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EXPLORING BUSINESS MODEL INNOVATION IN POLISH SME SECTOR
By
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Abstract

The business model (BM) and business model innovation (BMI) concepts have been given increasing attention in recent years by both academic researchers and business environment. BMI is seen as essential for company's survival and growth and is increasingly being used to explain differences in firm performance. Nevertheless, little is known about how SMEs conduct BMI in practice; and what is the role of company's top management and their leadership in this process. This research explores empirically the BMI process in the context of Polish SMEs. First, the semantic web, which depicts the relationship between the role of management team, its capabilities and leadership; and business model innovation process in SMEs is developed. Subsequently this framework is applied to analyze cases of two Polish SMEs, one start-up and one established small business, which went through BMI process. Findings from this research allow to better understand the nature of the business model innovation process in SMEs and the role of the top management and leadership in it. Therefore, this research helps to further advance the business model innovation theory. In addition, such insights have a practical relevance since they help to define the best managerial practices for stimulating business model innovation in SMEs.
Table of Contents

ACKNOWLEDGEMENTS.................................................................................................................. 2
ABSTRACT........................................................................................................................................... 3
TABLE OF CONTENTS.......................................................................................................................... 4
LIST OF FIGURES................................................................................................................................. 6
LIST OF TABLES.................................................................................................................................... 7
1. INTRODUCTION.............................................................................................................................. 8
  1.1. BACKGROUND .......................................................................................................................... 8
  1.2. RESEARCH PROBLEM .............................................................................................................. 10
  1.3. SCIENTIFIC AND PRACTICAL RELEVANCE .......................................................................... 12
  1.4. RESEARCH OBJECTIVE .......................................................................................................... 12
  1.5. RESEARCH QUESTIONS .......................................................................................................... 13
  1.6. STRUCTURE OF THE THESIS ................................................................................................. 16
2. POLISH CONTEXT............................................................................................................................ 17
  2.1. MACROECONOMIC CONTEXT ............................................................................................... 17
  2.2. SME SECTOR IN POLAND ...................................................................................................... 18
  2.3. ORGANIZATIONAL CULTURE OF SMEs IN POLAND .......................................................... 19
3. LITERATURE REVIEW...................................................................................................................... 21
  3.1. BUSINESS STRATEGY ............................................................................................................ 21
  3.2. BUSINESS MODEL.................................................................................................................. 22
  3.3. BUSINESS MODEL INNOVATION ......................................................................................... 26
  3.4. TOP MANAGER AND BMI .................................................................................................... 29
  3.5. ORGANIZATIONAL LIFECYCLE ............................................................................................ 35
  3.6. SUMMARY AND SEMANTIC WEB TO EXPLORE RELATION ............................................... 37
4. METHODOLOGY.................................................................................................................................. 38
  4.1. RESEARCH APPROACH ......................................................................................................... 38
  4.2. RESEARCH STRATEGY .......................................................................................................... 38
  4.3. RESEARCH PROCESS ............................................................................................................ 39
  4.4. DATA COLLECTION .............................................................................................................. 40
  4.5. DATA ANALYSIS .................................................................................................................. 43
  4.6. SUMMARY ............................................................................................................................. 44
5. RESULTS............................................................................................................................................ 45
  5.1. AUDITRIP ................................................................................................................................... 45
  5.2. AGEMAR ................................................................................................................................... 61
  5.3. BMI PROCESS - ROLE OF TOP MANAGEMENT AND LEADERSHIP .................................... 71
List of Figures

FIGURE 1 GRAPHICAL REPRESENTATION OF THE RESEARCH QUESTION.................................................................13
FIGURE 2 NUMBER OF ACTIVE ENTERPRISES IN POLAND IN YEARS 1997-2013 (IN THOUSANDS) (TARNAWA & ZADURA-LICHOTA, 2015)........................................................................................................18
FIGURE 3 STRUCTURE OF GDP IN POLAND (ADOPTED FROM TARNAWA & ZADURA-LICHOTA, 2015).............18
FIGURE 4 LINK BETWEEN THE CONCEPTS (BOUWMAN, 2015).........................................................................21
FIGURE 5 BUSINESS MODEL DESIGN PROCESS (ADOPTED FROM WIRTZ, 2010).........................................28
FIGURE 6 BUSINESS MODEL IMPLEMENTATION PROCESS (ADOPTED FROM WIRTZ, 2010)..........................28
FIGURE 7 SEMANTIC WEB OF EXISTING RELATIONS....................................................................................37
FIGURE 8 RESOURCE BASED VIEW OF AUDIOTRIP.........................................................................................46
FIGURE 9 AUDIOTRIP’S PORTER FIVE FORCES ANALYSIS.............................................................................47
FIGURE 10 AUDIOTRIP’S TECHNICAL ARCHITECTURE..................................................................................51
FIGURE 11 AUDIOTRIP’S VALUE NETWORK..................................................................................................54
FIGURE 12 AUDIOTRIP’S BUSINESS MODEL ROADMAPPING.........................................................................60
FIGURE 13 RESOURCE BASED VIEW OF AGEMAR...........................................................................................62
FIGURE 14 AGEMAR’S PORTER FIVE FORCES ANALYSIS............................................................................62
FIGURE 15 AGEMAR’S BUSINESS MODEL ROADMAPPING............................................................................70
List of Tables

TABLE 1 DEFINITIONS OF KEY TERMS ..................................................................................................................15
TABLE 2 CATEGORIZATION OF BUSINESS MODEL ONTOLOGY .........................................................................23
TABLE 3 INTERVIEWS DETAILS ............................................................................................................................41
TABLE 4 AUDIOTRIP’S SYSTEM OPENNESS ........................................................................................................50
TABLE 5 ACTORS INVOLVED IN AUDIOTRIP’S VALUE NETWORK .....................................................................52
TABLE 6 AUDIOTRIP’S KEY PERFORMANCE INDICATORS .....................................................................................56
TABLE 7 IMPACT OF BM CHANGE ON 4 STOF DOMAINS ...................................................................................58
TABLE 8 ACTIVITIES REQUIRED FOR ENABLING AUDIOTRIP’S BMI ................................................................58
TABLE 9 PARTNERS AND SUPPLIERS IN AGEMAR’S VALUE NETWORK ...............................................................64
TABLE 10 AGEMAR’S KEY PERFORMANCE INDICATORS .......................................................................................66
TABLE 11 IMPACT OF BM CHANGE ON CANVAS BUILDING BLOCKS .................................................................68
TABLE 12 ACTIVITIES REQUIRED FOR ENABLING AGEMAR’S BMI .................................................................69
1. Introduction

1.1. Background

Achieving smart, sustainable and inclusive growth is one of the goals of the European Union described in the Europe 2020 strategy. Innovations could significantly contribute to this growth but Europe’s performance in this matter still requires some support (European Commission, 2014a). Such innovations can take the form of new products and services, new processes and business models (European Commission, 2014b). One critical issue is the capability to change research ideas into successful products and services and bring them to the market. New business models could potentially help in capitalizing on the best ideas (European Commission, 2014a).

Innovativeness is crucial for companies, particularly in today’s unpredictable and dynamic environment. Due to changes occurring in the global economy companies have to constantly look for new modes of asserting competitiveness. One of the ways of dealing with this issue is bringing in innovations. Nevertheless, innovations confined only to products and services are no longer sufficient. They need to be expanded to the entire business model and consequently to essentially enhance the customer value created by product or service innovations (Norek & Arenhardt, 2014).

Innovativeness is no longer the domain of only large enterprises but also of the SMEs. Innovating in an efficient way is essential for the SME sector development and as a consequence for the advancement of economies of nations (Norek & Arenhardt, 2014). It was a common belief for a long time that large enterprises are life-blood of national economies; however, recently small firms’ contribution to economic growth has been acknowledged (Brannback, Carsrud, & Kiviluoto, 2014).

Small and medium enterprises (SMEs) play a critical role in shaping economies around the globe. They contribute to innovation and growth across all industries and are believed to help in industries reorganization. Furthermore, SMEs are a source of employment and can balance economic declines. For several reasons, a balanced SME sector is crucial for the economic development and constitutes a prerequisite for the economic growth. Firstly, SMEs comprise 99% of all European Union businesses and account for more than two thirds of all employment in Europe (Eurostat, 2008). Secondly, SMEs are initiating industrial transformation from traditional forms of production to high technologies. Thirdly, these companies are a leading force in the development of innovations to increase the competitive advantage. Finally, SMEs play a significant role in development of global markets. Nevertheless, SMEs are fragile and the
majority of them do not outlast the duration of five years. Public authorities around the world acknowledged the significance and vulnerability of SMEs and formulated agencies and organized multiple ventures and help measures to support their development (Klonowski, 2012). SMEs often don’t have sufficient funds, which hold back the experimentation and testing that comes before developing business model that works. Therefore, public support taking various forms including improving the funding available to SMEs is crucial for enabling their growth. Policy makers can come up with measures to help SMEs with critical assessment of their current business and encourage activities leading to improved growth (European Commission, 2014a).

ENVISION, an EU funded program aiming to understand and support business model innovation (BMI) in SMEs, is an example of such an initiative. The project has been undertaken in order to increase the knowledge on how SMEs conduct BMI in practice. The goal of ENVISION is to identify best practices and gather insights on Business Models (BM) and to develop and share via platform a tooling that would help SMEs to develop, evaluate and plan new business models. The European Union believes that such an initiative will enhance economic performance, competitiveness and innovativeness of SMEs (Envision, 2016).

This section highlighted several aspects that constitute the background to this research. First, in today’s dynamic business environment companies have to constantly innovate in order to maintain competitiveness. Second, SMEs enterprises contribute to innovation and growth and play a critical role in shaping national economies. Third, enhancing the customer value created by product or service innovations requires SMEs to innovate their business models. Fourth, BMI plays a crucial role in enhancing competitiveness and innovativeness of SMEs and therefore, increases their chance of survival. Lastly, support from public authorities and further research is required in order to improve innovativeness, particularly business model innovation, in SMEs.
1.2. Research Problem

The business model (BM) and business model innovation (BMI) concepts have been given increasing attention in the recent years by both academic researchers as well as business environment. Chesbrough (2007) believes that every organization has a business model; and it can either be explicit or implicit (Teece, 2010). Furthermore, it has been generally agreed that BM can give a firm a competitive advantage (Sosna, Trevinyo-Rodri"guez & Velamuri, 2010) and positively affect its performance and value (Zott & Amit, 2007). Every company, no matter whether it's new or it has a well-established position on the market, needs to have a good business model if it wants to achieve success (Magretta, 2002). Nevertheless, what is crucial in today's fast changing business environment is firm's ability to innovate its business model (Amit & Zott, 2001; Schneider and Spieth, 2013). A recent survey by the Economist demonstrated that more than a half of the executives think that BMI significance for achieving success will be far greater than of product and service innovations (Johnson, Christensen & Kagermann, 2008). Business model innovation is seen as essential for company's survival and growth (Stampfl, 2015) and is increasingly being used to explain differences in firm performance (Zott, Amit & Massa, 2011).

BMI denotes rethinking the firm's value proposition so as to tap new opportunities. When a new opportunity appears, entrepreneur needs not only to recognize it, but also to be able to utilize it (Casprini, 2015). In order to identify new opportunities management needs to be entrepreneurial and anticipate how new market and technological developments could be used to satisfy unmet customer needs (Leih, Linden & Teece, 2014). Capitalizing on new opportunities frequently requires modification of firm's processes, business models, complementary assets and methods. Therefore, firm's ability to transform its business model in order to capture new opportunities is essential for sustaining competitiveness in dynamic environments (Teece et al., 1997; Jantunen et al., 2005).

Despite significant academic interest in the business model innovation in the recent years, BMI process has barely been researched as such (Zott & Amit, 2015). Most published work has been theoretical in nature and inductive empirical research on BMI at the company level is still lacking (Dottore, 2009). Therefore, more study is required to understand why and how organizations change their business models (Morris et al., 2005) and "clarify (...) the mechanisms and processes of business model innovation" (George & Bock, 2011, p. 88). Mason & Spring (2011) imply that in-depth studies could help to understand how managers develop, represent, translate and change BMs.
The evolving BM that tackles the most valuable knowledge is primarily the responsibility of top management. Entrepreneurial managers are responsible for identifying the necessity to change BM, for modifying or designing BM, for coordinating the required assets, and in general, for (re)structuring the company when necessary (Leih et al., 2014). Zhou (2015) argues that dynamic managerial capabilities (DMCs) play a crucial role in creativity and innovation and therefore, are essential for BMI. She further explains that DMCs are supported by three types of managerial resources, namely: managerial human capital, managerial social capital, and managerial cognition. However, circumstances and extent to which these managerial resources contribute to generation of innovations requires further research.

BMI can initiate a process of change in an enterprise that requires a lot of effort from top-management and that possibly burdens the entire organization. Furthermore, innovations in the BM domain can vary considerably from each other. Some might be more modular and encompass number of rather smaller linked changes such as addressing new customer segment and modifying the revenue model in a company segment. Other business model innovations are more architectural and affect entire organizations, including essentially all organization members and all processes and activities. Therefore, it seems sensible to expect that leadership requirements and their significance depend on the nature of the BMI (Foss, 2014). Nevertheless, there is not much empirical evidence on how leadership relates to business model innovation (Bjorkdahl & Holeman, 2013).

Finally, most of previous studies focusing on business model innovation looked at large enterprises and SME together (Zott & Amit, 2007). While such an approach ensures better generalizability, it may provide limited insight into BMI in SMEs in particular. Innovative activities between large and small enterprises may vary (Acs & Audretsch, 1987) and some empirical research has implied that large and small companies pursue different types of innovation (Nieto & Santamaría, 2010). When it comes to BM SME's are considered to act in reactive way to a particular customer or market demand and focus rather on very classic business model innovation approaches. They conduct BMI rather randomly; focus only on few and often the same elements of BM in their BMI efforts; and in general lack in BMI leadership skills (Lindgren, 2012). Therefore, taking into consideration the significance of BMI for enhanced competitiveness and innovativeness of SMEs, and eventually economic growth, it could be meaningful to study SMEs separately in order to get more insights into how they approach BMI.
In the light of problems discussed above the following research gap has been identified:

The BMI process in SMEs and the role of the enterprise leader in this process have not been researched yet.

Hence, the aim of this research is to bridge this gap by providing insights into the management practices derived from studying cases of two Polish SMEs that carried out BMI process.

1.3. Scientific and Practical Relevance

The BM concept has received increasing attention from academic researchers as well as practitioners trying to gain insights into companies' value creation, performance, and competitive advantage (Zott et al., 2011). However, there is not much scholarly empirical work on business model innovation process as such, especially in SMEs. Little is known about how BMI process looks like in SMEs, what difficulties it poses to this type of organizations, what activities and the managerial practices are essential to go through this process, and how managerial capabilities contribute to it. Taking into account potential significance of BMI for SMEs, it is worthwhile to link BMI concept to organizational theories at study BMI at the company level. Thus, research that allows for better understanding of how SMEs conduct BMI in practice and sheds some light on what is the role of company leader in this process is valuable from an academic perspective.

Furthermore, such insights are also relevant from a business perspective. So far there are no “recommendations in terms of management frameworks and methods to support BMI based on scientific findings” (Bucherer, Eisert & Gassmann, 2012, p. 183). Research investigating BMI process at the organizational level will allow SMEs to gain an understanding of what has worked for other firms and potentially help them develop capabilities necessary to conduct BMI. By delineating the process of business model innovation this study will provide guidance to practitioners on how to conduct and support BMI in their organizations. As explained by Amit, Zott & Pearson (2014) managers who want to engage in BMI process need to know how to design and implement business models as well as to have BM management know-how, which is essential to continuously orchestrate and coordinate tasks fulfilled by various stakeholders and to continuously adapt the entire system to its evolving environment.

1.4. Research Objective

This study aims to gain in-depth understanding of BMI process in European small and medium-sized enterprises in order to help them to change their business models and therefore, stimulate BMI in European SMEs, as a part of the ENVISION project. To fulfil this goal, two cases
of Polish SMEs that went through BMI process, one start-up (AudioTrip) and one established venture (Agemar), were selected as units of analysis.

In order to achieve the core objective we need to:

- Investigate the BMI process within AudioTrip and Agemar; explain how it was carried out and what the consequences were.
- Analyze the difficulties that BMI process poses to SMEs.
- Examine the role of top management during BMI process in AudioTrip and Agemar and investigate the leadership style used by the top management to guide the BMI process.

1.5. Research Questions

Based on the above defined research objectives the following research question, illustrated in Figure 1, has been formulated:

Why and how do Polish SMEs innovate their business models and what is the role of top management in this process?

![Figure 1 Graphical representation of the research question](image)

To better address this research question, it has been broken down into eight sub-questions, which have been formulated to provide a structure that allows answering the main research question in a systematic way.

The first sub-question, 'What was the initial business model of AudioTrip and Agemar?' aims to explain the initial BMs of the selected companies.

The second sub-question, 'What was the reason for change in the business model of AudioTrip and Agemar?' refers to the cause of BMI in selected companies.
The third sub-question, ‘Which elements of the business model of AudioTrip and Agemar were subject to change?’ aims to investigate the changes that occurred in the business models components of selected companies.

The fourth sub-question, ‘How did the BMI process look like in AudioTrip and Agemar?’ investigates the steps both companies went through in order to change their business model.

The fifth sub-question, ‘What difficulties did AudioTrip and Agemar encounter while enacting BMI?’ refers to the problems both organizations came across while changing their business model.

The sixth sub-question, ‘What was the impact of BMI on performance of AudioTrip and Agemar?’ addresses the outcomes of the business model innovation in selected companies.

The final two sub-questions:

‘What was the role of top management in the business model innovation process in AudioTrip and Agemar?’

And

‘Which leadership styles were used by the top management to guide the BMI process in AudioTrip and Agemar and can these styles be related to particular stage of BMI process?’

Aim to look at the role of the company leader in BMI process in AudioTrip and Agemar and try to identify leadership practices that can help SMEs to go through BMI process.

Based on the qualitative research, this study aims to develop set of propositions related to nature of BMI process in small and medium-sized enterprises that would help managers of SMEs to carry out business model innovation in their organizations.
For the purposes of this research, the following definitions were used:

**Table 1 Definitions of key terms**

<table>
<thead>
<tr>
<th>Concept</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SMEs</strong></td>
<td>Enterprise can be classified as SME based on number of employees in an organization and either turnover or balance sheet total.</td>
</tr>
<tr>
<td></td>
<td><img src="Table1SMEs.png" alt="SMEs Table" /></td>
</tr>
<tr>
<td><strong>Business model</strong></td>
<td>“Business model articulates the logic and provides data and other evidence that demonstrates how a business creates and delivers value to customers. It also outlines the architecture of revenues, costs, and profits; of the enterprise that delivers that value” (Teece, 2010, p.173).</td>
</tr>
<tr>
<td><strong>Business model innovation</strong></td>
<td>“The observable sign of BM evolution is a substantial change in the structure of its costs and/or revenues - from using a new kind of resource, developing a new source of revenues, reengineering an organizational process, externalising a value chain activity - whether triggers deliberately or environmentally.” (Demil &amp; Lecocq, 2010,p.235).</td>
</tr>
</tbody>
</table>

Small and medium-sized enterprises (SMEs) represent 99% of all businesses in the EU (European Commission).
1.6. Structure of the Thesis

This thesis is structured as follows. Chapter 1 introduces general context of the research, its objective and scope. Chapter 2 provides economic and cultural context of Polish SMEs. Chapter 3 contains an overview of different research areas in order to build an initial knowledge base for this research. The design of the research is presented in Chapter 4, the Methodology. In Chapter 5, two companies selected as case studies are introduced and the results of the research concerning business model innovation process are presented. First, companies’ business model and business model innovation they went through are analyzed using STOF and CANVAS frameworks of analysis and business model roadmapping approach. Next, interviews outcomes explaining the reason and the process of BMI in detail are given. Chapter 6 discusses the outcomes of analysis of Chapter 5, states the conclusion on the research questions as mentioned in Chapter 1 and provides recommendations for further research.
2. Polish Context

This chapter will introduce the macroeconomic context for SMEs in Poland in Section 2.1. Section 2.2 will describe the activities of SMEs in Poland compared to other European Union countries. Finally, section 2.3 will explain the organizational culture of SMEs in Poland.

2.1. Macroeconomic Context

During the first 4 years after the outbreak of global financial crisis in 2008 Polish GDB increased by 16% while in the other EU countries it remained below the level from before the crisis. During these years the development gap separating Poland from Western Europe was significantly reduced. Unlike many other European countries Poland preserved high financial credibility, avoided recession, rapid collapse of the currency or serious debt crisis (Tarnawa & Zadura-Lichota, 2012). Years 2010-2011 brought economic recovery and associated with it, improvement in the business environment. This translated into, particularly in year 2011, better corporate results and an increase in the number of active entities (Tarnawa & Zadura-Lichota, 2013). Year 2012 was a difficult period for both global and Polish economy resulting in strong economic slowdown at the end of the year (Tarnawa & Zadura-Lichota, 2014). We could observe rapid slowdown in the national economy resulting in deteriorated macroeconomic conditions for conducting business (Tarnawa & Zadura-Lichota, 2013). The betterment of foreign economic situation fostered the gradual recovery of the economic situation in Poland since the second quarter of 2013. In 2013 dynamics of household consumption gradually accelerated, the value of investment in the economy increased and the income situation of households improved. Furthermore, stabilisation was reported on the labour market. The improving economic situation led to improvement of the financial situation of enterprises and reduction in the risk of business operations due to economic environment (Tarnawa & Zadura-Lichota, 2014). In year 2014 macroeconomic conditions have undergone significant improvement compared to years 2012 and 2013. Stable economic growth of Polish main foreign trading partners (except Eastern markets) and acceleration of domestic demand dynamics had a positive influence on development of corporate sector. As a result of these favourable conditions we could observe significant acceleration of investment dynamics, including investment by enterprises. The escalation of Ukraine crisis and Russian embargo on Polish food products, resulting in the limitation of export to these countries and growth of uncertainty regarding further development of situation in Eastern Europe, had no significant and permanent negative impact on the national economic situation and the situation of enterprises. As a result in 2014 we could observe further improvement of the financial situation of enterprises and reduction in the risk of business operations due to economic environment (Tarnawa & Zadura-Lichota, 2015).
2.2. SME sector in Poland

In year 2013 there were 1.77 million active non-financial enterprises in Poland, 99.8% out of which were small and medium enterprises. Figure 2 shows that the number of enterprises has grown from 1.58 million in 1997 to 1.77 million in 2013. The largest increase in the number of firms was observed in years 1998-1999. In 2013 compared to previous year 2012 the value of this indicator dropped by 1.3%. Compared to other EU countries Poland occupies 6th place in terms of number of enterprises (Tarnawa & Zadura-Lichota, 2015).

![Figure 2 Number of active enterprises in Poland in years 1997-2013 (in thousands) (Tarnawa & Zadura-Lichota, 2015).](image)

Structure of Polish SMEs sector

SMEs sector plays a significant role in generating Poland GDP. Out of 73% GDP generated by enterprises in general, 48.5% GDP is generated by SMEs. Out of all companies categories micro enterprises are the biggest contributors to GDP – approx. 30% (according to data from 2012). The GDP structure in Poland is presented in Figure 3. The contribution of enterprises to GDP is constantly growing since many years; however, the speed of this growth is not satisfactory from the perspective of Poland’s development need (Tarnawa & Zadura-Lichota, 2015).

![Figure 3 Structure of GDP in Poland (adopted from Tarnawa & Zadura-Lichota, 2015).](image)
**Age and survival rate of Polish enterprises**

In 2012 companies that were founded in previous year constituted 11% of all enterprises, two-year old companies – 10%, three-year old – 7%, four-year old – 6% and five-year old – 5%. Compared to other European countries, Poland is distinguished by high percentage of young companies. It occupies the 4th place for 1-year old companies, 1st place for two-year old companies and third place for three-year old companies.

When it comes to survival rate, 86% of companies founded in year 2011 were still operating in year 2012, which gives Poland 14th place in the European ranking. This rate drops with the age of the companies, 70% of the companies survived the first two years, 54% - three years, 47% four years, and only 44% five years. It is worth mentioning that the survival rate increases with the size of the company. 96% of the companies employing 10 and more workers survived the first year and 70% the first five years.

**2.3. Organizational culture of SMEs in Poland**

**Historical Cultural Context**

The organizational culture and work organization of Polish SMEs comprises three trends, namely: manorial farm legacy, catholic culture and cultural influences from the West. These trends translate into employees' motivation and management styles. The result of manorial farm legacy is two diametrically different attitudes that depend on the place occupied in the social structure: voluntarism for managerial positions and passivity together with learned helplessness for subordinates. Such culture is characterized by paternalism and its management style can be described as autocratic. These patterns were strengthened by the period of real socialism. This was due to incapacitation of enterprise managers by the central management system, adverse selection in promotions and lack of market rules in the economy which blocked the development of the entrepreneurial attitude. Other factors worth mentioning include demanding attitude of employees resulting from lack of existence of real market and therefore, risk of losing employment, homogeneity of enterprises in terms of values and lack of organizational subcultures, egalitarianism and lack of existence of elites and average prestige of manager profession. At that time employees were deprived of strong positive financial motivation as well as negative stimulus such as market control resulting in lack of respect of work and its poor quality (Tarnawa & Zadura-Lichota, 2014).

Systemic transformation of the 90s gradually displaced the homogenous post socialistic organizational culture. It was a result of changes in the several aspects of life such as privatization of the economy, internal differentiation of public sector, foreign direct investment inflow and most importantly the explosion of Polish entrepreneurship demonstrated in formation of multiple SMEs (Tarnawa & Zadura-Lichota, 2014).
Dimensions of Organizational Culture

Hofstede (2000) describes organizational culture as collective programming of minds of all the organization members that distinguishes members of one company from another. He relates organizational culture to national culture and recognizes 6 dimensions of cultural differences, which affect management, such as: power distance, individualism, masculinity, uncertainty avoidance, long term orientation and indulgence (Żakowska, 2007). According to these criteria Polish organizational culture can be characterized as combination of high level of power distance, strong uncertainty avoidance, high coefficient of masculinity and relatively low level of individualism (Tarnawa & Zadura-Lichota, 2014).

High level of power distance involves formation of patriarchal relationships between employers and their workers, spontaneous management and avoidance of task delegation. Relationship between manager and employees is characterized by paternalism but at the same time subordinates demonstrate strong worker’s solidarity against principals in conflict situations. Individualistic attitude is in general not appreciated in Polish SMEs. Significant attention is paid to family bonds and creation of informal ‘support groups’. Furthermore, employees have a strong need for acceptance among their colleagues, solidarity and a harmony in a group. When it comes to masculinity on one hand we have to pay attention to socioeconomic privilege based on gender manifesting itself in number of men employed, type and hierarchy of positions they occupy, salaries, promotion opportunities, legal regulations related to employment and discrimination of women in the moral sphere. On the other hand, on broadly understood cultural level Poles have a tendency to thinking and so called feminine behaviour, attaching greater importance to relationship than to competition, and aversion to those aspiring to dominate (Żakowska, 2007).
3. Literature Review

According to Bryman and Bell (2015), a critical review of the existing literature is an integral part of the research process. It allows to narrow down the area of interest and to formulate research questions to be answered throughout the study. This chapter is the outcome of extensive review of the existing literature conducted in order to identify area where contribution can be made. It aims to build a theoretical understanding of business model and BMI in broader organizational context. Conducting literature review allowed to select the research design that is suitable for previously determined research objectives and to construct a theoretical framework which will be the basis for the subsequent empirical study conducted in order to examine the relationship between organizational dimensions and BMI in SMEs.

3.1. Business Strategy

There is a continuous discussion concerning differences between business models and strategy concepts (Frijs et al., 2015). Many researchers use these two terms interchangeably (Magretta, 2002). Nevertheless, business models and strategy have distinctive features. According to Casadesus-Masanell & Ricart (2010) BM reflects the strategy realized by the company. Business model refers to the company logic, its operations, and the way it creates value for the shareholders. Strategy concerns selection of business model which the company uses to compete in the market and describes how firm deals with handles its competitors and its external environment (Magretta, 2002; Casadesus-Masanell & Ricart, 2010). Therefore, concepts of business model and business strategy are complementary rather than synonyms (Zott and Amit, 2008; Frijs et al., 2015)

![Figure 4 Link between the concepts (Bouwman, 2015)](image-url)

Bringing together strategy analysis and business model analysis is crucial for protection of any competitive advantage that is resulting from designing and implementing new BM. Therefore, analyzing the strategy is a crucial element of designing a competitive and sustainable BM (Teece, 2010).

Business strategies have to be based on the evaluation of both internal and external contexts. Firm's external environment can be analysed using Porter’s five forces framework, which examines five critical external factors that affect business strategy and development in any industry. These include: (1) competition within the industry, (2) threat of new entrants, (3) threat of substitutes, (4) bargaining power of suppliers, and (5) bargaining power of buyers.
Firm’s internal environment can be assessed by means of Barney’s (1991) Resource based view, which characterizes company resources according to the VRIN criteria: (1) Valuable, (2) Rare (3) Non-substitutable and (4) Inimitable.

3.2. Business Model

Business model, even if not explicitly articulated, is present in every company (Fielt, 2011). It can be defined as “the content, structure, and governance of transactions designed so as to create value through the exploitation of business opportunities” (Amit & Zott, 2001, p. 511). It serves as a structural template that represents all “transactions between the focal firm and its exchange partners” (Zott & Amit, 2008, p.3). Business models can’t be ignored as depending on the choice of business model for bringing idea or technology to the market we may obtain two different economic results (Fielt, 2011). Despite large amount of studies and general agreement on the importance of understanding how business models contribute to companies success, the concept has been subject to much debate and scholars have not reached agreement on the definition of the business model (Fielt, 2011; Casadesus-Masanell & Ricart, 2011; Micheli, 2015). So far definitions have been formulated ad hoc to satisfy the needs of single studies hindering the progress of business models field. BMs have been depicted by means of several terms such as conceptual tool or model, architecture, pattern, set, and many others (Zott, Amit & Massa, 2011; Micheli, 2015). As described by Zott et al. (2011), some concepts however appear in many definitions. Particularly, the concept of value creation can be found in majority of these definitions which indicates widespread agreement of scholars on the relationship between BM elements and companies’ ability to generate value (Micheli, 2015). One of the more general definitions is given by Teece (2010): “Business model articulates the logic and provides data and other evidence that demonstrates how a business creates and delivers value to customers. It also outlines the architecture of revenues, costs, and profits; of the enterprise that delivers that value” (p.173). Obviously performance of all business models is not equal. However, the good ones have certain features in common: they are aligned with company goals, self-reinforcing, and robust (Casadesus-Masanell & Ricart, 2011).

Business models encompass several elements such as customer value proposition, architecture of revenues, costs, and profits; key resources, key activities, service offering, targeted market, etc. (Bouwman et al., 2008; Osterwalder & Pigneur, 2010). Business model ontology consists of standardized set of elements that need to be defined and linked respectively (Bouwman et al., 2008) to form a BM. For this research purposes BM design framework will be used in order to depict business models of case study companies which will serve as basis for subsequent BMI analysis.
3.2.1. Business Model Frameworks

Business model Framework/Ontology is a visual representation of the building blocks that constitute the core of a business model. BM ontology and BM framework terms can be used interchangeably and they serve to design business models. Business model ontology can be defined as “explicit simplified conceptualisation of the objects, concepts, and other entities related to the BM” (Heikkilä, 2015, p.49). Current literature discusses a range of BM frameworks that can be used to analyze the business model of an enterprise. Table 2 shows a comparison of various BM frameworks.

Table 2 Categorization of Business Model Ontology

<table>
<thead>
<tr>
<th>Authors</th>
<th>Framework</th>
<th>Components</th>
<th>Perspective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Osterwalder &amp; Pigneur (2002)</td>
<td>CANVAS</td>
<td>Value Proposition, Customer Segments, Channels, Customer Relationships,</td>
<td>Enterprise perspective, technology innovation &amp; e-</td>
</tr>
<tr>
<td></td>
<td>for e-business</td>
<td>Revenue Streams, Key Resources, Key Activities</td>
<td>business</td>
</tr>
<tr>
<td>Bouwman et al. (2012)</td>
<td>STOF</td>
<td>Service, Technology, Organization, and Finance</td>
<td>Network perspective, mobile and ICT services</td>
</tr>
<tr>
<td>El Sawy &amp; Pereira (2012)</td>
<td>VISOR</td>
<td>Value, Interface, Service Platform, Organizing Model, and Revenue/Cost</td>
<td>Ecosystem perspective, digital enterprises</td>
</tr>
</tbody>
</table>

CANVAS is the most commonly used BM design framework among start-ups. Moreover, it found application amongst well-established corporations such as IBM or Ericsson (Osterwalder & Pigneur, 2010). Work of Frick & Ali (2013) suggests that CANVAS can be also helpful in mapping purposes of current activities in SMEs. CANVAS ontology is simple in nature and therefore, it can be easily understood even if the firm is not aware of its business model. STOF framework focuses on ICT-enabled services and pays more attention to technological architectures and platforms compared to other Business Model Ontologies (Bouwman et al, 2015). The framework uses a
network-view since mobile services normally entail collaboration in a complex value network. Consequently STOF Ontology uses the multi-actor approach rather than focuses on one single company (Bouwman, de Vos, & Haaker, 2008).

Making use of two different frameworks creates an opportunity to compare them and reflect on their pros and cons (if any). The concise description of CANVAS and STOF frameworks is given below.

**CANVAS**
The BM CANVAS categorizes the business processes and internal activities of a company according to 9 building blocks, which allow describing how a firm plans to create value and which represent the 4 major areas of a business such as: (1) Customers, (2) Offer, (3) Infrastructure, and (4) Financial Viability (Osterwalder & Pigneur, 2010).

**Customer Segments** refers to individuals (B2C) and organizations (B2B) that company wants to reach and serve with their products and services.

**Value Propositions** solves client's problem or satisfies his need and therefore, is the reason why he prefers one company over another. It describes the product or the service or the combination of both, which benefits a particular customer group.

**Channels** describe the company's interfaces with customers through which it delivers its Value Proposition to them. They can be direct or indirect and they are essential for the customer experience.

**Customer Relationships** defines the commitment and relationship type and that enterprise builds with particular Customer Segments. We can distinguish various relationships types, driven by different motivations, which can vary from personal to automate ones.

**Revenue Streams** refer to how company makes money on the products and services that it provides. Revenue stream needs to generate cash flow that will exceed the costs bore by the company associated with offering the product or service to the customer. Revenue streams may vary in terms of pricing mechanisms they have.

**Key Resources** constitute the core of a business model. They are the most essential assets necessary to make a BM function. They depend on the BM and they enable the company to access the market, maintain customer relations, create and offer value proposition, and generate income. We can distinguish physical, human, intellectual, or financial resources.
**Key Activities** refer to actions that company has to take in order to satisfy customer needs and deliver its product/service to intended clients. Key activities can be related to different areas of business such as production or organisation operations. Just as Key Resources they enable the company to access the market, maintain customer relations, create and offer value proposition, and generate income.

**Key Partnerships** describe firm’s network of suppliers and partners required to make its BM work. There can be various reasons for a company to create alliances as well as different ways to enter into such partnerships.

**Cost Structure** describes all the costs associated with operating under specific BM such as costs of acquiring the key resources or performing the key activities (Osterwalder & Pigneur, 2010).

**STOF**
The STOF framework describes business model from four interrelated perspectives: service domain, technology domain, organizational domain and financial domain, with ‘service’ being the central element that constitutes the model. Aside from interacting with each other, these four domains are affected by external drivers such as regulations, market dynamics and technological progress. STOF looks at technical, organizational and financial components that are necessary to deliver service offering value to customers and concurrently allow service provider to capture the value. Designing viable and feasible business model, which can generate value for customers and the provisioning network, requires taking into consideration needs and interests of different actors, both inside and amongst different domains (Bouwman, Reuver & Hernandez, 2008).

STOF Framework consists of the following four domains (Bouwman et al., 2008):

**Service Domain** looks at the business model from the customer perspective. It describes the service the company intends to deliver, its value proposition and the market segment it is targeting. In principle STOF conceptualizes services in regard to the customer value they provide.

**Technology Domain** refers to technologies required in order to realize the service offering. It comprises infrastructure, platforms, networks and web services essential for developing, delivering and managing the service.

**Organization Domain** defines focal firm’s position within the value network and the structure of this network, required to design and provide services. It explains how organizations in the value network collaborate to provide required resources and capabilities in order to create and deliver the service offering. Exchanging products, services, information and financial assets
makes the actors in the value network functionally, strategically and financially dependent on each other.

**Financial Domain** describes financial agreement between various actors involved in the company value network and how this network generates revenues from the service offering. It concerns necessary investments, costs, revenues and risks and how they are distributed among the actors in the value network (Vliet, 2008).

### 3.3. Business Model Innovation

Aside from trying to define business models, scholars gained interest in how BMIs evolve over time. Research has shown that BMI is much more complex compared to other innovation processes usually research in various management fields (Rosenkopf & McGrath, 2011). Comes and Berniker (2008) imply that while process and product innovation generally do not inconvenience firms and their managers, BMI is still a new field and therefore is not fully comprehended. BMI complexity results from the fact that it requires changes in many enterprise elements posing challenge to managers and stakeholders to accomplish alignment and coordination between different levels of the organization (Micheli, 2015). Due to rapid technological progress, traditional technology and R&D-related innovation is no longer sufficient (Chesbrough, 2007). As explained by Zott & Amit (2010) innovating in the terms of business models, compared to other innovation types, is much more likely to result in sustainable competitive advantage.

Santos, Spector & Van der Heyden (2009) describe business model innovation as "a reconfiguration of activities in the existing business model of a firm that is new to the product/service market in which the firm competes" (p.14). Mitchel and Coles (2004) describe BMI as replacement of current business model that allows company to offer new products or services to customers and end users. Regardless of the definition adopted, BMI encompasses reconsidering the firm’s value proposition in order to capitalize on new possibilities (Bock et al., 2012).

#### 3.3.1. BMI type

Besides different definitions, a common approach to conceptualizing and classifying business model innovation is also missing.

Santos et al. (2009) classifies business model innovations according to reconfiguration activity type. He distinguishes between (1) relinking, (2) repartitioning, (3) relocating and (4) reactivating. Koen, Bertels and Elsum (2011) classify BMI along three dimensions: technology (incremental, architectural or radical), value network (existing or new with different types of customers), and financial hurdle rate (existing or lower than normal). Giesen et al. (2007) proposed to classify BMIs into three categories, depending on their scope, namely: revenue
model innovation - changing the way company makes money; enterprise model innovation – modification of firm’s structure and its function in the new or existing value chains; and industry model innovation – moving to an entirely new industry, redefining exiting one or creating entirely new one. BMIs have been also categorized according to the origin of innovation, degree of innovativeness or their novelty.

Business model innovation can be triggered by process or product innovations or occur independently. The value proposition, which is at the core of every business model highly depends on products are services offered by the company and particular processes linked to them (Bucherer et al., 2012). Therefore, product or process innovations may give rise to or even entail business model innovation (Chesbrough, 2007). Nevertheless, BMI can also take place without any changes to products or processes. Such independent BMIs are often seen as essential for companies to survive in markets characterized by stable products and processes (Stampfl, 2015).

Looking at the degree of change BMI can consist in adapting the elements of the current business model or in leaving the existing BM behind and developing and implementing an entirely new BM (Sniukas, 2012).

There is some disagreement regarding how novel the change in the BM has to be so that it can be treated as a business model innovation (Sniukas, 2012). Business models that are new to the world are rather uncommon since majority of the “new” BMs base upon existent ideas, concepts, and patterns (Stampfl, 2015). New-to-the-firm business models are unlikely to raise profits and be a source of sustainable competitive advantage (Sniukas, 2012). Therefore, the majority of BMI studies concern new-to-the-market/industry BMIs (Stampfl, 2015).

### 3.3.2. BMI process

Despite increasing academic interest in the topic of business model innovation in the recent years, very limited research has been dedicated to the BMI process. Some scholars such as Teece (2010) or Osterwalder and Pigneur (2010) suggested how the process should be advancing but knowledge of how BMI process in fact looks like in practice is still scarce.

As for the source of BMI Bucherer et al. (2012) distinguish between circumstances when firms are forced to engage in BMI process because they face a threat and circumstances when they act proactively and engage in BMI process to capture an opportunity. They further differentiate between internal and external threats and opportunities and comment on analogies and disparities between BMI and product innovation. Such similarities include: chaotic process in early phases, usefulness of process models for guidance, or the presence of internal and external resistance. Nevertheless, Bucherer et al. (2012) also highlight that business model innovation has more implications for the organization than product innovation and therefore, top
management engagement plays more important role in BMI. McGrath (2010) describes the BMI process as experimentation and explains that in unstable and complex environments formal planning and uncompromising execution are not effective; and rapid experimentation and learning by doing are required. There are several theories discussing the stages of BMI process. Wirtz (2010) for instance divides BM design process into four stages and business model implementation process into five stages. This division is presented in Figure 5 and Figure 6. Amit and Zott (2014) divide BM design into five phases such as: observing, synthesizing, generating, refining, and implementing. They further explain that even though this a natural sequence, these phases do not necessarily happen exactly consecutively.

![Figure 5 Business model design process (adopted from Wirtz, 2010)](image)

![Figure 6 Business model implementation process (adopted from Wirtz, 2010)](image)

Bucherer et al. (2012) disprove a common misconception that business model innovations are so rare that they do not require a formal processes or the clear assignment of responsibilities. Other scholars emphasize that BMI demands from firms’ creation of a more formalized processes to develop innovations and to make improvements (Mitchell & Coles, 2003). Despite some primary implications concerning how to guide BMI process, empirical research on the nature and fundamental characteristics of such process is still not sufficient.
3.3.3. Business Model Roadmapping

Business model literature considerably discusses the topic of business model design. What remains unclear is how to make a transition between existing and new desired business model (De Reuver, Bouwman & Haaker, 2013). Seven out of ten companies changed their business model to keep up with the changing market condition (Casadesus-Masanell & Ricart, 2010) which implies that BMI is rather a necessity than option. Changing business model is associated with several strategic and practical challenges. Depending on type of change in a business model company might have to substitute its existent value proposition with a novel one, start new partnerships or acquire new resources and capabilities. However, since new BM might conflict with the existing one or current configuration of resources, questions arise regarding the best moment for such actions to be taken (De Reuver et al., 2013).

Business model roadmapping is an approach that allows defining the in-between steps and critical decisions required to realize a new business model starting from current business model. Such a roadmap presents an overview of transition not only on the strategic level but also operational one. De Reuver et al. (2013) identify four steps in business model roadmapping, namely: (1) recognize desired change in the BM, (2) evaluate the impact of desired change on four domains of STOF framework, (3) translate the change into activities that are required to realize it, and (4) construct an ideal transition path to show the interdependency between activities.

3.4. Top manager and BMI

The attributes of leadership and individual characteristics of top manager (age, education, experience sex, tenure and values) has an impact on what kind of scope, broad or narrow, in viewing problems and/or opportunities the manager takes. In consequence this has an impact on the type of strategic change the organization undertakes (Sisaye and Birnberg, 2012). Changes in BM are basically by definition strategic issues, which are the responsibility of top management (Foss & Saebi, 2015). Modification of BM results in strategic changes in the firm’s operation. Broadly speaking, BMI as a type of innovation can be considered as a dominant strategic change in the organization of the firm (Najmaei, 2012). Therefore, leadership and top management can be considered as factors influencing BMI.

According to Afuah (2015) “Each manager brings to every innovation a set of beliefs, biases, and assumptions about the innovation, the market that his/her firm serves, who to hire, what technologies the innovation needs, who the other players in the innovation are, and what it takes to create appropriate value in the innovation” (p.200). Manager’s assumptions, beliefs and biases, that determine the mental frame within which he is likely to address decision making, are called managerial logic.
How managers develop the concept of the business and make critical decisions pertaining to allocation of resources (Prahalad & Bettis, 1986) is determined by their cognitive basis which is determined by their personal characteristics. Diversity in personal characteristics can be divided into: relations-oriented diversity and task-oriented diversity. The first one refers to diversity on characteristics such as gender, age and ethnicity; the later concerns e.g. top management team tenure, company tenure, industry context, and job background. Variety in these factors results in differences in the cognitive basis of the top manager (Voorzaat, 2011).

3.4.1. Dynamic managerial capabilities

Dynamic managerial capabilities (DMCs) refer to capabilities at the individual level that have important organizational implications. DMCs are likely to differ across organizations and therefore, to be potential source of competitive advantage. The capabilities used by managers to promote various changes, including BMI, are by definition dynamic in nature. DMCs play a crucial role in creativity and innovation. Every innovation starts with an idea and thus, it demands creativity. Even when innovation is not radical, it still requires an individual or a team to come up with an idea in the first place. Besides being crucial for generation of initial idea for innovation, creativity plays a role in its further development and refinement (Zhou, 2015). Teece (2007) divided DMCs into three categories, namely: sensing, seizing and reconfiguring (or transforming) ones. Sensing refers to the capacity to recognize an opportunity for BMI. When the idea for an innovation is in place, in order to realize the innovation, firm needs to ‘seize’ the opportunity by making an appropriate investment. Management needs to make a decision regarding the level of investment required, type of asset deployment, the suitable organizational structure, and employees that need to be involved. Furthermore, BMI will probably require changes in the current organization structure, resources and routines. We can distinguish three categories of managerial resources that support DMC, namely: managerial human capital, managerial social capital, and managerial cognition. The first one constitutes knowledge and expertise, obtained through education and work experience, comprising both formal training and learning on the job. Managerial human capital can be considered as supply of knowledge and expertise which allows manager to sense opportunities and threats, seize them, and conduct necessary reconfigurations in organizational structure, resources and routines. Managerial social capital is a result of manager’s relationships with others and is likely to be used for sensing, seizing and reconfiguring. These relationships are channels for information that might be particularly useful in recognizing occasions for BMI. Social ties that manager has with people in various networks might equip him with qualitatively distinct sort of information, enabling the change in combination of knowledge that is crucial for innovation. External social ties can give manager access to resources such as qualified personnel or financing. Internally social capital
may give manager power and influence that enable changes in organizational structure, personnel, procedures, and physical assets that play role in reconfiguration. Managerial cognition comprises mental structures, such as mental representation and related mental processes, which create a basis for decision making. Different mental models among managers can lead to different innovation outcomes and affect BMI in both positive and negative way (Zhou, 2015).

Apart from having their individual effects DMCs also interact with each other in ways that have an impact on creativity and innovation. For instance, manager's ability to sense opportunities for BMI is a result of his knowledge and expertise as well as his social relationships. Furthermore, how manager utilize this aggregated knowledge depends on his mental model. These three resources are directly connected to manager's ability to be creative and innovative and his capacity to manage creativity and innovativeness of the enterprise. DMCs are essential in order to maintain organizational creativity and innovation. They can help firms to seize opportunities for BMI and to reorganize company's resources required to support innovation. Differences in dynamic capabilities of managers might be an explanation for disparities among enterprises in their creativity and innovation (Zhou, 2015).

3.4.2. Leadership and Innovation

Leadership style of top management has been acknowledged as one of the most crucial distinct factors impacting organization's innovation ability (Aragón-Correa, García-Morales & Cordón-Pozo, 2007; Jung, Chow & Wu, 2003). With the increasing demand for innovation the focus has been placed on the role leaders' play in determining the character and success of creative efforts. Whether leaders are able to foster innovation depends not only on the current situation but also on particular traits of the leader such as (1) considerable professional and technical expertise and (2) solid creative thinking skills. Leadership might also demand role flexibility. Characteristics essential to enable leader to successfully execute various competing functions include self-efficacy, cognitive complexity, and self-monitoring (Mumford & Licuanan, 2004). It is also emphasized that in order to contribute to successful, sustained innovation leaders need not only to motivate creative efforts but also create environment that fosters intrinsic motivation.

Autocratic and participative leadership

Both directive (autocratic) and participative leadership were discussed by scholars in relation to innovation. Each of these styles offers particular benefits when it comes to various innovation-related goals. In both cases leader is responsible for taking the final decision but they vary greatly in extent to which the leader discusses his plans with the rest of the team and to which the team is allowed to express their opinion (Kesting et al, 2016). Participative leadership can
be described as “shared influence in decision making” (Somech, 2006, p. 135). Participative leadership is considered to encourage creativity and new ideas development (Frischer, 1993). Burpitt and Bigoness (1997) found that empowering employees to develop new solutions combined with involvement of the leader from the very beginning throughout the entire project, contributes positively to team-level innovation. Directive leader clearly formulates his expectations toward subordinates and makes his or her part in the group understood. He schedules work to be completed and gives subordinates specific instructions regarding what should be done and how it should be done. He also asks the team members to follow standard rules and regulations and maintains definite standards of performance (House, R. J., & Mitchell, 1975). Directive leader uses his hierarchical influence and monitoring and control mechanisms to drive the innovation processes (Kanter, 1982). In general participative leadership seems to be beneficial in the early stages of innovation, while directive leadership might be more necessary in the later stages (Kesting et al., 2016).

**Transformational and transactional leadership**

One of the leadership styles most often mentioned to have positive influence on innovation is transformational leadership behaviour (Bucic, Robinson & Ramburuth, 2010; Jansen, Vera & Crossan, 2009). Kirkman et al. (2009) define transformational leader as “one who articulates a shared vision of the future, intellectually stimulates subordinates, provides a great deal of support to subordinates, recognizes individual differences, and sets high expectations” (p. 744). Jung et al. (2003) argue that transformational leadership positively associates with organizational innovation. Aragón-Correa et al. (2007) also confirm that transformational leadership has a positive impact on both learning in organization and company innovation which results in firm’s better performance. Gumusluoglu & Ilsev (2009) explain that transformational leadership of firm’s management team may positively affect organizational innovation both directly as well as implicitly by advancing organizational culture that fosters open discussion and experimenting with innovative ideas and approaches.

However, not all the researchers share the viewpoint that transformational leadership positively influences innovative outcome. For instance, Van Knippenberg and Sitkin (2013) believe that transformational leadership is lacking clear conceptual definition and therefore it is not specified which dimensions of the concept should be included and which not. Furthermore, they claim that causal relationship between transformational leadership and team performance overlooks the influence of mediating and moderating factors. On the whole, they believe that it is not correct to use higher order labels such as charismatic transformational leadership and that the research should concentrate on more accurate elements of leadership.
Another type of leadership investigated with regards to innovation is transactional leadership. Transactional behaviours are mainly associated with role maintenance and refinement support, as well as improvement and routinization of existing competences, products, and services (Vera & Crossan, 2004). Opinions of researchers regarding impact of this type of leadership on innovation are also divided. According to Rosing, Frese & Bausch (2011) transactional leadership does not encourage experimentation which means it is not anticipated to have positive influence on creativity and innovation. Jansen et al. (2008), however, believe that transactional leadership can be linked with exploitative innovations since it leads to efficiency, improvement and augmentation of existing knowledge. Therefore, neither transactional nor transformational leadership can fully explain the relationship between leadership and innovation.

Rosing et al. (2011) suggest that, due to complexity of innovation efforts, a single leadership style is not sufficient to effectively promote innovation. Instead they propose that mixing various leadership behaviours flexibly, depending on dynamic requirements within the innovation process brings better results. Put differently, leadership style has to go with the intricacy and the speed of innovation (Ancona, Goodman, Lawrence & Tushman, 2001). Therefore, taking into account specific nature of innovation process, leaders should focus on situational leadership behaviours rather than stable leadership behaviours such as transactional or transformational leadership (Rosing, Rosenbusch & Frese, 2010). Ability of a leader to enact seemingly contrary behaviours or to achieve seemingly contrary goals can be referred to as leadership ambidexterity.

**Ambidextrous leadership**

The term ambidextrous leadership has been established by Vera and Crossan (2004) who believe that “at certain times, organizational learning processes thrive under transactional leadership and at other times they benefit more from transformational leadership” (p. 226). This contingent view of leadership is a result of organizations trying to attend to pressures to explore and exploit in a simultaneous fashion so that they can cope with today's fast-paced and complex competitive environment. Therefore, strategic leaders have to be ambidextrous (Tushman & O’Reilly, 1997) which means they must be able to put into effect several courses of action at the same time and need to know how to manage a mix of learning processes at different levels so as to encourage both exploration and exploitation (Jansen et al., 2009; Schindler, 2015). Bucic et al. (2010) suggest that transformational leadership is suitable for dynamic environments whereas transactional leadership may be better suited for stable environments. Nevertheless, in order to sustain organizational learning leaders should display ambidextrous leadership – combination of both transformational and transactional approaches (Voigt, 2014). They even describe it as
"the ideal managerial leadership style" (Bucic et al., 2010, p. 244). Therefore, an effective leader needs to have the ability to recognize and alter his/her leadership style to be appropriate to current and emerging conditions by demonstrating skill to pick and apply leadership style that matches the situation whilst supporting a positive effect of flow on to their team outcomes (Bucic et al., 2010).

3.4.3. Leadership and BMI

Generally, leadership can be described as the act of transforming an enterprise from its current state to the state desired by the leader. Such a definition suggests that leadership is not just a regular management allowing the enterprise to stay afloat. Leadership rather consists in ameliorating current state through inventing and carrying out creative vision. And since business model innovation is considered as process of implementation of a new value advancing BM, many scholars highlight that leadership is required to carry out BMI (Trapp, 2014).

Morris et al. (2005) believes that there is a mutual relationship between well conceptualized business model and organizational variables such as the quality of the leadership. According to Chesbrough (2007) "many organizations have business model leadership gap" (p.16). He further explains that BMI requires top leadership to get involved and that no single person in a company possesses enough authority and all the required capabilities to innovate the business model. Therefore, many other actors besides the CEO are "responsible for all the ways the business creates value in its products and services" (p.16). BMI requires "leadership meta-skills in perceptions of the environment, in maintaining unity among the leadership team, and in the ability to reallocate resources to support new models" (Chesbrough, 2010; p.361). That is an ambidextrous leader who can guide exploitative (current business model) and exploratory (new business model) innovations (Tushman and O'Reilly, 1996).

Company needs to recognize internal leader for business model alteration to manage the processes and deliver a new, better BM for the firm (Chesbrough, 2010). Doz and Kosonen (2010) claim that BMI requires willingness of top management to take risks that are necessary to leave off old business models and explore the new ones. Sosna et al. (2010) underlines that involvement and resilience of the management team in BMI are critical to company's success. Organization cannot innovate its business model if the CEO or the management team are satisfied with current business models and unwilling to explore the new ones, directing the organization focus towards improving current BM (Kaplan, 2012). In order for the firm to engage in BMI, the leaders themselves need to feel comfortable going after ideas for new business models (Johnson et al., 2010). Mitchel and Coles (2003) argue that CEO's leadership is essential not only for starting BMI but also for its continuation. Furthermore, they explained that
CEO's attention and interest are crucial for turning BMI into firm's primary source of the future success.

3.4.4. BMI types and management challenges

Foss (2014) argues that depending on the type of BMI different management challenges arise and different leadership approach is required. In the case of modular and incremental business model innovation, which is basically a rearrangement of a current BM, top management needs to fulfil a monitoring role. Furthermore, top management is responsible for observing the external environments' in order to make sure that current BM is still viable. If the BMI is modular and radical in nature the top management needs to fulfil the role of the sponsor for the initiative and help to take advantage of overall firm's capabilities in its advantage over competitors. Evolutionary BMI, that influences entire business model, requires more top management leadership. Top management needs to moderate arising conflicts and changes in order to re-establish and maintain coherence among business elements. Furthermore, it is accountable for supplying a roadmap of system-broad interventions which is necessary for restructuring the current range of complementarities, to bring on an extensive quest for a new BM, and to lead its evolution. The revolutionary business model innovation, that involves architectural as well as radical changes, poses most risk and challenges. Therefore, it requires top management team to take judgmental decision under uncertainty and to communicate it to the entire organization. Besides providing a wide roadmap top management needs to actively participate in day to day experimentation and decision-making to achieve possibilities associated with the former entrepreneurial judgment (Foss, 2014).

3.5. Organizational Lifecycle

Life-cycle theory is one of the theoretical perspectives that can be used in order to explain growth and growth patterns of an organization. It focuses on the distinct stages an enterprise goes through during its existence (Kemp and Verhoeven, 2002). It is generally agreed that organizations experience different stages during their lifetime and follow the expected pattern (Dodge et al., 1994). However, number of stages the organization goes through varies per model (Kemp and Verhoeven, 2002). Smith, Mitchell, and Summer (1985) distinguish three stages that companies experience during their existence, namely: Inception (Start-up), High-Growth and Maturity. Regardless of the selected model, emphasis is in general placed on the fact that depending on the stage of development of the enterprise, various management tasks and leadership styles are important (Kemp and Verhoeven, 2002). According to Andries and Debackere (2007) BM of an organization should be adjusted according to the stage of the Organizational Life Cycle that the company finds itself in. They define entrepreneurial BM adaptation as a "new business adjustments to its business model as the business evolves from an
initial idea or business plan through the early stages of the organizational life-cycle towards a more stable business” (p.83).

Steve Blank describes a start-up as a “temporary organization designed to search for a repeatable and scalable business model”. A start-up aims to not only prove its BM but also to do it fast enough in order to have a significant effect on the current market. Therefore, from the very beginning the intent of start-up founder is not just to be his own boss but to grow it into large, disruptive company. On the other hand small business can be defined as “independently owned and operated, organized for profit, and not dominant in its field”. The goal of the owner of such a company is to have a stable position in the marketplace and be his own boss. Even though both start-up and small business owners are considered as entrepreneurs; the purpose, primary function, and funding of their particular BM’s are fundamentally distinct (Pope, 2014).

This would suggest that companies at different stages of the Organizational Life Cycle might approach BMI differently and that the role of management team and leadership may vary. To examine these potential differences companies at two different stages, start-up stage and maturity stage, will be investigated. Since high-growth firms represent a very small percentage of all operating companies in Poland and it is difficult to identify such firms in advance (Vázquez & García, 2009), they were excluded from this study.
3.6. Summary and Semantic web to explore relation

From literature review, it is clear that CEO or management team and his/their leadership skills are essential for BMI. Nevertheless, this relationship has not been examined in detail. Based on the literature review, the following semantic web, presented in Figure 7, has been developed in order to examine the relationship between the role of top manager and his leadership and business model innovation process in SMEs.

**Figure 7 Semantic Web of existing relations**
4. Methodology

Many authors have discussed the basics as well as the importance of the right choice of research methodology for any research project (Saunders et al., 2009). The objective of this chapter is to describe the methodological approach, applied in this study. Firstly, research approach and research strategy as well as the rationale for the choices made will be discussed. Secondly, data collection and data analysis methods will be presented. Finally, the last subchapter will elaborate on the limitations of the adopted research approaches and used methodology.

4.1. Research Approach

Saunders et al. (2009) distinguish two types of research approach: inductive and deductive. The inductive approach aims to build new theories and make some generalizations while deductive approach serves to test assumptions for validity. Since the starting point of this research was the concept of business model and its innovation, which are still largely unexplored in academic literature and the purpose was to derive a theory that contributes to general understanding of how SMEs approach business model innovation process, this research as a matter of course evolved to be an inductive study.

4.2. Research Strategy

Research strategy can be defined as the “general plan of how the researcher will go about answering the research questions” (Saunders et al., 2009, p.600). The choice of the research strategy depends on research question(s) and objectives, the extent of existing knowledge on researched topic, time restriction, limited resources and researcher's philosophical underpinnings. There is a variety of different research strategies to choose from, based on the above criteria. However, they overlap each other to a large extent and therefore, it is crucial to choose the most beneficial strategy for a specific research study (Saunders et al., 2009).

Rationale for Case Study Research

In order to enable a better understanding of BMI process on the organizational level in European SMEs sector, the exploratory case study approach has been adopted in this research (Eisenhardt, 1989; Eisenhardt & Graebner, 2007). Case study research strategy can accommodate various research techniques and is suitable when acquiring in-depth knowledge with regard to a certain phenomenon is necessary. It is defined as “an empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life contexts, especially when the boundaries between phenomenon and context are not clearly evident” (Yin, 1994, p.13). It is a suitable method when limited body of knowledge on a topic is available and when the study aims to generate a theory (Eisenhardt, 1989; Yin, 1994). Taking into account that this research: (1) is of exploratory
nature, (2) attempts to generate theory, (3) has getting through understanding of the business model innovation in European SMEs as an objective; case study research seems to be a suitable method. According to Eisenhardt (1989) analyzing multiple cases enables cross-case analysis and therefore, is particularly suitable for theory building. Furthermore, Wedawatta et al. (2011) claim that case study strategy is particularly useful for conducting research on SMEs since in such a heterogeneous sector, where significant differences exist between different SMEs, frequently it is difficult to make strong generalisations across the sector.

4.3. Research process

The purpose of this study was to generate a novel theory based on empirical data collected from SMEs in Poland. It followed the research strategy of theory building from case studies as described by Eisenhardt (1989). The selected research area of interest was business model innovation in European small and medium-sized enterprises. Literature review on different aspects of BMI allowed for narrowing down the research area and identifying the literature gap. The existing literature provided only limited knowledge regarding how SMEs conduct BMI in practice and what is the role of company’s management and their leadership in this process. It was a good basis for formulating the research question which was set to investigate 'how' SMEs innovate their business models. It was broken into sub questions allowing to better understand the reason for BMI, changes to the BM that occurred, the process itself, difficulties encountered, role of top management during the process and finally the relationship between leadership and BMI. Literature review focused on investigating relationship between top management team and business model innovation. Eventually, a conceptual model was build based on the existing business model innovation literature, which served as a framework for data collection and analysis. Next step involved data collection. Some preliminary information was gathered through review of the companies’ websites and articles available on the web. Subsequently, interview guide was developed to guide the semi-structured interviews with the CEO’s of the companies. The processes of data collection through interviews, literature review and data analysis were intertwined. Literature review informed the topics to be covered during data collection and the initial findings from data analysis were referred back to the theory in order to develop and increase understanding of the empirical findings. Building theory from case studies is typically characterized by overlap of data analysis with data collection (Eisenhardt, 1989).

One of the most important features of this approach is that it allowed for adjustments during data collection process as well as refinement of the research questions (ibid, 1989). The research process ended with answering the research questions by disclosing how business model innovation looks like in SME and developing some propositions with regards to the role of top management in this process.
4.4. Data Collection

Interviews with CEO's of both companies were main source of data for this research. Additionally, companies' websites and some publications available on the internet were used as preliminary source of data. According to Eisenhardt and Graebner (2007) “Interviews are a highly efficient way to gather rich, empirical data, especially when the phenomenon of interest is highly episodic and infrequent” (p.28). The conducted interviews were semi-structured in nature which allowed to obtain further information about the research area and thus, was consistent with explorative character of this research (Eisenhardt and Graebner, 2007). According to Bryman & Bell (2007) if the research has a fairly clear focus, semi-structured interviews, that allow addressing more specific issues, are the most suitable method. The main aim of interviews with Agemar’s and AudioTrip’s CEO’s was to analyze the companies’ current business models, the process of business model innovation the companies went through and the role of the CEOs’ and their leadership in this process.

General Preparation

The interviews were preceded by a careful preparation. The author tried to have a good understanding of the research area, as well as the contextual setting of the two companies participating in the study (Bryman & Bell, 2007). Since there is no common and widely-accepted interpretation of BM in literature, the assumption was that common understanding might be missing among interviewees as well. For this reason, the main topics to be discussed were shared with the interviewees in advance allowing them to prepare. Since BMI is not an ordinary topic, giving the interviewees the opportunity to familiarize with the topic was supposed to help to collect more relevant data for this research. Other preparations involved setting up recording software and selecting a setting with little distraction for conducting the interviews (Bryman & Bell, 2007). Finally, before proceeding to questions interviewees were once again explained the purpose of the interview and informed about the estimated time it will take (Turner, 2010).

Interviews

Collecting data via semi-structured interviews required developing beforehand an interview guide, which outlined fairly specific subjects to be discussed and which helped the researcher to stay focused on the topic during the interview (Bryman & Bell, 2007). It was meant to help to persist in the objective of the conversation and to concentrate on the subject at hand. The first interview guide was developed on the basis of the ENVISION case study protocol. First set of question was related to general matters such as the year in which the company was started, industry in which it is operating or number of the employees. Second group of questions was aimed at understanding both companies’ business models. Since common understanding of BM is missing and many entrepreneurs might not be even familiar with this concept, quite specific
and intelligible questions were asked in order to enable reconstruction of the BM model in the later stage of the research. In other words, the language was adjusted based on the target group by translating into simple words (Bryman & Bell, 2007). Examples of such questions include: What value your product has for the customers? Who are your main business partners? Next set of questions was associated with company's performance and how it is measured. The final group of questions was related to BMI within companies' contexts, and how it developed over time. The second interview with each of the companies was conducted after analyzing the first set of collected data and was aimed at addressing the issues related to BM and BMI that were still not clear or not addressed sufficiently during the first interview. The third and final interview was conducted when the researcher had a clear picture of the companies' business models and BMI they went through. This third interview concerned BMI process and the role of the interviewees and their leadership in it. The questions asked during this interview were based on the previously conducted literature study and were designed for generating the theory, which was the principal goal of this study. In all three cases the researcher tried to be flexible while conducting the interviews. This means the order of questions was sometimes altered to follow logical order, interesting leads were followed up and inconsistencies in answers cleared up to the extent to which it was possible (Bryman & Bell, 2007).

Each of the interviews lasted approximately 45 minutes. Interviews with the CEO of AudioTrip were conducted by means of video conferencing software due to geographical boundaries separating the researcher and the interviewee. This method was selected to save travel costs and time for both researcher and the interviewee (Musselwhite, Cuff, McGregor & King, 2007). The remaining three interviews with the CEO of Agemar were conducted face-to-face. The researcher did not notice any difference in the answers or participant behaviour between the two modes of conducting interviews. To obtain more accurate and in-depth information, four out of six conducted interviews were held in the interviewee's and researcher's mother tongue, that is to say Polish, while the other two interviews were conducted in English. The details of the conducted interviews are summarized in Table 3.

<table>
<thead>
<tr>
<th>Table 3 Interviews details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company</td>
</tr>
<tr>
<td>Interviewee</td>
</tr>
<tr>
<td>Number of interviews</td>
</tr>
<tr>
<td>Language of the interviews</td>
</tr>
<tr>
<td>Approx. duration</td>
</tr>
</tbody>
</table>
Sample

When the aim of the study is to build the theory, it is allowed to deliberately choose the case that demonstrates certain phenomenon. Selecting the cases that are connected with the objective of the study is referred to as a purposive sampling. Such an approach allows getting insights and in-depth understanding of a certain phenomenon and therefore, is suitable for this research which aims to gain insights into BMI and role of the management and their leadership in this process (Bergh and Ketchen, 2009). Since the cases have been selected for the theoretical purposes – their likelihood to contribute to theory generation, it can be also referred to as theoretical sampling (Richie and Lewis, 2003).

ENVISION project aims to gather information about BMI in SMEs from case studies from each and every European region (Envision, 2016). So far there haven't been many examples of BMI gathered from Eastern part of Europe and none of them was originating from Poland. For this reason, researcher decided to conduct the study in Poland.

The sample consisted of two different companies that went through business model innovation. Both research sites were identified using personal contacts of the researcher and the details of selected companies are provided in subchapters 5.1 and 5.2 respectively. AudioTrip and Agemar were selected as case studies to help in better understanding of BMI and explore the role of management and their leadership in the BMI process in Polish SMEs sector. The reason for selecting these two companies was that they represent different types of ventures, namely AudioTrip is a Start-up Company while Agemar is a Small Business Venture. In general, it is easier for start-ups to modify their BM than for mature firms because they have ‘a less definite trajectory, fewer fixed assets to redeploy, and fewer established positions to reengineer’ (Leih, 2014, p.11).

The structure of both AudioTrip and Agemar is rather flat, namely it is in general the CEO, two associate directors (in case of Agemar), and the rest of the team/company employees. Therefore, in both cases the interviews were conducted with the managing directors who had an overall view of their companies and sufficient knowledge about their business models. Furthermore, they were considered to be capable of answering questions related to BMI and explaining why decision to innovate was taken.
4.5. Data Analysis

The approach towards data analysis was imposed by previously selected case study research strategy which focuses on comprehending the dynamics in single settings and enables exploring phenomenon exhaustively (Eisenhardt, 1989). Grounded Theory (GT) method was applied in order to analyze the data collected during the interviews. GT is an approach to developing theory that involves systematic data collection and analysis procedures (Strauss & Corbin, 1994, p. 273). The collection and analysis of data takes place simultaneously so that new findings can be compared to previous results in order to shape further collection of data (Corbin & Strauss, 1990). Data analysis started with analysis of each case individually, which means each interview was analysed separately. Having good understanding of the data from every single interview was necessary for further research and allowed to adjust data collection process along the way, which is essential for theory building from case study. The qualitative data gathered allowed to develop some propositions with regards to role of management team and leadership in BMI in SMEs (Eisenhardt 1989). Additionally, in order to have a clear picture of companies' current business models and business model innovation they went through, business model frameworks CANVAS (Osterwalder & Pigneur, 2010) and STOF (Bouwman et al., 2008) as well as some additional tools such as business model road mapping (De Reuver et al., 2013) were applied. Such a comprehensive analysis was a prerequisite for looking into the role of the management and their leadership in the BMI process.

Transcription and Data Coding

Transcribing and coding the data are crucial steps of grounded theory methodology. In this phase of the study researcher turns raw data into meaningful and useful information, which in turn influences the analysis and the research results. Transcription of the interviews took place as soon as possible after their termination in order to reproduce the speaker's words as accurately as possible. Since the interviews were conducted in Polish, the parts of interviewees' answers that were considered to provide some meaningful information for this study were translated by the researcher. The original representative quotations together with their translation are presented in Appendix F. The next step was coding the interviews. Coding refers to the process of attaching labels to fragments of data in order to reduce it to manageable pieces and enable further analysis (Corbin and Strauss, 2008). Since the amount of data was not large, both coding and analysing were done manually. The first stage in coding procedure was open coding which consisted in assigning the labels to the pieces of data. During this stage researcher read carefully the transcripts multiple times and tried to identify and name the concepts appearing in text. The approach towards coding was rather flexible which means codes were assigned to 'chunks' of data of different sizes (words, sentences, paragraphs) (Miles and
Huberman, 1994) in such a manner that it would be best suited for the data and would match as closely as possible what interviewees said. After labelling the text fragments, researcher started to look for the similarities and common properties between the codes. This way previously identified concepts were related to each, which eventually led to the creation of 15 different categories. Such process of assigning codes to categories is referred to as axial coding. The last step of data analysis – selective coding consisted in integrating the categories into major themes, which represented the central research themes of this study, to build a story. The list of codes identified during each stages of the data analysis can be found in Appendix G.

4.6. Summary

Selecting qualitative strategy and specifically case study research design, enabled to examine in-depth the phenomenon of interest. Qualitative research pays more attention to the words than to the numbers and allows generating theory from the empirical data (Bryman & Bell, 2007). Purposeful and theoretical sampling enabled theory building as subsequent interviews were conducted in such a way that after analyzing each of them researcher was deciding what data should be collected next (Eisenhardt, 1989). Semi-structured interviews ensured depth and richness of the empirical data collected. To guarantee the reliability of the study all the conducted interviews have been recorded. This allowed more thorough and repeated examination of the interviewees’ answers and helped to overcome limitations of human memory (Bryman & Bell, 2007).

Nevertheless, the qualitative nature of this study poses some limitations as researcher’s beliefs can affect the interpretation of the collected data. The main issue with case studies is their potential lack of external validity, namely findings from one company might not be applicable to other SMEs (Yin, 1994). Since the aim of this study is to build theory and not to test hypothesis, the cases have been purposively chosen in such a manner that they demonstrate certain phenomenon and can contribute to development of business model innovation theory. Therefore, the results may not be generally valid and examining larger number of European SMEs will be necessary to generalize insights from this research. Despite the fact that results of this study are not widely generalizable, it offers some valuable insights for both academics and managers, which can be examined quantitatively in the future.
5. Results

In the following chapter the findings emerging from the data collected during the interviews with CEO's of AudioTrip and Agemar will be presented.

Subchapter 5.1 describes interview outcomes concerning business model of AudioTrip and its innovation. First, the general overview of the company is given. Next, AudioTrip's business strategy is presented in section 6.1.1 to provide an introduction to the business model. Business strategy analysis in this thesis is considered as an add-on to the core BM analysis and therefore, both VRIN and Porter's five forces frameworks are only briefly touched upon. Following, AudioTrip's business model analysis using STOF framework is given in section 5.1.2. The reason for selecting this framework is that it provides balanced focus on service, organizational, technology and financial domains. Furthermore, it is detailed enough to provide good understanding of BM and it clearly shows how elements in various domains are related to each other. Section 5.1.3 then specifies the key performance indicators being used to measure the business model’s performance; and section 6.1.4 explains the BMI AudioTrip went through and its consequences for the company using business model roadmapping approach.

Similar analysis for the second company – Agemar, is performed in the subchapter 5.2. However, the outcomes of the interview are analysed according to nine building blocks of CANVAS Business Model Ontology. CANVAS is one of the most popular tools for developing and evaluating BMs. Furthermore, selection of another framework is an opportunity to compare them and reflect on their suitability for this kind of analysis.

Finally, section 5.3 looks at the process both AudioTrip and Agemar went through in order to develop and implement new BM as well as the role of top management and leadership in this process.

5.1. AudioTrip

AudioTrip Sp. Z o.o. is a Polish start-up incorporated in 2014 and based in Bielsko-Biała, Poland. AudioTrip is a creator of a mobile application that acts as a personal tour guide and a platform that allows content providers to easily create and share their multimedia guides with other travellers. AudioTrip’s team consists of experienced developers, IT specialists, business analysts, actors and scriptwriters who work across a broad spectrum of industries, including telecommunications, media, entertainment, leisure, education, finance, retail, and fashion (LinkedIn, 2015).

The AudioTrip’s long term vision is to: “create a software solution that changes your smartphone into sightseeing device – your local personal guide”. AudioTrip revolutionised individual sightseeing by putting together the best qualities of commonly known tool – audio guide and the
most recent mobile technology (AudioTrip.org, 2015). AudioTrip's application allows its users to discover cities and places at their own pace, without having to depend on a tour guide or a group. It enables them to explore a new location and learn about its history without having to constantly look at paper or electronic guide books.

Company recognizes it's most promising market in cultural institutions such as zoos or museums, and B2B sales are presently the major source of their earnings (Wasik, 2015). So far AudioTrip has worked with more than 50 institutions that have interest in audio guides and applications – museums, zoos, cities, regions, companies and software houses (LinkedIn, 2015). Company's portfolio contains two hundred guides in twenty countries and over twenty thousand users download (Wasik, 2015).

5.1.1. **Business Strategy**

AudioTrip aims to offer the tourists the best mobile audio guide application on the market as well as to become a key partner for the institutions that are interested in enriching their sightseeing offer with audio guides. Accomplishing such a goal requires developing business strategies that are based on the evaluation of both internal and external contexts. AudioTrip’s internal context is depicted, in **Figure 8**, using VRIN framework (Barney, 1991). AudioTrip owns four resources and capabilities that contribute to its competitive advantage, among which only ‘expertise in storytelling’ fits the above mentioned criteria. Therefore, this is the capability that could be the source of sustainable competitive advantage for AudioTrip.

![Figure 8 Resource based view of AudioTrip](image)

Porter’s five forces model (Porter, 1979) is used in order to study AudioTrip's external environment. Five forces, which determine the competitive power of AudioTrip, are discussed in **Figure 9**.
Figure 9 AudioTrip’s Porter Five Forces analysis

From the analysis above, it can be concluded that AudioTrip faces medium to high threats from all the five forces of competition.

Having taken into consideration VRIN analysis, as well as the intense competition from other audio guide service provider, AudioTrip tries to stand out using three general strategies described below.

A. Focusing on being the marketplace for digital audio guides.

B. Offering users, particularly the paid ones, high quality service, namely superior audio guide, reliable application, and excellent customer service.

C. Optimising internal business process and concurrently keeping abreast with the market dynamics by implementing agile software development methodology and maintaining low software development cost.
5.1.2. Results vs. STOF framework

Service Domain

The first domain to be explained is a service domain. It describes the service offering, the value proposition and the possible market segments of the AudioTrip service.

Service offering

AudioTrip created a global, partly networking application in the form of an audio guide that allows its users to explore places of interest in easier and more entertaining way, using the knowledge and experience of other travellers as well as the newest technologies. The application allows its users to discover new places by precisely guiding them along selected routes with a passionate narrative of local experts. Users can hear a story of the place they pass by in a real time without having to look at the screen. In this way they can easily find themselves in a new place and their independence while sightseeing is fully respected. Both professional and amateur tour guides seeking to satisfy their creativity AudioTrip offers the possibility to create, modify and publish trips on one convenient platform from their own personal computer at any time. Creating and publishing audio guides is easy and they can be shared with AudioTrip community immediately after creation.

Cities, tourist attractions and various cultural institutions such as zoos or museums can order from AudioTrip a custom made audio guide for their particular purpose as well as promo materials, including graphics and posters, for the tour. With respect to this, AudioTrip service offering includes creation of scripts for audio guides and urban games, translating scripts into various languages, professional lector recording and audio files post production, preparation of customized maps and sightseeing itineraries and live recording of guides on duty. Furthermore, AudioTrip develops customized applications based on AudioTrip engine/technology.

Value Proposition

AudioTrip offers multiple benefits to the customers that decide to use their services. B2B customers that decide to use AudioTrip services no longer have to purchase or maintain inexpensive and non-functional systems. AudioTrip platform allows them to distribute audio guides directly on the devices brought by visitors. Alternatively, they can lend visitors cheaper and infinitely more useful mobile devices of the new generation or tablets. As a result institutions can deliver high quality content in multiple languages to broader audience and provide unique experience to the visitors. Travellers who decide to download AudioTrip application and acquire one of the audio guides get in return independent, satisfying and time efficient sightseeing. Thanks to easy, offline navigation users can see their current localisation on the map and easily find themselves in new place as the application guides them along the
route with a passionate narrative of local experts. Using application does not involve any additional costs as it uses GPS tracking and once the trip is downloaded, the app does not require internet connection. Users who feel bound to a place and want to tell the world about it can build narration around places, sights and attractions and publish trips using AudioTrip platform. They can express themselves and promote their favourite places without having to invest and maintain customized applications; and earn money on the basis of revenue shared model at the same time.

**Targeted Market**

AudioTrip aims to sell its products and services to both B2B and B2C market segments. Within the B2C market service offering is targeted at tourists and travellers who would like to discover new places in easy and entertaining way as well as locals who want to increase their understanding of the place they live in. Second target group constitutes publishers, storytellers, tour guides and basically anybody who would like to create his own trip, share it with other community members and earn money at the same time. Within B2B market AudioTrip focuses on cities and municipalities, museums and other cultural institutions that could be interested in ordering custom made trip. Other potential target groups within this segment include travel-related businesses such as travel agencies, hotels, airlines and attraction owners. Finally, such service offering could be attractive to events, fairs, concerts and happenings organizers.

**Technology Domain**

Technology domain specifies the technical functionality required to realize the service concept of AudioTrip (Bouwman, Faber, Haaker, Kijl & Reuver, 2008). System Characteristics, Infrastructure and Information Flow will be discussed as a part of AudioTrip’s technical architecture.

**System Characteristics**

AudioTrip application is available in both mobile and desktop versions. Mobile version is destined for both creating and using audio guides while desktop version is intended for the latter. Both of them can be accessed through a stable network connection like Wi-Fi, 3G, or 4G. However, once trip is downloaded on the mobile device network connection is no longer required. When it comes to degree of openness of AudioTrip as platform it is examined according to four encompassed roles by Eisenmann, Parker and Alstyne (2008). This is because the term ‘open’ in the context of a platform will sound vague without attribution to relevant roles. The attribution details are presented in Table 4. Based on this attribution, AudioTrip’s platform can be considered as an open one in three out of four roles. Furthermore, labelled as an
‘open platform’, AudioTrip’s application is constantly available and capable of processing real-time operations.

Table 4 AudioTrip’s System Openness

<table>
<thead>
<tr>
<th>Roles</th>
<th>Description</th>
<th>Open/Closed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demand-Side User (End User)</td>
<td>Ability to access and use AudioTrip</td>
<td>Open</td>
</tr>
<tr>
<td>Supply-Side User (Application Developer/Audio guide creator)</td>
<td>Ability to supply audio guide files for AudioTrip</td>
<td>Open</td>
</tr>
<tr>
<td>Platform Provider (Bundle with Hardware)</td>
<td>Ability to access AudioTrip from various types of devices</td>
<td>Open</td>
</tr>
<tr>
<td>Platform Sponsor (Design/Manufacture of the Platform)</td>
<td>Ability to modify the AudioTrip platform itself</td>
<td>Closed</td>
</tr>
</tbody>
</table>

**Infrastructure**

AudioTrip’s technical architecture, presented in Figure 10, can be described as layered modular architecture that combines modular architecture of a physical product and the layered architecture of digital technology (Yoo, Henfridsson & Lyytinen, 2010). The layers originate from three separate sources, namely: devices, network (internet), and service which is composed of interface, application, and database layers. Modular parts can be observed as observe the loosely coupled components in the application layer. They can be freely modified, combined, or reused for expansion purpose. Such approach will be also beneficial for AudioTrip in establishing its public API in case at some point it wants to attract developers to build applications that make use of AudioTrip’s platform.
Another interesting aspect of AudioTrip’s architecture is its billing platform, which allows users to convert real money into AudioTrip Coins (ATCs). ATCs are the only currency that customers can use in order to purchase audio guides. To obtain ATCs users have to redeem their actual money through one of the available payment gateways such as: PayPal, Google Play payment system or Apple Store payment system.

Instead of owning wide array of physical servers AudioTrip decided to use cloud service provider in order to avoid high capital and fixed costs. Moreover, such approach allows increasing scalability if a sudden peak in the web’s traffic occurs.
**Organizational Domain**

Organizational domain describes the value network required to realize the service concept (Bouwman et al., 2008). Such network consists of actors and organizational arrangements and interactions between them. Therefore, the first step in explaining organizational domain will be to describe actors involved in the value network, together with their goals, strategies, resources, and capabilities. Once finished, the organizational arrangements and interactions between actors in the value network will be interpreted.

**Actor Description**

We can distinguish 11 crucial actors that interact with AudioTrip on a regular basis. Each actor brings to the value network his own goals and they all have different strategies, resources, and capabilities aimed at achievement of these goals. The description of actors involved in AudioTrip’s value network is presented in Table 5.

**Table 5 Actors involved in AudioTrip’s value network**

<table>
<thead>
<tr>
<th>No</th>
<th>Actor</th>
<th>Goals</th>
<th>Strategies</th>
<th>Resources &amp; Capabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Application Users</td>
<td>Have the best travel experience</td>
<td>Select audio guide provider that meets their needs to the greatest extent</td>
<td>• Money to purchase audio guide</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Influence on others/ Possibility to recommend AudioTrip</td>
</tr>
<tr>
<td>2</td>
<td>Audio guides Authors</td>
<td>Generate income &amp; Satisfy Creativity</td>
<td>Create entertaining trips in the form of audio guides</td>
<td>• Money to pay publishing fee</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Expertise in storytelling</td>
</tr>
<tr>
<td>3</td>
<td>Advertisers</td>
<td>Increase market exposure</td>
<td>Publish ads inside AudioTrip application</td>
<td>• Money to pay for publication of advertising</td>
</tr>
<tr>
<td>4</td>
<td>Institutions</td>
<td>Entertain visitors at the lowest cost possible</td>
<td>Order custom audio guide from AudioTrip</td>
<td>• Money to pay for creation of audio guide</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Possibility to advertise AudioTrip</td>
</tr>
<tr>
<td>5</td>
<td>Investors</td>
<td>Maximize return of investment</td>
<td>Provide AudioTrip with mentorship and funding</td>
<td>• Investment fund</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Expertise and experience in e-business</td>
</tr>
<tr>
<td>6</td>
<td>Regional Ambassadors</td>
<td>Ensure accuracy of audio guide’s content</td>
<td>Voluntary dedicate their time to verify content of the audio guide’s</td>
<td>• Local knowledge</td>
</tr>
<tr>
<td>7</td>
<td>Payment Gateway Provider</td>
<td>Generate income</td>
<td>Provide payment gateway services</td>
<td>• Secure and reliable payment technology</td>
</tr>
<tr>
<td>8</td>
<td>Mobile Apps</td>
<td>Build installed</td>
<td>Offer high quality</td>
<td>• Secure and robust digital</td>
</tr>
</tbody>
</table>
### Value Network

The 11 actors in the value network described above can be divided into three tiers (Bouwman et al, 2008) as illustrated in **Figure 11**. Actors that belong to Tier-1 provide AudioTrip with essential assets, both tangible and intangible. Furthermore, they directly contribute to defining the expected customer value and to shaping the BM. Tier-2 actors deliver services which are required to enable AudioTrip’s service offering, but apart from that do not contribute directly to defining the expected customer value and shaping the BM. Finally actors that belong to Tier-3 provide generic services that are essential for the business, but are not intended for AudioTrip only. In other words, they can be used to support any kind of business model.

### Organisational Arrangement and Interactions

AudioTrip has different interactions with various actors in its value network.

**I. AudioTrip and B2C Actors**

Customers can use AudioTrip application to search for and purchase or create audio guides. AudioTrip provides the platform along with the terms of use, but the content of each audio guide remains the property and responsibility of its author. Advertisers can promote their business by implementing ads in the audio guides with the consent of content's creator.

**II. AudioTrip and B2B Actors**

AudioTrip offers audio guide creation service for institutions such as museums or zoos. Each audio guide is custom made and therefore, its cost and AudioTrip commission depends on the two parties that decide to create partnership agreement. Two most common types of partnerships that AudioTrip creates are custom made audio guides and white-label applications based on AudioTrip engine/technology.
III. AudioTrip and Business Support Actors

Most of the company expenses are covered by Investors who also monitor company's performance over time. Regional Ambassadors are people in various regions that voluntarily agree to verify the content of audio guides created by individual authors. In exchange, they are granted a free access to all audio guides on AudioTrip platform.

IV. AudioTrip and Technical Support Actors

AudioTrip takes advantages of some third party services which support its platform operation. Some of them, for instance Payment Gateways charge a fee or a commission for using their APIs, while some, for example Maps, can be used free of charge.


**Financial Domain**

The financial domain describes how AudioTrip generates revenue through its value network as well as the investment sources, costs and potential risks for the AudioTrip business. Four main issues discussed in the finance domain include: investment resources, costs, revenue and risks.

**Capital Investment**

At the moment 90% of AudioTrip expenses are covered from investor fund. Recently company has passed its breakeven point and therefore, it can be considered as financially independent (it does not require investors anymore). However, AudioTrip considers passing some equity again if it decides to expand to another market. Company's' current investors were attracted by very clear value proposition and precise idea what the company wants to achieve. AudioTrip knew the size of potential market, found significant market niche and had a well prepared team of competent individuals. At present, the impact AudioTrip has on the market, its connections, and stable financial situation, all speak in favour of the company and can additionally attract investors.

**Costs**

AudioTrip's everyday operation does not involve any particular costs. Company's biggest expenses are its employees' salaries, followed by travel expenses related to business trips. The rest of the costs that shall be borne by AudioTrip are rather irrelevant.

**Revenues**

At the moment AudioTrip is still in its early stages. Hence, company is more focused on growing than being profitable. In the year 2014 AudioTrip earned approximately 25,000 EUR which came from various different partnerships.

In the B2C market, authors who want to publish free audio guides on AudioTrip’s platform have to pay annual subscription fee of 100 EUR. Nevertheless, authors can avoid this fee if they agree for the implementation of the ads, which are alternative source of revenue, in the audio guide content. AudioTrip is also open for any type of barter settlement, for instance promotion of AudioTrip’s platform. To the authors who would like to sell their audio guides to AudioTrip’s users, company charges 30% commission from each downloaded audio guide. To sell the trip user has to denominate its price in AudioTrip’s internal currency – AudioTrip Coin (ATC). The value of ATC is constant and equals 10 ATC = 0.54 EUR (AudioTrip.org, 2015).

In the B2B market we can distinguish two most common types of partnerships. First, interested institutions can order custom made audio guide from AudioTrip that will take care of everything from voice recording to creation of maps. The cost of such a service is approx. 5,000 EUR (70%
margin). Here again AudioTrip is open to any kind of barter settlement, which means the cost of ordering a trip can be reduced if the indoor venue agrees to promote AudioTrip. Second, AudioTrip offers production of White Label Apps based on AudioTrip engine/technology with the cost of 8,000 EUR per order (AudioTrip.org, 2015).

**Risks**

There are no specific risks related to the type of business that AudioTrip is running. Business environment is rather stable, there is not much fluctuation is supply and demand, competitive structures are established and new technologies do not affect industry significantly. Governmental rules and regulation do not impact AudioTrip’s business significantly. Furthermore, neither financial structure and transaction, nor operational and administrative procedures are source of any risks. Only general external risks that affect entire tourism industry such as for instance global economy crisis or increase in the petroleum price, which has an impact on the cost of travel, can affect AudioTrip.

5.1.3. **Key Performance Indicators**

AudioTrip uses two types of KPI in order to measure the success of the business, which according to the CEO- translates into business model success. The first type is individual KPIs which serve to measure the performance of every single employee. The second type – company KPI measure the performance of AudioTrip as a whole. Furthermore, AudioTrip uses weekly and monthly reporting to ensure the attainment of the KPIs. The main indicators for AudioTrip are presented in **Table 6**.

**Table 6 AudioTrip’s Key Performance Indicators**

<table>
<thead>
<tr>
<th>Process KPIs</th>
<th>Individual KPIs</th>
<th>Company KPIs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Number of tasks completed by each employee</td>
<td>• Number of times application has crashed</td>
</tr>
<tr>
<td></td>
<td>• Quality of work of each employee</td>
<td>• Number of trips created by users</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Monthly number of trip downloads</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Number of users who concluded the tours</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Value of sales pipeline</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Number of potential downloads in the pipeline</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Potential profit from revenue sharing in the pipeline</td>
</tr>
<tr>
<td>Output KPIs</td>
<td>• Number of new B2B partnerships created</td>
<td></td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>• Performance of the employees</td>
<td>• Actual revenue from B2C market</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Actual revenue from B2B market</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Actual profit from B2C market</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Actual profit from B2B market</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Potential revenue</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Potential profit</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Quality of content</td>
<td></td>
</tr>
<tr>
<td>Outcome KPIs</td>
<td>• Financial performance of the enterprise</td>
<td></td>
</tr>
<tr>
<td>• Contribution of each employee</td>
<td>• Potential for gain of the enterprise</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Quality of content offered by the enterprise</td>
<td></td>
</tr>
</tbody>
</table>

5.1.4. Business Model Innovation

Business model roadmapping approach, introduced in subchapter 3.3.3, is used in order to analyze AudioTrip's business model innovation and its impact. Four steps of this approach are discussed below.

I. Recognize desired change in the BM
   The desired change was to expand to B2B market and, in addition to the outdoor trips, provide audio guides also to indoor venues.
   When the company was first established, AudioTrip’s services were targeted only at B2C market. It offered its customers possibility to both create & sell as well as purchase & download outdoor audio tour guides. Since the performance of this business model was not satisfactory company started to look for a new customer segment for its services. Eventually, thanks to suggestion from one of its previous business partners AudioTrip recognized the opportunity to create audio guides for cultural institutions such as museums and zoos, which opened the door for B2B partnerships.

II. Evaluate the impact of desired change on the four domains of STOF framework
   Expansion to B2B market carried several, though minor, changes that AudioTrip had to go through. The impact of BM change on the service, technology, organization, and finance domains are presented in Table 7.
### Table 7 Impact of BM change on 4 STOF domains

<table>
<thead>
<tr>
<th>BM Change</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Service domain:</strong> Offer audio guide creation service</td>
<td>Instead of just providing platform for audio guide production and sharing, AudioTrip is now also creating audio guides for cultural institutions such as museums or zoos (It offers B2B project-based audio guide creation service).</td>
</tr>
<tr>
<td><strong>Technology domain:</strong> Different identification system</td>
<td>Unlike outdoor trips that use GPS to determine which audio file should be played in a particular moment based on tourist location, indoor venues require other type of trigger since GPS cannot be used for navigating indoors.</td>
</tr>
<tr>
<td><strong>Organization domain:</strong> New type of actor in the value network</td>
<td>Next to B2C customers AudioTrip is now also having B2B customers to whom it offers audio guides creation service.</td>
</tr>
<tr>
<td><strong>Financial domain:</strong> Financial structure modification</td>
<td>B2B projects are a new source of revenue for but at the same time it needs to bear the cost for additional personnel required provide to additional services.</td>
</tr>
</tbody>
</table>

### III. Translate the change into activities that are required to realize it

The activities necessary to realize the service expansion to the B2B market are listed in Table 8.

### Table 8 Activities required for enabling AudioTrip’s BMI

<table>
<thead>
<tr>
<th>BM Change</th>
<th>Activities required to enable the changes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Service domain:</strong> Offer audio guide creation service</td>
<td>• Realizing new value proposition requires diversification of current service offering by adding creation of custom-made audio guides for B2B clients to company's service portfolio&lt;br&gt;• Furthermore, it requires the channels to be expanded in order to reach new customers type. It involves using more tangible media such as on-the-spot billboard to attract nearby tourists</td>
</tr>
</tbody>
</table>
to use AudioTrip or cold calling to introduce business to potential new customers.

- Finally, since the new service is project-based, AudioTrip has to deliver reports to its B2B customers (depends on the partnership).

<table>
<thead>
<tr>
<th>Technology domain:</th>
<th>Technology domain:</th>
<th>Technology domain:</th>
<th>Technology domain:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Different identification system</td>
<td>Navigating indoors requires short-range identification technology such as NFC tag, QR code or iBeacon to locate tourist in the building and play adequate audio guide file.</td>
<td>Consequently, AudioTrip's system needs modification to cope up with the new triggering technology.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Organization domain:</th>
<th>Organization domain:</th>
<th>Organization domain:</th>
</tr>
</thead>
<tbody>
<tr>
<td>New type of actor in the value network</td>
<td>Emergence of a new actor implies re-allocation of the existing resources and change of their everyday routine to deal with new type of customers</td>
<td>Furthermore, AudioTrip needs to consider developing new strategy to compete with conventional audio guide service providers</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Financial domain:</th>
<th>Financial domain:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial structure modification</td>
<td>Emergence of new source of revenue demands some minor adjustments in the accounting system.</td>
</tr>
<tr>
<td></td>
<td>Allocation of new expenses for additional personnel hired to handle B2B clients</td>
</tr>
</tbody>
</table>
IV. Construct an ideal transition path to show the interdependency between activities

The back-casting of AudioTrip's transition path is depicted in Figure 12. The sequence of activities demonstrated on the diagram might be debatable.

Figure 12 AudioTrip's Business Model Roadmapping
5.2. **Agemar**

Agemar Sp. Z o.o is a Polish small enterprise incorporated in 2012 and based in Zgierz, Poland. Company specializes in design and construction of conveyors and any devices that support internal transport. Based on independently manufactured products as well as equipment obtained from reputable companies, Agemar produces complex handling systems equipped with modern control systems.

Agemar's long term vision is 'to become the leading Polish company providing internal transportation solutions'. Company provides high-quality modern solutions based on innovative technologies and ideas. Agemar does its best to meet the particular needs and expectations of their clients as customer satisfaction is the most crucial determinant of its success. Company supplies its clients with the best solutions possible to their problems in the area of internal transport.

Agemar targets B2B customers and operates in the capital goods sectors. Company has realized projects for approximately 50 different clients from multiple branches of the industry, also foreign ones. In the recent years Agemar had a particular focus on solutions related to the transportation of wooden elements.

5.2.1. **Business Strategy**

Agemar aims to become a trusted partner for companies that aim to invest in the development of conveyor systems and equipment and the leader in providing internal transportation solutions in Poland. Accomplishing such a goal requires developing business strategies that are based on the evaluation of both internal and external contexts. Agemar's internal context is depicted, in **Figure 13**, using VRIN framework (Barney, 1991). Agemar owns four resources and capabilities that contribute to its competitive advantage. However, only 'ability to deliver high-quality, customized solutions and solve complex problems' can be considered as Valuable, Rare, Non-substitutable and Inimitable. Therefore, this is the capability that could be the source of sustainable competitive advantage for Agemar.
Porter five forces model (Porter, 1979) is used in order to study Agemar’s external environment. Five forces, which determine competitive power of Agemar, are discussed in Figure 14.

From the analysis above, we can see that Agemar has to face high threats from three out of the five forces of competition.

Having taken into consideration VRIN analysis, as well as the considerable competition from other companies operating on capital goods market, Agemar tries to win clients using two general strategies described below.
A. Offering its customers’ the best possible solution: high-quality, innovative, optimized and tailored made to solve their particular problem.

B. Providing rapidly responding and excellent service of installed devices.

5.2.2. Results vs. CANVAS framework

Value Proposition

Agemar brings concrete benefits to the customers who decide to use their service. Company provides its customers with optimized and innovative solutions that streamline and speed up subsequent stages of the production process. Agemar tries to meet even the most unusual demands of its clients and undertakes to solve complex problems related to internal transport. It executes difficult orders that others do not even take. Since the company is perceived through the prism of the projects it realizes, Agemar pays much attention to the quality and excellence of its work. In order to satisfy its customers’ needs company does it utmost to learn and understand the business partner process and find the best possible solution to the existing problem. Furthermore, clients can be sure that they are not left alone with the installed handling system after project completion. Agemar offers them an immediate service of all the installed equipment.

Key Activities

Key activities, which are the crucial actions that Agemar must take in order to operate successfully, are listed below.

A. Understanding customer need

Technical sales advisor gets in touch with customer in order to understand his needs, find out what kind of device is required and what type of parameters it needs to have.

B. Designing the solution

Qualified constructors develop the concept of the device and prepare the draft. They often visit the client in order to understand better the conditions in the manufacturing plant and client’s needs.

C. Mounting

After the proposal is accepted a process of manufacture and assembly of the device begins. Some of the necessary elements are being ordered while some parts are treated in-house by company engineers. After testing the device, if the result it is positive, it is transported to client’s location.

D. Launching device
The device is assembled at client’s location, adjusted and set up according to needs. Customer’s employees are trained on the current service and maintenance of the device.

E. Service

Agemar offers help with device maintenance, repair during the warranty period as well as post-warranty service.

Key Partners

Partnerships constitute a cornerstone of Agemar’s business model. Company creates alliances mainly to acquire necessary resources. The description of key partners and suppliers involved in Agemar’s value network together with resources they are providing is presented in Table 9.

<table>
<thead>
<tr>
<th>No</th>
<th>Partner/Supplier</th>
<th>Resources delivered</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Contractors producing some of the elements</td>
<td>• Performing part of the mechanical operations such as laser cutting, turning large elements etc.</td>
</tr>
</tbody>
</table>
| 2  | Suppliers of automation equipment and electronics | • Control systems, electronics, automation  
• New orders |
| 3  | Technical Materials Providers            | • Engines, roles, conveyors belts, etc.                  |
| 4  | Freelance Designers                      | • Help in development of project-estimate documentation  |
| 5  | Temporary employment agencies            | • Additional employees in the periods of accumulation of orders |

Key Resources

Agemar’s key assets are its qualified employees. Solving complex engineering problems requires extensive knowledge as well as great deal of creativity. Therefore, human resources – skilled professionals are crucial in the value configuration drive of the company. Externally, subcontracting constitutes another important asset applied in Agemar’s value creation attempts. Work related to yielding some of the elements as well electronics and automatics is contracted out in order to efficiently deliver the ‘promise’ to Agemar’s customers.
Customer Segments

Agemar serves B2B customers and operates on the investment goods market. Its service offering is targeted substantially at any business that owns production facilities and needs to transport products inside. However, the company is not engaged in building entire production lines and typical internal transport solutions. Agemar focuses on enterprises that experience some problem or bottleneck in the production process and require tailor-made solution. Since each customer requires and justifies a distinct offer and is interested in paying for different features of this offer, we can't observe a typical segmentation. We could say that each individual customer constitutes a separate segment. Geographically, Agemar is targeting mainly Polish market. They had a couple of foreign clients, however, in such a case transaction is always concluded in Poland and cooperation ends with the assembly of the equipment since Agemar does not provide service abroad.

Customer Relationships

Due to capital goods market characteristics Agemar focuses more on one time sales than building long-term relationships with customers. However, since the word of mouth marketing is a main source of customers for the company and customer satisfaction is crucial parameter of Agemar’s success, company puts a lot of effort to meet expectations of its clients. This way Agemar becomes a trusted partner to its customers who often refer others to the business and its products and services. Therefore, we could say that the main driver of customer relationships is the customer acquisition.

Channels

Most of the clients learn about Agemar through word of mouth marketing. Approximately 70% of company orders come from recommendations of previous satisfied customers. Furthermore, Agemar tries to raise awareness amidst its clients about a firm’s products and services through canvassing. Company currently has two sales employees that are responsible for propitiation and acquisition of new customers. Some of the orders come to Agemar thanks to its cooperation with companies dealing with automation and control. These companies while searching for the projects for themselves often encounter ones that require building mechanics and propose Agemar as a subcontractor. Finally, Agemar communicates with the customers through the website and applies directly to offers published in technical bulletin.

Cost Structure

Cost structure refers to the expenses that company must take into consideration when providing a service. Agemar bears significant costs associated with acquisition of materials necessary for implementation of projects. Since currently the company focuses on design and assembly and
not on manufacturing it has to purchase technical materials, devices such as robots and pay for the production services for some of the required elements. The total costs are highly dependent on the orders that Agemar realized as some of them involve equipment that costs hundreds of thousands of euros. On average material-related costs constitute approximately 70% of the total turnover while the rest of the costs, mostly related to remuneration of employees, just 9% of it.

**Revenue Streams**

Revenue streams refer to how the company makes money. Most of Agemar's revenues are transaction revenues earned from the customers making a one-time payment for the company design services and the delivered product – the device. When it comes to the prices they are based on static variables. Since each device is made on an individual order the price is based on the product features – amount and quality of value proposition characteristics essential to the client and contained in the device. Apart from the cost of elements the device is composed of, the final price might depend on the environment the device has to operate in (e.g. environment at risk of explosion) or space limitations. Profit margin is determined by the risk associated with particular project. Namely, the larger the probability that there will be a need to redesign/ refine some elements, the higher the margin will be.

5.2.3. **Key Performance Indicators**

Agemar with its KPIs focuses more on evaluating the performance of an entire organization than every single employee. The main indicators for Agemar are presented in **Table 10**. Furthermore, company uses monthly and yearly reporting to ensure the attainment of the KPIs.

**Table 10 Agemar’s Key Performance Indicators**

<table>
<thead>
<tr>
<th>Type of KPI</th>
<th>Individual KPIs</th>
<th>Company KPIs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Process KPIs</td>
<td>- Quality of work of each employee</td>
<td>- On time delivery of projects</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Changes required during the project</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Predictability cost (of project)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Predictability time (of project)</td>
</tr>
<tr>
<td>Output KPIs</td>
<td>- Performance of the employees</td>
<td>- Actual revenue</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Actual profit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Number of new customers acquired</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Number of projects realized</td>
</tr>
<tr>
<td>Outcome KPIs</td>
<td>Qualitative KPIs</td>
<td></td>
</tr>
<tr>
<td>--------------</td>
<td>------------------</td>
<td></td>
</tr>
<tr>
<td>• Value of projects realized</td>
<td>• Contribution of each employee</td>
<td></td>
</tr>
<tr>
<td>• Number of recommendations from former clients</td>
<td>• Financial performance of the enterprise</td>
<td></td>
</tr>
<tr>
<td>• Defects</td>
<td>• Customer satisfaction with product</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Customer satisfaction with service</td>
<td></td>
</tr>
</tbody>
</table>

5.2.4. Business Model Innovation

Business model roadmapping approach, introduced in subchapter 4.2.1, is used in order to analyze Agemar's BMI and its impact. Four steps of this approach are discussed below.

I. Recognize desired change in the BM
The desired change was to move down the value chain, perform more tasks in house and reduce dependence on external collaborations.

When the business was first established, Agemar employed only two full time employees. Therefore, the company's activity was limited to preparation of the concept of the device and the documentation while all the work associated with the production and assembly of the device was outsourced to external parties. Since Agemar saw an opportunity to grow with the new business model, they decided to expand operations by performing installation as well as offering service - maintenance of previously designed devices. The next steps involved gradually enriching company's portfolio with manufacturing of some of the required elements.

II. Evaluate the impact of desired change on the four domains of STOF framework
Moving down the value chain and reducing dependence on external collaborations required several, larger or smaller, changes that Agemar had to go through. The impact of BM change on four domains of STOF framework, together with their corresponding CANVAS building blocks, is presented in Table 11.
<table>
<thead>
<tr>
<th>BM Change</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Service Domain</strong>&lt;br&gt;1. Value Proposition:&lt;br&gt;Offer service of the installed devices</td>
<td>Instead of just offering designing and mounting of the devices, Agemar now offers help with device maintenance, reparations during the warranty period as well as post-warranty service. When notified of the defect service technicians are sent immediately to the client’s location.</td>
</tr>
<tr>
<td><strong>Service Domain</strong>&lt;br&gt;2. Service offering:&lt;br&gt;Lend technological facilities</td>
<td>Agemar’s technological facilities are made available for rent to other companies.</td>
</tr>
<tr>
<td><strong>Organization Domain</strong>&lt;br&gt;1. Key activities:&lt;br&gt;Assembly, manufacturing</td>
<td>• Instead of outsourcing activities to external parties Agemar starts to assembly the devices inhouse.&lt;br&gt;• Simple mechanical operations begin to be carried out within the company.&lt;br&gt;• All mechanical operations are carried out within the company. (Agemar is currently in the process of executing this change)</td>
</tr>
<tr>
<td><strong>Organization Domain</strong>&lt;br&gt;2. Customer segment:&lt;br&gt;New actor in the value network</td>
<td>Next to solving internal transport related problems of B2B customers, Agemar plans to have other B2B customers to whom it offers rental of its technological facilities.</td>
</tr>
<tr>
<td><strong>Organization Domain</strong>&lt;br&gt;3. Key Partners:&lt;br&gt;Termination of some partnerships</td>
<td>The more mechanical operations are performed in house, the less Agemar needs external contractors to produce the required elements.</td>
</tr>
</tbody>
</table>
### Technology

1. **Key assets:**
   - Manufacturing equipment

Specialized equipment is needed in order to perform mechanical operations in house.

---

### Financial domain

1. **Cost structure:**
   - Cost structure modification

Construction of the production hall and the purchase of technological equipment needed for the manufacturing process changes the cost structure of Agemar (fixed costs increase).

---

**III. Translate the change into activities that are required to realize it**

The activities necessary to move down the value chain are listed in **Table 12**.

**Table 12 Activities required for enabling Agemar's BMI**

<table>
<thead>
<tr>
<th>BM Change</th>
<th>Activities required to enable the changes</th>
</tr>
</thead>
</table>
| **Service Domain**  
*Value proposition*: Offer service of the installed devices | • Realizing new value proposition requires diversification of current service offering by adding service of the installed devices to Agemar's portfolio. |
| **Organization Domain**  
*Key activities*: Service, assembly, manufacturing | • In order to perform the assembly of the devices in house Agemar needs to hire additional personnel.  
• Carrying out some of the mechanical operations in house requires purchasing specialized equipment and hiring additional personnel.  
• Carrying out all mechanical operations in-house requires significant investment in the equipment and construction of production hall. |
| **Organization Domain**  
*Customer Segments*: New | • Emergence of a new actor implies re-allocation of the existing resources and change of their everyday routine |
<table>
<thead>
<tr>
<th>type of customer/actor in the value network</th>
<th>to deal with new type of customers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Organization Domain</strong></td>
<td></td>
</tr>
<tr>
<td><strong>(Key Partners):</strong></td>
<td><strong>Termination of some partnerships</strong></td>
</tr>
<tr>
<td></td>
<td>• No particular activity required.</td>
</tr>
<tr>
<td><strong>Financial domain: Cost structure modification</strong></td>
<td>• Growth of the company and increase of fixed costs forces Agemar to look for additional sources of revenue. Previous business contacts are no longer sufficient and therefore, company needs to expand its channels in order to increase its brand awareness and acquire more customers.</td>
</tr>
</tbody>
</table>

IV. Construct an ideal transition path to show the interdependency between activities

The back-casting of Agemar’s transition path is depicted in **Figure 15**. The sequence of activities demonstrated on the diagram might be debatable.

![Figure 15 Agemar’s Business Model Roadmapping](image-url)
5.3. BMI process - Role of Top Management and Leadership

The following subchapter looks at the process AudioTrip and Agemar went through so that they can create and implement new BM as well as the role of top management and leadership in this process. The findings are presented in the form of narrative according to the emerging theory as proposed by Eisenhardt and Graebner (2007).

Reason for BMI

According to findings from this research SMEs engaged in business model innovation either because they were experiencing problem with their current business model or they recognized opportunity to grow and improve their profitability.

AudioTrip’s decision to engage in the BMI process was caused by the fact that its initial model was not delivering satisfactory results and the team members did not believe anymore that this model alone can work. The company faced a problem of recruiting users, which was too costly and in the end made entire BM unprofitable, which forced them to look for some additional sources of revenue.

'We knew that this initial model has a problem with user recruitment cost and we had a feeling that it’s not going to work.' (AudioTrip)

CEO of Agemar, on the other hand, recognized the opportunity to grow the business and the revenues when the interest in their services started to exceed their internal capabilities. He also feared that lack of action at this point would affect negatively the company and that’s why he decided to change the way the business was operating.

'If we acted as we did so far, it creates a barrier for growth. We'll stay at this level at which we are.' (Agemar)

‘You cannot refuse a client because you don’t have time, people or place to do the job, because this way you will lose credibility and you can fall out of the market.’ (Agemar)

New business model development

After making a decision to change current business model, the companies had to come up with the idea how to seize the arising opportunity or solve the problem they encountered by formulating an answer that took the form of new BM.

While looking for a way to solve their problem AudioTrip quite accidentally came up with an idea to enter B2B market after receiving feedback from one of their partners for whom they were conducting a side project. It was a Zoo in Wroclaw for whom AudioTrip created a tour and
who expressed an interest in having such a service on a regular basis and willingness to pay for it.

‘They were the first ones who said that it would be a perfect solution for them (...) it was one of those first contacts when partner quite casually stated that he would even pay for it.’ (AudioTrip)

As mentioned above, at Agemar, the CEO has identified the barrier for growth and decided to modify company’s business model. He knew what had to be changed so that the company could overcome the barrier for growth thanks to his experience and knowledge of the industry. He had a vision how the company could evolve from the very beginning so it was just the matter of identifying the right moment for business model innovation.

‘There are some models that we can draw on. It is not so that we invent something completely new but some business models are simply not available at certain stages of company development. What we are doing is a logical continuation.’ (Agemar)

‘I worked in several production companies, I managed some of them and I had a chance to observe several cases. Therefore, I knew what we are aiming for, and it was only the question of which path to adopt.’ (Agemar)

For this reason, Agemar did not have to engage in any particular activities related to development of the new BM. They knew the market, they had multiple models to draw upon and most importantly the CEO had the knowledge and experience with other BM available for the company.

AudioTrip, on the other hand, had to come up with a concept for a new BM and therefore, the organization engaged into activities that would allow for its development. They conducted market research, discussed their ideas during multiple meetings and eventually validated the idea with their partners to verify its odds of succeeding. Since the result of this initial assessment was positive AudioTrip took consecutive steps that allowed them to engage in regular business activities and operate the new BM.

‘Simple research related to how many potential customers there are, on what market and how it could work.’ (AudioTrip)

‘During some discussion and talk, one of many, we came to conclusion that we could try and we did, we made some tests. We started to talk to our partners and this turned out to be credible.’ (AudioTrip)
Implementation and Operation of new BM

Both companies had to adapt several elements of their former business models so that they can operate the new BM. This process of adaptation for both AudioTrip and Agemar has been discussed in detail in subchapters 5.1.4 and 5.2.4 respectively.

Getting used to new BM

Both companies reported encountering some difficulties during business model innovation process.

AudioTrip, for instance, had to overcome the issue related to operating their new business model. Namely, they had difficulty with communicating with the new client type which translated into difficulty with acquiring customers. AudioTrip had to acquire new skills and capabilities which would allow them to operate the new BM.

‘Understanding, which way of communication with the client, in which market, will allow us to achieve suitable results and it took us a couple of months.’ (AudioTrip)

Furthermore, they reported it was difficult for them to come to terms with the fact that their initial does not work as they emotionally invested in the company.

‘We had to learn to be more B2B. We had to absorb large portion of knowledge and we had to come to terms emotionally with the fact that the previous model does not work.’ (AudioTrip)

Agemar had difficulty with finding the right people to join and help the team in face of increasing interest in company’s offering.

‘First of all, people are a barrier; I’m always looking for people to work, because I already know that next year we need 5-6 new people.’ (Agemar)

In addition, CEO of Agemar had to face resistance from one of his associates who felt that the risk associated with operating the new business model is too big.

‘Of course there were differences in opinion. Because everyone wants to make money, but not everyone agrees with the particular consequences (...) the problem is not to outvote him but to convince him.’ (Agemar)

Besides the difficulties, CEO of AudioTrip highlighted how essential it was for the company to achieve first success while operating the new business model. First achievements helped the team to believe in the potential of the idea and increased its faith in the new BM model. It also allowed them to discover what works and what doesn’t and to further refine the business model.
'It is this way that you need a success (...) so you start to believe that one can sell it and it's just that this model is not working and you need to implement some modifications.' (AudioTrip)

This statement from AudioTrip's CEO exemplifies the need for organizational learning and shows that activities of learning, comprehending and executing intertwined during implementation of new model.

**Role of Top Management**

Findings from both cases reveal that top management was actively participating in entire BMI process; they influenced how it looked like and directed and guided the company across it. The role of top management varied from recognizing the need to engage in BMI, to development of new model and its implementation, and to executing and managing the entire process.

First, in Agemar, it was the CEO who recognised the opportunity and at the same time the need to engage in the BMI process based on his company current situation analysis. He was the one who realized that if the company will not change the way it is operating, it will soon not be able to satisfy the demands of its customers. Based on these observations he began the process by starting to look for additional workforce.

Second, the CEO of Agemar was the originator of the concept of the new BM which was a result of his prior experience and knowledge. This new business model was new for Agemar but not new for the industry and not new for the CEO. His knowledge and expertise as well as external social ties resulting from years of experience in the industry spared the company the trouble of developing the new BM and allowed SMEs it to avoid many problems, i.e. associated with the operation of the new BM.

Additionally, in AudioTrip the CEO was responsible for organizing and managing the business model innovation process. He created some kind of structure by organizing regular meetings which allowed the team to initially discuss the ideas and later on to share best practices as well to review the progress and compliance with previously established targets and take corrective actions. He also participated in the process himself by performing the tasks as a regular team member.

'I actively looked for information, I wrote emails and I did various odd things to see what works, I took part in the meetings. Second, I motivated and somehow convoked the meetings during which we discussed.' (AudioTrip)
'My role was also to motivate people, to organize meetings and ask how it went. How was it? Check what can I help with, and based on my knowledge and my experience verify whether I don't see any mistakes in the proceedings.' (AudioTrip)

'Modification of moderation of what the rest of the team does, motivation and making sure that everyone, including me, complies with the targets that we set ourselves as rational, and also doing my set of tasks as a team member.' (AudioTrip)

Finally, he provided guidance and help to the rest of the team and the same time made sure that everyone understands what is happening and participates actively in the process.

**BMI and the team**

While top management seems to be the essential for the business model innovation process, both interviewees brought out the importance of having the ‘right’ team.

CEO of **AudioTrip** emphasized the benefits of involving all the members of the team. Additionally, he emphasized importance of having the suitable people whose personalities fit the organisation and who are carefully selected in case of AudioTrip.

‘If you have smaller organization full of great people you want to include them all in the decision making process because they can persuade you into the better options.’ (AudioTrip)

‘Thanks to the fact that we have such a structure everyone supported each other in different moments.’ (AudioTrip)

Managing director of **Agemar**, on the other hand, highlighted that he wouldn’t be able to pursue certain goals if he wouldn’t be working with people who have certain skills, who trust him and are not afraid to follow him in his decisions.

‘And the third condition to pursue specific goals is that you need the right people. You need to this luck to meet on your way people that are suitable for this, people that will follow you.’ (Agemar)

**Leadership**

Organizational change such as BMI requires successful leadership to guide the organization through this process and to help it surmount the emerging obstacles (Chesbrough, 2010). Findings from the interviews shed some light on the relationship between leadership style applied by the top management and BMI process in SMEs.
Overall, AudioTrip's CEO leadership style could be conceptualized as **participative leadership**. The CEO normally involves the rest of the team in organizational decision making because he believes it works in favour of the organization and the same applied to BMI process. The decisions to change the business model as well as the decision regarding which direction to take were both taken collectively. The CEO facilitated the communication, encouraged rest of the team to share their opinions and ideas. Furthermore, knowledge and information are openly shared within the firm so that everyone is aware of the company's situation. Finally, the CEO aims to help his employees to develop their full potential which is a characteristic of **transformational leadership**.

‘I am the person responsible ultimately for decision making but we make decisions collectively.’ (AudioTrip)

‘Openess so everyone know a lot about company's situation right now and we are together happy and we are together sad if something goes either good or bad.’ (AudioTrip)

‘Leadership for me is the ability to obtain the greatest possible potential from people’. (AudioTrip)

Some additional characteristics of this leadership type were also observed in AudioTrip during BMI process itself. The CEO seemed to understand that failure is a part of BMI process and therefore, created environment which allowed for mistakes and error learning which is typical for **transformational leader**. Furthermore, he empowered his employees to be involved, he gave them empathy and supported them when they experienced difficulties; he enhanced open discussion and idea generation as a team while at the same time he provided some sense of direction.

When the BMI moved into implementation phase we could notice some behaviors attributed to **transactional leader**. Namely, the CEO engaged in basic management functions such as organization and control which were supposed to help keep things on the right track. He assured that previously set targets were being achieved as well as controlled and verified the work of other team members.

‘Modification of moderation of what the rest of the team does, (...) making sure that everyone, including me, complies with the targets that we set ourselves as rational’ (AudioTrip)

Agemar's CEO leadership style can be described as more **autocratic** one. He takes the strategic decisions alone as he considers himself the only person within the company who has a sufficient knowledge and experience to decide about each and everything. It could have been also observed during decision to engage in BMI process.
‘There is no problem with the things happening the way I want them to, because I’m the only person who embraces the whole problem.’ (Agemar)

Additionally, Agemar’s CEO is a person that clearly sets expectations regarding what needs to be done and when it should be done. He gives his team freedom with regards to how to accomplish their tasks and rewards the employees who perform their assigned tasks well. He does not control his employees’ efforts of but rather monitors the tasks completion.

‘People have a lot of independence and no one watches them. Like I said there are two hierarchical levels and there is no so-called intermediate management’ (Agemar)

‘So far it works; we do not have any problem with work productivity or with the merits of the performed of tasks. We have people who are willing to learn and try to deserve some kind of incentive system, which is fully discretionary.’ (Agemar)

In case of Agemar it is difficult to link leadership style to business model innovation process as this process was not observed as such, i.e. the CEO knew how he wants the new BM to look like and he was familiar with such a way of business operation so there was no need for idea generation and BM development.
6. Discussion and Conclusion

Despite significant academic and managerial interest in the business model innovation topic in the recent years and importance of BMI for company's survival and growth, the knowledge regarding how SMEs conduct BMI in practice is limited. The aim of this research was to contribute to general understanding of how SMEs approach BMI and the role of management team in this process to advance theory and managerial practice concerning BMI process management.

This investigation commenced with literature review to determine current state of BMI research, followed by empirical investigation in order to answer the main research question:

Why and how do Polish SMEs innovate their business models and what is the role of top management in this process?

Using qualitative research methods, empirical data from two case study companies, operating in Polish SMEs sector, was collected and subsequently analysed in order to answer the principal research question.

The main findings from this research are presented in section 6.1. The theoretical and practical implications of the study are discussed in sections 6.2 and 6.3 respectively. Finally, limitations of the study as well as the areas for further research are suggested in section 6.4.

6.1. Main Findings

This section discusses the main findings from the research by answering eight sub-questions as posed at the beginning of this paper.

Q1. 'What was the initial business model of AudioTrip and Agemar?'

The first question related to business model of the researched companies was addressed comprehensively by means of STOF and CANVAS frameworks in sub-chapters 5.1.2 and 5.2.2 respectively.

From the service perspective, AudioTrip initially focused on B2C market to which it offered sightseeing mobile application in the form of an audio guide as well as the convenient platform allowing for audio guides creation. From the technological perspective, company used layered modular architecture which tends to be a semi open platform. In terms of organization 10 actors, belonging to 3 different Tiers, were initially involved in AudioTrip's value network. Finally, when it comes to financial aspects, AudioTrip used revenue models such as: publishing fee, advertisement fee and pay per download.

From the offering perspective, Agemar from the beginning focused on solving its clients' problems by delivering high quality, innovative and optimized solutions. From customers'
perspective, company focused on B2B market and obtained most orders thanks to recommendations from its former clients to whom. Agemar became a trusted partner to many companies thanks to efforts to always ensure customer satisfaction. In terms of infrastructure, company had 5 key partners; focused on two key activities: understanding customer need and designing appropriate solution; and leveraged two key resources: engineering knowledge and network of partners. Finally, from financial perspective company earned individually determined profit margin from each of its orders and most of their costs were variable.

Q2. 'What was the reason for change in the business model of AudioTrip and Agemar?'

Findings from this research confirm that SMEs engage in BMI either because they identify an opportunity and they want to capture it or they are facing a threat. In case of AudioTrip the business model innovation originated from within the company while in case of Agemar we can distinguish both internal and external origins of BMI (Bucherer et al., 2012). AudioTrip was forced to engage in the BMI process because it was facing an internal threat, namely it current business model was not bringing the expected results. Agemar, on the other hand, recognized that their customers increasingly required not only the product but also its service and therefore, decided to extend its portfolio. Later on they decided to adjust the business model again because they saw the opportunity to grow with the new improved BM.

Q3. 'Which elements of the business model of AudioTrip and Agemar were subject to change?'

Both companies had to change several elements of their former business models so that they can operate the new BM. The details of these changes can be seen in sub-chapters 5.1.4 for AudioTrip and 5.2.4 for Agemar. The change within AudioTrip can be summarized as "broadening the type of trips provided to indoor venues in addition to the existing outdoor trips". Therefore, business model innovation stemmed from the desired change in the Service domain which required or imposed adjustments in the three remaining domains of the business model. The change within Agemar can be described as "moving down the value chain, performing more tasks in house and reducing dependence on external collaborations." Hence, the BMI originated from organization domain (infrastructure business area) and the remaining business blocks had to be modified to enable such transformation.

Q4. 'How did the BMI process look like in AudioTrip and Agemar?'

As to the course of the BMI process based on the findings from two case studies this research proposes:

(1) Certain phases of BMI process occur concurrently rather than one after another.
Dynamic managerial capabilities possessed by the company leader can simplify business model innovation process.

As discussed in Chapter 3 (literature review) existing theories divide BMI process into certain stages. Nomenclature and number of these phases varies per researcher, i.e. Amit and Zott (2014) distinguish: observing, synthesizing, generating, refining, and implementing stages. Even though, they recognize that these phases do not necessarily have to alternate, they suggest that some natural sequence exists. This study proposes that certain phases of BMI process happen rather in parallel than one after another. AudioTrip started to operate the new model when it was still not fully designed and company was not sure how exactly it should work. Nonetheless, engaging in the operational activities allowed the company to gain more knowledge, identify best practices and finalize the design of their new BM. Therefore, we could say that after recognizing the need to engage in BMI AudioTrip took the initial idea further and after the first validation moved to the phase where it was designing and operating the new business model at the same time, to finally come up with the design that suits best its purposes.

Some other researchers suggest that BMI requires experimentation (McGrath, 2010) and that particular phases of the process are crucial to support business model innovation systematically. These phases include: analysis, ideation/design, validation, implementation planning, and implementation (Eisert, 2013). Findings from this study suggest that certain phases of BMI process can be left out if the company has sufficient knowledge and resources. In case of Agemar, after recognizing the opportunity to change the BM the company moved straight to implementation of the new model. Lack of need to validate the idea, experiment and engage into design activities might be explained by the fact that the CEO had years of experience and knowledge of the industry, company possessed extensive social ties within the industry and the model they decided to implement was typical for the industry. Even though, such new-to-the-firm business models and considered to be unlikely to rise profits (Sniukas, 2012), it allowed Agemar to significantly increase its turnover and become more independent. Such a ‘cautious’ approach towards BMI is consistent with the belief that small businesses goal is rather to have a stable position in the marketplace than to disrupt the market (Pope, 2014).

Findings from this study confirm the importance of dynamic managerial capabilities (DMCs) for promoting BMI within the company, and particularly underlying them managerial resources (Zhou, 2015; Teece, 2007). Knowledge and expertise allowed Agemar’s CEO to sense opportunities and threats, seize them, and conduct necessary reconfigurations in organizational structure, resources and routines. Furthermore, external social ties gave him access to resources such as qualified personnel or reliable suppliers.
Q5. 'What challenges did AudioTrip and Agemar encounter while enacting BMI?'

Both companies reported several difficulties that they had to overcome during business model innovation process. They were related either to operation of the new model or to people within the company. AudioTrip's CEO reported that it was emotionally difficult for him as well as for his colleagues to accept the fact that their former business model is not working. Managing director of Agemar had to face resistance from one of his associates. This combined with statements from both interviewees about the importance of having the 'right' team suggests that:

(1) People within the organization are one of the most important factors influencing its ability to innovate business model.

Even though, 'right' seems to be highly dependent on the particular situations as for Agemar it meant trusting the vision of the leader and following him in his decisions whereas for AudioTrip it implied actively participating in the BMI process starting from the idea generation and ending on operation of new model.

Operational difficulties meant acquiring necessary skills and capabilities in case of AudioTrip which initially had a problem with communicating with the new type of client. Agemar, on the other hand had a problem to find the right employees required to implement the new model.

Q6. 'What was the role of top management in the BMI process in AudioTrip and Agemar?'

The existing BMI literature acknowledges the role that the top management plays in BMI. Stampfl (2015) believes that successful BMI requires support and involvement of top management. Leih et al. (2014) claim that identifying the need to change BM as well as modification and design of new BM is a responsibility of entrepreneurial managers. The outcomes of this research strengthen the hypothesis that SMEs top management plays essential role in BMI process. AudioTrip's CEO actively participated in all the BMI related activities starting from the development of the new BM concept to its implementation. Furthermore, the CEO guided his team throughout the process by organizing regular meetings which allowed him to monitor the progress and the entire team to share acquired knowledge and communicate between each other. In Agemar the CEO was responsible for initiating the BMI process. Additionally, he stood behind the idea how the company's business model should evolve and what steps had to be taken in order to enable the desired changes. Both cases represent different type of business model innovation and in both of them manager played a different role which is in line with findings of Foss (2014) who suggests that management challenges depend on the BMI type.
Q7. 'Which leadership styles were used by the top management to guide the BMI process in AudioTrip and Agemar and can these styles be related to particular stage of BMI process?'

Despite general agreement that leadership style of top management is one of the most crucial distinct factors influencing organization's innovation ability (Aragón-Correa et al., 2007), little is known about how leader behaviour influences BMI in SMEs. Based on the findings from the two case studies this research would like to propose the following:

1. Transformational leadership behaviours of top management are likely to positively contribute to development phase of BMI process.
2. Transactional leadership behaviours of top management are likely to positively contribute to implementation and operation phase of BMI process.
3. Overall specific nature of BMI process requires situational leadership behaviours of top management.

Both companies managed to change their business models despite very different approach of their top management towards leading the company and the change.

Overall, AudioTrip's CEO leadership style could be described as participative. In case of AudioTrip we could additionally observe some BMI process phase characteristic leadership behaviors. During the BM development phase company was experimenting in search of a BM that would work. Transformational leadership behaviors of the CEO during this stage allowed for organizational learning, which was essential for the success of the entire process. On the other hand, transactional leadership behaviors displayed by him during implementing new BM were helpful in keeping things on the right track. Nonetheless, as already mentioned earlier, for AudioTrip new BM development and operation was happening to some extent simultaneously. This implies that the CEO not only had to be able to enact these two seemingly contrary leadership behaviors but also to switch between them depending on the situation.

Agemar's CEO's general leadership style could be described as mild autocratic and this is also how he approached the business model innovation in his firm. The company was able to adjust its business model without experimentation and engaging in BMI process as such. Since the CEO knew what he wanted to achieve and knew what steps had to be taken to enable it, the company could move straight to implementation. Therefore, this research proposes that:

4. When the leader has far greater knowledge and experience than the rest of the team, BMI can benefit from autocratic leadership behaviors.
Based on the findings from this study it is not possible to explicitly state that one leadership style is more suitable for BMI than another as there are many context factors that influence the relationship between the leadership and BMI. This is not surprising taking into consideration the general lack of agreement between the scholars when it comes to selecting the best leadership style for innovation. Leadership behaviour should be adjusted according to the requirements of the particular BMI process.

Q8. 'What was the outcome of BMI for AudioTrip and Agemar?'

Both interviewees acknowledged positive outcomes of business model innovation for their companies. Financially, new business model created additional source of revenue for AudioTrip, which gave the company financial independence. Likewise, Agemar increased its turnover more than five times thanks to the new business model. Other than that, new business model gave Agemar strategic benefit as moving down the value chain allowed the company to make a more competitive offer to its client. AudioTrip, in turn, did not exactly replace its business model but rather started to operate “dual business model” (Markides, 2008). Therefore, new BM gave the start-up more time and resources to prove its initial business model idea.

6.1.1. Additional reflection

The use of BM ontologies

Since two different BM frameworks were applied in this research, it gives additional opportunity to compare them and to reflect on their usefulness for this type of analysis.

STOF framework turned out to be very convenient for several reasons. First, the explicit representation of interrelation between domains and elements allows for more in-depth understanding of BM and is useful to follow the ‘path of consequences’ when analyzing the BMI. Second, STOF allows representing multiple market segments (such as B2B and B2C) with one single diagram without losing clarity, and is compatible with BM roadmapping approach, which is favorable for practical reasons. Finally, STOF seems to be particularly useful in situations when offered service is technologically enabled and when it requires network of organizations rather than one single company. CANVAS on the other hand seems to provide better explanation of particular BM elements which helps to get thought understanding of this BM framework. Strength of this framework lies in its simplicity. Since many of the SMEs are not familiar with any BM tooling are not even aware they have business models, such a complex framework as STOF might be too abstract for them.

Overall researcher believes that STOF is a better choice from the academic standpoint whereas CANVAS is more suitable tool to communicate about business models with SMEs.
**BMI effectiveness**

Measuring effectiveness of the BMI process requires assessing the performance of the company before and after undergoing business model innovation. A way to measure the effectiveness of the innovation process is by means of key performance indicators (KPI's). Both CEO's listed a number of KPIs which they use to measure the success of their business, which translates into success of their firms' business models. The complete list of KPIs for AudioTrip and Agemar can be found in subchapters 5.1.3 and 5.2.3 respectively but in general the KPIs mostly refer to companies’ current financial performance and users/customers satisfaction. Some of the listed metrics are particularly relevant for measuring the success of the BMI. In case of AudioTrip it is actual profit and revenue from B2B market as well the number of new partnerships created with institutions. In case of Agemar effectiveness of the BMI process is measured by as assessing actual revenue and profit, as well as the number of projects realized.

**Start-up vs. Small business**

The SMEs participating in this research represented two different types of venture. The examined small business generally fits into the description of Polish organisational culture. The relatively high-power distance is reflected in Agemar’s CEO directive leadership style and his “top-down” approach towards BMI. The participating start-up, on the other hand, is characterized by participative culture and open communication, which was clearly visible in how AudioTrip approached BMI. Other than that, the small business had clear vision where it wants to go and its decision to engage in BMI was well thought-out. On the contrary, the start-up acted much more intuitively and the BMI it went through was associated with higher levels of uncertainty.

**Dynamics of the BMI**

Since BMI is a dynamic phenomenon it is not really possible to depict 'Before-Change-After' for the companies that innovated their BMs. The difficulty in identifying BMI is caused by the interdependence between various elements of BM and the fact that they mutually influence each other. Change of one business model element may impose the change of other elements or affect the relationships between some of them, which in turn may lead to changes of some other elements. Therefore, in the end it is really hard to define the change and say when exactly the business model innovation process started and ended. In general, BMI is a complex and dynamic process which is contingent on the synergies between various business model elements.
6.2. Theoretical Contributions

This section presents how this study contributes to the existing literature on business model innovation.

First, most BMI literature is theoretical in nature and inductive empirical research on BMI at the company level is still missing (Dottore, 2009). This research contributes to filling this gap by providing empirical evidence on how business model innovation process looks like in SMEs. It sheds some light on why SMEs decide to change their business models, what difficulties they encounter during this process and what are the practices and activities managers and the rest of the organization engage in as they attempt to develop and implement new BM.

Second, this study contributes to the current perception of the role that the top management plays in the BMI process. It sheds some light on managerial practices applied in two cases of business model innovation in SMEs and therefore, helps scholars understand how SMEs managers create and alter BMs. Particularly, it provides some insights into how managers initiate the BMI, how they guide the organization throughout this process, and how they participate in the process starting from new BM concept development and ending on its implementation.

Next, this research touches upon the topic of Dynamic Managerial Capabilities and their relation to BMI. In particular, it gives some insights into how DMCs supporting managerial resources affect business model innovation. Managerial human capital demonstrating itself in the industry-specific knowledge seems to be particularly useful for business model development while managerial social capital proved helpful in obtaining access to resources required to implement new BM.

Finally, this study links the top management leadership style to the business model innovation process in SMEs. Leaders interviewed during this research displayed four different leadership styles: directive/autocratic leadership, transactional leadership, transformational leadership and participative leadership. While each leader seems to have his dominant preferred leadership style, business model innovation will likely demand switching between the styles as the BMI process progress. On top of that, suitability of a particular leadership style depends upon the nature of the BMI process itself and the level of uncertainty it entails.

6.3. Managerial Contributions

Besides the theoretical contribution this study also brings some managerial implications.

First, in today's fast changing business environment every company will sooner or later have to innovate its business model. Therefore, it is recommended that SMEs look for the new BM
opportunities when their current BM still works fine. Knowing beforehand the direction that a company wants to follow and the required steps greatly facilitates the BMI process. Then, it is only a matter of selecting the most suitable moment to start to implement the new model.

Second, even though SMEs can and should learn as much as possible about the customer, industry and their own capabilities before engaging in BMI, it is impossible to mastermind business model innovation process. Often, BM development and implementation occur at the same time and engaging in the operational activities is required to gain some of the knowledge that is critical for the success of the new BM.

Third, although it is not possible to plan BMI process in detail, managers should be able to guide their organization through it and have an idea of the steps that will be required during the process. Organizing regular face-to-face meetings which allow for interaction between the team and the manager seems to be a suitable method to monitor the overall process and put ideas forward.

Fourth, developing and implementing new business model is not an easy task that can be delegated to someone else. It requires a high degree of commitment and involvement from top management. In other words, once top management decides to engage in BMI process they must prepared that is will absorb significant amount of their time from that moment on.

Finally, top management must be aware that depending on BMI type different leadership approach might be required. Additionally, different stages of the process might benefit from different leadership styles. Therefore, manager deciding to innovate his company business model should be aware of his own preferred leadership style and its shortcomings and be able to adjust it depending on the situation.

### 6.3.1. Contribution to Management of Technology Field

BM and BMI research is also relevant for the management of technology field. Rapid changes in companies’ external environment have reinforced the significance of technology management in the recent years. Furthermore, technology has been recognized to be one of the foundations of corporate and business strategy (Seppanen & Makinen, 2009). The BM construct mediates between development of the technology and economic value creation (Chesbrough & Rosenbloom, 2002) and therefore, defining and understanding BM concept is one of the critical aspects of technology management (Seppanen & Makinen, 2009). One of the tasks of the technology manager is to decide what technologies his company needs and how to use them to achieve company’s objectives. Business model has an impact on how technology is used to improve firm’s performance and profitability. Manager of technology has to be able to select the best BM for his company to capture the value of technological innovation. Furthermore, he needs to be able to identify the moment when such BM needs to be changed and to know how to
conducted business model innovation process. Therefore, this thesis by providing some insights into BMI process in small and medium-sized enterprises and managerial practices it requires is valuable for management of technology field.

6.4. Limitations

The purpose of this section is to discuss the limitations of this study which arise from characteristics of the selected methodology, research execution, or were brought in by external factors.

External validity
Findings from this study might not be generalizable to the population of interest - European SMEs, which is a limitation of every case study research. Due to the small sample size studied at the company level, some firm or industry specific circumstances might have been left out or may significantly differ from what was presented in this research.

Internal validity
First, this research relied only on the information collected through interviews, which means no data triangulation was applied.
On top of that, in both cases the interviews were conducted only with single representative of the company on the top management level. This means that the results of this research are affected by subjective biases of single informants (Mills, Durepos & Wiebe, 2009). Additionally, since all the other internal and external stakeholders were left out, this study gives only a top management viewpoint on the BMI process.
Finally, in case of AudioTrip, the interviewee himself admitted that the business model innovation took place some time ago and he does not remember all the details or he might not be recalling them correctly. Therefore, there is a chance that the information with respect to the course of events and their timing is in some degree distorted.

Research execution
First, due to time restrictions convenience sampling was applied. This means that the companies investigated in this research are the ones that the researcher had the access to and not necessarily the ones that provide most useful insights for BMI research.
Second, all the data was collected and analysed by a single person the results might be affected by the individual perception of the researcher. Due to the nature of the study it was not possible to cross-check researcher’s interpretation of the findings, which could normally be applied to improve the quality of the analysis. Findings from the study were validated by sharing them with the two interviewees so that the individual interpretation of the data is limited.
6.5. Further Research

Limitations of this study discussed in previous section are the source of some of the future research opportunities. This section gives recommendations for future research.

First, findings from this research could be strengthened by examining larger number of European SMEs operating in different context and industries. Afterwards, individual findings could be examined and generalized by means of quantitative research. Furthermore, research on business model innovation process could particularly benefit from longitudinal case studies during which researcher would have the opportunity to conduct the observations before, during and after conducting business model innovation by the companies.

As already mentioned this research looked at the BMI process in SMEs through the lens of top management and left out all the other stakeholders. It could be interesting to compare management’s view of the BMI process and their role in it with the view of the other organization members. Other than that BMI could be examined more externally by analyzing how business model innovation in one company influences other actors in this company’s value network.

It could also be of interest to examine the impact of BMI in one company on its competitors or industry as whole.

This research confirmed the crucial role of the SMEs top management in the BMI and the positive influence of managerial human and social capital on this process and its outcomes. The question remains with respect to the role of managerial cognition in the BMI process.

Finally, both of the interviewees highlighted the importance of working with the ‘right’ people for BMI. Therefore, BMI research could benefit from looking at how team composition and its individual members contribute to BMI process.
7. References


Schindler, Anna (2015) *Ambidextrous Leadership: the role of flexibly switching between opening and closing leadership behaviors for team innovative outcome in the case of management consultancies*. 

92


93


Voigt, Tim (2014) Ambidextrous leadership in innovation management processes: exploring the dynamics of opening and closing leadership behaviors at different levels of the Stage-Gate model


Appendix A - Business model CANVAS and STOF

Business Model CANVAS (Osterwalder & Pigneur, 2009)

Business Model STOF (Haaker, 2014)
Appendix B - STOF diagram of AudioTrip’s business model

Service Domain

Customers
- B2C: domestic and international tourists, storytellers (as author)
- B2B: institutions like museums and zoos

Value Proposition & Service
- A platform to distribute audio guides
- A platform to browse audio guides (free and paid)
- An engagement platform for community who loves tourism, history, and storytelling

Context of use
- Listen to every downloaded audio guide while tourist is on the go

Technology Domain

Organization Domain

Financial Domain

B2C
- Users
- (Individual) Authors
- Advertisers
- annual publishing fee
- content for download
- fee per download

B2B
- Institutions
- ExpoCity
- exposure to institutions
- visitors grant fee
- exposure to market
- custom service fee
- expose to market

Audiotrip
-暴露 to market
Appendix C - AudioTrip’s business model CANVAS

Business Model Canvas - B2C

Business Model Canvas - B2B

97
Appendix D - Agemar’s business model CANVAS

<table>
<thead>
<tr>
<th>Key Partners</th>
<th>Key Activities</th>
<th>Value Proposition</th>
<th>Customer Relationships</th>
<th>Customer Segments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contractors</td>
<td>Understanding customer need</td>
<td>Innovative and optimized solutions</td>
<td>Ensuring customer satisfaction</td>
<td>Various companies in investment goods market</td>
</tr>
<tr>
<td>Automation companies</td>
<td>Designing solution</td>
<td>Quality and excellence</td>
<td>Dedicated service</td>
<td></td>
</tr>
<tr>
<td>Materials providers</td>
<td>Mounting</td>
<td>Complex problem solving</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Freelance designers</td>
<td>Launching</td>
<td>Immediate service</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temporary employment agencies</td>
<td>Service</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Key Resources</th>
<th>Channels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering knowledge/Qualified personnel</td>
<td>Recommendations/ Word of mouth</td>
</tr>
<tr>
<td>Network of partners/ Ties with subcontractors</td>
<td>Subcontractors</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cost Structure</th>
<th>Revenue Streams</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equipment (devices)</td>
<td>Individually determined profit margin on each order</td>
</tr>
<tr>
<td>Materials</td>
<td></td>
</tr>
<tr>
<td>Remuneration</td>
<td></td>
</tr>
</tbody>
</table>


## Appendix E - Interview I - Guideline

### A. Company Overview

<table>
<thead>
<tr>
<th>No.</th>
<th>Question</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Founded in</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Industry</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Market</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Legal ownership</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Headquarter</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>No. of employees</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Management structure and role distribution</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Why did you create this company?</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Long-term vision</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Company values &amp; cultures</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Market dynamics</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Competition</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Regulation</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Driving technology</td>
<td></td>
</tr>
</tbody>
</table>

### B. Business Model

<table>
<thead>
<tr>
<th>No.</th>
<th>Question</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>What are your business model’s (BMs) /key activities/services?</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Who are your customers? Any particular target market?</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>When was the product first being introduced to the market?</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Through which channels do you communicate with customers?</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>How’s your value network?</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Have you conducted partnership with external parties so far? Who are they?</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>How does internal process look like? Are they formalized and described? Are they aligned with external processes?</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>What core technologies are used?</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>How is the product priced?</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>What are the cost components?</td>
<td></td>
</tr>
</tbody>
</table>
### Performance of the company

<table>
<thead>
<tr>
<th>No.</th>
<th>Question</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Is the company profitable, doing well?</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>How is performance measured within the company? Any Key Performance Indicators (KPIs)?</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Annual revenue</td>
<td></td>
</tr>
</tbody>
</table>

### Business Model Innovation & Effects

<table>
<thead>
<tr>
<th>No.</th>
<th>Question</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>How has the company evolved since it was founded until now? Any major structural changes (investment/M&amp;A/pivot)?</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Did the changes affect your business model (BM)? What are the changes?</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>What was the driver behind the changes? What is the focus (novelty/efficiency)?</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Is it a new business model (radical) or is it just small changes that adapted into the existing BM (incremental)?</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Is it totally new to the world or is it just a copy from existing business model in the market?</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>How was the Business Model change managed? Was use being made of Business Model methods (CANVAS and the like) or tools? Why used that particular tool?</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>In what phase is the BM Innovation process right now?</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>How does the organization manage its BMI process? Were internal and external stakeholders involved? If yes, what are their roles in the process?</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Are there any changes as a consequence to:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. Customer/service</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Technology</td>
<td></td>
</tr>
<tr>
<td></td>
<td>c. Organization</td>
<td></td>
</tr>
<tr>
<td></td>
<td>d. Operational</td>
<td></td>
</tr>
<tr>
<td></td>
<td>e. Cost structure &amp; revenue model</td>
<td></td>
</tr>
<tr>
<td></td>
<td>f. External entity (suppliers, partners, etc.)</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Did the Business Model Innovation deliver the expected results? Was it successful? How did you assess the effect of BMI (financial metrics and other KPIs)?</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Did the BMI process lead to improved</td>
<td></td>
</tr>
<tr>
<td>No.</td>
<td>Question</td>
<td>Remarks</td>
</tr>
<tr>
<td>-----</td>
<td>--------------------------------------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>1</td>
<td>What is your definition of leadership? How would you describe your leadership style?</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Why did you decide to change your company's business model?</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>What/Who was the source of the idea for new business model?</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>What were the key milestones in introducing the new business model?</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>How would you describe your role as a leader in this process? What were your tasks/responsibilities?</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Did you encounter any difficulties? If so what kind of and how did you deal with them?</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Was your knowledge, experience or business contact somehow helpful? If so how?</td>
<td></td>
</tr>
</tbody>
</table>

### E. Business Model Innovation Process - Role of Top Management & Leadership

a. Understanding of BM?  
b. Communication of BM?  
c. Finding blank spots or loopholes in BM?  
d. Strategic flexibility?

12 Is there any impact of new BM to the firm's strategy? Is there any attempt to fit the BM with strategy making process? If yes, how was it done?
## Appendix F - Original statements with translation

### AudioTrip

<table>
<thead>
<tr>
<th>Polish Original</th>
<th>English Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wiedzieliśmy ze ten pierwotny model ma problem z kosztem rekrutacji użytkownika i mieliśmy takie poczucie, że to nie zadziała.</td>
<td>We knew that this initial model has a problem with user recruitment cost and we had a feeling that it’s not going to work.</td>
</tr>
<tr>
<td>Zrozumienie, jaki sposób komunikacji z klientem, na jakim rynku pozwoli nam uzyskanie odpowiednich rezultatów i to nam zajęło kilka miesięcy.</td>
<td>Understanding, which way of communication with the client, in which market, will allow us to achieve suitable results and it took us a couple of months.</td>
</tr>
<tr>
<td>To oni, jako pierwsi stwierdzili, że to dla nich byłoby jak znalazł w czasie jednej czy dwóch rozmów. Wtedy jeszcze o tym nie myśleliśmy i to był jeden z takich pierwszych kontaktów, kiedy klient zupełnie niezobowiązująco stwierdził, że on by nawet za to zapłacił. To była jedna z takich przestanek mówiących, że to ma wartość i że można to ubrać z innej strony w coś sensownego.</td>
<td>They were the first ones who said that it would be a perfect solution for them during one or two calls. At that point of time we did not think about it yet and it was one of those first contacts when partner quite casually stated that he would even pay for it. It was one of such circumstances saying that it has a value and that you can turn it into something meaningful.</td>
</tr>
<tr>
<td>Błędem, który na początku popełnialiśmy było to, że próbowaliśmy opowiadać zbyt dużo i zbyt wchodzić w dyskusje przez telefon.</td>
<td>The mistake that we made at the beginning was that we tried to tell too much and entered too much into discussions on the phone.</td>
</tr>
<tr>
<td>Musieliśmy się nauczyć być bardziej B2B. Musieliśmy wchłonąć dużą dawkę wiedzy i trochę było się pogodzić emocjonalnie z tym, że ten poprzedni model nie działa.</td>
<td>We had to learn to be more B2B. We had to absorb large portion of knowledge and we had to come to terms emotionally with the fact that the previous model does not work.</td>
</tr>
<tr>
<td>Aktywnie szukałem informacji, pisałem maila i robiłem różne dziwne cuda żeby sprawdzić, co zadziała, brałem udział w spotkaniach. Po drugie motywowałem i w jakiś sposób zwoływałem spotkania, na których dyskutowaliśmy.</td>
<td>I actively looked for information, I wrote emails and I did various odd things to see what works, I took part in the meetings. Second, I motivated and somehow convoked the meetings during which we discussed.</td>
</tr>
<tr>
<td>Bo to jest tak, że potrzebujesz sukcesu i jak Ci setna rozmowa telefoniczna nie wychodzi i nikt nie chce nic od Ciebie kupować to potrzebujesz takiego kopa, że komuś innemu się udało nawiązać trzy fajne prospekty na LinkedIn, które prawdopodobnie przeryzują się w kontrakty, bo to już jest drugie spotkanie i dobrze idzie, więc budzi się w Tobie takie przekonanie ze ok to się da sprzedać tylko po prostu ten model nie działa trzeba wprowadzić modyfikacje do tego.</td>
<td>It is this way that you need a success. When your hundredth phone call does not work and none wants to buy anything from you then you need this kind of kick that someone else made three nice contacts on LinkedIn that are likely to turn into contracts, because it’s already the second meeting and it’s going well so you start to believe that one can sell it and it’s just that this model is not working and you need to implement some modifications.</td>
</tr>
<tr>
<td>Moją rolą było również to żeby motywować ludzi, organizować spotkania i pytać jak poszło? Jak było? Sprawdzać, w czym mogę pomóc, weryfikować czy na podstawie mojej wiedzy i mojego doświadczenia nie widzę jakiś błędów w postępowaniu.</td>
<td>My role was also to motivate people, to organize meetings and ask how it went. How was it? Check what can I help with, and based on my knowledge and my experience verify whether I don’t see any mistakes in the proceedings.</td>
</tr>
</tbody>
</table>
| Modyfikacja i moderacja tego, co robi reszta | Modification of moderation of what the rest of
zespołu, motywacja i przestrzeganie tego żeby każdy, włącznie ze mną, wywiązywał się z targetów, które sobie sami postawiliśmy, jako racjonalne i również wykonywanie swojego zestawu rzeczy do zrobienia, jako członek zespołu.

We did research on the current market situation, we have received some information and on this basis we were able to sit down to a simple Excel spreadsheet, calculate whether it makes sense and it turned out that it should have.

The team does, motivation and making sure that everyone, including me, complies with the targets that we set ourselves as rational, and also doing my set of tasks as a team member.

Zrobiliśmy badania dotyczące tego jak wygląda obecnie sytuacja na rynku, otrzymaliśmy pewne dane i na ich podstawie byliśmy w stanie usiąść do prostego arkusza w Excelu, policzyć czy to ma sens i okazało się, że powinno mieć.

During some discussion and talk, one of many, we came to conclusion that we could try and we did, we made some tests. We started to talk to our partners and this turned out to be credible

During some discussion and talk, one of many, we came to conclusion that we could try and we did, we made some tests. We started to talk to our partners and this turned out to be credible.

Wszyscy mają głos w podejmowaniu decyzji, opinie wszystkich są wysłuchiwane.

Everybody has a voice in the decision-making, all opinions are heard.

Owszem to ja jestem osobą odpowiedzialną w ostatecznym rozrachunku za podejmowanie decyzji natomiast podejmujemy decyzje kolektywnie.

Yes, I am the person responsible ultimately for decision making but we make decisions collectively.

Umiejętność kierowania zespołem w taki sposób żeby realizował wspólnie postawione cele

Ability to lead a team in such a way that it pursues jointly set goals

Umiejętność uzyskiwania z ludzi możliwie największego potencjału.

Ability to obtain the greatest possible potential from people.

Przeprowadzenie kampanii marketingowo-sprzedażowej, wcześniej poprzedzone przygotowaniami, czyli przygotowaniem sensownych materiałów, które pozwoliły nawiązać te kontakty

Conducting marketing and sales campaign, preceded by preparation, i.e. the preparation of meaningful materials that allowed establishing those contacts.

Prosty research odnoszący się do tego ile mamy potencjalnych klientów, na jakim rynku i jakby to mogło działać.

Simple research related to how many potential customers there are, on what market and how it could work.

Drobne modyfikacje, tak naprawdę związane już z realizacją konkretnych kontraktów na zamówienie.

Minor modifications related to implementation of specific contracts on request.

Fakt, że łączyliśmy wszyscy wizje miał duże znaczenie, a moja rola w tym nie była większa niż reszty członków zespołu.

The fact that we had a joint vision was of great importance, and my role in this was not bigger than the rest of the team members.

Dzięki temu, że mamy taką, a nie inną strukturę wszyscy siebie nawzajem w różnych momentach wspierali.

Thanks to the fact that we have such a structure everyone supported each other in different moments.

To dawało mi poczucie komfortu psychicznego. Fakt, że wszyscy mieliśmy czas na dostosowanie się do tej zmiany był bardzo istotny jak i to, że go sobie nawzajem dawaliśmy.

It gave me the feeling of psychological comfort. The fact that we all had a time to adjust to this change was very important and the fact that we gave each other this time.

Wątpliwości było kilka, np. Czy B2B historie mogą być ciekawe

We had several doubts, for instance whether B2B stories can be interesting

INTERVIEW IN ENGLISH

If you have smaller organization full of great people you want to include them all in the
**INTERVIEW IN ENGLISH**

The fact that they are being engaged is bringing the value to them because they feel included and it’s very important to be included but on the other hand it’s also the fact that they own the shares of the company so they are taking care of what’s theirs.

**INTERVIEW IN ENGLISH**

Openess so everyone know a lot about company’s situation right now and we are together happy and we are together sad if something goes either good or bad. We are all friends and cultural fit is a very strong factor while employing new people. One of the key aspects is if the person will be a good cultural fit for us.

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**Agemar**

<table>
<thead>
<tr>
<th>Polish Original</th>
<th>English Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gdyśmy działali tak jak do tej pory to występuje już bariера wzrostu. Zatrzymamy się na tym poziomie, na jakim jesteśmy, jeżeli chcemy żeby firma się rozwijała dalej to musimy wykonać kolejny ruch. Ruch, który wykonujemy teraz jest ruchem skokowym, rewolucyjnym. On zmienia zupełnie to, co było do tej pory. Wzrasta ryzyko, bo rośnie poziom kosztów stałych, ale z drugiej strony wzrasta rentowność poprzez wykonywanie operacji u siebie. Przy założeniu, że odpowiednia ilość zamówień wpłynie, będzie z tego znacznie większy zysk. (...) Podchodząc rzetelnie do sprawy taki jest kolejny krok.</td>
<td>If we acted as we did so far, it creates a barrier for growth. We’ll stay at this level at which we are. If we want the company to grow further we have to make the next move. The move we are making right now is a “jump” move and it is revolutionary. It changes everything that used to be until now. The risk increases because the fixed costs increase but on the other hand, performing operations at home increases profitability. Assuming that we have sufficient number of orders, the profit will be much bigger (...) Treating the case fairly that is the next step.</td>
</tr>
<tr>
<td>Jestem jedyna osobą, która nic nie wytwarza w tej fabryce, “wytwarzam” tylko strategię działania.</td>
<td>I am the only person that does not produce anything in this factory, I “produce” only the strategy.</td>
</tr>
<tr>
<td>Oczywiście, że jest rozdźwięk zdań. Bo każdy chciałby zarabiać pieniądze, ale nie każdy godzi się z określonymi konsekwencjami (...) cały wic polega na tym żeby nie go przegłosować tylko go przekonać.</td>
<td>Of course there were differences in opinion. Because everyone wants to make money, but not everyone agrees with the particular consequences (...) The problem is not to outvote him but to convince him.</td>
</tr>
</tbody>
</table>
| Przywództwo to moim językiem oznacza posiadać autorytet. Przywódcze polega na tym, że ktoś jak gdyby wykonuje nie tyle Twoje polecenia ile współpracując z Tobą działa tak jak ty sobie wyobrażasz, jakbyś chciał. Ponieważ umiesz wpłynąć na niego żeby on w te sposób postępował. Absolutnie nie jest to ranga, nie jest to szarża, czyli formalne. | Leadership is my language is to have authority. So leadership does not mean that someone performs your commands but it means that when he collaborates with you he acts the way you imagine, the way you want. Because you can influence him so that he acts this way It is absolutely not a rank, which means leading.
Mamy ileś tam wzorców, z których możemy sobie czerpać. To nie jest tak, że się wymyśla coś zupełnie nowego tylko chodzi po prostu o to, że niektóre modele biznesowe są na danym etapie rozwoju firmy niedostępne. To, co robimy jest pewną logiczną kontynuacją. Przedtem musiało być tak, doszliśmy do pewnego etapu, więc coś zmieniamy i teraz będzie inaczej. Nie jest to coś takiego, że zobaczyliśmy gdzieś model biznesowy, postanowiliśmy go wdrożyć. There are some models that we can draw on. It is not so that we invent something completely new but some business models are simply not available at certain stages of company development. What we are doing is a logical continuation. Before we had to do the way we did, we have come to a certain stage, so we change something, and now we will do things differently. It is not that we saw a business model somewhere and we decided to deploy it.

Wcześniejsze kontakty pozwalały na odwagę podjęcia działania(...) Było nam łatwiej podejmować takie decyzje, bo nam się wydawało, że mamy określone możliwości zarówno po stronie klientów jak i po stronie łańcucha dostaw (...) To pozwoliło nam tak śmiało działać. Earlier contacts gave us courage to take action (...) It was easier for us to make such decisions, because we thought that we have certain capabilities on both the client and on the supply chain side (...) This allowed us to act confidently.

All of my employees are my former colleagues. It helps me a lot that I worked in a few places and had these people to employ

Nie ma problemu z tym żeby działało się to według mojego scenariusza, bo jestem jedyną osobą, która ogarnia całość problemu There is no problem with the things happening the way I want them to, because I'm the only person who embraces the whole problem.
Jeśli chodzi o sposoby działania, bo model biznesowy to nic innego jak sposób działania wpływający na te trzy rzeczy: możliwości ekonomiczne firmy, nie każdy model można zrealizować od samego początku; wiedza ludzi, którzy ten biznes prowadzą, ja pracowałem w kilku firmach produkcyjnych, częścią z nich dowodziłem i miałem okazje zaoferować różne przypadki. W związku z tym wiedziałem, do czego dałem się i jest to kwestia tylko tego, jaką ścieżkę się przyjmie. I trzeci warunek, żeby realizować określone cele trzeba mieć, kim. Musisz mieć to szczęście żeby trafić na swoją drodze na ludzi, którzy się do tego nadają, którzy z Tobą pójdą.

When it comes to ways of operating, because the business model is nothing else than way of operating, it is influenced by three things: limited financial capabilities of the firm, you can’t realize whichever business model you want from the very beginning; knowledge of the people who run this business, I worked in several production companies, I managed some of them and I had a chance to observe several cases. Therefore, I knew what we are aiming for, and it was only the question of which path to adopt. And the third condition to pursue specific goals is that you need the right people. You need to this luck to meet on your way people that are suitable for this, people that will follow you.

Traktujemy pracowników w zasadzie jak współpracowników, a nie pracowników. Każdy odpowiada za siebie, staramy się żeby atmosfera była na tyle dobra żeby nie musieć walczyć o ludzi ekonomicznie. Ludzie mają dużo samodzielności i nikt ich nie pilnuje. Tak jak mówiłem są dwa szczeble i nie ma pośrednich tzw. nadzorców (...) i dopóki nie zostanie przyłapany na „oszustwie” to trwa domniemanie uczciwości i rzetelności. Jak do tej pory się to sprawdza, nie mamy kłopotów ani z wydajnością pracy, ani merytorycznie z wykonywaniem zadań. Mamy ludzi, którzy chętnie się uczą i starają się zasłużyć na pewnego rodzaju system motywacyjny, który jest w pełni uznanowy.

We treat employees essentially as collaborators, not employees. Everyone is responsible for himself; we try to make the atmosphere good enough not to have to fight for the people economically. People have a lot of independence and no one watches them. Like I said there are two hierarchical levels and there is no so-called intermediate management (...) until someone is caught on “cheating” we take a presumption of honesty and integrity. So far it works; we do not have any problem with work productivity or with the merits of the performed of tasks. We have people who are willing to learn and try to deserve some kind of incentive system, which is fully discretionary.
### Appendix G - Coding of the interviews

<table>
<thead>
<tr>
<th>open code</th>
<th>axial code</th>
<th>selective code</th>
</tr>
</thead>
<tbody>
<tr>
<td>- current model not profitable</td>
<td>facing difficulty</td>
<td>REASON FOR BMI</td>
</tr>
<tr>
<td>- desire to grow and increase revenue</td>
<td>recognizing opportunity</td>
<td></td>
</tr>
<tr>
<td>- CEO's knowledge of the industry</td>
<td>source of ideas for new BM</td>
<td>NEW BM DEVELOPMENT</td>
</tr>
<tr>
<td>- talking to partners</td>
<td>stages of development of new BM</td>
<td></td>
</tr>
<tr>
<td>- developing concept of BM</td>
<td>required activities for developing new BM</td>
<td></td>
</tr>
<tr>
<td>- re-finig new BM</td>
<td>stages of development of new BM</td>
<td></td>
</tr>
<tr>
<td>- team meetings and discussions</td>
<td>required activities for developing new BM</td>
<td></td>
</tr>
<tr>
<td>- market research</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- consulting partners</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- hiring new people</td>
<td>HR changes</td>
<td>IMPLEMENTATION AND OPERATION OF NEW BM</td>
</tr>
<tr>
<td>- system modifications</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- adapting new technologies</td>
<td>adjustment of technological facilities</td>
<td></td>
</tr>
<tr>
<td>- investing in property</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- purchasing equipment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- re-allocating resources</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- changing employees' everyday routine</td>
<td>structure adaptation</td>
<td></td>
</tr>
<tr>
<td>- carrying out new activities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- setting up new processes</td>
<td>process adaptation</td>
<td></td>
</tr>
<tr>
<td>- new customers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- changes in partnerships</td>
<td>change in value network</td>
<td></td>
</tr>
<tr>
<td>- financial success</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- increasing company independence</td>
<td>benefits for company</td>
<td>OUTCOMES OF BMI</td>
</tr>
<tr>
<td>- being more price competitive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- increased brand awareness</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>- managing director/CEO</strong></td>
<td><strong>key actors in BMI</strong></td>
<td>CARRYING OUT BMI</td>
</tr>
<tr>
<td>- team members</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- emotional challenge</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- resistance within company</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- finding the right people</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- operating new BM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- making mistakes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- having to learn what works</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- finding first clients</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**NEW BM DEVELOPMENT**

- system modifications
- adapting new technologies
- changing employees' everyday routine
- increasing company independence
- being more price competitive
- increased brand awareness

**IMPLEMENTATION AND OPERATION OF NEW BM**

- simulation of new BM
- required activities for developing new BM
- team meetings and discussions
- talking to partners

**OUTCOMES OF BMI**

- increasing company independence
- being more price competitive
- increased brand awareness

**CARRYING OUT BMI**

- finding first clients
- having to learn what works
- finding first clients

**GETTING USED TO NEW BM**

- having success
- making mistakes
- finding first clients
- finding first clients
- having to learn what works
- finding first clients
- finding first clients
- making mistakes
### Identified roles of top management

<table>
<thead>
<tr>
<th>ROLE OF TOP MANAGEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>- developing strategy for action</td>
</tr>
<tr>
<td>- supporting the rest of the team</td>
</tr>
<tr>
<td>- empowering employees to be involved</td>
</tr>
<tr>
<td>- taking responsibility for decisions</td>
</tr>
<tr>
<td>- moderating the work of rest of the team</td>
</tr>
<tr>
<td>- performing tasks as team member</td>
</tr>
<tr>
<td>- organizing the work</td>
</tr>
<tr>
<td>- verifying work of team</td>
</tr>
<tr>
<td>- controlling targets achievement</td>
</tr>
<tr>
<td>- having long-term vision of new operating models</td>
</tr>
<tr>
<td>- motivating the team</td>
</tr>
<tr>
<td>- taking decisions</td>
</tr>
<tr>
<td>- resolving conflicts</td>
</tr>
<tr>
<td>- finding new employees</td>
</tr>
</tbody>
</table>
Appendix H - Case study report – AudioTrip

CASE CONTACT DATA

<table>
<thead>
<tr>
<th>Name of the Company</th>
<th>AudioTrip Sp. z o.o.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact person</td>
<td>Michal Kępiński (CEO)</td>
</tr>
<tr>
<td>Address</td>
<td>Pl. Wolności 1/2 43-300 Bielsko-Biała</td>
</tr>
<tr>
<td>E-mail</td>
<td><a href="mailto:office@audiotrip.pl">office@audiotrip.pl</a></td>
</tr>
<tr>
<td>Website</td>
<td><a href="http://www.audiotrip.org/">http://www.audiotrip.org/</a></td>
</tr>
<tr>
<td>Phone</td>
<td>-</td>
</tr>
</tbody>
</table>

RESEARCH SHEET

<table>
<thead>
<tr>
<th>Responsible researcher</th>
<th>Marta Sobieraj</th>
</tr>
</thead>
<tbody>
<tr>
<td>The research period</td>
<td>1.03.2016-31.07.2016</td>
</tr>
<tr>
<td>Research approach</td>
<td>Case Study</td>
</tr>
</tbody>
</table>
| Data collection        | Method: Interview  
|                       | No. of interviews: 3  
|                       | Interviewee: CEO  
|                       | Approx. duration: 30-45 min each  
|                       | Language: English (2), Polish (1)  
|                       | Means: video conferencing software (Skype)  
|                       | Documentation method: audio file, partial transcript |
| Theories used          | Concepts with regard to leadership, Porter’s 5 forces, RBV, STOF, Roadmap, KPIs |
| Data-analysis          | Usage of codes and coding: Done  
|                       | Coding steps: Open, axial & selective coding |
| Software used for analyses: | N/A |

VALIDATION AND REVIEW OF CASE REPORT

<table>
<thead>
<tr>
<th>Validated by contact person</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Validated by co-researchers</td>
<td>No</td>
</tr>
<tr>
<td>Reviewed by ENVISION researchers</td>
<td>No</td>
</tr>
<tr>
<td>Review by external reviewers</td>
<td>No</td>
</tr>
</tbody>
</table>

SME's BACKGROUND INFORMATION

| Background characteristics | The case organization is a provider of the leading market solution for audio tours. AudioTrip Sp. z o.o. develops an application that discovers new places, guides along designated routes, and tells stories about places visited. The company creates scripts for audio guides and urban games, translates scripts into any language, records |

109
<table>
<thead>
<tr>
<th>Established in</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size (No. of employees)</td>
<td>Small: 10-15 employees, currently expanding</td>
</tr>
<tr>
<td>Turnover</td>
<td>25,000 Euro/year (revenue)</td>
</tr>
</tbody>
</table>
| Location | Headquarter: Bielsko Biała, Poland  
Regional offices: Warsaw, Prague & London |
| Industry | Leisure, Travel & Tourism |
| Market area | Both national & international, mainly: Poland, UK & France. |
| Market segment | Industry specific Focus: Tourism; The target customers include: publishers, storytellers, tour guides, tourists, travellers, cities and municipalities, museums and other cultural institutions. |
| BtoB/BtoC/BtoG | B2B & B2C |
| Value Offering | AudioTrip platform saves authors inconvenience of the expensive and non-functional systems, allows distributing audio guides directly on the device belonging to the visitors or to lend them cheaper and infinitely more useful tablets and other mobile devices of the new generation. It allows building narration around places, sights and attractions with no necessity to invest and maintain customized applications. The delivered content is of high quality and is available in multiple languages. All this to provide unique experience to the visitors. Moreover, AudioTrip offers independent, satisfying and time efficient sightseeing. Users can easily find themselves in new location as the application guides them along the route with a passionate narrative of local experts - all of that in real time. |
| Legal Ownership structure | Private limited liability company (LLC). The head of the company is chief executive officer (CEO) who has been in IT business since 2006 and has been an IT manager in 3 companies before he started AudioTrip. |
| Management team | There is no hierarchical structure in AudioTrip. The founder who is also the owner and the CEO, implements kind of “Tribal” leadership in the company, where the command is centralized in one leader and tasks are splitted into two divisions: business and technical. |
| Lifecycle phase of SME | Start-up |
| Family business | No |
| Female business/involvement | No |
COMPANY CULTURE

Strategy

- Focusing on being the marketplace for digital audio guides.
- Offering users, particularly the paid ones, high quality service, namely superior audio guide, reliable application, and excellent customer service.
- Optimising internal business process and concurrently keeping abreast with the market dynamics by implementing agile software development methodology and maintaining low software development cost.

Cultural characterization

AudioTrip embraces the openness and treat like-a-family culture. Starting from the hiring process, the founder wants to ensure that a new hire should be a cultural-fit for this less formalised company.

Entrepreneurial orientation

Company willing to take some risks

Market orientation

AudioTrip make custom made audio guides to meet particular needs of their B2C clients.

Learning orientation

AudioTrip values learning and is aware of importance of development of new knowledge.

Technology level

Technology plays an important part in AudioTrip’s BM but the company does not aim to achieve a competitive advantage through technological innovation (Low-tech)

Innovativeness of the firm

Company does not focus on innovation itself. The innovation which in this case is expansion to B2B market is revenue driven.
DESCRIPTION OF THE ENVIRONMENT OF THE COMPANY IN TERMS OF

<table>
<thead>
<tr>
<th>Market dynamics</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competitor behavior</td>
<td>Competition level: medium to high; 10-15 direct competitors</td>
</tr>
<tr>
<td>Regulation (if relevant)</td>
<td>Not relevant – basic IT law</td>
</tr>
<tr>
<td>Driving technologies (if relevant)</td>
<td>Mobile and location-based technology</td>
</tr>
</tbody>
</table>

BUSINESS MODEL INNOVATION

<table>
<thead>
<tr>
<th>Driver behind BMI</th>
<th>AudioTrip was forced to engage in the BMI process because it was facing an internal threat, namely its current business model was not bringing the expected results.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focus of the BMI</td>
<td>Market segmentation, increasing profitability</td>
</tr>
<tr>
<td>Phase of BMI</td>
<td>BM redesign</td>
</tr>
<tr>
<td>BM ontology used</td>
<td>STOF framework</td>
</tr>
</tbody>
</table>

**BM tooling use**

Business Model Roadmapping

**BM Metrics used**

AudioTrip added metrics that are relevant to measure the success of the business model innovation such as:

- The number of new partnerships created with institution
- The actual revenue from B2B market (from both custom audio guide development and white-label application development)
- The actual profit from B2B market (from both custom audio guide development and white-label application development)

**Management of the BMI process**

The BMI process was managed internally by the CEO. External stakeholders were involved to validate the idea in the development phase to evaluate its odds of succeeding.
<table>
<thead>
<tr>
<th>Changes in BM elements</th>
<th>BM Change</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Service domain:</strong> Offer audio guide creation service</td>
<td>Instead of just providing platform for audio guide production and sharing, AudioTrip is now also creating audio guides for cultural institutions such as museums or zoos (It offers B2B project-based audio guide creation service).</td>
<td></td>
</tr>
<tr>
<td><strong>Technology domain:</strong> Different identification system</td>
<td>Unlike outdoor trips that use GPS to determine which audio file should be played in a particular moment based on tourist location, indoor venues require other type of trigger since GPS cannot be used for navigating indoors.</td>
<td></td>
</tr>
<tr>
<td><strong>Organization domain:</strong> New type of actor in the value network</td>
<td>Next to B2C customers AudioTrip is now also having B2B customers to whom it offers audio guides creation service.</td>
<td></td>
</tr>
<tr>
<td><strong>Financial domain:</strong> Financial structure modification</td>
<td>B2B projects are a new source of revenue for but at the same time it needs to bear the cost for additional personnel required to provide to additional services.</td>
<td></td>
</tr>
</tbody>
</table>
### EVALUATION OF EFFECTS

<table>
<thead>
<tr>
<th>Level of radicalness of the BMI</th>
<th>Incremental innovation that was a part of the core business; expansion from B2C to B2B market.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of disruptiveness of the BMI</td>
<td>Copy of existing model from the market</td>
</tr>
<tr>
<td>Key performances metrics</td>
<td>N/A</td>
</tr>
<tr>
<td>Is the BMI initiative considered as successful</td>
<td>Yes, the company started to be profitable</td>
</tr>
</tbody>
</table>
| What is the expected outcome | In financial terms: Increased profitability  
Sustainability, viability, continuation of business: More viable as a result of profitability. |
| Operational /Organizational changes | Business logic was not affected by BMI |
| Impacts to strategy | Not affected |

### COMMUNICATION VALUE OF THE CASE

<table>
<thead>
<tr>
<th>Keywords</th>
<th>BM Innovation, expansion from B2C to B2B market</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suggestions for usage of the case materials</td>
<td>Presentation to the CEO of the company</td>
</tr>
</tbody>
</table>
| Lessons learned | • Certain phases of BMI process occur concurrently rather than one after another.  
• Transformational leadership behaviours of top management are likely to positively contribute to development phase of BMI process.  
• Transactional leadership behaviours of top management are likely to positively contribute to implementation and operation phase of BMI process  
• Overall specific nature of BMI process requires situational leadership behaviours of top management.  
• The explicit depiction of interrelation between domains and elements in STOF framework is helpful to trace the ‘path of consequences’ when analyzing the BMI. |
Appendix I - Case study report– Agemar

CASE CONTACT DATA

<table>
<thead>
<tr>
<th>Name of the Company</th>
<th>Agemar Sp. z o.o.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact person</td>
<td>Wiesław Nawlicki (CEO)</td>
</tr>
<tr>
<td>Address</td>
<td>Ul. Sienkiewicza 10 95-100 Zgierz</td>
</tr>
<tr>
<td>E-mail</td>
<td><a href="mailto:info@agemar.pl">info@agemar.pl</a></td>
</tr>
<tr>
<td>Website</td>
<td><a href="http://www.agemar.pl/">http://www.agemar.pl/</a></td>
</tr>
<tr>
<td>Phone</td>
<td>-</td>
</tr>
</tbody>
</table>

RESEARCH SHEET

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<th>Marta Sobieraj</th>
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</thead>
<tbody>
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</tr>
<tr>
<td>Research approach</td>
<td>Case Study</td>
</tr>
<tr>
<td>Data collection</td>
<td>Method: Interview</td>
</tr>
<tr>
<td></td>
<td>No. of interviews: 3</td>
</tr>
<tr>
<td></td>
<td>Interviewee: CEO</td>
</tr>
<tr>
<td></td>
<td>Approx. duration: 30-45 min each</td>
</tr>
<tr>
<td></td>
<td>Language: Polish (3)</td>
</tr>
<tr>
<td></td>
<td>Means: face-to-face</td>
</tr>
<tr>
<td></td>
<td>Documentation method: audio file, partial transcript</td>
</tr>
<tr>
<td>Theories used</td>
<td>Concepts with regard to leadership, Porter’s 5 forces, RBV, CANVAS, Roadmap, KPIs</td>
</tr>
<tr>
<td>Data-analysis</td>
<td>Usage of codes and coding: Done</td>
</tr>
<tr>
<td></td>
<td>Coding steps: Open, axial &amp; selective coding</td>
</tr>
<tr>
<td>Software used for analyses:</td>
<td>N/A</td>
</tr>
</tbody>
</table>

VALIDATION AND REVIEW OF CASE REPORT

<table>
<thead>
<tr>
<th>Validated by contact person</th>
<th>Yes</th>
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</thead>
<tbody>
<tr>
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<td>No</td>
</tr>
<tr>
<td>Reviewed by ENVISION researchers</td>
<td>No</td>
</tr>
<tr>
<td>Review by external reviewers</td>
<td>No</td>
</tr>
</tbody>
</table>
**Background characteristics**

Agemar Sp. Z o.o is a Polish small enterprise incorporated in 2012 and based in Zgierz, Poland. Company specializes in design and construction of conveyors and any devices that support internal transport. Based on independently manufactured products as well as equipment obtained from reputable companies, Agemar produces complex handling systems equipped with modern control systems.

<table>
<thead>
<tr>
<th>Established in</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size (No. of employees)</td>
<td>Small: 10-15 employees, still growing</td>
</tr>
<tr>
<td>Turnover</td>
<td>Unknown</td>
</tr>
<tr>
<td>Location</td>
<td>Zgierz, Poland</td>
</tr>
<tr>
<td>Industry</td>
<td>Investments Goods</td>
</tr>
<tr>
<td>Market area</td>
<td>Mainly national; single foreign clients, in such cases transaction is always concluded in Poland and cooperation ends with the assembly of the equipment (no international service)</td>
</tr>
<tr>
<td>Market segment</td>
<td>Industry specific Focus: Investment Goods. The target customers include any business that owns production facilities and needs to transport products inside. Particular focus on enterprises that experience some problem or bottleneck in the production process and require tailor-made solution.</td>
</tr>
<tr>
<td>BtoB/BtoC/BtoG</td>
<td>B2C</td>
</tr>
<tr>
<td>Value Offering</td>
<td>Agemar provides its customers with optimized and innovative solutions that streamline and speed up subsequent stages of the production process. Company tries to meet even the most unusual demands of its clients and undertakes to solve complex problems related to internal transport. It executes difficult orders that others do not even take. Since the company is perceived through the prism of the projects it realizes, Agemar pays much attention to the quality and excellence of its work. In order to satisfy its customers’ needs company does it utmost to learn and understand the business partner process and find the best possible solution to the existing problem. Furthermore, clients can be sure that they are not left alone with the installed handling system after project completion. Agemar offers them an immediate service of all the installed equipment.</td>
</tr>
</tbody>
</table>

**Legal Ownership structure**

Private limited liability company (LLC). The head of the company is chief executive officer (CEO) who has almost 20 years of experience in managing manufacturing companies, up to 250 employees.

**Management team**

Agemar hierarchical structure is rather flat. Company consists of the CEO, two associate directors (who do not play...
active role in company management but rather perform their job, one as engineer constructor and the other as salesman), and the rest of the team/company employees.

<table>
<thead>
<tr>
<th>Lifecycle phase of SME</th>
<th>Established venture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family business</td>
<td>No</td>
</tr>
<tr>
<td>Female business/involvement</td>
<td>No</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Value network/Partner reliance</th>
<th>Main partners:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Partner/Supplier</strong></td>
</tr>
<tr>
<td></td>
<td>Contractors producing some of the elements</td>
</tr>
<tr>
<td></td>
<td>Suppliers of automation equipment and electronics</td>
</tr>
<tr>
<td></td>
<td>Technical Materials Providers</td>
</tr>
<tr>
<td></td>
<td>Freelance Designers</td>
</tr>
<tr>
<td></td>
<td>Temporary employment agencies</td>
</tr>
</tbody>
</table>

**COMPANY CULTURE**

| Strategy | • Offering its customers’ the best possible solution: high-quality, innovative, optimized and tailored made to solve their particular problem. • Providing rapidly responding and excellent service of installed devices. |
| Cultural characterization | Relation between the CEO and the employees can be characterized by relatively high level of power distance. Nevertheless, employees are endowed with trust and have freedom with regards to completion of their tasks. |
| Entrepreneurial orientation | Company willing to take calculated risks |
| Market orientation | Agemar focuses on solving its clients’ problems by delivering high quality, innovative and optimized solutions. |
| Learning orientation | No information |
| Technology level | Technology does not play important role in Agemar’s BM but the company uses novel technologies to develop its products. |
Innovativeness of the firm

Agemar offers its clients innovative solution based on novel ideas and newest technologies.

DESCRIPTION OF THE ENVIRONMENT OF THE COMPANY IN TERMS OF

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Market dynamics</td>
<td>Low</td>
</tr>
<tr>
<td>Competitor behavior</td>
<td>Competition level: high; project based competition</td>
</tr>
<tr>
<td>Regulation (if relevant)</td>
<td>Not relevant</td>
</tr>
<tr>
<td>Driving technologies (if relevant)</td>
<td>Not relevant</td>
</tr>
</tbody>
</table>

BUSINESS MODEL INNOVATION

Driver behind BMI

BMI in Agemar had both internal and external origins. First, company recognized that their customers increasingly required not only the product but also its service and therefore, decided to extend its portfolio. Later on they decided to adjust the business model again because they saw the opportunity to grow with the new improved BM.

Focus of the BMI

Growth, increasing profitability

Phase of BMI

BM redesign

BM ontology used

CANVAS framework

Focus of the BMI

Growth, increasing profitability

Phase of BMI

BM redesign

BM tooling used

Business Model Roadmapping

BM Metrics used

Agemar uses metrics that are relevant to measure the success of the business model innovation such as:

- Actual revenue
- Actual profit
- Number of new customers acquired
- Number of projects realized
- Value of projects realized

Management of the BMI process

The BMI process was managed internally by the CEO.
<table>
<thead>
<tr>
<th>Changes in BM elements</th>
<th>BM Change</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Service Domain</strong></td>
<td>Value Proposition: Offer service of the installed devices</td>
<td>Instead of just offering designing and mounting of the devices, Agemar now offers help with device maintenance, reparations during the warranty period as well as post-warranty service. When notified of the defect service technicians are sent immediately to the client’s location.</td>
</tr>
<tr>
<td><strong>Service Domain</strong></td>
<td>Service offering: Lend technological facilities</td>
<td>Agemar's technological facilities are made available for rent to other companies.</td>
</tr>
</tbody>
</table>
| **Organization Domain**| Key activities: Assembly, manufacturing | • Instead of outsourcing activities to external parties Agemar starts to assemble the devices in house.  
• Simple mechanical operations begin to be carried out within the company.  
• All mechanical operations are carried out within the company. (Agemar is currently in the process of executing this change) |
| **Organization Domain**| Customer segment: New actor in the value network | Next to solving internal transport related problems of B2B customers, Agemar plans to have other B2B customers to whom it offers rental of its technological facilities. |
| **Organization Domain**| Key Partners: Termination of some partnerships | The more mechanical operations are performed in house, the less Agemar needs external contractors to produce the required elements. |
| **Technology**         | Key assets: Manufacturing equipment | Specialized equipment is needed in order to perform mechanical operations in house. |
Financial domain
Cost structure: Cost structure modification

Construction of the production hall and the purchase of technological equipment needed for the manufacturing process changes the cost structure of Agemar (fixed costs increase).

EVALUATION OF EFFECTS

<table>
<thead>
<tr>
<th>Level of radicalness of the BMI</th>
<th>Incremental innovation that was a part of the core business; moving down the value chain, performing more tasks in house and reducing dependence on external collaborations. BMI originated from organization domain.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of disruptiveness of the BMI</td>
<td>Copy of existing model from the market</td>
</tr>
<tr>
<td>Key performances metrics</td>
<td>N/A</td>
</tr>
<tr>
<td>Is the BMI initiative considered as successful</td>
<td>Yes, the company grew and increased its profitability</td>
</tr>
</tbody>
</table>
| What is the expected outcome | In financial terms: Increased profitability  
Sustainability, viability, continuation of business: Growth of business |
| Operational /Organizational changes | The change that Agemar is currently implementing significantly impacts its cost structure (increase of fixed costs). |
| Impacts to strategy | Not affected |

COMMUNICATION VALUE OF THE CASE

<table>
<thead>
<tr>
<th>Keywords</th>
<th>BMI, moving down the value chain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suggestions for usage of the case materials</td>
<td>Presentation to the CEO of the company</td>
</tr>
<tr>
<td>Lessons learned</td>
<td></td>
</tr>
</tbody>
</table>
• When the leader has far greater knowledge and experience than the rest of the team, BMI can benefit from autocratic leadership behaviors.  
• Dynamic managerial capabilities possessed by the company leader can facilitate business model innovation process.  
• Thanks to its simplicity CANVAS is a suitable tool to communicate about business models with SMEs. |