its internal strengths and weaknesses, market opportunities, and external threats are bulleted listed *infra* in Table 12.

Table 12: Vimar's Swot Analysis

Strengths	**Weaknesses**
- Quality and product design; - Economies of scale; - Strong bargaining power over suppliers and buyers; - Internal R&D department; - Strong brand image/company reputation; - "Made in Italy"; - Strong and wide distribution capability; - Large customer base; - Financial stability; - Partnership with Philips (Friends of Hue).	- Long and complex indirect distribution system; - Revenues only from product selling (besides training courses); - Need of qualified installers for the installation of domotics systems; - Lower financial capital vs. larger international groups; - Limited number of partnerships.
Opportunities	**Threats**
- Rising demand for IoT products; - Targeting directly final users with DIY products; - Acquisition of companies with attractive technological expertise; - Creation of more partnerships; - Direct e-commerce; - Supplementary services to final users and the possibility of service subscription.	- New entrants, especially from the Smart Home market (such as Google Home and Amazon Echo); - New "easy to install" products and disruptive technology; - Real estate crisis and decreasing market growth; - Distributors' adverse economic conditions.

Source: own elaboration.

In order to create a competitive advantage, the company needs to modify its existing resources and capabilities or create new ones. A good strategy involves adapting the external environment (opportunities and threats) to the internal one (strengths and weaknesses) (K.R. Andrews, 1971). The best chance for market success is to ground a company's strategy on its valuable strengths.
Here below are described in more details key features of Vimar's SWOT analysis:

I**nternal strengths**. Vimar has been able to develop products with an high level of technology and quality not leaving behind the final aesthetic: the design of its products is a key competitive advantage for the company. The large customer base and production volume have enabled the exploitation of economies of scale and the use of bargaining power over suppliers. The success is also guaranteed through a wide indirect distribution system and preserved with a strong brand image and company reputation (especially for the commitment to the after-sales service). From a financial perspective, Vimar is a cautious firm with a sustainable growing strategy. In order to enhance its business, the firm has recently entered into the "Friends of Hue" program, creating a partnership with one of the greatest multinational players in the lighting sector.

Weaknesses (or competitive deficiencies). It is fundamental to stress the lack of a clear vision for the firm on its actual customers: as it will be described more deeply in paragraph 4.3, the long and complex distribution system doesn't give to the manufacturer clear data and pieces of information on the people, who are actually using the products. The required use of installers is also a weak point for the firm: Vimar doesn't supply "easy to install" or DIY solutions, as other companies do, particularly in the IoT world. Lastly, the financial capabilities of the company are inferior, if compared to capitals that large multinational firms can count on.

Opportunities of the market. Customers are increasing their knowledge and desire for IoT products and because electrical systems will be the controlling body for the entire Smart Home, producers of electrical components can catch the wave and increase their revenues. In order to grow the business, Vimar may look for other smaller companies in the same business and think about acquisition processes (as it has finalized in 2011 with Elvox). If an entire acquisition is too complex and expensive, the company may establish other partnerships to increase its technological capabilities and resources.
The weakness of a complex and long distribution, can be reduced by the introduction of E-Commerce, giving to Vimar better data and information about its final customers. Finally, the

introduction of additional and augmented services for final users will increase revenues and create the possibility to exploit a subscription payment.

Threats of the external environment are considered. First there is the possibility of new entrants on the market: competitors (especially for the DIY market or in other words the BtoC market) are increasing and their improvement of technology levels can jeopardize the business of electrical components producers, who supply the BtoB market. Another key element is the risk of a real estate crisis: there will be no renovations or constructions of new buildings, decreasing the demand for electrical components. Lastly, the wide distribution for the company is guaranteed by the expertise and local presence of many distributors: because of Vimar's dependence on distributors, a problem or a crisis inside this category will create terrible consequences for the entire system.

4.3 Vimar's distribution channels: description and related critical issues

After the general description of Vimar's Business Model, it is now essential to dedicate an entire paragraph to the illustration of the third building block "Channels". As it will come to light, the distribution system of Vimar products is long and quite complex: several possible channels and also parties are involved. Therefore, the company doesn't have a clear view on its distribution and this of course generates some problems.

4.3.1 The indirect and selective channel of distribution

A channel of distribution represents "*all the businesses and people involved in the physical movement and transfer of ownership of goods and services from producer to consumer*" (Berman et al., 2018, p. 27). The channel of distribution can be direct or indirect: in the first case, the producer sells directly its products/services to the final customer without the use of any intermediary; in the second case, the producer uses at least one intermediary. A typical indirect channel of distribution is composed by manufacturer, wholesaler, retailer, and final consumer.

There are some key differences between direct and indirect distribution: the first tends to be more expensive, because logistics, warehouses and vehicles are charged to the manufacturer. However, the in-house activity allows the producer to have a better relationship with customers. Whereas, the second type of distribution relies on external companies for selling products/services: it gives the producer the possibility to lower delivering costs and at the same time to reach more customers thanks to the expertise of distributors. But, if compared

with direct distribution, the producer loses the personal interaction and has less knowledge about actual customer segments (Anderson and Weitz, 1989).

In the case of Vimar, the **distribution channel is an indirect one**: products are sold through retailers not owned by the manufacturer and this allows the firm to reach more customers, reduce costs, improve cash flow, increase sales more rapidly, and focus on its own area of expertise.

There are three different types of distribution according to the number of retailers designated by the manufacturer: exclusive distribution, intensive distribution and selective distribution. In the case of Vimar, the **distribution is a selective one**: the company gives the authorization to a limited number of distributors to sell its products.

The company sells through two different channels: BtoB and BtoC. For the Business to Business market, Vimar takes advantage of electrical material wholesalers; whereas for the Business to Consumer market (in some minor cases also for BtoB), the company uses the large-scale retail trade (such as for example Leroy Merlin, Brico, Obi, etc.). As already said in section 4.2.4, Vimar is also exploiting e-retailing, though Amazon platform, mainly for plugs, switches, adaptors and civil series supports and covers.

However, because the large-scale distribution is not a key channel for the company (almost 10% of total distribution), for the purpose of this study, it will be considered just the Business to Business market.

4.3.2 Vimar's BtoB channels system

After selling to wholesalers (almost 90% of total production), Vimar doesn't have a proper knowledge of the actual distribution of its products, because of the length of the chain and the high number of actors involved.

As reported by the firm, there are several possible distribution paths (see Image 15: Vimar's channels system), but the most frequently used involves the following steps:

Vimar – wholesaler – electrician – final user.

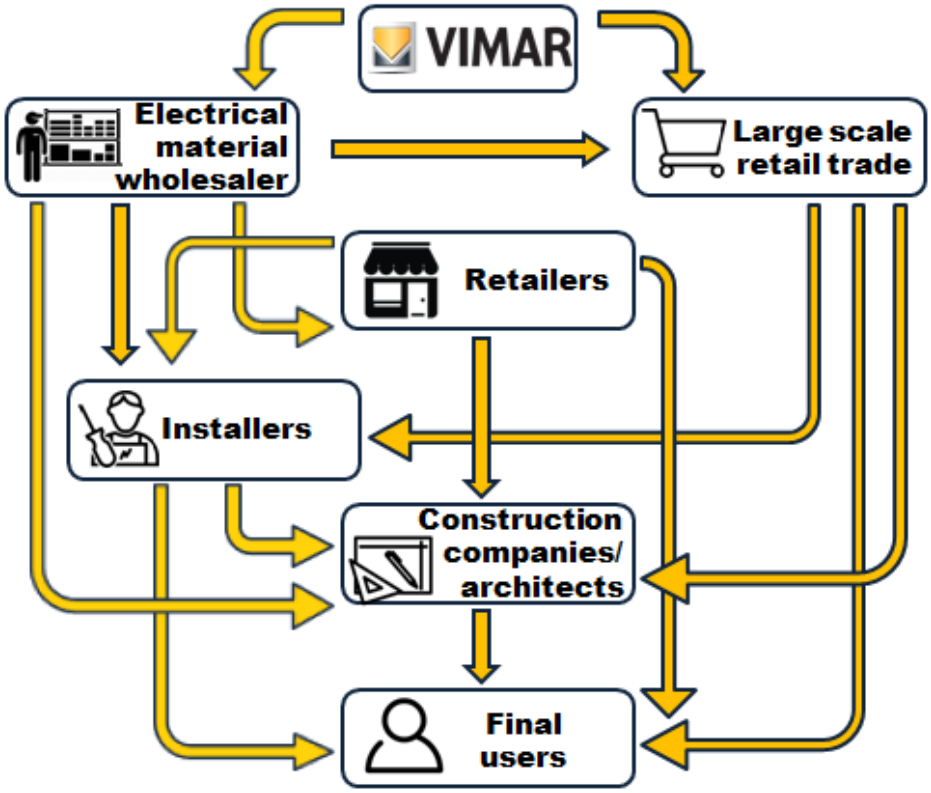
It is also possible the use of another step along the chain: wholesalers selling to retailers, who sell both to electricians and final users.

Vimar – wholesaler – retailer - electrician - final user.

And finally, in the case of large constructions or renovations, the project is developed by construction companies/architects, who can buy products either from wholesalers or retailers

Vimar – wholesaler/retailer – construction company – final user.

Image 15: Vimar's channels system



Source: own elaboration.

As it has been explained, the **distribution chain is quite complex and long**, and the company doesn't have a real visibility and understanding of its final users. In order to better serve and address their needs, the lack of information is not desirable and should be reduced.

4.3.3 Channels' players: distributors, installers and architects

Besides the distribution channel system described above, the product demand can also be increased by other parties: such as architects, interior designers, electrical designers, electrical system integrators and technical assistance centres.

Even if by choosing Vimar's products all these people contribute to the success of the company, for the purpose of this study the focus will be on the following three categories: *distributors, installers, and architects*, because of their greater relevance. The following pages are dedicated to the analysis of these categories.

1. Distributors: under this category are included both **wholesalers and retailers**. Of course retailers' financial dimensions and undertaken activities will be less significant than those carried out by wholesalers.

a) **Main activities**. Given the fact that customers want to choose from a variety of goods and services, distributors collect an assortment from various sources/suppliers buying

in large quantities and selling in small amounts. This is the sorting process, a key element in developing merchandise plans.

The **merchandise management** is crucial for the success of the distributor and it can dramatically affect the overall performance: "*Merchandising consists of the activities involved in acquiring particular goods and/or services and making them available at the places, times, and prices and in the quantity that enable a retailer to reach its goals*" (Berman et al., 2018, p.359).

The assortment of electrical material wholesalers is *narrow* and *deep*: there are few goods categories, but a large assortment in each category, showing a specialist image, a good customer choice and qualified personnel to customers, that are more likely to develop a loyal attitude toward the shop;

b) **Customer service**. There is a growth of complementary customer services provided by distributors. Especially for large wholesalers, it is not anymore just about keeping a proper stock, selling the right product to the right customer, and giving technical assistance.

   Nowadays, in order to offer a comprehensive service, wholesalers supply also marketing support (especially estimates), financial support (postponement of payment), installation projects support, and training courses for installers. All these activities, that can be referred to as augmented customer service, enhance the shopping experience and give distributors a competitive advantage.

   Personnel's knowledge and expertise, as well as the number, variety and customization of offered services, have a positive impact on customer relationships and loyalty towards the shop;

c) **New trends** for distributors are: omnichannel strategies and category management. Many firms now engage in **omnichannel retailing**, whereby a retailer sells to costumers through multiple retail formats in a consistent, uninterrupted and seamless experience. In order to fulfil customers' desires, there is a conjunction of physical stores and Web sites. Product discovery may be Web-based, then there is the search for information by Web use or in-store observation, and shoppers can buy the product online and pick up in-store (BOPIS - buy online, pickup in-store).

   Moreover, **category management** is a merchandising technique used to improve productivity: rather than focusing on the single brand, the centre of attention is to improve the performance of the whole product category, that is usually controlled by a strategic business unit (SBU). In order to better satisfy their needs, retailers stock what customers ask, so inventory better corresponds to the actual demand; this improves the

profitability (by increasing the DPP-direct product profitability) and meets sales and profit goals. Due to the relevance of this new strategy, there is the request for specialized professional figures, category managers: they are responsible for the procurement, pricing, and merchandising of all brands in a category. Moreover, they are in charge of cultivating relationships and sharing of information with producers, in order to enhance results for both parties;

d) **Critical issues**. As reported by interviewed installers, there is a problem on the role played by wholesalers.

First of all, their primary activity is to supply a functional **warehouse**, where electricians can go and find the needed material and devices. Inventory management is a key activity for the retailer, but it hides some challenges. Indeed, customer demand is never completely predictable and retailers wouldn't never lose a sale by being out of stock, but at the same time they do not want to have an excess/surplus of merchandise. Order size and frequency depend on quantity discounts made by producers and inventory costs: it is a trade-off between inventory holding and ordering costs. A large inventory would increase customer satisfaction and volume discounts, and decrease per item-shipping costs. However, it also means higher investments, obsolescence rate and storage expenses.

Nowadays, electrical materials wholesalers do not keep anymore a big inventory: because of the costs and also, as they testify, because of the enormous amount of products/systems continuously developed by producers, that would be impossible to provide on a regular basis.

The outcome is that, when installers go to buy the material they need, it frequently happens that this is not available and an order is sent: large wholesalers usually guarantee the delivery within a working day. As reported by a wholesaler, if twenty years ago 80% of total purchases were made at the counter, today it is only 20% and all the rest are planned orders.

The second issue is the **expertise of the counterman**: interviewed installers complain about the lack of knowledge of the personnel, who ignores characteristics and applications of sold products.

However, it is worth to mention that this is partially related to the human resource environment in retailing: there is a large number of workers, who often don't have any prior experience and have to face very different customers' needs.

2. Installers: they interact with wholesalers, architects and final users.

a) **Main activities**. Usually, key activities undertaken by electricians are installation, maintenance and assistance, but some installers are also in charge of designing electrical systems.

   According to the project (made by themselves, or proposed by the architect/designer), they select the wholesaler and buy electrical material and/or devices.

   Working on orders, installers usually finance their business with the possibility of postponed payment given by distributors;

b) **Training courses**. Installers, who want to enhance their professional skills, take part to training courses offered by producers or wholesalers: once the installer has spent time and money in learning a new technology or product, it is more likely that he will continue to use the product and promote it to final users, because of the switching costs of working with another product/brand;

c) **Critical issues**. As seen above, installers are particularly crucial, because they are the people with whom final users actually interact. Not only they are the last step in the distribution chain, but they are also involved in the **promotion of the products**. The final demand is dependent to installers' skills and ability in selling the product/solution.

   However, as it emerged from the interviews, not all installers feel confident enough to propose and explain all different options, especially for domotics products. Indeed, there is a lack of expertise for the Smart Home products, or in general a lack of selling techniques competences.

   Electricians see themselves as installers and technical actors, and in their opinion, they shouldn't have to worry also about product promotion. It is impossible to not consider the consequences for the producer, when installers have inadequate selling skills.

d) **New trends.** As reported by mercatototale.com, installers are now provided with specific courses for the enhancement of their knowledge on Industry 4.0 and digital transformation. Distributors, such as for example Sonepar S.p.A., promote e-learning courses in collaboration with universities and manufacturing firms.

3. Architects and designers: as mentioned above, another category of intermediary is represented by architects and electrical system designers. They relate not only with the final users, but also with installers and wholesalers.

a) **Main activities**. Architects and designers choose one product or another according to its design and the functionality they want to create in a space. Aesthetics is nowadays always more important and the project has to satisfy customer's needs and tastes.

After the creative and functional design phase, the project has to be supervised by a specialist for the authorization from an electrical safety perspective.

The architect sometimes takes the client to the distributor, in order to show him different choices. After all the decisions have been made, the architect ask his installers to make some estimates for the project;

b) **Training meetings**. Architects participate to different types of informative events promoted by producers and distributors. Some meetings are also supplied by the Association of Architects. As mentioned before, these training conferences are optimal for the promotion of new products and devices. Sometimes these events are also part of educational courses and promoters assign to participants course credits (which architects must collect as provided by law, D.P.R. 137/2012 n. 137);

c) **Critical issues**. Since the company has always stressed quality and attention to details of its products, then having Vimar products and solutions installed in remarkable projects and buildings is an incredible source of publicity.

However, the power that architects have on promoting the adoption of particular solutions is always lesser. As reported by professionals, nowadays final clients have on the Web easy and immediate access to all possible pieces of information: it is not uncommon that clients go to architects and recommend particular solutions and devices seen in some home interior blog. Sometimes the request can be satisfied, but other times the architect has to deny it, because of technical impossibilities, for example. It is clear that clients don't trust anymore the experts or want to make their own research.

Moreover, it also quite common, that after deciding what products to install, architect's client buys the material online instead of passing through the wholesaler and saving in this way some money.

d) **New trends**. Due to the increased level of complexity of the entire construction industry, architects enhancing their skills and competences should become "organizers and coordinators of complexity".

Moreover, they should relieve other players by managing or simplifying all bureaucracy issues.

To outline key characteristics of the three categories just described, a summary is provided here below in Table 13:

Table 13: Channels' players main characteristics

	Distributors	Installers	Architects
Main activities	- Merchandise management; - Technical assistance.	- Installation; - Maintenance; - Assistance.	- Project planning and product identification according to functionalities and design.
Training courses/meetings	- Training courses for installers as part of enhanced customer service activities.	- Attendance of courses promoted by producers/wholesalers.	- Participation to training meetings sponsored by producers/wholesalers (possibility to collect course credits, D.P.R. 137/2012 n. 137).
Critical issues	- Insufficient stock level; - Counterman's Expertise.	- Product promotion; - Selling skills.	- Decrease of power over clients, because of the easy and immediate access to information on the Web.
New trends	- Omnichannel retailing; - Category management.	- Digital competences.	- Coordinators of complexity.

Source: own elaboration.

4.4 Market analysis: how Vimar's competitive scenario has changed

The analysis of Vimar's market has to be divided in two periods: before and after Smart Home outbreak. The introduction of connected products and integrated services has shaken up all market rules, blurred industry boundaries and opened doors to new entrants.

4.4.1 Vimar's market before Smart Home outbreak

The traditional market of electrical components has always been quite a static one: Vimar, from the beginning of its activities, has focused on product design and quality investing on the production of civil series. As stated by the firm, product life-cycle of a brand new civil series

is almost twenty years long: in order to have a benchmark, modern electronic components usually decline in just five years.

BTicino and **Gewiss** are the main competitors for the "made in Marostica" manufacturing firm. The biggest player is BTicino: it was founded in 1936 in Varese by brothers Arnaldo, Luigi and Ermanno Bassani with the original name of "Ticino Interruttori Elettrici" and, as Vimar, the company was producing electrical components for the growing market of post-war reconstruction. In 1989, after changing its name in BTicino, the firm joined the French Group Legrand, which made in 2017 €5,521 million sales (legrand.com). BTicino made its first move toward Smart Home market in 2001, when the first MyHome Domotics system was launched.

As regards Gewiss S.p.A., the firm started in 1970 with the application of technopolymers to electrical systems, technology that gave the firm a leading position in the electrotechnical industry. During the same decade the factory in Cenate Sopra was inaugurated and the firm became a joint-stock company. As well as Vimar and BTicino, at the beginning of the Millennial the international domotics system Chorus was launched by Gewiss as part of the product range for an Integrated Electrical System (gewiss.com).

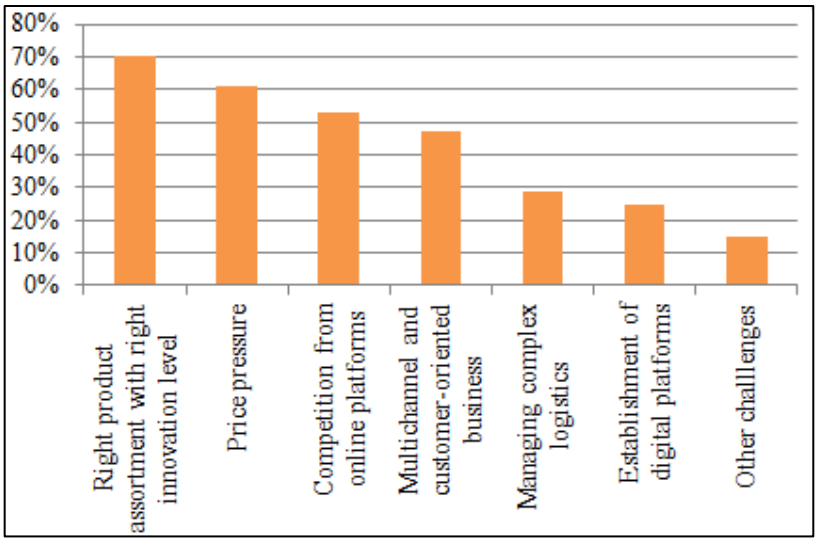
Pivotal for Vimar is the **construction industry**: especially new homes or big renovations projects are valued the most by the company. Large houses are usually lived by people with high buying power that are looking for an integrated domotics system.

After the roaring growth of post-war reconstruction, the current situation for the industry has severely changed. According to camera.it, Italian construction production is valued €166,2 billion (74,5% for actual building construction, 12% for electrical system installation, and the remaining share is due to other types of systems). Of the total amount, 25,9% is the portion for new buildings and 73,1% for renovations: also according to ance.it, 2017 data show that renovation and upgrading are keeping the sector alive. According to altradius.it, Italian market is far away from an economic recovery and in 2017 investments grew of 0,2%, thanks mainly to renovations and non residential buildings. Main barriers are the general low purchasing power and adverse financing conditions.

Finally, a concise **analysis for the sector of electrical components wholesalers** is provided. According to a global study on electrical components wholesalers conducted by Steinbeis School of Management, Analyx GmbH and LEDVANCE GmbH (2016), international wholesalers (150 interviews in West and East Europe, U.S. and South America) state that major challenges for 2020 will be (see *infra*, Graph 2): supply the right product assortment with the right level of innovation (70% of respondents), face price pressure (61% of

respondents), face competition from online platforms (53% of respondents), create a multichannel and customer-oriented business (47%), manage a complex logistics (29% of respondents), establish a digital platform (25%) and other challenges accounting for 15% of respondents.

Graph 2: Wholesalers' major challenges for 2020

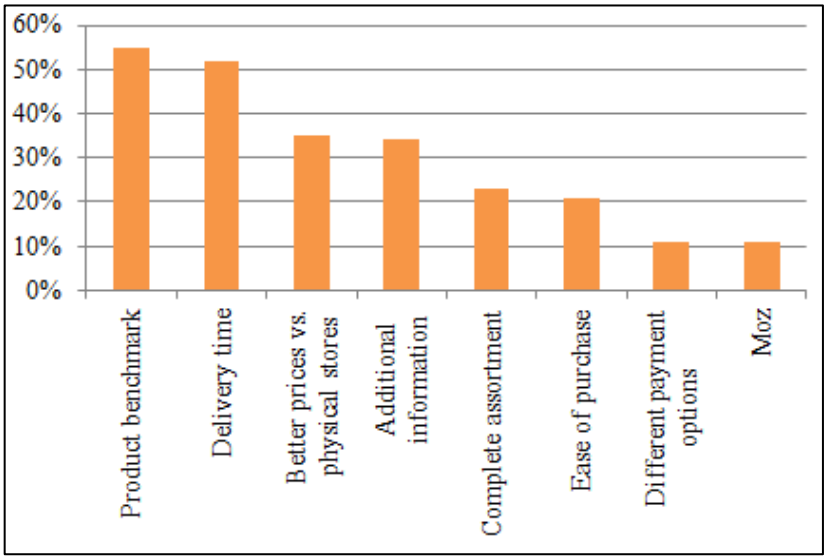


Source: Steinbeis School of Management, Analyx GmbH and LEDVANCE GmbH, 2016.

Challenges priorities change according to different countries and different types of wholesalers. International wholesalers state that their top priority is to face competition from online platforms. Moreover, market dynamics are changing very rapidly: competition is increasing, margins are reducing, technological cycles are becoming always more short and digitalization is exacerbating all these factors making mandatory an innovation of business models for wholesaler.

Sales channels are being transformed by digitalization, which is also changing relationships between distributors and installers. According to a study realized by Voltimum (2016), while buying online installers consider top priorities the following factors (see *infra*, Graph 3): product benchmark (55% of respondents), delivery time (52%), better prices than in physical stores (35%), additional information availability (34%), complete assortment (23%), ease of purchase (21%), different payment options (11%) and mobile optimization for websites and apps, i.e. Moz (11%).

Graph 3: Top priorities according to installers' online purchases



Source: Voltimum, 2016.

As the study highlights, a key driving factor for digital channel is the possibility to get access to additional information and benchmark different products/features. However, players of the sector are still used to personal interactions and in-store material pickups.

4.4.2 Vimar's market after Smart Home outbreak

The outbreak of Smart Home market has significantly changed the competition scenario to which firms operating in the domotics industry were used to: industries boundaries have blurred and the number of payers has exponentially grown including not only OTT companies, but also appliance manufacturers, insurance companies, utilities, producers and distributors of consumer electronics and other mechanical manufacturing firms. According to Osservatorio IoT Polimi, the growth of Smart Home Italian market has reached +35% in 2017 (with €185 million sales in 2016 and €250 million sales in 2017). Even if Smart Home market is growing, Italy still provides inferior results than those achieved in other Countries: U.S. are leading international scenarios with €10,8 billion; followed by Germany with €1,5 billion, U.K. with €1,4 billion and France with €0,6 billion.

Beside the growing success, there are some critical barriers preventing a large scale adoption of Smart Home products:

- **Products installation**: besides big players developing DIY products and targeting directly final users, the general scenario shows that qualified installers are still needed for the introduction of Smart Products inside consumers' homes;
- **Interoperability**: different products and different producers use their own standards. This prevents the communication of the system. However, as observed by Osservatorio IoT

Polimi (2016), a key trend is the explosion in 2015 of the number of alliances and reference integrations: their aim is the promotion of interoperability. Particularly interesting are initiatives promoted by some big players of the market, that exploiting their high market share have introduced some barriers for other smaller players: for example the program "Works with Nest". As reported in nest.com "when products work with Nest, you don't have to tell them how to connect. Or what to do. They just work. In real homes for real people". This phenomenon is in line with a general fight between big players to promote the adoption of their hub as key element for managing the entire home;

- **Privacy and cyber security**: the amount of sensible data collected by Smart Home products is huge. However, as stated by Osservatorio IoT (2018), cyber security does not regard only data collected that may be intercepted by external people, but also personal safety, which may be threatened through the remote control of IoT objects inside the home, such as for example door opening or alarm systems functions. According to a survey made by Osservatorio IoT in collaboration with Doxa (January, 2017), 72% of respondents has declared the fear that criminals either have access or control to their connected products. Starting from May 25th 2018, according to General Data Protection Regulation (UE 679/2016), all firms operating in Smart Home must be conformed to new specific regulations for consumers' privacy protection;
- The last critical barrier, is the **integration of the offer with value added services**. The possibility to develop services for final users is strictly dependent to the amount of data generated through smart products. However, firms generally integrate their product offer just with basic services, such as cloud data storage and push notifications delivery.

In Italy the distribution channel for Smart Home products is still dependent to the "traditional" distribution system of electrical components and domotics systems (meaning producers, distributors, installers and architects). According to Osservatorio IoT Polimi (2018), 70% of total products is sold through the traditional distribution channel, whereas the remaining share is distributed through other channels: eRetailers (such as Amazon and ePrice) accounts for 13% of the market, multichannel retailers 9% and the rest through insurances, telephone companies and utilities. In particular, telephone companies and utilities give the possibility to integrate the offer through additional services, such as linking products and services payments to phone or energy bills. Moreover, insurance companies are exploiting the installation of smart home products for delivering customized insurance policies to their customers. Smart insurance policies are not just supplied for living spaces, but also for business buildings and are aimed to the identification of floods, fires and breaks in.

Finally, two major trends for Smart Home market are startups and home speakers:

- As reported by Osservatorio IoT Polimi (2018), a key trend is the role played by **startups**. The research states that more than half of total products for sale (the database encompasses over 370 solutions) is realized by startups. The reason behind their success is that they are small and agile in producing solutions for filling missing gaps inside the offer of bigger firms. Frequently firms establish partnerships or acquisitions: such as for example Blink startup, which produces doorbells and wireless home security cameras (also weatherproof for outdoor) sending motion alerts and HD video and audio right to the owner's smartphone (blinkforhome.com). Blink, which started its business activity with a Kickstarter campaign in 2014, was bought by Amazon at the end of 2017 and became a "Amazon company";
- Internationally, a key trend for the Smart Home market is related to the introduction of **home speakers**: OTT companies, such as Amazon (2014), Google (2016) and also Apple (2018) have developed their hubs (featured with speakers, displays, microphones and a data processor), whose principal aims are to reduce complexity levels and connect all heterogeneous smart objects inside the home. These devices are featured by a virtual voice assistant, which will provide for the user the possibility to play the music, control the smart home, and get information and news (amazon.com). Amazon Echo is supported by Alexa, Google Home by Google Assistant and Home Pod by Siri. The possibility for users to control all compatible devices just through their own voices has shaken the entire market: the experience given by home speaker is more holistic and integrated, in comparison to the use of single apps for every single device or producer. The success of these products has been impressive: according to Morning Consult (2017) the number of Amazon Echo and Google Home sold in the United States is around 35 million units. However, there are still some limitations such as the dependency to internet connection and a limited number of functionalities. Leader for the number of compatible devices is Amazon with more than 4000 devices of over 1200 different brands (Osservatorio IoT Polimi, 2018). In order to make these numbers growing, Amazon has launched "Alexa Developer Award", which is promoting a community of external developers with the slogan "get paid for eligible skills that customers love most" (amazon.com).

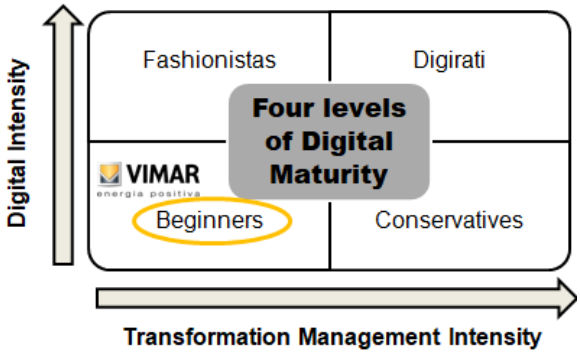
4.5 Digital transformation and business model innovation: new services for Vimar

4.5.1 Starting point: current situation in Vimar

First thing first, in order to understand the level of digital maturity of the company, it is essential to position it inside the Digital Transformation Model.

Vimar lies in the Digital Beginner quadrant (see *infra*, Image 16): it sees opportunities from digital transformation, but the commitment is just at an initial stage. Digital technologies are not exploited for changing firm's business model and there are no massive transformations inside the organization. Even if its products are aimed for the Smart Home market, however primary effort is still committed to the production of civil series, as seventy years ago. Therefore, digital intensity (i.e. investments for the change of the way in which the company operates) must be classified as low: saying this doesn't mean that the company is not investing in R&D for product development. Same evaluation has also to be made for transformation management intensity: strategy, vision and governance toward digital transformation are still at an evaluation phase. Indeed, Vimar has not yet identified, where it wants to position for the future of Smart Home market: lack of urgency, strategy and general vision are the main barriers toward digital business renovation, as reported by literature review.

Image 16: Vimar's Digital Maturity Model



Source: own elaboration from Westerman et al., 2012.

It is crucial to stress that investments in digital technologies are not enough for the transformation of the entire organization: the manufacturing firm should also invest in capabilities, talent and culture development. In order to develop new competences for a digital workforce and a new digital culture, Vimar relies on external consultants and personnel trainings. Given the critical role played by installers' selling skills, Vimar should allocate investments also for the education and development of installers' digital competences (as provided by wholesalers, see section 4.3.3): of course digital immigrants will very difficultly develop a complete digital mindset and may be adverse toward change. However, the

producer exploiting training courses should insist, at least for the enhancement of simple capabilities, such as for example the rapid individuation of information online and positive attitude toward e-learning tools.

As seen in section 1.1.1, digital transformation level is very different according to the specific industry: the considerations just made about Vimar are actually consistent with the general condition of manufacturing industry.

The role played by information technologies has changed the way in which the company operates along the value chain: not only primary activities, such as manufacturing, logistics and marketing, but also support activities have been interested, given the help of technology for procurement and R&D projects.

Critical for the company is that it has not yet found a way to exploit data coming from its domotics systems: the potential of using or selling to third parties data generated through the installed base is huge, but it is still not clear what types of data should be considered and to whom should be sold. From first interviews to installers and distributors, it is stated that data generated by Smart Home systems are too sensitive to be easily sold to third parties. They actually monitor and control living spaces recording all different routines inside the house.

Finally, regarding the ten strategic questions for digital transformation seen in section 1.3, Vimar is mainly addressing the following trade-offs:

- *Open or closed systems*. The company is investing time and energy for the development of protocols and, integrated and interconnected systems, in order to ensure interoperability for consumers, businesses and industries. KNX global open standard (a.k.a. Konnex), Open Connectivity Foundation, Enocean Alliance member for energy harvesting wireless solutions and Zigbee Alliance member for the creation of open IoT standards are the main results;
- *Produce internally or outsource externally*. Vimar has chosen to follow all primary and support activities in house and to rely on distributors, mainly wholesalers, for make its products available to installers;
- *What data have to be captured and to which parties sold*: this is still an open question for the firm.

As it will be addressed in the following lines, major strategic questions to be referred are the chances to change business model and fully or partially disintermediate distribution channels.

Because of its history of family firm, Vimar has always had a quite conservative approach toward market opportunities. The small changes made during the years have been all evolutionary and incremental: the major event from a managerial perspective is the

acquisition of Elvox in 2011 and the resulting extension of products portfolio with door entry systems. Since 1945, managerial choices have provided great success and excellent results for the firm, positioning it at the top of Italian electric components and systems manufacturers.

However, as it is emerged from the analysis of the market, the scenario in which Vimar (as well as all other competing firms) operates is changing very rapidly: digital transformation and Smart Home market are blurring industry boundaries and the entire sector is facing the competition of new entrants.

As seen in literature review, as the level of competition grows, managers need to find new ways for capturing and delivering value for their customers: in order to complete this task, business model innovation should be a top priority for the entire organization, especially if new technologies are creating favourable conditions for the renovation of business logics.

As regards Vimar and in general business world, practice is quite far from academic prescriptions and guidelines: strategic analyses of the status quo are isolated to one or two meetings a year for the presentation of the marketing plan.

For sure some barriers for business model innovation can be identified inside the quite conservative organization, always considering that change is usually unfamiliar for workers and just relying on chief executives' initiatives for driving transformation, may actually jeopardize the entire firm.

Key dangers for Vimar comprehend the possibility of taking for granted the current success and missing first mover competitive advantages or other market opportunities, given resistance to change or also hesitation. Moreover, the over-research and time taken to explore different strategies may cause the paralysis of the firm.

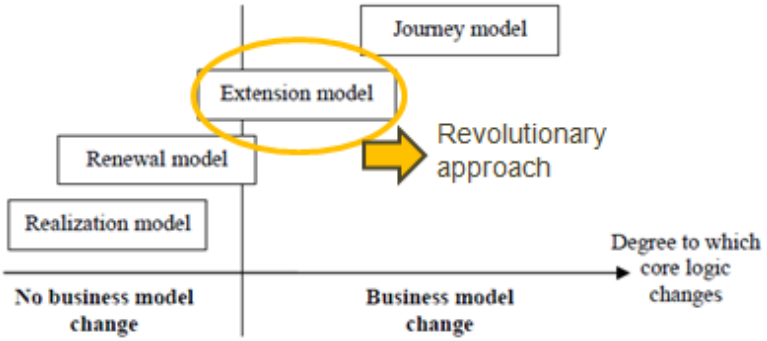
As already mentioned, the firm has adopted an evolutionary approach over the past years with small adjustments (a realization model for change): partnerships and reference integrations have been searched for firm's logic renovation and some remarkable results have been achieved, such as for example Friends of Hue program, which has involved great effort for Vimar's team.

However, the company should take a proactive and long-term perspective, in order to drive a significant change. The status quo has to be frequently questioned by a cross-functional team, internal and external forces need to be assessed and leadership should explain and communicate the urgency and relevance of a new business model. Smart Home new emergent market increases the difficulty to assess straightforward the new business model: Vimar while testing different possibilities should keep a wide space for manoeuvres.

According to the current condition of the firm and the identification of external forces, two possible paths for business model innovation can be identified:

- *Evolutionary approach*. More in-line with Vimar's conservative culture, the firm should investigate partnerships opportunities for the development of more specific services (which has already been partially launched by the company). Moreover, the identification of data exploitation possibilities can be positioned also in this scenario;
- *Revolutionary approach*. Given the increasing relevance of DIY products, if Vimar wants to keep a leading role, it should invest more in easy to install products for the Smart Home market and start targeting final users as valuable customer segment with ad hoc initiatives. Moreover, the potentiality for a direct e-commerce between producer and installers may disintermediate the long distribution channel system and collect crucial data for an enhanced CRM. Companies' latest tendency is to go downstream: moving forward along the value chain and getting distribution control is seen as a possible business model change (see Image 17).

Image 17: Vimar's revolutionary approach toward business model change

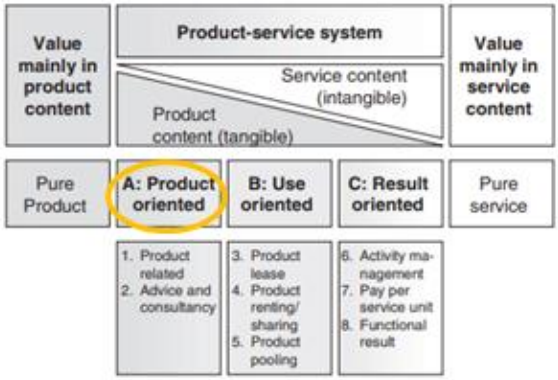


Source: own elaboration from Linder and Cantrell, 2000.

Moving on to servitization possibilities, manufacturing companies, that have always worked with products, are now focusing in new ways of delivering value through services offering solutions rather than physical goods. The increased demand for services, the exploitation of new ICTs and the saturation of the installed base are key driving factors.

Vimar has a goods-dominant logic (GDL): value is determined by the producer, whose focus is on the product and customers are seen just as recipients of goods and not as co-producer for value. Regarding the positioning of the firm along the product-service continuum, Vimar delivers services that are product-oriented (see *infra*, Image 18): products are owned by customers and basic services are included into the offer.

Image 18: Vimar's positioning along Tukker's product-service continuum



Source: own elaboration from Tukker, 2004.

The company is following an after-sales strategy delivering services supporting the product (SSP): the efficient after-sale department and its operators are key resources. Based on installers' opinions, the service supplied by Vimar generates an high satisfaction level, which is critical in order to keep customer-loyalty. Installers expect that manufacturers respond to products break down and malfunctions within a short time, otherwise they will switch to another producer. After-sales are also a source of information on clients, technologies levels and processes used. Moreover, Vimar should investigate, whereas to improve the quality level by supporting all or just some products and if some price lining strategies can be introduced: the higher the price paid by customers, the fastest the response time provided by the firm. The company is currently providing a general free of charge after-sale service for products covered by warranty.

Under the category of SSP are positioned also training courses held by the company for the development or enhancement of installers' technical skills. Given the lack of direct relationships with installers and promotion activities, training courses, if well-conducted, are a valuable source of information and updates on the changes of the offer.

4.5.2 The research project: first period

Research project starts at the end of the wide and complex distribution for Vimar's products and systems.

Due to the high number of channels and actors involved, it is impossible for the firm to have a proper understanding of where their products actually go to. As reported by the company, after products reach wholesalers, Vimar stays completely in the dark about their course afterwards. Consequently, there is a huge lack of information, and this prevents easy evaluations and direct relationship and communication with customers (i.e. installers).

First research period has entailed a series of face-to-face interviews to main players involved along the distribution chain: the aim was to enter into the topic from their point of view, find out critical aspects of their working activities and types of interactions they have with each other.

Following this overall purpose, five installers, two wholesalers, one electrical system designer and three architects have been interviewed. The collected answers and information have been reported in section 4.3, in order to integrate the analysis of Vimar's distribution channel and related critical issues.

From these first interviews, installers and distributors categories seemed an interesting starting point for the investigation of new services.

Although electricians have become salesmen for producers and their ability of explaining and promoting products is pivotal for firms' success, interviewed installers report a general lack of competences for their category: not only technical skills (especially for Smart Home new products/solutions), but also selling and promoting skills are sometimes insufficient. Moreover, it seems to emerge a general negative attitude of installers toward wholesalers: installers complain about the insufficient stock level, countermen's lack of expertise and a general decreasing added value for the distributor as an additional step along the value chain.

The second phase of research continues from these considerations and is aimed at searching for new possible services: so Vimar should be able to better satisfy the needs of its main customers segments, i.e. installers and distributors.

At this point, the company requests that research activities must be carried out without explicitly referring to the company's name, in order to avoid any type of response bias from participants. Moreover, the firm states that there are no internal mailing sources for surveys submission.

Due to the low amount of resources and the resulting impossibility of reaching significant data for a quantitative analysis, the research has been converted into a qualitative one. Because of research new nature, a semi-structured interview seem to be the best model. A defined list of questions to be covered doesn't prevent the interviewer to follow different trajectories during the conversation. As reported by Bernard (1988), semi-structured interviews can provide reliable and comparable qualitative data. Moreover, they are best suited when there won't be more than a chance to interview someone.

Two interviews, one for installers and one for distributors, are realized (see Appendix for interviews framework) and before starting data collection, pilot interviews have been conducted to selected respondents for the corresponding categories. This pretesting phase was

aimed to verify, if all questions were appropriate and clear. For example, it emerged that installers were more willing to declare a general classification for total revenues, rather than the exact amount.

The framework for installers interview exhibits five main set of questions:

1. personal and company data;
2. types of activities and solutions offered to customers;
3. technical competences and selling skills;
4. relationships and conflicts inside the distribution channel;
5. e-commerce.

Whereas, the framework for distributors interview has four main set of questions:

1. personal and company data;
2. services and solutions offered to customers;
3. relationships and conflicts inside the distribution channel;
4. professional competences.

Interviews are aimed to find out what kind of services/instruments Vimar may deliver to these two categories, in order to enhance or facilitate their working activities. Moreover, the possibility of a revolutionary approach toward business model change is investigated: as suggested by digital transformation, manufacturing companies exploiting new technologies should disintermediate their distribution channels and establish a direct and deep customer relationship. Therefore, the possible future scenario of a direct e-commerce between producers and installers is tested with interviews, as well as the added value given by distributors.

4.5.3 Second research period: limitations and results

Second research period has lasted almost three months. Udine Chamber of Commerce with its database on installers (ATECO code: 4321 - Installatori impianti elettrici ed elettronici) has provided the sample for the study: data updated at July 2018 reveal 792 active installers in the Province of Udine, including also branches. From the database, 100 requests for contact were submitted and 40 came back with a reply: from this total number, arrangements for face-to-face interviews were possible only for 22 firms. However, two interviews had to be removed from the analysis, because installers were not supplying domotics systems.

Regarding the database for distributors, following Vimar's directions, main operators of the North were addressed: including Marchiol S.p.A., Sonepar Italia S.p.A, Elettroveneta S.p.A,

Gruppo Giovannini s.r.l.. Twenty requests for contact were submitted across different branches of the North Italy, but interviews were possible only with five firms.

Before going on with any other analysis, it is fundamental to stress that of course the research sample size has no statistical relevance and that data collected will be used only from a qualitative perspective.

Major problems for the conduction of interviews have to be addressed to the low collaboration level of respondents. Reasons behind this binding limitation can be found in several factors. Firstly, contacting firms using the academic mail account of the interviewer was not efficient and some requests for appointment were directly classified as spam; moreover, speaking at the phone directly with installers was quite complicated, because of their jobs activities and the fact that they are usually on construction sites. In addition, the unpredictability of installers and distributors' activities made extremely difficult the scheduling of interviews and appointments were quite often cancelled at very last minute. Finally, especially for distributors, the high level of competition creates a general adverse attitude toward data sharing and privacy issues have been adduced.

In the following lines, a discussion of the results for installers and distributors coming from interviews will be provided. A quick summary of the results is exhibited in Tables 14 and 15.

1. Interviews to installers:

   a) Technical competences and selling skills

   80% of respondents assume there is a problem in the general competences of installers, especially regarding new domotics solutions. Only 60% of respondents have declared to feel always comfortable in explaining and selling different types of systems to their clients. Due to the increasing number of different technical solutions, for the future of their professional activity 65% of respondents find critical the enhancement of selling skills, whereas 75% the enhancement of technical skills.

   Regarding devices and training courses offered by producers, installers have expressed a positive opinion. In most cases, respondents value: the possibility to be updated on product and features newness; the expertise of instructors; the enhancement of technical and selling skills and the benchmark opportunity with other competitors.

   Asked on the possibility of additional instruments or services delivered by producers, installers have stressed the need for a major delocalization of training courses (six respondents). According to them, attending producers' courses, even if educational, is sometimes difficult because of the long distance to be covered. In order to enlarge locations for training courses, firms can exploit professional associations. Another key

element reported by four respondents, is the provision of products samples. Training courses should also be more oriented toward practice and give installers the possibility to actual handle products. Producers, according to three respondents, should supply installers with video devices for product demonstration to their clients. Few installers have stressed the possibility of having more specialized and frequent training courses and qualified producer's personnel directly involved in production site or inspections.

Asked on their satisfaction level for devices and courses offered instead by distributors, 70% of installers has expressed a positive opinion. Those with a negative one have stressed that distributors are too generalist, because they manage many products of different brands. For this reason, they don't have a complete knowledge on single products and training courses are less specific than producers' ones. Moreover, skills and involvement level of installers attending distributors' courses is not even and sometimes it generates a waste of time.

b) Relationships and conflicts inside the distribution channel

Half of respondents has stated that after getting into some conflicts with other actors, they have stopped using a specific product or supplier: most frequently conflicts derive from relationships with distributors. Main triggering factors are that distributors: have proposed not appropriate solutions, don't have a proper knowledge on products and are too generalist, the material was not available, and they do not follow a proper logic for product selling pushing promotion of the products they want.

c) E-commerce

60% of respondents are used to get information online about products before reaching the distributor. Asked on their satisfaction level for technical support provided by distributors at the moment of purchase, 65% of respondents have expressed a positive opinion and 60% have confirmed a lack of competences for countermen.

Regarding e-commerce, 35% of installers buy from wholesalers the totality of material needed. Those who don't buy 100% of material from wholesalers, either buy from mass market distribution or directly from producers: four respondents are buying more than 40% of total material directly from producers.

According to 55% of respondents, distributors are bringing a value added along the distribution chain. Those with a negative opinion have given three main reasons for their believes: distributors aren't keeping anymore products stock; there is a lack of technical and specific competences because of their generalist nature and they add mark-ups on

products. Asked on the satisfaction level about distributors' material stock, 60% of respondents has given an overall positive evaluation.

Finally, 55% of respondents appears positive for a direct e-commerce between distributor and installer. On one hand, registered advantages for e-commerce are: decreasing prices for material, possibility to interact directly with producers (who have higher knowledge on their own products) during the purchase phase and lastly establish a better relationship between installer and distributor. On the other, the following factors have been enumerated as disadvantages: warehouse management, products returns, longer waiting time for orders, possible waste of time (if web site for e-commerce is not intuitive), lack of technical support compared to physical store and finally the advance payment for material.

Table 14: Summary of main results for installers' interviews

Topic	Questions	Results
a) Technical competences and selling skills	General competences of installers, especially regarding domotics	80% of respondents assume there is a problem
	Feeling comfortable in explaining and selling different systems	60% of respondents feel comfortable
	Enhancement of selling skills	65% of respondents agree
	Enhancement of technical skills	75% of respondents agree
	Training courses offered by producers	Installers value: updating, expertise of instructors, enhancement of skills and benchmark opportunity
	Additional services by producers	Delocalization of courses, practice orientation, video devices
b) Relationships and conflicts	Dismissal of products/suppliers after conflicts and main triggering events	50% of respondents have dismissed a particular product /supplier after getting into conflicts mainly with distributors. Reported triggering factors are: inappropriate solutions, low technical knowledge and too generalist nature.
c) E-commerce	Information online before reaching distributors	60% of respondents are used to
	Satisfaction for technical support provided by distributors	65% of respondents are satisfied
	Buying 100% of material from wholesalers	35% of respondents are used to
	Distributors bringing value added	55% of respondents agree
	Satisfaction for distributors' material stock level	60% of respondents are satisfied
	Direct e-commerce between producer and installer	55% of respondents are positive about

Source: own elaboration from interviews.

2. Interviews to distributors:

a) Services and solutions offered to customers

The general function of distributors has dramatically changed. They don't just sell electric components, but they have become more commercial consultants, who must be constantly updated on the newness related to product features and market trends. Distributors' key

success factor is strictly dependant to their competences and their ability to create relationships and interact with all parties involved in the distribution system.

Wholesalers usually have two different approaches, if they work with big or small installers: in the first case, price and availability are the main drivers, whereas with small installers, distributors need to focus more on technical support especially because of the rising number of available solutions. Finally, as financial organizations are the foundation for the stability of the entire distribution system, due to their financial capacity of supporting installers' activities.

Regarding the possibility that e-commerce may substitute physical stores in the future, interviews have highlighted the triggering factor of generational turnover. E-commerce has the potential to reduce waiting times and provide customers a direct benchmark of different distributors, prices and availabilities, in order to make the best possible order. However, as stated by interviewed distributors, electric components and solutions still need the direct and human relationship between seller and buyer. Digital devices will increase their relevance, but installers will always need human competences for supporting their working activity.

b) Relationships and conflicts inside the distribution channel

From the perspective of distributors, main conflicts arise from relationships with producers. Most commonly, the arguments have a commercial nature and arise from the tendency of producers to force their own selling strategies and dictate a specific product value. Moreover, sometimes producers sell directly to installers by-passing distributors. Other conflicts registered are those with installers, mainly for financial reasons.

c) Professional competences and producers' additional services

Distributors interviewed have mostly confirmed a problem on the level of competences of countermen.

Regarding the value added given by distributors, it is seen as a consequence of the higher level of competitive pressure in the sector. Wholesalers, in order to survive, must focus on the enhancement of their services: pre- and after-sales, delivery options and product returns or modifications. Moving on from simple logistics, technical and financial support is getting greater attention. Distributors offer an immediate touch point to different producers, new products and market trends. Moreover, installers find a place to compare and benchmark with competitors.

Finally, regarding additional instruments or services that producers may provide for distributors, respondents have stressed the critical role played by delivery and response

times. Additionally, producers should rapidly inform distributors about new products or commercial activities. Lastly, digital product support will be always more fundamental: producers need to provide detailed digital product cards and shift to ETIM international standard for the codification of product features and specifics.

Table 15: Summary of main results for distributors' interviews

Topic	Questions	Results
a) Services and solutions offered to costumers	Changes in distributor role?	Distributors are nowadays commercial consultants: they focus on supplying right products with the right level of technology
	E-commerce	Pivotal is generational turnover. However, according to respondents, e-commerce will not substitute the direct human relationship between buyer and seller, which is still highly required in the sector
b) Relationships and conflicts inside the distribution channel	Main conflicts	Interviewed distributors have mainly reported conflicts occurred with producers. Triggering events are their selling strategies and products' value determinations
c) Professional competences and additional services	Countermen's lack of expertise	Interviewed distributors have confirmed a general low level of expertise
	Distributors' value added	According to interviewed distributors, value is provided through the enhancement of services as well as technical and financial support for installers' activities
	Additional services by producers	Interviews have stressed: delivery services, response time and digital product support

Source: own elaboration from interviews.

5. CONCLUSIONS AND MANAGERIAL IMPLICATIONS

Nowadays digital transformation, business model innovation and servitization are pivotal for the success of companies in all industries and they are seen not only by academics, but also by executives, as business growth opportunities.

Although investments for new technologies are critical, a successful digital renovation starts from more structural foundations. Indeed, to run transformation and establish new competitive advantages, firms must focus on matching strategy and vision, new capabilities, culture development and digital mindset. Otherwise, current high speed of changes in technology, data revolution, high competitive pressure, markets saturation and blurred industries boundaries will overwhelm them.

As reported by management literature, business model life-cycle is becoming shorter and shorter and, independently from their performances, companies are forced to open toward new business logics and new services. Critical success factor for business model innovation is status quo questioning: managers must conceive their business models as provisional solutions and, in order to exploit new horizons and opportunities coming from latest technologies or new services, they should adopt a proactive attitude and experiment with building blocks adjusting them overtime.

Even if managerial guidelines have been provided, however it is fundamental to stress that business model innovation is a learning by doing process and risk has to be taken into account. Above all, when coping with emerging markets, straightforward identification of the right model is very uncommon. Therefore, besides keeping spaces for manoeuvres and scanning external and internal forces, change management execution becomes also critical: individual or organizational barriers are frequent in times of change, due to high uncertainty levels. For overtaking resistance, managers shouldn't underestimate the power of education, communication and first line involvement for the introduction of new business logics.

Moreover, as provided by literature review, customers roles and expectations are changing: they are not anymore separated entities from production activities, but they are more integrated and are co-producer of value. The current state of competition and the saturation of the installed base are forcing also manufacturing companies to turn into more customer-centric logics and service strategies. Starting point for any shift toward service-provider model is customers' value proposition, desires and needs.

Focus of the research project is Vimar manufacturing firm. Since its foundation in 1945 the electric components and systems producer has experienced quite a static market, where post-war reconstruction combined with products quality and design have driven sales and success.

However, Italian construction production crisis, saturation of the installed base, IoT technologies and Smart Home products have shaken up the entire market. In an overall increased level of complexity, the threat of new entrants is intensifying competitive pressure: not only well-established companies from other industries (such as for example Amazon and Google), but also stratups are showing great interest in Smart Home market opportunities.

In order to face current challenges, Vimar has adopted a reactive approach: main focus for the organization is still on products quality and design. All value chain activities are supported and guaranteed through the strategic choice of producing internally and just distribution is outsourced to external intermediaries, mainly wholesalers. Moreover, in the last period, partnerships and reference integrations for product interoperability have been carried out, in order to avoid being cut out of the Smart Home market.

As it usually happens to successful firms facing emerging markets, Vimar is taking its time to evaluate internal and external environments, before launching any business model innovation activity. But, as highlighted in literature review, in order to take advantage from market opportunities, companies should be more proactive, especially taking a long-term perspective, rather than simply react against external forces: for this purpose Five Phases approach may come useful.

If partnerships and IoT data exploitation are seen as an evolutionary scenario (in line with company's conservative attitude), the development of easy to install Smart Home products and the consequent targeting of a new DIY customer segment are part of a more revolutionary one. Moreover, digital technologies are providing the possibility to disintermediate distribution channels and create better CRM opportunities.

This study firstly targeted the lower end of the wide and complex distribution system of Vimar's products. Through interviews to installers, distributors, architects and electrical systems designers, the aim of the research was to identify and test new services opportunities taking customers' perspective and using them as co-producers for value. Installers and distributors segments appeared as the most apt toward new services and their main working activities, new trends and critical issues have been investigated.

Due to the enhancement of digital product specifications, easiness of data sharing and conflicts along the distribution system, a logic way to intensify deeper customers relationships was found in the introduction of a direct e-commerce service between the company and its installers.

Results, with the described limitations, showed that the sector is not fully ready for a complete disintermediation: in particular, installers still need technical advices and personal interactions with distributors, whose main struggle is to keep updating on latest product

innovation and provide the right product assortment with the right level of technology. Some interviewed installers have complained about wholesalers' generalist nature and lack of competences on specific products. Even so, installers who are already getting online information about product features and specifics and that are generally positive toward e-commerce, they still consider wholesalers as a value added along the distribution system.

In conclusion, digital transformation is affecting all players, from producers to distributors, who are providing installers with training courses for the enhancement of digital skills and competences. Even if generational turnover is seen as critical for a total renovation of the sector, Vimar should more carefully address installers' reported low technical and selling skills. Expressed needs through interviews are: an higher delocalization of training courses, the enhancement of practice with product demonstrations and samples, and also video support devices for better presentations and promotion to customers (additional and more specific needs related to Vimar's products may be investigated by the company).
Relying on installers' selling skills is extremely dangerous for manufacturers, especially when intermediaries are included in the distribution system. As seen in literature review, producers should step up, start to designate right roles to the actors involved and also create better customer relationships. Due to the expected future growth of Italian Smart Home market, digital competences for the workforce will become always more critical: if the workforce includes also installers, then producers should take care of their education and skills enhancement.

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APPENDIX

ANALISI SULLA DISTRIBUZIONE COMMERCIALE DEI COMPONENTI ELETTRICI:

ATTORI E SPAZI DA ESPLORARE PER NUOVI SERVIZI

INTERVISTA INSTALLATORE

Data:					
Azienda/Filiale e ragione sociale:					
N. Dipendenti (2017):					
Fatturato (2017): indichi con una X la Sua fascia di fatturato					
	Inferiore a 100.000 Euro		Superiore a 100.000 Euro		Superiore a 400.000 Euro
Sede:					
Ruolo svolto dall'intervistato:					
Età dell'intervistato:					

I. <u>Attività e soluzioni proposte al cliente</u>:

1.1 Indichi con una X le attività svolte dalla Sua azienda:

	Progettazione		Installazione
	Manutenzione ed assistenza		Altro (specificare):

1.2 Specifichi con una X le tipologie di sistemi proposti dalla Sua azienda:

	Impianti civili		Impianti industriali		Fotovoltaico
	Automazione cancelli		Antenne TV, digitali terrestri e satellitari		Antifurti, antincendio e videosorveglianza
	Sistemi di domotica		Citofoni e videocitofoni		Pompe di calore
	Altro (specificare):				

1.3 Nel caso in cui Lei sia un installatore di sistemi di domotica, indichi da quanti anni: ____ anni

II. <u>Formazione professionale ed efficacia nella vendita</u>: indichi con una X la risposta.

2.1 Ritiene che vi sia un problema di competenze nella Sua categoria, soprattutto in merito alle nuove soluzioni di domotica?

	Sì
	No

2.2 Si sente sempre a suo agio e competente nello spiegare/vendere i diversi sistemi ai Suoi clienti?

	Sì
	No

2.3 Visto l'aumento di soluzioni disponibili al cliente, per il futuro della Sua azienda, ritiene che l'installatore debba essere maggiormente preparato e competente nella vendita o nell'installazione dei vari sistemi?

	Maggiormente preparato nella vendita
	Maggiormente preparato nell'installazione
	Nessuna delle precedenti

2.4 Ritiene che gli strumenti/corsi offerti dalle <u>case produttrici</u> siano utili per migliorare la Sua attività? Indichi il perché.

	Sì
	No

<u>Perché</u> (Ad esempio: professionalità degli istruttori; chiarezza delle spiegazioni dal vivo; modalità di insegnamento ottimali tra lezioni frontali e corsi online; conoscenze pratiche acquisite; condivisione di esperienze con colleghi; miglioramento delle competenze di installazione e vendita; etc.):

_____
_____

2.5 Quali strumenti/servizi offerti dalle case produttrici sarebbero utili per la Sua attività? (Ad esempio: corsi di formazione maggiormente delocalizzati sul territorio nazionale; strumenti video per la dimostrazione al cliente di nuovi sistemi da installare; etc.)

_____
_____

2.6 Ritiene che gli strumenti/corsi offerti dai distributori siano utili per migliorare la Sua attività? Indichi il perché:

	Sì
	No

Perché (Ad esempio: professionalità degli istruttori; chiarezza delle spiegazioni dal vivo; modalità di insegnamento ottimali tra lezioni frontali e corsi online; conoscenze pratiche acquisite; condivisione di esperienze con colleghi; miglioramento delle competenze di installazione e vendita; etc.):

_____
_____

III. Relazioni/conflitti all'interno del canale di distribuzione:

3.1 Con quali altri attori della filiera Le capita di interfacciarsi più spesso?
Faccia una graduatoria indicando con 1 l'attore con cui ha maggiore interazione:

__ Aziende produttrici
__ Grossisti
__ Progettisti
__ Agenti
__ Altro (specificare): _____

3.2 Indichi con una X gli attori con cui Le è capitato o le capita di entrare in conflitto, specificandone brevemente il motivo:

	Aziende produttrici, perché
	Grossisti, perché
	Progettisti, perché
	Agenti, perché
	Altro, perché

3.3 In seguito a questi conflitti, Le è capitato di abbandonare l'utilizzo di determinati prodotti/fornitori:

Mai ☐ ☐ ☐ ☐ ☐ ☐ Sempre

IV. Formazione e competenza del distributore di materiale elettrico:

4.1 Prima di recarsi dal distributore è solito fare ricerche online sui prodotti da acquistare?

Mai ☐ ☐ ☐ ☐ ☐ ☐ Sempre

4.2 Per la Sua attività, quanto è importante il servizio di consulenza tecnica offerto dal distributore?

Per niente ☐ ☐ ☐ ☐ ☐ ☐ Molto

4.3 In base alla Sua esperienza, come valuta il servizio di consulenza tecnica offerto dal distributore nel momento in cui vi si reca per l'acquisto del materiale?

Insufficiente ☐ ☐ ☐ ☐ ☐ ☐ Ottimo

4.4 Ritiene che vi sia un problema nelle competenze dei banconieri?

	Sì
	No

V. <u>E-commerce</u>:

5.1 Solitamente da chi acquista il materiale per la Sua attività:

- da grossisti di materiale elettrico: ____%;
- dalla grande distribuzione: ____ %;
- da altri (specificare)_____: ____ %

5.2 Ritiene che il distributore all'interno della filiera distributiva apporti un valore aggiunto?

	Sì
	No

Perché:_____

_____

5.3 Quando si reca dal distributore, trova il materiale disponibile a magazzino?

Mai ☐ ☐ ☐ ☐ ☐ ☐ Sempre

5.4 Se il distributore non ha in magazzino il materiale da Lei richiesto, di norma che cosa fa?:

	Lo ordina comunque
	Prova da un altro distributore
	Altro (specificare):

5.5 Come valuterebbe un e-commerce diretto per l'installatore dalla casa produttrice (bypassando cioè il distributore)?

Non favorevole ☐ ☐ ☐ ☐ ☐ ☐ Favorevole

5.6 Brevemente quali sarebbero secondo Lei i vantaggi / svantaggi di un e-commerce per l'installatore?

<u>Vantaggi</u> (ad esempio: migliore rapporto tra casa produttrice ed installatore; riduzione dei prezzi del materiale; consulenza diretta con l'azienda nella fase di acquisto; etc.):

_____

_____

_____

<u>Svantaggi</u> (ad esempio: gestione di un magazzino da parte dell'installatore; problema dei resi; etc.):

_____

_____

_____

ANALISI SULLA DISTRIBUZIONE COMMERCIALE DEI COMPONENTI ELETTRICI:

ATTORI E SPAZI DA ESPLORARE PER NUOVI SERVIZI

INTERVISTA DISTRIBUTORE

Data:
Azienda/Filiale e ragione sociale:
N. Dipendenti (2017):
Fatturato (2017):
Sede:
Ruolo svolto dall'intervistato:
Età dell'intervistato:

In riferimento al mercato del materiale elettrico per impianti elettrici civili, considerando quindi applicazioni residenziali e commerciali (non industriali).

I. <u>Servizi e soluzioni per il cliente finale:</u>

1.1 Secondo Lei, come sta cambiando la funzione del distributore all'interno della filiera commerciale (ad esempio: da box mover a solution provider, etc.)?

_____

_____

1.2 Per il futuro del distributore, quanto è importante l'offerta di nuovi prodotti agli installatori? Indichi con una X:

Per niente ☐ ☐ ☐ ☐ ☐ ☐ Molto

1.3 La Sua azienda è ripartita in divisioni commerciali? Indichi con una X:

	Sì
	No

Se Sì, quali?

	Materiale elettrico		Energie rinnovabili		Sicurezza
	Domotica		Automazione industriale		Antennistica
	Lighting		Tools		Climatizzazione
	Altro (specificare):				

1.4 La Sua azienda fa uso del category management? Indichi con una X:

	Sì
	No

1.5 La Sua azienda adotta una strategia di omnicanalità per la distribuzione (ovvero utilizza senza soluzione di continuità sia punti di vendita fisici, sia E-commerce, ed altri mezzi):

	Sì
	No

1.6 Per il futuro, ritiene che l'e-commerce prevarrà sul punto di vendita fisico tanto da sostituirlo? Indichi il motivo:

	Sì
	No

Perché:_____

_____

1.7 Quali sono i servizi che la Sua azienda offre al cliente <u>professionista</u>:

	Magazzino dedicato		Assistenza tecnica		Progettazione di installazioni
	Assistenza commerciale (preventivi, etc.)		Supporto finanziario (dilazionamento pagamenti)		Corsi di formazione
	Consegne dedicate		Altro (specificare):		

1.8 Nel caso in cui la Sua azienda organizzi corsi di formazione, qual è il feedback di soddisfazione da parte dei partecipanti per il servizio erogato:

Insufficiente ☐ ☐ ☐ ☐ ☐ ☐ Ottimo

1.9 Brevemente qual è il valore aggiunto che il distributore offre all'installatore?

_____

_____

II. <u>Relazioni/conflitti all'interno del canale di distribuzione</u>:

2.1 Con quali altri attori della filiera Le capita di interfacciarsi più spesso?

Faccia una graduatoria indicando con 1 l'attore con cui ha maggiore interazione:

__ Aziende produttrici
__ Installatori
__ Progettisti/architetti
__ Agenzie plurimandatarie
__ Altro (specificare): -

_____

2.2 Indichi gli attori con cui Le è capitato o Le capita di entrare in conflitto, specificandone brevemente il motivo:

	Aziende produttrici, perché
	Installatori, perché
	Progettisti/architetti, perché
	Agenzie plurimandatarie, perché
	Altro, perché

2.3 Che Lei sappia, in seguito a questi conflitti, è capitato alla Sua azienda di abbandonare la distribuzione di determinati prodotti/fornitori:

Mai ☐ ☐ ☐ ☐ ☐ ☐ Sempre

III. <u>Competenza professionale ed efficacia nella vendita:</u>

3.1 Quanto è importante il servizio di consulenza tecnica offerto dal distributore all'installatore?

Per niente ☐ ☐ ☐ ☐ ☐ ☐ Molto

3.2 Come giudica il servizio di consulenza tecnica offerto dalla Sua azienda ai professionisti:

Insufficiente ☐ ☐ ☐ ☐ ☐ ☐ Ottimo

3.3 Ritiene che vi sia un problema di competenza dei banconieri?

	Sì
	No

3.4 Quali strumenti/servizi offerti dalle <u>case produttrici</u> sarebbero utili per migliorare l'efficacia di vendita della Sua azienda? (ad esempio: tempi rapidi di fornitura; display e materiale per promozione in negozio; informazioni digitali dettagliate ed interattive sulle specifiche prodotti; etc.)

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