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Working with Multiple Business Models: A Case Study of HMS

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Abstract:

**Background:** Customer needs are ever changing and organizations are under constant pressure to fulfill these needs. This resulted in the organization moving in new areas and introducing new offerings/business models. In order to thrive in the competitive market, new companies were acquired with a new set of business units were introduced or existing business units are converged. This resulted in the emergence of multiple business model phenomena and ultimately strategies were developed to manage the business models simultaneously.

**Purpose:** The motivation behind this study, is to find the strategy for operating multiple businesses models embraced by an organization to thrive in a developing field.

**Methodology:** This study is a based on qualitative analysis with a single case study method. The information has been gathered from the two semi-structured interviews with top management of the company and by means of annual reports & financial documents. The findings have been analysed within the case analysis. The case organization is HMS Industrial Networks, a Swedish Industrial communication equipment manufacturer.

**Empirical Findings:** The findings contain a total review of the organization history and business models from 1988 to 2018, based on the gathered information. It is organized in identified time periods.

**Conclusions:** It can be concluded that business models of HMS have evolved from its establishment to current day. Moreover, integrating strategy used to manage multiple business models through acquisition and realizing synergies that adversely alters the distribution of possible outcomes regardless of increase or decrease of the expected outcome.

**Future Research:** The future research is needed in order to find other types of strategies for managing multiple business models.

**Keywords:** Multiple business models, Business models, Integration Strategy, Synergy
**List of Abbreviations**

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<thead>
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<th>Full Form</th>
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<tr>
<td>BM</td>
<td>Business Model</td>
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<td>MBM</td>
<td>Multiple Business Model</td>
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<tr>
<td>ISO</td>
<td>International Standard organization</td>
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<td>OEM</td>
<td>Original Equipment Manufacturers</td>
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<td>SEK</td>
<td>Swedish Kroners</td>
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<td>BU</td>
<td>Business Unit</td>
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<td>CAN</td>
<td>Control Area Network</td>
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<td>HR</td>
<td>Human Resource</td>
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<td>R&amp;D</td>
<td>Research &amp; Development</td>
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<tr>
<td>CTO</td>
<td>Chief Technology Officer</td>
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<td>CEO</td>
<td>Chief Executing Officer</td>
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<td>CMO</td>
<td>Chief Marketing Officer</td>
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<td>CFO</td>
<td>Chief Financial Office</td>
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<td>CCO</td>
<td>Chief Commercial Officer</td>
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<tr>
<td>GKAM</td>
<td>Global Key Account Management</td>
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<td>IT</td>
<td>Information Technology</td>
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<td>B2B</td>
<td>Business to Business</td>
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<td>B2C</td>
<td>Business to Customer</td>
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1.0 Introduction

This section describes the introduction of business models and the emergence of multiple business models. The aim is to create understanding of the business model and describes why this research is important in this area. The purpose and the research question is also explained in the end of this section.

1.1 Background and significance

Organizations frequently make considerate effort to innovate their processes and products to attain income growth and to maintain or improve profit margins. Though innovations help in products and process developments, yet they are often expensive and time consuming from innovative work on specific resources, technologies, and even whole new business units. Yet, future returns looking into these investments are always uncertain. Since, organizations are reluctant to gamble on such investments, they would go towards business model innovation as an alternative approach for product and process innovation (Zott & Amit, 2010).

Business models has been used as a term for more than fifty years in scientific discussion. The main utilization of this term is initially found in Bellman et al. (1957) which describes the advancement in business models as a concept. The significance of business model has increased with the development of technological advancement and electronic business. After this period of time, the business models are not just seen as an operative plan for analyzing suitable information but also contributed in the successful decision-making process that has created and integrated the organization. Business models in practice has been understood as organized management tools for success, but more specifically used in securing and expanding competitive advantage (Wirtz et al., 2016).

In the modern business history, business models and strategies have been matched by the companies to their organizational and social values. In the nineteenth century during the industrial revolution where the large-production took hold, for example, organizations made profits with huge economies of scale by centralizing key operations like processes, sales, and funding. A new business model was introduced few decades later, when companies moved into new areas with expanded offerings (Kaplan & Norton, 2006).

1.2 The emergence of the “multiple” Business Models phenomenon

As Porter (1980) explained, organization adopting two different and conflicting strategies for the similar market is nearly impossible? Firms should not even try to manage two different strategies in similar market conditions, else they will “stuck in the middle”. On the other hand Christensen (2013) suggested that, two different companies always works with two separate strategies. Then again Tushman et al. (1996) argued that, without separating two different strategies organization can manage. Finally, Markides and Charitou (2004) suggested, Organization concurrently supports both strategies when developing “ambidextrous” infrastructure.

In the past seven years, the word multiple business models have been growing among the academic community but there is one exception (first study by (Markides & Charitou, 2004)). The term ‘multiple business models’ means that existing premium business model supplements with an extra low-cost business model. For example, “Go begun” by British Airways as their low-cost carrier, Premium coffee maker “Nespresso” is come from Nestle as an independent business division. Though, it is a new business model, yet it is not necessary that the business...
model should be radically different than the existing one, which has been argued as best solution and it may not always be organizational separation. Depends on the strategic resemblance between the two markets and two business model, conflicts are proposed as an contingency approach to separate or integrate two businesses (Winterhalter et al., 2016).

Corporate benefit and competitiveness are the main challenges faced by the organizations. Based on these strategic choices the organizations performance is evaluated. Therefore, the organizations decide to select on specific business units or individual domains. Companies have synergy in their business divisions and it is one of a major proposition of strategic management literature (Van Reymen, 2011). Reduced price, improved innovativeness, and improved profitability are the outcome of competitive advantage since synergy are desirable (Van Reymen, 2011). Organization’s business model portfolio performs and manages numerous business models by the judgemental choice of specific business models (Snihur & Tarzijan, 2018).

Often, organizations run business models concurrently and so little attention is given to the existing or new one. Companies frequently need different business models which work in the group”, for developing more than one income streams with the similar technologies, in a technology-based situation, business model configurations are extremely vital. For example, Amazon uses diverse business models for aiming their diverse customer segment to sell home items and cloud computing facilities. Possible synergies are there in amazon’s multiple business models as a composition (instead of a group of separate elements) when analysing it, distinct customer groups are aimed at using cross-selling opportunities. Often, business models in organizations are complementary and it reveals that configural method (i.e. a systematic approach viewed as a constellation of interconnected elements). Improved company performance is possible when more than one business model combined adopted and it is better than the independent adoption of the business model (Aversa et al., 2015).

1.3 Purpose and research question
According to Baden-Fuller and Haefliger (2013), there is a dramatic shifts in telecommunication and computer industries from the perspective of business model. There is an ongoing debate that organizations need to change, adjust and enhance their business model with a specific value from technological innovation Baden-Fuller and Haefliger (2013) and to sustain success over time (Chesbrough, 2010). However, researchers are still debating on the benefits of various business model strategies. One influential area of business model study backing the operation of parallel, multiple, and partly even conflicting/clashing business model as a mechanism for supporting opportunities and risks (Casadesus-Masanell & Tarzijan, 2012). As indicated by Porter (1980), attempting to oversee two diverse business models in a similar market is that the two models (and their underlying value chains) could conflict with each other. For instance, offering its tickets via Internet same like its low-cost rivals, British Airways risks dividing its present distributors (Travel operators) (Markides & Charitou, 2004).

In the event that the firm keeps the two business models physically separate, it gives the new model an opportunity to survive without interference from the parent organization. However, it likewise denies the new models valuable resources, assets, and knowledge that reside in the parent organization (Markides & Charitou, 2004). Then again, if the two business models are integrated, the new model benefits from the knowledge and resources of the parent company yet additionally risks, mismanagement, and informal interference from the parent company (Markides & Charitou, 2004).
Thus, the objective of this thesis is to investigate, the strategy implemented by an established company operating in the growing sector of industrial networks for managing multiple business models. This paper explains the existing nomenclature proposed by various scholars in the literature through which, we identify the possibilities for improvements that have been identified through interviews with organizations that works with multiple business models. By combining these two sources (existing and findings of the author), this thesis will answer the research question.

This thesis is based on one in-depth case of a firm that altered their business models as they have undergone some severe transformations for a longer period of time. There are various factors such as the need for adoption in the growing market, retaining competitiveness while contributing to sustainable development, change in technology. The first level of investigation was basically a confirmation from the companies regarding the existence of multiple business models. Further, on confirming the existence of the multiple business models in the organization, we must double check by interviewing the officers in the organizations which were mostly “How” questions in order to have in-depth answers to answer our research question.

What strategy is implemented by an established company operating in the growing sector of industrial networks for managing multiple business models?

1.4 Thesis Layout

The further parts of this paper have the following sequence and content.

*Theoretical Framework:* This part contains the theoretical framework which this research is based on. It begins with business models, followed by business model canvas, strategy, why firms develop multiple business models, ambidexterity in business model, four strategies for managing multiple business models, and finally synergy. The section starts with business models.

*Methodology:* In this section, we have explained methodological choices that have been made such as research choice and research approach. Moreover, the justifications are defined in all section of the thesis.

*Empirical Data:* In this chapter, the empirical data is gathered based on the findings from the interviews supported by the secondary data. The findings are presented based on the three time periods such as creation phase, commercialization phase, transition phase.

*Analysis & Discussion:* In this section, the key aspects which contributed to the organizational transformation are discussed and analysed. Moreover, the findings from the thesis are discussed with regards to the existing literature. Furthermore, the analysis is done in a chronological order.

*Conclusion:* This section summarizes, implications, major outcome and discussion connection with past research, limitations and suggestion for future research.
2.0 Theoretical Framework

In this section, contains the theoretical framework which this research is based. It begins with business models, followed by business model canvas, the emergence of business models, ambidexterity in business models, integrative business model framework, strategy, different strategies for managing multiple business models, and finally synergy. The section starts with business models.

2.1 Definition of Business models

In the early days, the notion of business model is referred as a logic of a business and it has growing response in the literature. The business models are explained in the way, how it is functioning and creates & captures value. To develop and commercialize a new product is also a part of the innovative business model and these opportunities are offered by rapidly growing new technology (Schwarz et al., 2017).

<table>
<thead>
<tr>
<th>Author</th>
<th>Definition of Business Models</th>
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<tr>
<td>George and Bock (2011, p. 99)</td>
<td>“A business model is the design of organizational structures to enact a commercial opportunity. The three dimensions to the organizational structures noted in this definition: resource structure, transactive structure, and value structure.”</td>
</tr>
<tr>
<td>Teece (2010, p. 173)</td>
<td>“A business model defines how the enterprise creates and delivers value to customers, and then converts payments received to profits.”</td>
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<tr>
<td>Timmers (1998, p. 4)</td>
<td>“Definition of a business model: (a) an architecture for the product, service and information flows, including a description of the various business actors and their roles; and (b) a description of the potential benefits for the various business actors; and (c) a description of the sources of revenues.”</td>
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<tr>
<td>Mahadevan (2000, p. 59)</td>
<td>“A business model is a unique blend of three streams that are critical to the business. These include the value stream for the business partners and the buyers, the revenue stream, and the logistical stream”</td>
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<td>Afuah and Tucci (2001, pp. 3-4)</td>
<td>“A business model is the method by which a firm builds and uses its resources to offer its customers better value than its competitors and make money doing so. It details how a firm makes money now and how it plans to do so in the long-term. The model is what enables a firm to have a sustainable competitive advantage, to perform better than its rivals in the long term.”</td>
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<td>Tapscott (2001, p. 5)</td>
<td>“A business model refers to the core architecture of a firm, specifically how it deploys all relevant resources (not just those within its corporate boundaries) to create differentiated value for customers.”</td>
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Table 1: Definitions of Business Models

Business model as a whole, advances more slowly as a topic of research since it is mostly seen on a One-dimensional level. The researchers like Amit, Zott, and Massa contributed more towards business model research (Marques, 2015). Creation and capturing the value of a business is based on activity system which requires product and markets to be recognized as a fundamental logic (Rumble & Mangematin, 2015). At the same time, the business model
explains, “exploitation of business opportunities is the way to create value by describing the structure, content, and governance of transaction design” (Markides, 2013). The business model represents “administrative and financial architecture of business”, it explains the performance of sustained difference (Sohl & Vroom, 2014).

Linder and Cantrell (2000) introduces a concept termed as “Change Model” according to the definition, “It explains the core logic of a company’s change over period to stay profitable” (Marques, 2015). The business model aspects are highlighted as intermediary among the practice and theory allowing managers and scholars to enquire the world and conclude things around reality, same as determining the exact position of the planet in solar system (Rumble & Mangematin, 2015). The desire is to provide a holistic view of business so business models involve in value creation, value capture, and value delivery (Winterhalter et al., 2016). There is still a complication of using business models where, how, and what to implement in corporate management for answering this they have created a new one to address the consensual definition: “Business models explains the strategic choices and core logic for creating and capturing in value network” (Marques, 2015). It also comprises of the elements such as key processes, key resources, a profit formula, and value proposition. The elements associated to identify the typical ways of generic value creation, past research recommended that difference of business models are represented by generic business model types. These researches claimed that generic representation of doing business is possible to apply in multiple companies and divisions, categorizing particular business model to business model types (Sohl & Vroom, 2014). Almost every research implicitly or explicitly explains the business models types and providing examples for pioneering business model in internet oriented industries or traditional industries, which consecutively has more number of companies adopting in the industry (Sohl & Vroom, 2014). The important part of business model is missing in the definition of Zott and Amit (2010) that is, in order to stay in existence, firms should capture a section of value they create. Therefore, business model definition of Osterwalder and Pigneur (2010) will be used as working definition and it is more complete to use in the master thesis.

2.2 Nine Building blocks of Business Model Canvas
Business models are about creating value for companies, societies and customers. Therefore, a business model can be described more accurately with the help of nine building blocks. The four major areas like customer, infrastructure, offerings, and financial viability are covered in nine building blocks. Business models are blueprint for the strategy to be applied over process, system and organizational structure (Osterwalder & Pigneur, 2010).

2.2.1 Customer Segments
In this building block, companies aim to reach and serve various groups of people or organization. The heart of any business model is customers. No organization can sustain long without profitable clients. Business model may define is small or one or several large customer segments. Segments to serve and segments to ignore are decided by the companies consciously. After the decision is made, specific need of the customer will be observed and designed carefully in business models (Osterwalder & Pigneur, 2010).

2.2.2 Value Propositions
In this section, the package of services and products has been described to generate value for a customer segment. The major reason is customers to change the organization’s value proposition. It satisfies the need of customers or resolves the customer problem. The value proposition is a combination of benefits or packages offered by a firm to customers (Osterwalder & Pigneur, 2010).
2.2.3 Channels
In this section, it describes the firm’s communication and delivers their value proposition to their customer segments. Sales and distribution channel are some of organizations interface with customers. Channels plays the important role in the customer experience and it is considered as a touch point to the customers (Osterwalder & Pigneur, 2010).

2.2.4 Customer Relationships
In this section, it explains the relationship types of an organization that establishes with their customer segment. The organization should be clear about their relationship type, which is established with each customer segment. Personal to automate could be a relationship range (Osterwalder & Pigneur, 2010).

2.2.5 Revenue Streams
In this section, revenue streams explain the money generated from the customer segment. Business models considered streams as their arteries. A firm should know themselves, what value they are keen to pay for each customer segment? Firms having one or more income streams for their customer segment will successfully answer this question. Diverse pricing mechanism has been implemented for each revenue stream, such as bargaining, fixed price list, volume dependent, auctioning, market dependent and yield management (Osterwalder & Pigneur, 2010).

2.2.6 Key Resources
In this section, key resources explain the vital assets needed to create the working business model. Key resources are essential for every business model. These resources help the value proposition to develop, offer, reach the market, get revenues, and keep the relationship with customer segment. Each type of business model is based on different key resources (Osterwalder & Pigneur, 2010).

2.2.7 Key Activities
In this section, the building block explains the vital operations that the firms must perform to make its business model working. Every business model comprises of several key activities. These are the most important actions that the firm must take to run successfully (Osterwalder & Pigneur, 2010).

2.2.8 Key Partnerships
In this section, the building blocks explains partners and group of suppliers that helps the business model to work. Partnerships are one of the milestones for many business models and they will create partnership for various reasons. For acquiring resources and reducing risks, firms will make partnerships to optimize their business model (Osterwalder & Pigneur, 2010).
In this thesis, the BMC has been used for several aspects, first, it has been used to design the manuscript for interviews by developing questions linking to elements in the BMC. Moreover, it has been used as a tool for visualizing the evolution of HMS over time. The interesting point to be noted is that, key elements in the canvas contributes to the integration or separation of business models. But, first it is necessary to discuss emergence phenomena in multiple business models.

### 2.3 The emergence of multiple business models

The rapid development of digital technology has facilitated the transformation of organizations. Based on the terms creation, identify, deliver, and capture value, organizations change their business models, through digital technology they will implement new sources of added value and they will check how such implementations reproduce the value proposition of the company by their product offerings, revenue model, and target market sections: and the basis of process and activities (Li, 2015). Therefore, synergy creation among the business units of an organization is an advantage for the whole firm and as well as the individual business unit (Van Reymen, 2011).

Firms desire to address various customer segments due to the rapid development, for each one using specific business model. This is followed, in order to prevent the organization from being pushed out by the competitors from the present market, to broaden the new market, and other resources. Ideally, this requires a different business model to expand new income streams and operate them in the group (Casadesus-Masanell & Tarzijan, 2012).

The advent of new business models, and upcoming technologies have the capability to disrupt existing industries. In which case, companies need to develop a new business model for
commercializing growing technologies, prevent new competitors, and hinder market loss, especially if the business model has to be driven by technology and it differs considerably from traditional one (Hoßbach, 2015). According to Chandler et al. (2011), there might be differences between the business models (i.e. the value propositions) of high and low growth companies in a growing market. With the help of business models, additional profits can be generated with fewer sales margin, and enter the new market. Firms develop multiple business models to influence existing ability and compete into different markets, occasionally with different strategies (e.g., low-priced and differentiation) (Schwarz et al., 2017). Developing a co-operative business model is an obscure task of imagination and intellect. As per developing literature study, customer needs are the driver to co-operate (Heikkilä & Heikkilä, 2013). Some certain cases, firms should embed novel business model with product innovation. In those cases, the nature of product offering, and service offering are different so new business model varies considerably to the existing business model. For instance, in saturated market, services may be the result to generate extra profit. The need for risk mitigation is also one of the reason for firms to develop multiple business models to handle uncertain environments. Similarly, in risky product development process, such as biopharmaceutical industry, the organizations diversify their income areas to mitigate the risk. The early experiments have proved that there is an uncertainty with multiple business models at an early stage of the business if a new business model is established. But after further development of the business, risk diversification can be provided by the multiple business models (Schwarz et al., 2017). There is a risk factor in operating multiple business models but overcoming the risk will benefits sustainably (Casadesus-Masanell & Tarzijan, 2012).

There is no depth in the older studies regarding integrated views of how decreasing tension and developing synergy in the implementation of multiple business models. Synergy development is the main attention of implementing multiple business models, due to some obvious tension occurred, traditional ambidexterity method was adopted to overcome potential tensions, they concentrated very less that how synergy is developing, and tensions are decreasing (Kuo, 2017). Therefore, to have a more holistic view, it is necessary that the issue of ambidexterity in business models are addressed.

2.4 Ambidexterity in Business Models
A firm needs a business model if it has to operate according to the market trends. Executing more than one business model needs a suitable “operational capabilities” (Simon & Schmidt, 2015). Companies can control dualities in a better way that achieve exploration and exploitation and turn into ambidextrous organization (Winterhalter et al., 2016). Flexibility in business models of an organization is frequently connected with the issue of ambidexterity which has an ability to achieve alignment simultaneously (with current client needs) and adaptability (to grow new client solutions) at a business unit level (Mason & Mouzas, 2012). The research on organizational ambidexterity shows that trade-offs between exploration and exploitation are integrated to minimize the gap between these activities that are followed by most of the successful firms (Laplume & Dass, 2015). The challenges faced while having a business models change is that, it involves operating two business models in parallel which are both cognitive and economic. Since business models are based on cognitive conception but also economic, since it describes the underlying routines and architecture of business. Moreover, the literature on business model innovation highlights on the advantages of replicating business model, benefits of experimentation and needs of ambidexterity for effective management (Velu & Stiles, 2013). General Managers can control the ambidextrous organization where their individual units combined into existing management hierarchy. Similarly, incentives creation will help to boost cooperation between the individual units.
Moreover, complementing their independence, culture and structure allows both separate and parent divisions to work together (Markides, 2013). Temporal separation, organizational separation, contextual separation, and domain separation and are the four methods provided by an ambidextrous literature to overcome the tensions. A separate structure (e.g. Companies or units) is the best way for an organization to manage dualities, so it helps each of them to achieve their own desire without affecting their culture and value chain activities (Winterhalter et al., 2016).

“Some complementary business models might be so commonly strengthening that together they hand unviable possibilities into Profitable outcomes” (Casadesus-Masanell & Tarzijan, 2012)

The business model shares a bigger number of assets and the resources from the business model operations, they are likely to have a high probability to get significant outcomes by combining two models. Complementing and making value together is a likely process of business models (Casadesus-Masanell & Tarzijan, 2012). The forthcoming session is used to view HMS during their creation and transition phase as an integrative business model. The model in particular is used to design and check the strategic process executed by the firm.

2.5 Integrative Business model framework
As Osterwalder et al. (2014) argues that creation of business model begins with explaining the value proposition that satisfies the needs of the customer, and also a continuous process in which experimentation is used. A business model framework which was developed by Richardson (2008) mirrors the strategic thinking logic about value. A Firm’s logic is that a business model should explain the way it delivers its services and products to their customers and the way to make money. Moreover, this framework explains the elements of a firm’s business model and gives an understanding of a firm’s strategy and its activities. The goal of this model is to explain how, with a small improvement, the business model framework can be used to design and check in the strategy process and how the strategy is executed by the firm. Moreover this model revolves around the concept of value (Richardson, 2008). The model consists of three main elements value proposition, value creation & delivery and value capture (Bocken et al., 2018). In describing the three elements, the first element describes that, customer offering is the major involvement of value proposition and it will generate the financial profit. Second element entails, creating value is the major focus of value creation, through entering new market and business areas and by generating new income streams. Final element describes that value capture majorly depends on the returns from the selling services, products, or processes to customers (Karlsson et al., 2017). Moreover, it must also have a profit margin over its cost. This component of the business model is often termed as economic model or revenue model (Richardson, 2008). Based on Osterwalder et al. (2005), the nine building blocks of the business model are divided by these three elements. Value proposition contains Service/Product Offerings, Customer Segments, and Customer Relationships. Value creation and delivery contains Key Resources, Key Activities, Channels, and Key Partners. Value capture consists of Revenue streams and Cost structures.
This model proposes that the strategy can be formulated and executed with an integrative framework through a business model concept. Moreover, this framework provides a logical picture for a firm in aiding with the choices and the execution (Richardson, 2008). Now that the framework has been described, it is essential to have a deeper understanding about the concepts of business models and strategy which are distinguished separately to have a holistic view.

2.6 What is Strategy?
Strategy can be defined as the choice of business model through which an organization starts to compete in the market place (Casadesus-Masanell & Ricart, 2010). Whereas Richardson (2008) describes strategy as a firm's definition/theory to compete in the market (Novak, 2013). In essence, porter argues that strategy can be built on by making hard trade-offs in creating value to their customers, to envision a long-term position and also developing a hard to replicate fit in the organization to create value for the customers and thereby gaining competitive advantage and superior return of investments (Seddon & Lewis, 2003). As Mintzberg (1994) notes in his book *The Rise and Fall of Strategic Planning*, strategy can be described in four viewpoints as a pattern, plan, position, or perspective. In summary, strategy is often described/referred as a contingent plan of action. The word “contingent” defines that the strategy envisions and contains provisions for what to do even for plans of action that may not end up taking place (Casadesus-Masanell & Ricart, 2010).

2.6.1 A “business model” is not a strategy
In the past fifty years, the field of strategy has substantially evolved (Seddon & Lewis, 2003). Due to this evolution, firms have learned to define their position in their competitive environment, to analyse and develop corporate and competitive advantages. Hence, it is essential to characterize the relation between business models and strategy, which is considered as a difficult task (Casadesus-Masanell & Ricart, 2010). While several authors debates about the concept behind strategy and business model, yet some scholars use these terms interchangeably (Magretta, 2002). Most commonly, they use it to interpret as anything that would give them a competitive advantage (Stähler, 2002). Richardson (2008) in his article defines that a business model is not a strategy, rather it can be described as a conceptual framework that establishes a link to a firm’s strategy or an idea of how to compete with its related activities or execution of the strategy. But what is strategy and how is it related to business models.

2.6.2 Business models and Business strategy
As argued by leading scholars these two terms have a rough interpretation and equivalent meanings to that of business models is more generic than business strategy. The difference between strategies and business models are 1) strategies are treated on the basis of real-world
2) Business models are treated as abstractions of firm real world strategies (Seddon & Lewis, 2003). Combining strategy analysis and business models analysis is necessary to protect whatever competitive advantage the firms results from having new business models (Teece, 2010).

As Casadesus-Masanell and Ricart (2010) states that strategies and business models are similar and related but are different concepts. Moreover, he describes the two concepts as, Strategy entails in designing the business models that allows organization to reach its objective, while business models are the reflections of realized strategy.

To summarize that, strategy and business model, however related, are distinctive ideas: a business model is the immediate consequence of strategy yet isn’t, a strategy itself. Strategic communication in reality is more complicated. Firstly, the standards of the game for this situation are not very much defined, as there are couple of complexities with reference to how business model can be designed. Second, the mapping between strategic decisions and pay offs is considerably more confounded for each business model modification. Finally, it is generally difficult to anticipate how an opponent will respond to a specific strategy moves as, for every functional reason and so the best response of business model becomes impossible to forecast (Casadesus-Masanell & Ricart, 2010). This discussion suggests that rather than having an either-or perspective, it is better to approach as an overlap of the two concepts, which helps the researchers to formulate business models based on strategy. Specifically, the existing literature suggests that there are key variables that influences the firms in managing business models (Markides & Charitou, 2004). Firms that transition from an existing model to a new business model needs to develop strategies to manage conflicts (Velu & Stiles, 2013). Hence, this discussion in particular lead to the development of different strategies leading to the management of multiple business models.

**2.7 Different strategies for managing multiple business model**

There are two key variables that influences how a firm should manage multiple business models simultaneously, the existing body of literature addresses this problem. 1) If there are serious conflicts between two business models then the firm should decide whether to go with separation strategy or not. 2) if the strategies and the target markets are similar, then the firm faces a challenge- because the firm should analyse how to exploit synergies between the two models will be and finally ending up at 4 possible strategies (Markides & Charitou, 2004).
Looking at this perspective the authors chose this framework and analysing it with the data of the companies.

Figure 4: Four Strategies for Managing Multiple Business Models (Markides & Charitou, 2004)

Tushman (1996) proposed that organizations can manage two or more strategies without having to separate them. They can develop and maintain simultaneous strategies by having an “ambidextrous organizational infrastructure.” The making and breaking of an business depends on the appropriate selection and implementation of business models” (Gorevaya & Khayrullina, 2015).

2.7.1 The Separation Strategy
Separation is the strategy which is preferred when a market is unknown or strategically different from the existing business. Furthermore, the two businesses face serious trade-offs and conflicts between each other, this strategy is more advisable. In other terms bigger the conflicts/trade-offs between the businesses, there is a lower possibility that the two models share any synergies (Markides & Charitou, 2004).

2.7.2 The Integration Strategy
Addition of a new business model presents only few clashes with current business model in a firm (Markides & Charitou, 2004). The concept of integration principle involves neutralization that generally allows parties to resolve tension through compromising (Velu & Stiles, 2013). For instance, the online distribution of PCs was a challenge for Dell, however the new approach for offering PCs was not disruptive to their current business model. In these cases, developing a new business model through an organization's current infrastructure would prove to be more appropriate and optimal methodology. In some situations, where the absence of conflicts, between two business models, starts to serve strategically to comparative organizations thus exploiting and establishing synergies between business models (Markides & Charitou, 2004). It is evident to that Closer models are easy to combine within business model portfolios since they tend to Synergistic by nature (Rumble & Mangematin, 2015). In the integration phase the
changes that are realized through merger or acquisition are on longer term. The intended value which are to be realized from merger or acquisition are realized through restructuring the objectives of synergy either at the moment of integration or during the integration phase. Two magic ingredients of integration are clear vision of having an objective and to achieve/deliver them. These 2 elements give the organization a clear scope combined with the requisite chain management capabilities enabling to achieve greater value (McGrath, 2011).

### 2.7.3 The Phased Integration Strategy

In specific situations, the most appropriate strategy for the model is to either independent or integrated for a better approach in competing. But however, may not be appropriate from the start. For instance, when the businesses serves a market that are strategically similar to their current businesses and face genuine clashes while competing, the firm faces a troublesome challenge. In one case, it seems appropriate to go for integration but in other perspective the organization suffers from serious internal issues due to contention in the market. In such cases, it is appropriate to go for a separation strategy for a particular timeframe and gradually, integrate the two ideas to reduce the disruptions that erupt from the conflicts (Markides & Charitou, 2004).

### 2.7.4 The Phased Separation Strategy

When two business models which serve the markets that are different and does not have any serious conflicts with each other, the firm faces yet another interesting challenge. On analysing from one aspect, the given business model could be easily integrated within the organization, since the business models do not pose much conflicts. On having a counter aspect, implementing integration strategy may not bring any new benefits, but rather it may cause the organization to even oblige the current improvements for the even better approach, that the organization have set to achieve. In such cases, it would make sense if the business model is first created and tested out within the organization by utilizing the firm's resources for the current business and gain experience before isolating it into a separate business model. This is also known as the staged partition system.

In other words, the organization that set out with two units and decides to marriage/integrate is known as **Phased Integration Strategy** while the latter decides to divorce/separate two models which were integrated is termed as **Phased Separation Strategy** (Markides & Charitou, 2004). Moreover, it is crucial to notice that, the degree of integration of business units may vary from know-how transfer of shared resources or activities or business functions which is related with the synergy realization (Vizjak, 1994). Therefore, it is necessary to explore the concepts of synergy.

### 2.8 Synergy

Synergy as a concept has been predominantly used in corporate strategy (Vizjak, 1994). Moreover, Synergy as concept is filled with different meanings (Foss & Iversen, 1997). While synergy defined as a combined effect which available to a diversified organization. This concept is explained with a simple expression as $2 + 2 = 5$ which illustrates to the combined performance of the organization might have a greater value, when the organizations were apart (Van Reymen, 2011). An attempt has been made to share the knowledge from economics to clarify the meaning of synergy. Since, it is the commonly most admitted notions in the corporate strategy (Foss & Iversen, 1997). Synergy potential is defined as a potential that can explore interrelationships between business models. It can be found in many diversified firms. Much of the research has concentrated on what holds diversified and multiproduct firms together. Recent research illustrates by concepts such as “dominant logic”, “core competence”, “organizational knowledge structures”, “corporate coherence”, and “parenting advantage”
were the representatives of such attempts to justify these multiproduct firms. Underlying all
the conceptions lies the conception of synergy between businesses as a crucial justification for
a diversified corporation (Foss & Iversen, 1997).

In defining the concept, when an organization has multiple units having an interaction with
each other, then the total value of organization may differ from the individual value of the
business units. The origination of a new cooperative business model increases the co-efficiency
of the organization by reducing building life cycle and increasing the value through synergy.
Another commonly used concept in the corporate strategy is portfolio management, which is
primarily based on diversification through acquisition. These acquired units act independently
with separate heads. The corporation differentiates units and transfers resources to the units
that they find has more potential in generating cash to those with potential needs and cash
needs. Moreover, the degree of business unit integration varies on the know-how activities or
the business units. For example, the business units that shares their sales force can cross-
sell or bundle their products, resulting in cost advantage due to lower selling cost. The realization of
synergy between the businesses units are usually limited with legal, accounting, shared finance
and human resource management (Vizjak, 1994).

However, in certain conditions such as joint production, it does not explain all the benefits of
the diversified firms. While the concept of economies of scope include asset sharing and other
form of mutual benefits. Which does not apply for joint production, but again, this is not
sufficient for synergy effect since the concepts of synergy is deep. The concept of synergy does
not entail the complementarity between investments and activities, since the order of execution
follows a sequential way, which is considered as one of the major limitation. These limitations
are covered in the concept of complementarity since it explains “at different points of time
investments can be seen commentary but early investments increases the pace in later stages of
investment” (Foss & Iversen, 1997). Vizjak (1994) stated that having a tangible
interrelationship enables business units to share activities and also might result in cost savings.
Moreover, an organization thriving in a highly competitive field should concentrate more on
developing or modifying offerings and thus enabling sharing between product and market
affinities. Complementarities are available at whatever point having a bundle of products
together gives more value than the aggregate benefit of having every one of the goods
cross selling (i.e. bundling) multiple offerings or integrating many offerings into single offering
may increase the attractiveness of the product. In effect complementarities-centred business
models generate synergies since the bundled offerings result in higher value for both the
customer and also the organization with accordance to individual offerings. In current day
scenario, almost every business unit belongs to a part of the organizational network (i.e. it can
be seen as cluster in firms Snow et al. (1992) which serves the customer segments. Because
each in this network needs to creates, delivers and captures value Osterwalder and Pigneur
(2010) synergies might be optimizable in the business models of the organizational network.

The theoretical frame of references entails a chain of link between the concepts used above
which will be used in the part of the discussion. Here, the concepts of business models which
facilitates the visualizing tool of BMC developed by (Osterwalder & Pigneur, 2010) that
extends to the emergence of multiple business models. Furthermore, extending to the issue of
ambidexterity in business models, is followed by the integrative business model framework.
The definitions of strategy and business models are described to have a holistic view about the
4 different strategies for managing multiple business models. Finally, the theoretical
framework ends with discussing the concept of synergy which elucidates the need for managing
multiple business models. It is essential to notice that the concepts follow a process which describes the concepts in business models followed by strategies and finally synergy that forms a chain of link between these concepts. Moreover, these concepts will be followed in the discussion. Overall, the framework of references has a clear way of communicating and linking the concepts, which helps the authors to resolve their research question. Since these concepts plays a major role in determining the outcome.

3.0 Methodology

In this section, methodological framework of this paper is discussed based on the model so-called ‘Research onion’ presented in the figure (5).

3.1 Methodological choice

The research methodology has been designed on the basis of effective progression provided by research onion. In any type of research methodology and contexts the usefulness lies in its adaptability (Bryman, 2012). In this thesis, the descriptive model is used to structure and create the methodological choices of this study process. This model is used to envision and organize our choices in an academic method. The below sections followed by each layers of research onion and it begins with research approach.

3.2 Research Process

Research process is a multi-stage process which includes series of stages such as formulating and clarifying a topic, reviewing the literature, designing the research, collecting data, analyzing data and writing up. In most cases, the research does not follow a structured flow of approach. Moreover, this process is an iterative study where, it requires extensive use of cross referencing, examples from student’s case studies and reports, research from scholars related to the field of research. However, often these processes must be revisited time to time to ensure that the necessary preliminary steps have been taken for the later stages (Saunders et al., 2009).
The major turning point in history, which led to dramatic change of events in almost every aspect of daily life, is marked by the Industrial Revolution aided by the emergence of new innovations and technologies. This history of innovation intrigued us into exploring how organizations move to the digital era and how they managed to sustain in the rapidly changing market. We believe that one of reasons were to have a plan of action (i.e business models). In order to have more insights about this topic, we performed a systematic literature review study. This review consisted of articles and study materials related to our topic of research. The merits of performing this systematic literature review is that, it provides the grounds for the research topic. The main focus was to find as much as articles as possible related to the research question. These search results pave a way for structuring the articles that are influenced by keywords used and the appropriate database searches such as Emerald, Association of Computer Management, Emerald Insight, and Science direct database, Springer Link, Institute of Electrical and Electronic Engineering Xplore and Google Scholar. The usage of different keywords dictated us to move on an appropriate direction.

3.3 Research Approach
There are two types of research approaches: Inductive and deductive. The inductive approach is associated with drawing conclusions from bits of evidence and facts where "the realities support the conclusion" (Blumberg et al., 2008). This approach develops a theoretical or conceptual framework, through which the test is conducted. This approach tends to follow a rigid methodology, and it is concerned and more suited for the study related to small sample of subjects. For other research projects, authors would be planning to explore their data and to develop theories from them that they will subsequently relate to the literature (Saunders et al., 2009).

Deductive approach is associated with the circumstance where "the reasons are said to have prompted the conclusion and in this manner represent the proof" (Blumberg et al., 2008). This approach is one of the dominant approach in the scientific research. It explains the causal relationship between the variables. The important characteristics of deductive approach is that, it allows the testing of hypothesis and controls the use of highly structured methodology to ensure validity. It consists of the following characteristics in sequential steps through the approach progresses.

1. Deducing a hypothesis (a testable relationship between 2 or more concepts) from the theory.
2. Expressing the hypothesis in operational terms (that is, demonstrating precisely how the ideas or factors are to be estimated), which propose a connection between two particular ideas or factors;
3. Testing this operational hypothesis (this will include at least one of the strategies)
4. Examining the result of the inquiry (it will either have a tendency to affirm the hypothesis or requires modification);
5. If important, changing the hypothesis according to the findings (Saunders et al., 2009).

In this research, we explore what strategy is implemented by an established company operating in the growing sector of industrial networks for managing multiple business models? Since, our research question is based on the hypothesis developed from the theories that is addressing a problem which is from a nascent field which is not addressed in the current body of literature. In such a case, we have chosen deductive approach to achieve the goals of the current research. Moreover, our research is based on exploratory studies since it is an important method for discovering 'what is happening; to look for new bits of knowledge; to make inquiries and to assess phenomena in new light' Adams and Schvaneveldt (1991) the brief concept of multiple
business models, which have been ideated initially. Later, this concept has been further narrowed down with the help of experts in the company. As, we progressed into later stages it was evident and clear about the research question and the outcome we expect to achieve.

3.4 Research Strategy
Robson (2002) defines case study as ‘a technique for doing research which includes an experimental examination of a specific contemporary phenomenon inside its real-life setting utilizing different sources of evidence’. Yin (2003) also elucidates that in a case study strategy, the boundary between the occurrences of certain events to the context within which it is being is not explained clearly. The following strategies may be used for a case study approach for example, interviews, documentary analysis, questionnaires, and observations. The case study strategy is generally used to generate answers to the questions “why”, “what” and “how” (Saunders et al., 2009). The case study strategy enables the researchers to get the good understanding of the context of the specific phenomena (Saunders.M et al., 2006); "the case technique fits early, exploratory examinations where the variables are yet obscure and the phenomenon is not understood” Voss et al. (2002) and a case study enables studying the phenomenon in close association with the context (Yin, 2003), that is the reason case study approach was selected as a research strategy for this study.

The case study strategy includes single or multiple case study approach. Multiple cases focuses upon the need to generalise the findings from both cases and confirm the occurrence of events from one case to another. Multiple case study involves more than one case where the findings of one case may or may not have a same occurrence with the other case should be established and finally the findings are generalized (Saunders.M et al., 2006). In some cases, multiple case studies are preferable than single cases because, in single case study the justification for using a particular case must be strong and validated. A single case study is often chosen because it provides us with an opportunity to conduct research and examine an actual-case. Furthermore, it sheds light on a case which is a unique case (Saunders et al., 2009).

The purpose of choosing case study approach is because business models are used in companies to create, deliver and capture values (Osterwalder & Pigneur, 2010). The current research focuses on analysing strategy for managing more than one business models. Therefore, we require an organization to analyse their business models and strategies that they use, to answer our research question for this reason it is essential that we choose a case study. The reason for adopting a single case study approach is to gather more insights about the case “HMS Industrial Networks” and address the case with an in-depth analysis to find the strategy in their business models.

3.4.1 Case Selection
To get a good outcome from the case study, the choice of cases is highly essential since it will characterize the limits for generalizing of the findings. Also, the point is to find a case which can reflect and can expand the theory (Eisenhardt, 1989). To be able to answer our stated research question and satisfy the purpose of this study, we needed a firm with multiple product lines for our study.

The reason for choosing HMS Industrial network is, not only because the organization has acquired two different network interface companies named eWon and IXXAT but also the organization has a tie-up with the university. Also, the corner stone for choosing this organization is because, we had worked with the case organization on a different occasion during our study programme and so we had a previous knowledge on the organizations
structure and its business units. This was one of the reasons to choose HMS Industrial Networks, moreover, the organization is easily accessible since it is in an urban area where transportation is available at all times. Furthermore, it was easy to get access for interviews with the help of Michal Lysek, an employee of HMS Industrial Networks was a PhD candidate in Halmstad University. Finally, it is interesting to note that industrial networks is one of the growing fields and so an organization thriving in this field should innovate their process/products etc. to thrive in the competitive field. The above statements were the major stepping stones in our research in analysing the case organization.

**HMS Industrial Networks**

HMS industrial networks founded by Nicolas Hassbjer and Staffan Dahlström in the year 1988 based on the thesis project at Halmstad University. Measuring the paper thickness was a starting plan for the company. Due to the founder’s passion in electronics and embedded software, they have expanded the company in to hardware manufacturing and consultant service. Anybus is one of the product introduced by HMS for factory automation. At present, millions of drives, robots, sensors, weight scales, etc. are based on Anybus communication. Today, the company is focusing more in the latest trends such as Internet of things and industry 4.0 for machineries (HMS, 2017b).

In 2013, HMS has organic growth and strong financial resources, so they acquired the German company called IXAT Automation GmbH, and they expanded their business into safety, machine communication, and automotive. In 2016, HMS acquired the Belgian company named eWon. Last 15 years, (eWon) is the leading player in the market for Remote Access products, Internet-based Intelligence. Moreover, the organization also develop and manufacture the automation systems and PLCs throughout the world (HMS, 2017b).

### 3.5 Research Choice

Edmondson and McManus (2007) explains, qualitative research as a research strategy that focuses on opened ended approach to the process, with surprising change of direction and gaining new insights. Moreover, it can also be defined as a pairwise comparison of stories between cases (Bryman, 2006). Qualitative researchers study this aspect in a setting which sheds a natural viewpoint to the world or interpretive meanings that people bring to them (Mafuwane, 2012). At the same time, Gephart Jr (2004) brings up that qualitative research "offers holistic depictions of realities that can't be decreased to a few variables". Gephart Jr (2004) determines that qualitative research in management studies enables to fabricate an understanding of real-life activities and keep its association with the context and also to the original meaning credited by the actors themselves and the setting. Even more importantly, qualitative research permits to understand the underlying procedures behind managerial activities and decisions.

Quantitative research procedures produce a mass of numbers that should be compiled, analysed and examined (Lacey & Luff, 2009). The study of qualitative data is likely the most difficult part of the utilization of these strategies (Sofaer, 2002). Qualitative research involves a multimethod approach which uses study from a collection of diverse personal experiences, interview, observational, historical data that describes problematic moments and meanings and most importantly empirical material from case studies. Most prominently this study focuses on the subject matter involving both naturalistic and interpretive subject matter. According to Schwandt (1997) qualitative enquiry, collects meanings or words in philosophical and methodological practice in vocabularies. Since, this approach is a set of multiple practices. According to Straus and Glaser (1967) qualitative research is a process theory designed and
developed for continually grounding the data that the theory implied and thus the authors named it as process ground theory (Taylor, 2005). In qualitative work the authors have to present their findings and observations separately and also it is mandatory to distinguish between interpretations from the observations with the actual observations. These researches are suggestive rather than conclusive (Sofaer, 2002). It is essential in qualitative research that all the prerequisites are met such as trustworthiness, validity, reliability of data sources while producing the ground theory (Trumbull, 2005).

Our main aim in this master thesis is to find a case organization that operates multiple business models working through Integration strategy. Our main approach for collecting data is based on interviews. Since, interview is an important choice of our research. Moreover, we use semi-structured interviews because the order of the questions will be changed based on the interview and new questions will be introduced based on the conversations to gain more insights. Therefore, we have chosen case study approach to get more insights through interviews and other data collection techniques like reports and documents. This is the reason for selecting qualitative method as our research choice.

3.6 Time Horizons
The purpose of the current research is focused what strategy is implemented by an established company operating in the growing sector of industrial networks for managing multiple business models?

It is necessary to mention that our research follows cross sectional study, the study of a particular phenomenon (or phenomena) at a particular time (Saunders et al., 2009). This study is taken in account, the fact that the academic course is time constrained. However, these studies may also use qualitative methods. Many case studies are based on interviews conducted over a short period of time. As mentioned in the above sentence, our case study also follows the same approach of interviewing HMS Industrial networks in a recurring way to collect data with a short period of time and interviews lasting from 45 minutes to 1 hour.

3.7 Data Collection Techniques
3.7.1 Primary data
Our primary data comprises of semi-structured interviews. For us, it has been necessary that the case organization and its participants understand the significance of our study in order to feel motivated to provide access and data to us as a researcher (Van de Ven, 2007). In the following segments, we clarify how we gathered our data. Our interviews were based on our research topic and it was organised in three different phases. Initially, our questions were about the company and their products. Later, we focussed on how the company is working with business models. Finally, we moved on with, what strategy is implemented by an established company operating in the growing sector of industrial networks for managing multiple business models? The interview started with introduction session and then domain specific questions were handed out to the interviewee and collected data for each question. Further, it has been gathered by means of 3 interviews with different actors in the HMS Industrial networks, and also secondary data (for instance yearly reports). A description of how the information was collected is introduced down below in Table 1-2, and more detailed are explained in the following sections.
<table>
<thead>
<tr>
<th>Interviewees/ Meetings</th>
<th>Timeline</th>
<th>Time in Hours</th>
<th>Place</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chief Technology Officer Jörgen Palmhager - HMS-Industrial Networks (Interview)</td>
<td>Feb-9</td>
<td>1</td>
<td>HMS-Industrial Network Headquarters, Halmstad.</td>
</tr>
<tr>
<td>Chief Marketing Officer (CMO): Anders Hansson - HMS-Industrial Networks (Interview)</td>
<td>Mar-9</td>
<td>1</td>
<td>HMS-Industrial Network Headquarters, Halmstad.</td>
</tr>
<tr>
<td>Michal Lysek–HMS Industrial Networks(Meeting)</td>
<td>Jan -17</td>
<td>1</td>
<td>Halmstad University, Halmstad</td>
</tr>
</tbody>
</table>

Table 2: Primary data

In semi-structured interviews the authors may focus on a list of themes relevant to their research. This implies that the authors may use specific questions for interviews and the order may change during the course of the interview based on the flow of the conversation. On the other hand, the authors may omit certain questions or may also require additional questions depending upon the events within the organization. The discussion will be entailed by the nature of questions implies that the data will be recorded by audio-recording or note taking (Saunders et al., 2009).

Initially we had a meeting with Michal Lysek from HMS Industrial Networks, regarding the existence of multiple business models in the company. Then after, we conducted interviews with Chief Technology Officer and Chief Marketing Officer to get relevant data for this research. The interview was conducted with the top management of a company. First, Chief Technology Officer of the HMS Industrial Networks. Second, Chief Marketing officer of HMS Industrial Networks and thus concluding the supply of primary data from the personnel’s. We used a semi structured interview designed to yield data regarding the business models´ elements as well as their ongoing events. The interviewees were asked for open ended questions, so that it would prompt them to describe each of their businesses and business models. Both interviews were supplemented with various internal and external qualitative data. The interviews lasted between 45 minutes to 1 hour, during which the focus of the interview was to collect information related to our research. Our primary focus was to collect data regarding the working process of multiple business models in the organization. (e.g., how many business units and business models does the organization operate?).
Interviews were selected as an appropriate data collection method since these interviews reveal the non-publicizing information about the internal activities. The questions were designed to gain an objective image of a firm’s business model activities rather than to capture managers’ own business model conceptualizations. Respondents’, answers about the nature of their business models were triangulated where possible using archival data from the public domain.

The interview took place with two different departments like technology and marketing of a Network-Interface company. Our first, interview took place with the company’s top management, chief technology officer and followed by, in the later days was the chief marketing officer. The intention was to collect data regarding, why did the organization opt for multiple business models instead of traditional business models. Moreover, our focus was to collect data encapsulated by the following topics such as how many business models they are working with, organizations growth after implementing multiple business models, time period to realize the effects of implementing multiple business models, Challenges of managing business model portfolio in one organization, and how did their business models compliment/conflict each other.

The questions were different for each of our interviewees, we have created three different categories of questions which is related to participants working area. Initially, the questions for chief technology officer included 5 general questions, 4 business models questions, and 15 multiple business model questions. Finally, the questions for chief marketing officer included 7 general questions, 9 multiple business models questions and 14 marketing questions. The questions for the interviews which can be found in Appendix 1 and 2, It was designed based on the business model component to cover questions for each and every block in the business model. Moreover, our aim is to have question that gave us different answers however in the meantime, we would not like to have closed questions. Accordingly, we have created three different categories of questions (General, Business model and multiple business model) to get possible layout. Before the interview started we had given clear explanation for each category of questions that could help them understand and answer in a better way.

3.7.2 Secondary data
The secondary data is an existing data collected for different purpose and reused for another research question (Hox & Boeije, 2005). These secondary data collected from company websites, press release and other web sources (Saunders et al., 2009).

Since, our initial idea was to do research based on a case study approach. The secondary data, which we collected from the HMS Industrial Network website, consists of annual reports and financial reports and webpages. Especially, from 2011-2018 annual reports and quarterly reports are used for our secondary data. This data is used as complementary data to support our primary data in this research and it has been reviewed and analysed in the analysis and discussion part.

<table>
<thead>
<tr>
<th>Annual Reports (from websites)</th>
<th>Total Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMS Industrial Networks</td>
<td>8 Annual reports from 2011 to 2018</td>
</tr>
</tbody>
</table>

Table 3: Secondary Data
3.8 Data analysis procedure
Rich amount of information generated by qualitative studies, which is vital to select appropriate procedures in order to understand and interpret information (Eisenhardt, 1989). Case analysis is a way to accumulate mass data, it contains complete written descriptions from the case study. The key idea is to become familiar with case (Eisenhardt, 1989). We are using different sources of data for our analysis. The data sources influencing the overall research and improve the analysis (Bryman, 2012).

The purpose of this research is to explore What strategy is implemented by an established company operating in the growing sector of industrial networks for managing multiple business models? This research question will be resolved by 1. Looking on how the business model components have changed over time from the start of the firm to present, and 2. Identifying the main reasons/events that contribute to the change. In order to analyse these changes, Business model Canvas and Business model Integrative framework are used to distinguish between different time periods and its changes during those time periods.

3.9 Trustworthiness
Trustworthiness is substantial to construct the great quality of qualitative research (Bryman, 2012). We have taken four important criteria to confirm the trustworthiness of this research credibility, conformability, dependability and transferability. These are the criteria’s explained clearly in the forthcoming parts.

3.9.1 Credibility
Decreasing chances of receiving the incorrect answers is known as credibility (Saunders et al., 2009). Qualitative researchers, regularly uses respondent validation, because “they want to ensure that there is proper similarity between the experience, perspective and the findings of their study participants” (Bryman, 2012). Once participants feel safe with the researchers, then they like to give more details without any hesitance (Krefting, 1991). Once, our thesis is finalized, it will be sent to the case company to confirm the authors understanding and the given details by the informants are appropriate with beliefs and perspectives (Bryman, 2012). If the authors need any additional information or found any missing details, the regular contact with the case company helps to re-approach them to get the data (Krefting, 1991). Researchers increase their confidence with more than one data sources (Cohen, 2007), So the authors are able to see the history of the company from different perspectives and different angles, which will improve the research and by being able to describe more than one viewpoint (Bryman & Bell, 2011).

During the time spent in the case company for our research, the interviewee felt safe with the researcher, but the chief marketing officer of the company was not permitted to share certain data regarding confidentiality. The goal is to achieve high credibility, so we have sent the final version of the thesis to the chief marketing officer to ensure that our understanding and impressions were in line with the viewpoints and beliefs.

3.9.2 Confirmability
Confirmability is entirely talking about neutrality (Krefting, 1991). The researchers should not be allowed to do research based on the personal values and allowing theoretical inclinations to influence the research by its findings and outcomes (Bryman, 2012). The audio transcriptions
is the only way to cross check the values and it will help us to know what the informant exactly said in the interview (Bryman, 2012).

The data which we have collected from CTO was cross checked with CMO and again the same process was repeated with CMO data, cross checked with CTO. Finally, we have checked both interviewed data with annual reports to verify the data is complementing and supporting each other. By this way, we ensured that our collected data were relevant.

### 3.9.3 Dependability

The auditing method is one of the way to achieve dependability, which means the authors should have the complete records of the research process, it contains selection of participants, problem formulation, methodological choices, and transcriptions and so on (Bryman, 2012). The whole analysis procedure and data collections should be transparent as possible. The author should have the collected data, recordings, and the details for time spent in the organization. The overall data is available throughout the research process for examiners, supervisors and fellow scholars.

The complete data collection and analysis part is transparent as much as possible. We recorded the entire interview and notes were taken during the interview with chief technology officer and chief marketing officer of HMS Industrial networks. Moreover, the gathered data is available for our classmates, examiners, scholars and supervisors during the research process.

### 3.9.4 Transferability

Transferability is about appropriateness (Krefting, 1991). Transferability tends to the issue of whether the research discoveries are transferrable into another specific situation, or in a similar setting at some other time (Bryman, 2012). Qualitative researchers ought to make a 'thick description' to guarantee high transferability, which should make a possibility for different researchers to make judgments about the transferability of the research. (Bryman, 2012). More, Krefting (1991) contends that, "as long as the first analyst presents adequate engaging information to allow comparison, he or she has tended to the issue of applicability" (Krefting, 1991). We have collected both primary and secondary data. Particularly, the secondary data which gives thick descriptions and gave another dimension for our thesis with higher degree of transferability.

### 3.10 Research Ethics

When doing academic study, ethical considerations are important to take into account, such as lack of informed consent, harm to participants, deception and invasion privacy (Bryman, 2012). We have conducted this research based on ethical aspects and so, the participants shouldn’t feel that they are mistreated or offended. To prevent these ethical problems, we have made specific consideration throughout this research process first, we have made an agreement regarding confidentiality and publication based on the case company acceptance. Secondly, before the research has taken place in the organization, we convinced the top management and prepared them that the study would take place with regards to the company. Finally, before the interviewees were conducted, we sought the permission for audio recording in the interview before hand and the recording could be turned off at any moment during the progression in the interview. Before sending for publication The authors confirmed the thesis with the case company whether the text is fair enough and precise and it does not make any happening mistakes or private information of commercial value to competitors (Pettigrew, 1990). The authors have been carefully handled the given information for background understanding and they did not use it publicly in non-attributable and attributable fashion (Pettigrew, 1990). The data we collected is open for Host Company, research team, examiners, scholars and supervisors.
4.0 Empirical findings

In this chapter, explores how HMS Industrial Networks has changed over time. It is based on the interviews from the empirical data and the secondary data from HMS official reports and press releases, journals. This section is differentiated chronologically according to different time periods. The first time period (1988 – 1999), where the firm had a focus on different projects and R&D leading to the invention of Anybus module disrupting the way of traditional network connectivity. The second time period (2000 - 2013), where the organization started to expand geographically and finally acquiring German IXXAT Automation GmbH leading to exponential growth. The third section (2014 - Present), where the organization flourished in the field of industrial network led to the acquisition of Belgium eWON contributing to an overall growth of 36%. To be noted only a sample of products and services that are offered by HMS is mentioned in the following sections.

4.1 1988 – 1999 (creation phase)

HMS was founded in 1988 based on a thesis project at the University of Halmstad, Sweden. The organization initial business to develop technology for measuring paper is later expanded to consulting and hardware manufacturing, which later led to the field of industrial communication. Moreover, the organization was working on projects to develop solutions for their customers. The organization had a product development cycle which involved the customers throughout the development cycle. During the time of 1990’s where the fieldbus protocols were in demand and it was the beginning of a breakthrough in connectivity. The innovative Anybus module disrupted the traditional way of connecting automotive devices and it was a success from its first release back in 1995. Anybus was soon installed in three General Motors factories, paving the way for new customers. This made the organization realize that it has to invest both on technological and geographical expansion(HMS, 2017b).

After the introduction of Anybus module the organization idea was to pertain the product in the market for few years. HMS strategy was to develop a recurring business for the product to stay in the market for more than 5-10 years. Their initial business model was based on this strategy which has a strong foundation (i.e. recurring business). Since their business is diversified internally, some them where project oriented. The introduction of Anybus, lead to the point of realization that “multi-connectivity” is what they believed to be their strong business. Moreover, the traditional business model which has been used for production and other activities such as marketing and sales has been slightly modified into a supplementary business model.

![Value chain pyramid of HMS](Lysek, 2017)

Figure 6: Value chain pyramid of HMS (Lysek, 2017)
4.2 2000-2013 (Acquisition)

In 2001, HMS’ new production plant in Sweden is taken into operation. After which, the HMS offices were opened in the USA, Japan, and later the acquisition of Vcom GmbH led to one of its sales offices in Germany. Later the expansion led to offices in France, Italy, and China. By HMS subsidiary IntelliCom, developed new innovative products and solutions for Remote Management (M2M) (HMS, 2017b). This phase is termed as commercialization phase, where the organization balanced between different businesses (HMS, 2017b). In this phase, the organization main target was to cultivate customer relationship on a long-term basis. This in turn led to the formation of GKAM teams, GKAM stood for “Global Key Account Management” which had global managers for cultivating customer relations (Lysek et al., 2016). HMS is a relatively small company open to different ways in the value chain both in software and hardware services and development of their products is based on market research and the organization is updated this field. In 2010, HMS introduced concept of new gateway with a simplified configuration with a combination of different network standards. In 2013, HMS expanded its business by acquiring German IXXAT Automation GmbH, expanding HMS business into Machine Communication, Safety and Automotive. After the acquisition of IXXAT, HMS had four product lines under three brands which contributed for a long-term growth in the market. Each brand operated on separate business models with a portfolio of product lines. Since, the value for the customers are network connectivity, it is not changed from the products perspective. Whereas the offerings for those products and the packaging changes, for which new business models are developed. The changes could be traced back to the organizations core business model.

HMS is now a combination of 2 strategic brands. The company has key performance indicators when it comes to direct sales called design wins, production wins, sales start. Each Business units consists of 2 market units that are supported by their business models. Market units in three different continents that has a cross functional teams reporting from various countries. The offerings which are innovated are restricted to their business units.

4.3 2014- Present

In 2015, The Company benefited from a weak SEK and ended the year with a 19 percent growth in sales compared to the year prior. Anybus Embedded and certain IXXAT products, the business model is based on framework agreements, which are referred to as design wins. In the year 2016, HMS has grown organically, along with two acquisitions IXXAT and eWON leading to net growth of 36 percent (HMS, 2017b). In generating profitable growth, it is essential for the organization to test out new BMs. In prior years, HMS’s activities and business model were one dimensional, with the company focused on delivering communication solutions to manufacturers of automation products, in direct contact with the customer.

Since then, HMS has evolved into a company that offers products and services to customers in many parts of the industrial value chain. Different business unit’s target, different components in the value chain. For instance, eWON 80% of the offerings are through system level. HMS is constantly looking for new innovative solutions which is a combination of offerings, new technology, products. In developing the offering, supplementary business models have been created for each market and product line. Anybus Gateways and most of the eWON and IXXAT products are offered via HMS’s network of qualified distributors. Since all the business units have a common field which is producing communicating devices, the organization has a global supply chain through the activities are interlinked to establish synergy. Clear segmentation for
each business area is necessary to the value and performance of the 3 businesses combined have a profitable outcome when seen together as HMS.

![HMS and their business divisions](image)

Figure 7: HMS and their business divisions

When it comes to contributions in revenue/costs synergy all the 3 BUs complement each other. Their business model is based on a network of around 300 independent, technically competent distributors in around 50 countries, who ensure that HMS products are used in local projects (HMS, 2017b). It is necessary to exhibit the value of the three brands in the market since it is a multi-branded scenario where each business must gain perspective in the market and in the products that they sell to the market. HMS, marketing team comprising of marketing units that market the products depending on the vertical markets such as end users, device manufacturers, system integrators, value adding service providers. AnyBus products work in both direct and indirect sales with the markets as they are skilful in customized products and offerings and IXXAT are similar in these activities including the CAN market for which they are vastly recognized. Ewon market their products through distribution sales, since they did not have a sales force of their own (monolithic). The three market units are present in three different continents that has a cross functional teams reporting from various countries. Synergies are established between different BUs by having a cross functionality of members from different units.

Products and sales are similar with all the BUs. Moreover, they have a common HR and supply chains which operate under the same platforms. Synergy is done/ established by the market units. Since cross selling between different grounds can be established only when the distinct market units are consolidated with the 3 Business units. AnyBus embedded offerings enhance the primary BMs since the offerings has been changed. The offerings have been changed continuously in the process. Since, the segmentation is clear in the pyramid the marketing models are not changed very often. Products from all BUs are cross branded, and it is one of the important models and sends a strong signal in the market, the products are packaged and embedded which are sold to the end users. Strategic and operational managers, supply chain managers, HR etc hold meetings to establish connections. Since the organization structure is flat establishing synergy is not such a difficult feat to accomplish.
The above diagram is an inspiration from our interview, which describes the organizational structure of HMS. The above figure gives a clear picture for the organization following an integration strategy. It is evident that the organization structure is flat, moreover there is a clear connection with all layers in the diagram. This implies, that the organization is transparent with its activities in all the layers. Furthermore, the distribution units in different continents has regional managers reporting to their respective heads which are centralized in Halmstad. Since, the organization has a few layers with less number of middle management, which makes the organization run in a lean manner. Having a flat structure, gives a holistic view for the managers preventing micromanaging and breeding creativity for the employees. Having a wide span of control helps in finance and account management easier with business units. Thus, the above diagram implicitly and explicitly contributes to the integration of organizations business models. The key variables that influences the firm’s capability in managing multiple business models are argued in the analysis and discussion.
5.0 Analysis & Discussion:

In this chapter we start with mapping HMS business models based on different time periods with the help of BMC and Integrative Business model framework. Furthermore, we summarize the organizations changes according to the time period and how the organization transformed before and after merger and acquisition. Moreover, we discuss on the key variables that influences the firm capability to manage multiple business, which are Market units, Global supply chain, Resources, GKAM managers, Finance and account management. Moreover, the analysis follows the theoretical framework of references and concludes the discussion.

5.1 1988 – 1999 (creation phase):

HMS developed expanded their business from consultant services and hardware manufacturing to industrial communication. It was during the time of 1990’s where the fieldbus protocols were in demand and it was the beginning of a breakthrough in connectivity. This automation device manufactures failed to provide the service for the needed which ultimately opened a way for HMS in industrial networks.

Figure 9: Integrative business model framework of HMS (1988 – 1999)

The above model is designed based on the analysis. Focus of this period was to increase the profitability through optimization of Anybus module. Initially, the organization also concentrated on innovative process development and fulfilling the customers’ orders. (I.e. HMS was developing solutions for their customers. The product development process was an iterative process involving their customers during the whole product development cycle). HMS radical innovation of Anybus module has revolutionized the traditional way to install and operate industrial automation equipment. During which, it was clear that the organization has developed a strong foundation of business model which they consider as the core model for business. Furthermore, their idea was to develop a recurring business for the products they have introduced in the market such as Anybus. This strategy for developing a business model was to pertain the product in the market for at least 5-10 years. At this point the organization realized that their strongest value offering to their customer is multi-connectivity. HMS marketed the Anybus module through direct sales with a longer sales cycle. They followed this revenue model, to develop customer relationship on a long-term basis. (Karlsson et al., 2017; Richardson, 2008) states that the component of business model that depends on returns from...
selling services, products or processes to customers is often termed as revenue model or economic model.

5.2 2000 – 2013 (Acquisition):

The transformation of the organization has gradually incremented over time, transpiring into three different phases, the creation phase, the commercialization phase, and the growth phase. During this period (the creation phase) HMS was balancing several businesses but mostly concentrating on two main products with three different businesses HMS sensors AB, HMS Electronics AB and HMS Fieldbus systems AB (Lysek et al., 2016). This was necessary for the organizations survival since they are balancing (old business) and risk taking (going into new businesses).

However, in 1999, the organization decided to concentrate on HMS Industrial Networks AB to provide industrial communication with an increased product quality, cost reduction, delivery precision, operational efficiency and increasing growth. During the creation phase the organizations main target was to develop/cultivate customer relationship. The established relationship and the close contact with the customer led to the formation of GKAM teams. GKAM stood for “Global Key Account Management” which had global managers cultivating customer relations (Lysek et al., 2016). The GKAM teams-maintained transparency and flexibility with customers and the organization. Flexibility in business models of an organization is frequently connected with the issue of ambidexterity which has an ability to achieve alignment simultaneously (with current client needs) and adaptability (to grow new client solutions) at a business unit level (Mason & Mouzas, 2012). But after the acquisition of IXXAT in 2013 the organization; GKAM teams were dissolved, since the organization felt instead of having a global manager in charge of the customer relations, having regional managers to have local customers contact would help the organization with the increase in the number of sales in the business. This is one of the key factors which are evident for the business models to be integrated and also enhances a flat organizational structure.

The acquisition of IXXAT resulted in the increase in the sales performance but also the earning trend

![Figure 10: Sales Performance graph of HMS](image-url)
The above sales graph is designed based on the values from the Annual report 2013 (HMS, 2013). It explains the growth of the organization in 2013. IXXAT contributed for the primary profits are derived from the Automation Gmbh which are the products of IXXAT and the latter half is contributed by Anybus products and Netbiter demonstrating a weak growth.

“Some complementary business models might be so commonly strengthening that together they hand unviable possibilities into Profitable outcomes” (Casadesus-Masanell & Tarzijan, 2012).

After the acquisition of IXXAT, HMS had four product lines under three brands which contributed for a long-term growth in the market. Each brand operated on separate business models with a portfolio of product lines. The organizations business models are based on the market conditions and customer needs. BM1 (based on framework agreements also called as ‘design wins’) contributing for a strong foundation growth. BM2 (based on IXXAT, Remote management, gateways) which are manufactured and delivered by HMS as per the customer requirements using sales offices or distributors. BM3 (Netbiter remote management concept includes subscription plans and services) providing the customers with information. All these business models are integrated together and seen as HMS In relation to that as mentioned in the article of Vizjak (1994) an organization thriving in a highly competitive field should concentrate more on developing or modifying offerings and thus enabling sharing between product and market affinities. Lavie et al. (2011) addresses in ambidexterity literature that the business models are majorly comprised of value chain activities, products/services and customers by the choice of a firm. One of the key reasons for this to be evident is in sales and distribution. HMS own sales offices in strategically key markets with a number of Global Key Account Managers that forms a chain of link within the organizations. Moreover, the organizations business is diversified internally it is the role of Agnieszka Burkiewicz stated that “My role at HMS is to serve as a link between the development department and the sales department” (HMS, 2013).

“It is essential for an organization to define their integration level or else the business units may lose sight of their goals also its boundaries”- Anders Hansson. With regards to this statement HMS has clear brand definitions for each business unit and together they promote a complete offering. The organizations not only share a common field but also have their own identities i.e. Industrial communications. Moreover, the demand for flexible and new communication solutions aids the organization to be in constant communication with different departments across business units to stay updated in the market.

<table>
<thead>
<tr>
<th>Value proposition</th>
<th>Value Creation &amp; Delivery</th>
<th>Value Capture</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Anybus embedded product (Industrial Communication)</td>
<td>1. GKAM managers (Global key accounts managers)</td>
<td>1. Longer sales cycle</td>
</tr>
<tr>
<td>2. Easy to Connect</td>
<td>2. Global supply chain</td>
<td>2. Recurring Business</td>
</tr>
<tr>
<td>3. CAN based multi connectivity</td>
<td>3. HMS training Academy</td>
<td>3. Product Servicing</td>
</tr>
<tr>
<td></td>
<td>4. Faster Delivery rates</td>
<td>4. Via distributors</td>
</tr>
<tr>
<td></td>
<td>5. Inbound logistics activities</td>
<td>5. Subscription plan/Services</td>
</tr>
<tr>
<td></td>
<td>6. Innovative process taking and fulfilling customer orders</td>
<td></td>
</tr>
</tbody>
</table>

Figure 11: Integrative business model framework of HMS (2000-2013)
The above model is designed based on our findings from the organization during the acquisition of IXXAT followed by integrating the business models. Furthermore, a new value proposition has been introduced to HMS customers (customized solutions/Anybus embedded products) and CAN based multi-connectivity provided by IXXAT from the Belgium’s acquisition. HMS has international market units with local markets to deliver products to their local customers comprising of different brands which are marketed as HMS products. During this period HMS had two manufacturing units in Halmstad and Nivelles with in-house production to reduce costs and maximize profits through distribution of goods and services via market units and distributors. Brands, customer relations are acquired via business combinations that are measured at a fair value and finite usefulness and are recognized at cost less amortization (HMS, 2017c).

Synergy is realized, since the hardware which is sold also requires a communication interface i.e. (a field bus or Industrial Ethernet) and the customer might also require for an embedded solution which is provided by Anybus. Since, HMS is an expert in the field of communication and customized solutions, it makes a perfect partner and integrates with different business units in all activities of the organization. Vizjak (1994) states that, the degree of business unit integration varies on the know-how activities or the business units. For example, the business units that shares their sales force can cross-sell or bundle their products, resulting in cost advantage due to lower selling cost.

5.3 2014 – Present (Growth):

HMS had a tremendous increase in growth after the acquisition of IXXAT in 2013. This strong development led to the acquisition of Belgium eWON in 2016 and had the company named changed as HMS Industrial Networks SA (eWON). eWON is the brand name of the product with Netbiter included under the brand name eWON. Acquisition of Intesis in Spain also happened in 2016 which were also in industrial communication for home automation. The organization is now seen as a combination of three strategic brands. (McGrath, 2011) states that the changes that are realized through merger or acquisition are on longer term. The intended value, which are to be realized from merger or acquisition are realized through restructuring the objectives of synergy, either at the moment of integration or during the integration phase.

HMS as an organization has developed strategies through which it operates and finally contributing to the growth of the organization. Since HMS’s focus is on organic growth, the organization has developed strategies for product, production, marketing and sales which will be summarized as a whole. Since, the firms focus is on organic growth, the core expertise is made of extensive understanding of products. The firm has five product lines which are to some extent belongs to a common field and so the manufacturing is based on in-house volume production in Halmstad, Nivelles and Iglualada to achieve cost flexibility. Their marketing strategy was to market the products to a particular customer segment for instance Anybus, IXXAT and Netbiter to machine builders, system integrators whereas eWON and Netbiter products are marketed to a wide range of customers such as device manufactures in need for remote management. Sales strategy is based on sales offices in ten different countries and the rest through agents and distributors. More strategic the organization becomes more proactive should they be in the market”- Jörgen Palmhager

These strategies are designed in a way that it fits the organizations business model. (Casadesus-Masanell & Ricart, 2010) also states that strategy is the choice of business models through which the firms compete in the market place. To shed light on this argument, the business
models are designed in a way to fit the markets and product lines. For the Embedded market, most of the business is through framework agreements (i.e. design wins). The sales cycle is long and design phase takes place with customer feedback at every step. While the Business models for gateways and eWON Remote management are more traditional with short business cycles whereas IXXAT and Intesis uses a mix both business model (HMS, 2016). The three business models overlap with each other in both sales and marketing but also the customer segments. Some certain cases, firms embed novel business model with product innovation. In those cases, the nature of product offering, and service offering are different so new business model varies considerably to the existing business model (Schwarz et al., 2017).

Even though the business units have separate cost structure and revenue streams. The parenting company activities majorly comprises of group wide management and financing (HMS, 2016).

![Net sales graph of HMS 2018](image)

Figure 12: Net sales graph of HMS 2018

Figure 12 is designed based on the values from the quarterly report 2018 (HMS, 2018b). It explains the sales per quarter, where the organization has a steady growth on each quarter. This graph is projected after the acquisition of eWON and now the organization is a combination of 3 strategic brands. Although, the results from each quarter has minor fluctuations, the organization has a steady outcome. One of the effects of this formidable outcome is because the organization follows a flat structure.

When looking at the organizational structure figure 8, HMS has a relatively flat structure. Having a flat enhances the organization in many ways, such as meeting the goals, having a short chain of command, wide span of managerial control. Since HMS has one chief officer for every departments globally and reports to them directly. The organization has immensely reduced the expense of time due to reduced number of management layers. Moreover, having a flat structure breeds innovation in the organization and also meeting customers’ demands at ease. The entire organization comprises of competent individuals capable of handling own tasks thus promoting performance, production, profitability and synergy realization. From the
interviews it is clear that synergy realization is an achievable feat, since the organization has a flat structure – Jörgen palmhager

Figure 13: HMS sales per market area

Figure 13, is an inspiration from the annual reports of (HMS, 2017a), which explains the sales contribution from each brand per market and direct distribution. Although, the organization is exhibited in the market as a multi-branded scenario, the contribution from each market is plotted separately to have a clear view on the performance of the market in each brand.

Figure 14: Business Model Canvas of HMS
This canvas is designed and viewed as HMS Industrial Networks rather than Separate brands itself although the brands have definite identities. Before, moving on to explaining the canvas it is though explicit that the organization clearly follows an integration strategy, it would support the discussion if the explanation for integration strategy is defined here “Addition of a new business model presents only few clashes with current business model in a firm (Markides & Charitou, 2004). In some situations, where the absence of conflicts, between two business models, starts to serve strategically to comparative organizations thus exploiting and establishing synergies between business models (Markides & Charitou, 2004). It is evident that Closer models are easy to combine within business model portfolios since they tend to be Synergistic by nature (Rumble & Mangematin, 2015)”.

Since the organizations largest customer segment is manufacturing industries. HMS business models vary according to the customers, markets and product lines. The two major acquisitions were a strategic move since, they all share a common denominator, i.e. Industrial Communications. Similarities are visible in almost all the elements of the business model canvas except for cost structure and revenue streams, since each business model has its own expenses and rewards. When defining a value creating business model, HMS has three business models roughly: direct sales also known as design wins based on customer requirements, indirect sales via distributors, solution partners and as well as services and subscriptions.

In current day scenario, almost every business unit belongs to a part of the organizational network (i.e. it can be seen as cluster in firms Snow et al. (1992) which serves the customer segments. Because each in this network needs to creates, delivers and captures value Osterwalder and Pigneur (2010) synergies might be optimizable in the business models of the organizational network. With regards to the above statement the three business models overlap with each other providing a profitable outcome for the organization. This is evident because, the organizations core business model is recurring business and all the current business models are based on this core model and this resulted in the integration of business models to a certain level. If the organization has an integration strategy, not only their corresponding businesses shares the same platform but also the units has common activities, resources, customer segments, distribution channels.

**Direct sales:** -For Anybus embedded and IXXAT products are based on design wins which is the original business model and also the foundation of HMS operations. The business model is based on the customers designing both hardware and software supports into their products and ordering (products) takes place continually. Flexibility in business models of an organization is frequently connected with the issue of ambidexterity which is the ability to simultaneously achieve alignment (with current client needs) and adaptability (to grow new client solutions) at a business unit level (Mason & Mouzas, 2012)

**Indirect sales:** - Anybus Gateways, IXXAT and eWON products are marketed though qualified distributors. The business model comprises of 300 independents technically challenged distributors in 50 countries contributing to the sales of HMS products in local projects. The organization engineers provide added value by offering programming and integration services.
Services and Subscriptions: eWON remote solutions are sold with another interesting model where the product is first sold and the customer to a web based eWON service through which user gains access to their products online. The subscription and services include a wide range of preferred solutions. If multiple business models have similar key activities, then these activities may also support each other by clustering them. In any case, the knowledge gained can be shared among the business units. The business model shares a bigger number of assets and the resources from the business model operations, they are likely to have a high probability to get significant outcomes by combining two models. Complementing and making value together is a likely process of business models (Casadesus-Masanell & Tarzijan, 2012). HMS has some key activities that are clustered such as, Market units, Global Supply chains, account management, which makes it possible to bundle the value propositions and cross sell them, where this information is shared between marketing managers and marketed through their respected marketing units (for example. Anybus Embedded products). Sharing information and anticipating a know-how might result in synergy realization, but Vizjak (1994) stated that having a tangible interrelationship enables business units to share activities and also might result in cost savings. Almost all the business units consist of key resources consisting of hardware, software and human resource which are reflected in cost structure. If different business units use the same resources, then cost might be saved by resource sharing (e.g. ordering resources together might contribute in economies of scale). A further issue of integration strategy concerns with the physical configuration of value chain (Vizjak, 1994). HMS has production units in Halmstad, Nivelles and Igualada and so economies of scale is achieved. Since, the organization. Complementarities are available at whatever point having a bundle of products together gives more value than the aggregate benefit of having every one of the goods independently (Amit & Zott, 2001). According to Brettel et al. (2008) complementarities by cross selling (i.e. bundling) multiple offerings or integrating many offerings into single offering may increase the attractiveness of the product. In effect complementarities-centered business models generate synergies, since the bundled offerings result in higher value for both the customer and also the organization with accordance to individual offerings.
The above figure represents the strategies for managing multiple business models, there were some key aspects that were analysed which contributed to the integration of organizations business models. To summarize on a whole, during our research on the organization (HMS Industrial Networks) regarding multiple business models, we analysed certain key aspects that influenced the organization to integrate their business models. Some of the key factors are having a 1) Recurring business – core business model by organization (i.e. the supplementary business models developed in the later stages are derived from this business model). This is evident because, all the business models overlap with each other. 2) Having an inbound manufacturing unit in 3 major locations achieving flexibility and economies of scale. 3) Market units - the organization has 3 marketing units which is used to bundle and cross-sell the offerings/products and exhibit as HMS products. Since the end consumers are for all the three business units are machine builders and system integrators, the business units have high market affinities. 4) Having a flat structure makes managing easier for the organization. Since each country has divisional heads reporting to their respected heads that are centrally located in Halmstad. Moreover, even if the business units act independently, the parenting company activities majorly comprises of group wide management and financing. 5) Resource sharing is one of the key ingredient in formulating an integration strategy. In HMS, it is evident that the common materials, components, technologies are shared between the business units. Since, the business units come under a common denominator i.e. Industrial Networks. Synergy is realized through integration strategy within business models are identified between three different clusters of business units within the products/services, resources, activities and channels and these findings are rather specific for its environment.

6.0 Conclusion:

The purpose of the study has been to explore, what strategy is implemented by an established company operating in the growing sector of industrial networks for managing multiple business models. Furthermore, the purpose was also to identify the key events that contributed to this change. Our study showed that the firms thriving in a growing sector, change their business models time to time. The field of industrial networks has been a nascent field and so it was interesting to observe the key aspects of the organization which led them to this point.
The findings of the study elucidate us with evidence linking to managing multiple business models with an integration approach to synergy realization and its effectiveness. If there is no fit between the two business models, then integration approach/process is not effective. This study has revealed a pattern of company development which can be distinguished into 3 phases known as (Creation phase, Commercialization phase, Growth phase). Although it seems that, after the creation phase, the organization has undergone a gradual transition which can be termed as Transition phase till now.

However, the organization is one of the market leaders in network connectivity, yet the industry environment is unpredictable. This forced the organization to be dynamic and establishing a close contact with the customers. But also, it helped the organization to be updated in the market. Moreover, HMS as an organization is open for new innovations and testing new business models in the process. This is aided by several stakeholders such as university collaborations that are included in the projects run by the firm to understand the market and develop customer relationships. With all these in hand the organization serves a clear purpose in their field of industrial networks.

In conclusion, this thesis highlights the integrating strategy used to manage multiple business models through acquisition and realizing synergies, that adversely alters the distribution of possible outcomes regardless of increase or decrease of expected outcome. Although, these effects have greater impact when inappropriate strategy is implemented or even if appropriate strategy is implemented it might harm the performance in certain circumstances. "The making and breaking of an business depends on the appropriate selection and implementation of business models"(Gorevaya & Khayrullina, 2015).

6.1 Implications:

When a business unit starts to merge or acquire different business model, it is important to maintain or strengthen the business model synergy. Moreover, Synergy realization through integration strategy will be evident easily if the business units share a common denominator or having more similar activities. Because, the current body of literature has not yet described this kind of Synergy realization through strategy explicitly, the literature concerning business unit synergy realization served as a point.

In sum, the theoretical relevance of this master thesis confirms that 1) organizations in highly competitive market tend to innovate their offerings and services to stay in the market field; 2) Synergy realization through integration strategy is possible if business models share similar activities; 3) Business units with more synergies also become profitable.

6.2 Limitations & Future research:

Although, this thesis has found some interesting insights which are not yet addressed in the current body of the literature. The first limitation is the context of research takes place in the organization itself and since the market has a substantial growth, the organization focuses in new initiatives (e.g. e-commerce, new business models and offerings etc.) which can be traced back to the core Business model. Therefore, is it necessary for the future researchers to account for effect of external stakeholders in the organization.

According to Chandler et al. (2011)there might be differences between the business models (i.e. the value propositions) of high and low growth companies in a growing market. To be
stated more specifically, there might be significant differences between business models since, the businesses are diversified internally in HMS and chances are that different results might be found if this research had covered the entire organization. Therefore, this study will pave a way for the future researchers to analyse the aspects on a detailed level.

Moreover, the research limitation that should be considered is measuring the synergy between different business units, since our research could only identify results from Products/services, activities, channels and resources. Although, it may seem that the implementation of integration strategy and realization of synergy has produced results in this organizational context. It might differ between organizations or may be pursue phased separation in the future by the same organization.

Environmental factors, external key partners outside the firm also plays a major role in affecting the business. This should also be taken into consideration while comparing multiple business models within high competitive and low competitive environment. Finally, this study has shown some missing concepts which can be researched in detail to have a holistic understanding.

Multiple business models are a nascent field and there are ample opportunities for further research following the findings and the theoretical framework. Replication studies should also try to concentrate on different time frames to establish stronger link between fit of integration approach. Although access to top corporate data may be difficult but an attempt to triangulating both internal and external validates of the present day. Furthermore, our research focuses on Integration strategy and Synergy realization through acquisition. Future research may be extended to other types of strategies for managing multiple business models.
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Appendix 1:

Questions. - Jörgen Palmhager (Chief Technology Officer, HMS Industrial Networks)

A- General
1. How long have you been working with innovation and business models?
2. How do you market your products in general? (with business models/ just marketing strategies)
3. Who decides and who comes up with an idea for developing the products?
4. What are the major challenges faced in the organization?
5. What is your general idea about multiple business models?

B- Business Models
6. When did you feel the need for developing a business model? Or was it developed from the start?
7. Can you illustrate an example how BM process works in your organization?
8. By what channels do you sell your products?
9. Do you have different strategy for different products sales and product development process?

C- Multiple Business Models
10. Do you think implementing a multiple business models makes managing easier?
11. What encouraged you to opt for multiple business models instead of traditional business models?
12. How far is your organizations growth after implementing multiple business models?
13. Do the value chain activities compliment/conflict each other?
14. Does the culture and structure compliment/conflict each other?
15. How was the success rate of the organization before and after implementing multiple business models?
16. How long does it take to realize the effects of implementing multiple business models?
17. How long does a multiple business model can survive after its implementation without making any change? If not, why?
18. What do you think are the Challenges of managing business model portfolio in one organization?
19. How similar are the strategies between the two business models?
20. How do you establish synergy between the 2 models and by what means?
21. How and why did you find the secondary BM would enhance the primary BM?
22. How often do you change business models and it depends on what factors?
23. Have you turned an unviable possibility to a profitable opportunity?
24. As far as our take away from reading the articles were BMs were designed for customers but that does not how it works in reality? Do u agree?
Appendix 2:

Questions. - Anders Hansson (Chief Marketing Officer, HMS Industrial Networks)

A - General

1. What do you do as CMO?
2. Being CMO, how many departments are you in charge of?
3. How do you market your products in general? (with business models/ just marketing strategies)
4. How many Market units does HMS have? And currently how many marketing lines does it operate?
5. What are the major challenges faced in the organization?
6. By what channels do you sell your products?
7. Do you have different strategy for different products sales and product development process?

B – About Multiple Business Models

8. Do you think implementing a multiple business models makes managing easier?
9. What encouraged you to opt for multiple business models instead of traditional business models?
10. Do the value chain activities compliment/conflict each other?
11. Does the culture and structure compliment/conflict each other?
12. What do you think are the Challenges of managing business model portfolio in one organization?
13. How did you establish synergy between the 2 models and by what means?
14. How and why did you find the secondary BM would enhance the primary BM?
15. How often do you change marketing models and it depends on what factors?
16. Have you turned an unviable possibility to a profitable opportunity? Through a new marketing strategy?

C-Marketing

17. What was your driving factor for this acquisition (IXXAT, Ewon)?
18. What did HMS benefit from this acquisition?
19. Reasons for your acquisition Ixxat and Ewon?
20. What activities differ from all the three organizations in general?
21. Has the value and performance of two firms combined is greater than the separate firms? (Operational synergy).
22. Are the value chain activities between all the three businesses are same or different?
23. How similar are the supply chain activities? If they are different in what way do they differ?
24. How different are the marketing activities before and after acquisition?
25. Have you used different market strategies and combined them into getting out your message?
26. What are your revenue streams?
27. What are your customer segments?
29. What value do you create for your customers?
30. How different are the value offerings for the 3 products?
Appendix 3:  

HMS Phase 1 Interview-Jörgen Palmhager (Recordings translated):  
We interviewed the chief technology officer of HMS who was involved in Technology and innovation. The work of CTO is identifying new technology and innovation ensuring adoption of those technologies to sustain in the future. Moreover, he was one of the key persons involved in the development of HMS. From the interview and the information provided it was clear that both strategy and foundation was strong since the beginning. HMS strategy was to develop a recurring business in order for the product to stay in the market for more than 5-10 years. Their initial business model is based on this strategy. We recorded and transcribed the interviews after they were conducted and began developing the full cases.

Their business is diversified internally. Some of them where project oriented. Some through direct sales and some through distribution. Multi Connectivity was their strong business. Since, services are done through online across different countries. Moreover, adding more services and more value might introduce new BMs. The products that are developed were offered free of cost with offering that includes premium subscription service for which the customers are willing to pay.  
HMS, marketing team comprising of marketing units that market the products depending on the vertical markets such as end users, device manufacturers, system integrators, value adding service providers. Products development is based on the market research and HMS is updated in this field. It has 3 Business Units IXXAT, ANYBUS, eWon, each BU has a local general manager that reports to the CEO. 3 Market units in three different continents that has a cross functional teams reporting from various countries. The offerings which are innovated are restricted to particular BUs. The organization has a global supply chain through which synergy is established. All these 3 BUs have a common field which is producing communicating devices. ANYBUS has recurring BMs while the other 2 units have traditional BMs. HMS is constantly looking for new innovative solutions which is a combination of offerings, new technology, products. Traditional BM has a strong foundation. Initial BM for production and sales has been slightly modified as BM as a service. The initial BM has been refined gradually to this point. Value for the customer is network connectivity and it stays the same but the offerings, products and the packaging changes for which a new BM is generated tracing back to the core BM. In generating profitable growth, it is essential that we test out new BMs. Synergies are established between different BUs by having a cross functionality of members from different units. Products and sales are similar with all the BUs. Moreover, they have a common HR and supply chains which operate on same platforms. Strategic and operational managers, supply chain managers, HR etc meet up to establish connections. Since the organization structure is flat establishing synergy is not such a difficult feat.

Industries are prone to change their BMs whereas companies and IT organizations are willing to gamble on it. Deployment of a developed BMs in an organization is far more different than it theory. Transition of mature organization BM to a new one is difficult. Moreover, developing BM might be a hindrance for developed organization.
Appendix 4:

HMS Phase 2 Interview- Anders Hansson (Recordings translated).

We interviewed the Chief marketing officer of HMS product marketing, strategic marketing, and marketing communications. Since, he is part of the corporate team. Both marketing and sales are independent since they have separate heads in charge for separate departments. For instance, the sales division is dealt by Chief commercial officer. Four marketing units which deals with direct and indirect sales. Market units are supported by business units such as Ewon, IXXAT, AnyBus.

It is necessary to exhibit the value of the three brands in the market, since it is a multi-branded scenario where each business much gain perspective in the market and in the products that they sell to the market. HMS is a combination of 3 strategic brands. The company has key performance indicators when it comes to direct sales called design wins, production wins, sales start. More strategic the organization becomes more proactive should they be in the market. HMS has channel managers to take care of distributors and logistics all over the world. Device levels and system levels are key components in the value chain of HMS. Different business unit’s target, different components in the value chain. For instance, Ewon 80% of the offerings are through system level.

HMS is a relatively small company open to different ways in the value chain both software and hardware services. 1. Licensing of technology of AnyBus, which can be used in other platforms, 2. Chip licensing known as C40, brick licensing which is implanted over a brick that makes it easy to solder a chip. 3. Modular sales, modules plugged into customer devices which gives them enormous flexibility since it is used as a plug in and out. 4. Customization for AnyBus offering. 5. EWON combination of hardware sales and 6. Cloud platform talk2m and net bitter Argos. IXXAT hardware products, 7.o/p of the customizing activity for specific model. 8. Proposing technical services and maintaining them (not so much revenue to this point). The reason for opting multiple business models is based on the offerings of the customer. The value chain activities complement each other. Clear segmentation for each area is important in order to achieve the goal and not lose sight. Too much cross work makes it difficult to manage MBMs.

Synergy is done/ established by the market units. Since cross selling between different grounds can be established only when the distinct market units are consolidated with the 3 Business units. AnyBus embedded offerings enhance the primary BMs since the offerings has been changed. Since, the segmentation is clear in the pyramid the marketing models are not changed very often. Products from all BUs are cross branded and it is one of the important models and sends a strong signal in the market, cross embedded and are sold, used by end users. HMS hardware meets software is a new marketing theme which benefits the company and also new offering. Industrial communications grew big and this need, made us acquire Ewon and IXXAT. Adding to our offering in a logical way as much business as possible in the industrial communication. AnyBus products work in both direct and indirect sales with the markets as they are skilful in customized products and offerings and IXXAT are similar in these activities including the CAN market for which they are vastly recognized. Ewon used distribution sales, since they did not have a sales organization of their own (monolithic). A need for synchronization is recognized and started working with the market units rather than individual sales. The value and performance of the 3 businesses combined have a profitable outcome when seen together as HMS. When it comes to contributions in revenue/costs synergy all the 3 BUs complement each other. Revenue streams product sales, subscriptions, hardware sales, development services, training, licensing. Value proposition is easier for the customer to use industrial communications (best in the world (probably)), sustainable.
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