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EFFECTS OF NATIONAL CULTURES ON THE DEVELOPMENT OF DIGITAL BUSINESS MODELS IN THE TRAVEL INDUSTRY

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Effects of National Cultures on the Development of Digital Business Models in the Travel Industry

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A thesis submitted in partial fulfilment of the requirements for the degree of Doctor of Philosophy

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ABSTRACT

Nowadays, tourism as one of the leaders in digitalization undergoes fundamental changes caused by wide technology adoptions. The current trend of digitalization is increasingly important for tourism as for the information-based industry. Travel companies have to create new business models (BMs) to respond rapidly to the new landscape. Digital BMs replace traditional ones and become a significant part of the travel ecosystem.

Business reports show that the development of digital BMs in the travel industry is uneven across countries and regions. Previous literature confirmed that technology adoption and approach to innovations are linked to national cultures. At the same time, some researchers state that globalization and adoptions of digital technologies blur borders between countries and therefore national cultures lose their influence on companies. This study aims to clarify the role of national culture in the development of digital BMs.

The study addresses the research gap existing on the intersection of three research field: digitalization, BMs, and national cultures. Based on qualitative research, the study identifies present digital BMs in the travel industry and clarify the influence of national cultures on their development. Findings show that the travel industry faces the growth of the great variety of digital BMs: the study has revealed 53 digital BM configurations. Moreover, results confirm that national cultures maintain their impact on the digital travel business. Findings show that the impactful aspects of national cultures include various cultural dimensions linked to the system of values (such as Universalism vs. Particularism and Long-term vs Short-term Orientation) as well as societal institutions (e.g. payment systems, banking institutions).

The study results in a systematic and comprehensive typology of digital BM configurations in the travel industry which integrates the travel industry in the general stream of BM research. Moreover, the theoretical contribution comes from the exploration of new BM configurations and new cultural dimensions. Summarizing the revealed relationships, the study offers the model of the impact of national cultures on the development of digital BMs. For practitioners, the understanding of cultural aspects which support or inhibit the development of digital BMs help in the selection of an appropriate location for a business opening. Also, consideration of the effects of national cultures could minimize fears and risks associated with BM adoption across countries.

Keywords: business model, national culture, digitalization, institutional context, pragmatic grounded theory, travel industry

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LIST OF ABBREVIATIONS

BM	BM
BMC	BM Canvas
BMN	BM Navigator
BPM	Business Process Management
CIS	Commonwealth of Independent States
GDS	Global Distribution System
ICT	Information and Communication Technology
IoT	Internet-of-Things
OTA	Online Travel Agency

CHAPTER 1. INTRODUCTION

This chapter provides an introduction to the research background of the present study. The chapter begins with a review of main issues regarding the digital transformation of the travel industry, its influence on BMs (BM), and the role of national cultures in digital business. Also, the first section details the issues facing travel business and cultural differences in the digital era, followed by the statement of the problem. Summarizing other researchers' works, the research gap is identified. The research question and research objectives are specified. Furthermore, theoretical significance and practical implications of the study are discussed. The chapter completes the overview of the structure of the study.

1.1 Background

1.1.1 Current Impact of ICTs in Tourism

The travel industry undergoes fundamental changes caused by wide technology adoptions. Information and Communication Technologies (ICTs) have been affecting the travel industry continuously. Since the introduction of the first Global Distribution System (GDS), tourism has undergone several waves of fundamental transformations initiated by ICT adoptions (Buhalis & Law, 2008, Mitas et al., 2015). Information is an essential component of the travel industry (Pedrana, 2014) as well as innovations (Sipe, 2016). The recent wave of technological transformation has been called as digitalization.

Digitalization in the travel industry has become a shift that changes the whole travel ecosystem (Solvoll, Alsos & Bulanova, 2015). Tourists and travel companies are becoming more technologically advanced. The newly grown digital travel industry is characterized by customer-centricity and high personalization (Skift, 2018) and the boom of online distribution (World Economic Forum, 2017) including mobile channels. Technological changes create a huge array of business opportunities and threats (Iansiti & Lakhani, 2014, Buhalis & Law, 2008).

The changes are clearly evident in the figures of shares of online and offline bookings. According to the report by Phocuswright (2017), online travel penetration is constantly growing across all regions. By 2017, the share of online bookings has reached 51% in Europe, 48% in the US, 38% in APAC, 34% in Eastern Europe, 31% in Middle East, and 30% in Latin America. Phocuswright (2017) also predicts that online travel penetration will keep its speed

and even accelerate in developing countries. In 2017, the unconditional leaders of shares of smartphone users for mobile tourism planning and booking are India and Brazil (Think with Google, 2018).

Travel companies need to meet the challenges of the new digital environment. The global economy, IT-technologies, and increasing customer expectations have created a new landscape for business (McKinsey Center for Business Technologies, 2012, Mitas et al., 2015). Digital transformation is strategically important and even critical to companies (Höttges, 2017) and economy (Châlons & Dufft, 2017). Companies have to be constantly innovating to avoid falling behind (Dahlman, 2007). Currently, 20% of CEOs are taking a "digital-first" approach to business changes (Gartner, 2017). Globally, it is impossible to stand aside of digitization.

Limited resources of traditional BMs cannot answer the challenges of new digital environment (Mitas et al., 2015). Companies must reinvent the entire business process, including operating models, skills, organizational structures, and roles (Markovitch & Willmott, 2014). In the digital environment, innovative BMs are a way for travel companies to achieve competitive advantages (Souto, 2015). Digital business is not only about new products or new processes, but also it is better organization and management techniques (Dahlman, 2007). Therefore, building of innovative BMs are a critical point of success in the digital travel business.

The level of digital immersion varies as across industries as across countries. As it is shown in statistical data above, different regions have different online travel penetration rates. Similarly, different industries are affected by digitalization to different extent. Following sections present details of digital transformation of the travel industry in comparison to other industries and the divide of the development of digital travel business across the globe.

1.1.2 Growth of Digital BMs in the Travel Industry

The travel industry is one of the leaders in digitalization among industries. The Digital Vortex (Shan, Wade & Noronha, 2017) which is shown in Figure 1.1 represents the degrees of digitalization across industries. It shows that some industries such as media and entertainment, retail, telecommunication and others (deep blue on the Figure 1.1) are totally immersed in the digital disruption. They experience digital transformation for a certain time and their BMs are digitized to the maximum extent. Education, hospitality and tourism, manufacturing belong to the second group of industries (blue on the Figure 1.1). These industries are at the start of experiencing the full power of digital disruption. The last group of industries (light blue on the

Figure 1.1) which includes healthcare and pharmaceuticals, real estate and others is less affected by digitalization. Their turn to immerse in the digital era will come later. Summarizing, the travel industry is undergoing the digital transformation now.

Figure 1.1 The Digital Vortex. Adapted from Shan, Wade and Noronha (2017)

As a result of digitalization, new specific designs of businesses emerge in tourism. Encouraged and induced by the adoption of digital technologies and a broader use of digitized data, innovative companies build new BMs. Mobile app Hopper predicts price fluctuations of air tickets. Hotel search Trivago compares prices among OTAs. Crowdfunding platform TravelStarter is specialized on projects in tourism and hospitality. Digital law agencies AirHelp and ClaimCompass help to claim compensations from air companies. JetSmarter is a service of private jet bookings. There is a rise of companies with different variations of such BMs as platforms (Viglia, Werthner & Buhalis, 2016). For example, TripTogether is a social platform of collaborative travel planning. Flightfox is a platform of travel experts for crowd-sourced searches for airfare. TravelPort connects travel providers, travel agencies, investors, technological solutions, and other travel-related companies. Viator is a worldwide marketplace of local tours and excursions. The global success of Airbnb and their innovative BM which is a short-term rental platform led to emerging a set of companies with the same or similar BM:

HomeAway, HouseTrip, GowithOh. These companies and their BMs would hardly be possible without digital technologies. In these companies, digital technologies is a base for BM building.

The emergence of these new BMs is a clear evidence of digital transformation. The travel industry is no longer limited to six sectors listed by Leiper (1979, p.400): "marketing, carriers, accommodation, attractions, miscellaneous services, and regulation". Newly grown digital travel companies apply new architecture to develop innovative business. New BM configurations are grown in the travel industry to achieve competitive advantages (Souto, 2015). Researchers in the tourism field investigates some aspects of the current trend of emerging new BMs and replacement of traditional ones (e.g. Hsu, King, Wang & Buhalis, 2017). However, no systematic identification of digital BM configurations in the travel industry are conducted. It stays unclear – how these new travel businesses work.

This study focuses on digital BM configurations in the travel industry. Travel companies have created and built them in response to digitalization. Although accommodations and hospitality services, and food and beverage sector are important parts of tourism, the study focuses on the travel industry as the higher affected by digitalization.

1.1.3 Digitalization across Countries

From the geographical point of view, there is inequality of the level of digitalization across the globe. Divide in penetration of digital technologies across countries could be seen from the customers' perspective as well as from the suppliers' side. This section represents how different the level of development of the digital travel business around the globe is.

From the customer side, differences in digitalization might be seen in adoption of digital travel technologies. The share of online bookings varies significantly even within Western Europe. Gómez, Fernández and Navio-Marco (2018) show that countries in central and northern Europe such as Finland, the Netherlands, Austria have good ICT integration. At the same time, Mediterranean countries with the exception of Spain show results below average European indicators. According to Phocuswright (2018), the highest level online travel reservations is in the UK (60%) and Scandinavia (58%). At the same time, the share in Spain, France, and Germany is around 42-43%. In Italy, the offline bookings have an overwhelming predominance: only 37% of bookings are made online. Further, attitude to mobile technologies is also country-specific. Thus, in APAC region the share of reservation from mobile devices among online bookings is 48%, meanwhile in the USA this share is much smaller – 21%

(Phocuswright, 2017). These differences in customers' preferences create a gap in digital travel technologies among countries.

Table 1.1 Top Well-funded Travel Startups around the World by Phocuswright (2018)

Company	Share of overall foundation of travel startups	Country
Uber	27%	United States
Didi Chuxing	26%	China
Grab	6%	Singapore
Lyft	5%	United States
Airbnb	5%	United States
Ola	4%	India
Ofo	3%	China
Go-Jek	2%	Indonesia

Note: The report by Phocuswright (2018) indicates as at 1Q 2018

Looking from suppliers' side, the gap in digitalization could be observed in the development of digital travel companies and their revenue. Table 1.1 shows the most well-funded travel startups around the world and their countries of origin as at the first quarter of 2018 (Phocuswright, 2018). The top-funded travel startups are located in the United States, China, Singapore, India, and Indonesia. CBInsights (2017) also prove that the USA is the leader in growing travel startups from the investments perspective. 31% of overall global investments to travel tech startups were attracted by US-based travel startups. Smaller share of investments went to travel startups in India (10%), China (8%), followed by European countries: France (6%), Germany (6%), the UK (6%), and Spain (4%) (CBInsights, 2017). It could be clearly seen that the companies that got the highest investments are located in certain countries. Also, looking at market capitalization and revenue of online travel companies, the predominance of certain countries of origin might be observed. The highest market capitalization and annual revenue got by companies in the USA (TripAdvisor, Expedia, Airbnb and others), India (MakeMyTrip), China (Ctrip), Argentina (Despegar), Germany (trivago), the UK (On the Beach, lastminute.com) (Prieto, 2019).

Summarizing, certain countries and regions have evidences of rapid growth of the digital travel business. Digital travel companies in these countries show innovative BMs. New BM configurations grow in these countries accordingly fast. In particular, USA, China, UK, India appear in the tops of rankings of digital travel businesses, meanwhile many other

countries stay aside. Even developed countries such as Switzerland, Canada and the Netherlands show a modest level of the development of digital travel business.

Usually, researchers explain this phenomenon by economic, political, and socio-demographic factors. However, no in-depth analysis was conducted in order to investigate the effect of national cultures on the development of a digital business and digital BMs. The following section presents evidences of the impact of national cultures on traditional business and premises from the digital era.

1.1.4 Cultural Differences in the Digital Era

Existing literature shows evidences of effects of national cultures on traditional business. Scholars note that country-specific differences in national values, culture, institutional structures and history contribute to competitive success (Porter, 1990). The widely known studies by Tayeb (1987, 2003), Hofstede (1980 and Later works), Schwartz (1992, 1994b), Trompenaars and Hampden-Turner (1993, 2000, 2004), Hall and Hall (1987, 1998) have made a huge contribution to understanding of influence of national cultural specifics on business and have stressed the importance of studies in this sphere. Modern studies continue the main stream of exploration national and regional specifics (Tsui, Nifadkar & Ou, 2007). Even more recent studies such as the project GLOBE (House, Hanges, Javidan, Dorfman & Gupta, 2004, Kabasakal, Bodur, Chhokar, Brodbeck & House, 2008, and others) are focused on interconnections between cultural specifics and business. Since national cultures have an influence on traditional business around the world, it is likely to reveal their effects on digital business.

Evidences of connections of ICT adoptions and innovation adoptions with national cultures support the presence of the impact of national cultures on digital business. Technology development is inextricably linked to a country's cultural values. National cultures play role in a country's adoption of innovations (van Everdingen & Waarts, 2003). A few studies have been done to focus on the influence of cultural distance (Bagchi, Mandal & Choden, 2013) and cultural aspects (Zhao, Collier & Deng, 2014, Bagchi, Hart & Peterson, 2004) on global ICT adoptions. Digital technologies are affected by cultural differences and transfer this differences to digital business because digital technologies are a basis of digitalization. However, no comprehensive examination of the role of national cultures in digital business has been done. In this regard, the effect of national cultures on the development of digital BMs remains unclear.

1.2 Statement of the Problem

Digital BMs is key points of digital business. The current global trend of digitalization leads to a fundamentally new kind of business, namely, digital business. Encountering new digital environment, enterprises adapt their existing BMs or create new ones. Innovative BMs respond to digital environment making a company innovative and competitive among other travel companies. Digital BMs as a key part of the digital business is important to research in order to understand the deep changes underlying the digital transformation of the travel industry.

Since the building of digital BMs is a key part of digital transformation of the industry, their development at the country level is a crucial marker of growing digital travel business. The divide in their development is clear. Most scholars argue that ICT adoption and development of digital tourism are affected by national cultures. Therefore, the influence of national culture on the development of digital BMs is likely to be observed. Meanwhile, another opinion is that digitalization blurs countries' borders and differences in national cultures lose their power. Given this contradiction in the opinions about the effects of national culture in the digital era, clarification of the role of national culture is essential for the cross-cultural field.

The current literature lacks multiple culture (intercultural) perspective. The majority of studies with cross-cultural approach has comparative character, i.e. they look for similarities and differences between two or more countries or nations. However, this approach does not facilitate revealing of specific aspects (dimensions) of national cultures that influence on an object of research. In order to build up a full picture of the impact of cultures on the development of digital BMs, the intercultural approach which is not limited to comparing of a few countries.

1.3 Research Gap

The research gap of the study lies at the intersection of three fields: digitalization, BMs, and national cultures. They are presented in Figure 1.3. Although cross-cultural theories, the concept of digital BMs, and specifics of ICTs in the travel industry are scrutinized separately in literature, the intersection of these three research fields stays unexplored.The study investigates two main issues in the overlapping areas. Both issues have exploratory character. The arrows in Figure 1.3 show both overlapping zones.

The first issue is at the intersection of digitalization and the BM field. Since digital BMs are the core point of digital business, they are of particular interest for research in the

digitalization field. Considering the importance of ICTs for the travel industry and the current digital transformation, the first purpose of the study is to identify digital BMs inherent to the travel industry.

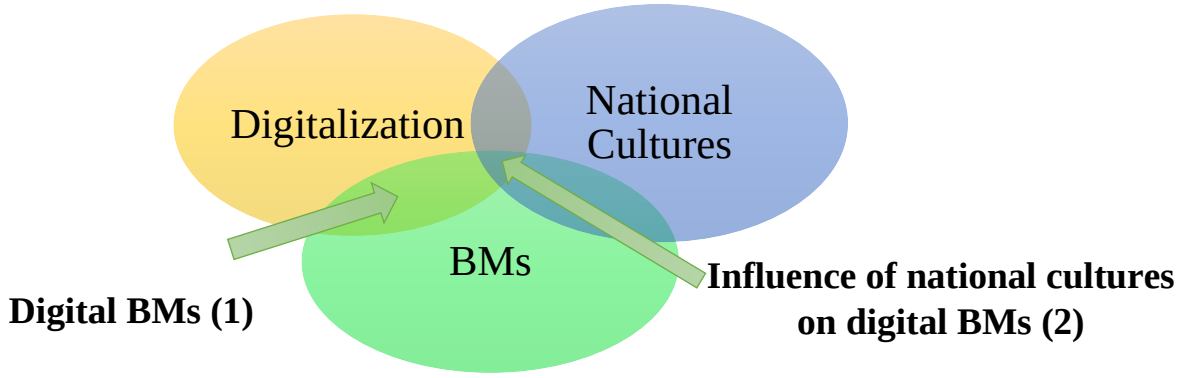

Figure 1.2 Scope of the Study

The second issue addresses the area in Figure 1.3 which is at the overlapping of all three fields. This part of research investigates the particular role of national cultures in digital BMs shaping. More precisely, the second purpose of the study is to explore aspects of national cultures which encourage or inhibit shaping of digital BMs in the travel industry. This part of the study examines digital BMs in the travel industry from the cross-cultural perspective based on findings from the first part of the study.

1.4 Research Question and Objectives

According to the abovementioned research gap, the study's purpose is the investigation *what* digital BMs exist in the travel industry, and *which* aspects of national cultures influence on their development around the world.

In other words, the research question is stated as

How do national cultures affect the development of digital BMs in the travel industry?

Thereby, the research objectives are stated as follows:

1) to identify digital BMs in the travel industry based on the 5-V framework;

2) to examine cross-cultural aspects that affect the development of digital BMs in the travel industry;

3) to propose a model of relationships between national cultures and digital BMs in the travel industry.

1.5 Significance of the Research

This study is one of the first attempts to contribute to the digital BMs field in tourism research. The main significance of this study is the detailed examination of digital travel business from the perspective national cultures and clarifies the impact of national cultures on digital BMs. A limited number of studies applies the qualitative approach to the investigation of BMs. While the majority of existing studies is focused on measurement, ranking and other quantitative research questions, the exploratory qualitative study is required for investigation digital BMs in the travel industry. Application of the grounded theory approach (see 3.2) addresses making a shift in the theorization of a role of digitalization and its current extent of influence, the features and particular qualities of the travel industry.

The qualitative character of a study implies providing insights, revealing of novel knowledge, and creating a base for future applications. Specifically, the application of findings of this study is not limited to a single region or few countries due to its intercultural context. In other words, it is not aimed to compare few particular countries or regions, but rather reveal specific aspects of culture and their positive or negative effects on the BM development. This study offers both theoretical and practical contributions. Two next paragraphs present, firstly, the theoretical significance of the study, followed by the practical side of contribution.

Theoretical Contribution

The current study considers a complex compound of three research areas. Cross-cultural theories, the BMs concept, and specifics of ICTs adoptions in the travel industry are scrutinized in existing literature. However, a compound of these three research fields lacks of examinations. Existing partial studies are insufficient to clarify new qualities and characteristics arising from the overlapping of these research fields. No comprehensive examination is conducted as for digital BMs in the travel industry as the role of national cultures in shaping digital BMs. The study fills the gap in existing literature about digital business in the travel industry in perspective of national cultures and clarifies connections of digitalization and national cultures.

Based on the qualitative analysis, this study aims to investigate digital BMs configurations and contribute to the BM field by revealing new BM configurations specific to the travel industry. Also, this study aims to clarify the presence of effects of national cultures in the digital era and their role in digital travel business. Moreover, the study plans to detect the most impactful aspects (dimensions) of national cultures that shape digital BMs. Finally, the study aims to propose a model that clarify relationships between aspects of national cultures and digital BMs in the travel industry. The model could be used for analysis of digital BM patterns, clusters and digital ecosystems in tourism

Methodologically, pragmatic grounded approach is applied due to the lack of cross-cultural frameworks which could satisfy modern requirements of cross-cultural research. In-depth qualitative analysis allows creating of new theories and building new models.

Practical Contribution

Facing simultaneous opposite processes of globalization and localization, practitioners have to manage the difficulties related to development of digital BMs. As it is stated in section 1.1, digital BMs is of great importance for the travel industry. Exploration of BM configurations might support the choice of an appropriate BM for a digital travel company as well as BM generation, BM innovations, and BM implementation.

The understanding of the role and mechanisms cultural aspects which support or inhibit the development of digital BMs can be beneficial for the selection of suitable country to start a new travel business. Travel companies which location is not suitable from the cultural perspective are less effective and are less likely to rise and to be successful. The cultural context which supports the development of digital travel business is important for digital BM development.

Apart from the location of a travel company, understanding of cultural differences in the digital environment could be helpful in a case of internalization of a travel company. Practitioners have to manage the question of adopting standard BM or localizing it for a particular country. In a case of adoption of a digital BM, it could be adapted taking into consideration cultural aspects explored in the study. In other words, consideration of effects of national cultures minimizes fears and risks associated with BM adoption.

1.6 Organization of the Thesis

The thesis is organized into six chapters. Namely, there are Introduction, Literature Review, Methodology, Findings, Discussion, and Conclusions.

Current Introduction is the first chapter of the study. It starts with the research background and provides research gaps need to be filled. The following statement of the problem clarifies research purposes. Then, this chapter presents research questions, specifies research objectives, and shows theoretical and practical significance of the study.

The subsequent Chapter Two presents Literature Review. There are three major sections. The first section includes the examination of digitalization, its influence on the travel industry, and connections with cultures. The second one discusses studies analyzing BM definitions, frameworks as well as BMs in the travel industry and digital BMs. This is then followed by the third section that investigates the concept of national culture including cultural dimensions and specifics of cross-cultural research in tourism, connections of national cultures with BMs and ICT adoptions.

The third chapter is a description of Methodology of the study. The purpose of the Methodology part is to review and justify the choice of methods for data collection and data analysis. This chapter begins with the overview of research paradigms and selection for the adoption of pragmatism and grounded theory approach for the present study. This then leads to data collection method and rationales for selection of participants. Also, the design of interviews, data analysis processes and methods are discussed. The section is completed with triangulation methods.

Chapter Four aims to present findings of the study. It starts with the results on identification of the digital BM configurations in the travel industry. Following the research objective, the second part of Chapter Four presents findings about the presence of effects of national cultures, shows the revealed mechanism of the effects and indicates the aspects of national cultures that make the impact.

Chapter Five is devoted to discussion of the findings of the study. Starting with the section about digital BM patterns in the travel industry, it also presents description of newly revealed BMs. Then, the model of relationships between national cultures and digital BMs in the travel industry is proposed. After that, details of the models are discussed: affecting ideational and institutional aspects, and connections in the proposed model.

Chapter Six completes the thesis. Chapter Six summarizes the results of the study and presents the theoretical, methodological, and practical contributions of the study. Research limitation are discussed. The section about future research directions end the chapter.

CHAPTER 2. LITERATURE REVIEW

The goal of this chapter is to review academic and business literature on digitalization, the BM field, and cross-cultural theories. The purpose of the review is to provide an examination of the previous research on these topics, as well as clarifying the research gap and providing a rationale for the choice of research question and methodology in the study. This chapter consists of three major sections. This chapter presents, firstly, a review of effects of ICT adoptions on the travel industry, a review of the concepts of digitalization and digital business, and an overview of connections of digitalization with national cultures. Second, the BM definitions, components, dimensions, and classifications are reviewed as well as studies about BMs in the travel industry and development of digital BMs. The last section presents a review of effects of cultural differences in the travel industry, outlines the concepts of culture and national culture, provides a comparison of cross-cultural frameworks, and discusses the impacts of national cultures on ICT adoptions, innovation adoptions, and BMs. A brief summary of the key points concludes the chapter.

This chapter examined three streams of literature. It analyzed definitions of digitalization, BM, and culture. Also, theoretical approaches to these terms were discussed. Theoretical frameworks for all three concepts are compared and the appropriate frameworks were selected for the study. The present chapter also clarifies the research gap which is stated in the previous chapter.

2.1 Digitalization and its Impact on Travel Business

2.1.1 Impact of Digitalization on the Travel Industry

Digitalization causes substantial changes in BMs in the travel industry.

The digital transformations in tourism caused by ICTs adoption affect both customers and suppliers. Key current transformative trends are discussed below.

The long intensive relationships between tourism and technology (Pedrana, 2014) have made tourism is an “information-intensive sector” (Mitas et al., 2015, p. 9). Since the introduction of the first Computer Reservation System, Sabre, in the early 1960s, ICTs are strongly linked to the travel industry (Pedrana, 2014). The effects of growing technology occupancy on the travel industry continue for decades. Technological force on a par with social one is identified as the most important external factor stimulating the BM innovation in the

tourism industry (Henne, 2014). Every technological innovation encourages changes in tourists behavior (Pedrana, 2014).The Internet revolution in the 1990s and the subsequent development of online tools and apps made ICT a fundamental part of the travel industry (Mitas et al., 2015).

Both practitioners and academics are in agreement that digitalization makes a huge impact on the travel industry. The present field of entrepreneurship in tourism undergoes rapid changes (Solvoll, Alsos & Bulanova, 2015). Even destination management organizations which are historically slower in ICT adoptions, cannot continue without application of innovative technologies in the marketing system (Fuchs, Höpken, Föger & Kunz, 2010). Moreover, intergovernmental organizations are concerned about the effects of digitalization on the travel industry. In particular, the European Union (EU) applies the policy of Digital Single Market to the tourism industry. Creating relevant conditions, the EU create digital environment for the unified market of tourism instead of 28 national markets (Maltese Ministry for Tourism, 2017).

One the most substantial trends in the travel sector is the empowerment of customers to carry out functions that previously were performed by intermediaries (Mitas et al., 2015). Now consumers have the power to shape their own experience (Mitas et al., 2015). They have become more sophisticated, more selective and even more price sensitive than before (Buhalis & Law, 2008). However, the impact of digitalization is not limited to consumer side. The trends caused by digitalization in tourism could be summarized as following:

- Rising customers' expectations (Buhalis & Law, 2008; Mitas et al., 2015; Skift, 2017),
- Traveler centricity, high personalization and end-to-end travel experience (World Economic Forum, 2017; Härting, et al., 2017; Mitas et al., 2015)
- Ubiquitous application of digital technologies: big data, automatization & IoT (Skift, 2017; World Economic Forum, 2017; Mitas et al., 2015)
- Transformation of supply chain and distribution chain in tourism and development of networking structure of travel ecosystem (Solvoll, Alsos & Bulanova, 2015; Viglia, Werthner & Buhalis, 2016; Zhang, Song & Huang, 2009; CBInsights, 2017);
- Real-time involvement of tourists in value co-creation (Buhalis & Amaranggana, 2014; Prebensen, Vittersø & Dahl, 2013; Mitas et al., 2015);
- Importance of social media and application of social context mobile marketing (Härting, et al., 2017; Popescu, Nicolae & Pavel, 2015; Buhalis & Foerste, 2015)

- Sharing (collaborative) economy and BMs based on sharing economy (Zammit-Lewis, 2017; Härting, et al., 2017; World Economic Forum, 2017);
- Increase in the number of such BMs as platforms (Viglia, Werthner & Buhalis, 2016; World Economic Forum, 2017).
- Rise of travel startups that substitute traditional players (Hsu, King, Wang & Buhalis, 2017; CBInsights, 2017; Phocuswright, 2018);
- Emergence of completely new travel businesses (Gretzel et al., 2015);

In such circumstances, building new BMs is absolutely necessary for travel companies. Innovative BMs are a way to achieve competitive advantages (Souto, 2015). Researchers evident that new species, new business ideas and, as a result, new BMs grow in tourism (Gretzel et al., 2015, Hsu, King, Wang & Buhalis, 2017). The review by Liang, Schuckert, Law, and Masiero (2016) has analyzed a broad corpus of literature devoted to technological innovations and mobile tourism. Among three topics in mobile tourism in papers published in tourism academic journals during 13 years, most scholars prefer to examine industry and business applications of the mobile industry in the travel industry. This stream of literature investigates different topics including future BMs. However, BM configurations in the travel industry are not identified in existing literature.

Apart from new opportunities, digitalization creates new threats. Fereidouni and Kawa (2019) identify three potential risks for the travel industry: digital colonialism (might be caused be dependency on certain technology and its providers), productivity gap (due to possible aggressive dominance of platforms that aggregated big data), and backlog in legal regulation (absence of rules and appropriate local regulation). Therefore, digitalization may cause existential risks for travel companies. Researchers note that travel organizations often have a lack of resources and expertise in ICT innovators (Skift, 2017; Mitas et al., 2015). Moreover, traditionally-oriented travel managers are focused on short-term goals and do not have enough expertise to make ICT innovations effective (Mitas et al., 2015).

Technology adoption and transformation of BMs in tourism firms have not been without barriers. The firm size, environmental pressure positive expectations and organizational readiness influence positively on the e-business adoption by small tourism firms (Vladimirov, 2015). Success in the modern travel business could be achieved by implication of technical innovation, sensitivity to customer behavior and creativity (Mitas et al., 2015). Main barriers are perception of ICT adoption in the travel industry and the spreading of the shadow economic practices in the industry (Vladimirov, 2015).

Summing, current tourism faces the great technological disruption. The wide adoption of digital technologies cause fundamental changes into the travel industry. The effects of ICTs on travel companies are ubiquitous. Digitalization has turned the industry (Grill, 2013). The following section discusses the concept and the definition of digitalization.

2.1.2 Definition of Digitalization

Fast developing technologies bring into the world a new phenomenon. It has become fashionable to use word "digital". Terms *digital*, *digitization* and *digitalization* are widespread and often used in both practical and academic fields. However, there seems to be some confusions regarding the usage of terms *digitization* and *digitalization*. This difference in two letters regularly leads to the replacement of one word to another (Brennen & Kreiss, 2014). Thereby, these two terms are often misused interchangeably. Clarification of meanings of digitization and digitalization are required. As for one of the major phenomena focused by the present study, the appropriate defining of digitalization is necessary for the study. Three following paragraphs discuss and delimitate commonly used concepts of digitization and digitalization.

Digitization

Historically, the term Digitization has appeared earlier than Digitalization due to nature of the processes behind. Digitization refers to the technical process of converting analog information into digital bits of 1s and 0s. In comparison to traditional analog data, scholars characterize digital data as discrete and 'clean' (Pepperell, 2003, p.126) because it "is based on just two distinct states. In the digital world, things are there or not there, 'on' or 'off'. There are no in-betweens." (Feldman, 1997, p. 2). Another core distinction of digital information is an ability to be expressed "in many different ways, on many different types of materials, and in many different systems" (Brennen & Kreiss, 2014), even if it is grounded in the configurations of materials. Actually, "all forms of data such as alphanumeric text, graphics, still and moving pictures, and sounds" (Verhulst, 2002, p. 433) can be digitized. Digitization is the continuing convergence of two worlds: the real and the virtual ones (Kagermann, 2015). Therefore, there are no limits to the implementation of this process. So, in general, digitization implies the technical process of creating a digital (bits and bytes) version of analog/physical things.

Some business resources also describe the second meaning of the term Digitization that came later from the business field. I-Scoop, a famous company that provides publications,

educational resources, training and consulting regarding integrated marketing and digital business, points to this. Digitization is also used as a synonym or a particular case of automation (i-Scoop, n.d.). In business practices digitization often means a replacement of manual processes to digital and automated workflows. Most likely, this using of word "digitization" appeared due to an involvement of digital content and digital media in these processes (i-Scoop, n.d.).

Word *digitization* has a common meaning around researchers. In its general sense, it refers to the action or process of digitizing. Later, the new word "Digitalization" has entered into circulation. Although meanings of these two terms (digitization and digitalization) are close and cognate, there are core differences. Definitions and meaning of Digitalization are discussed in the next paragraph.

Digitalization

The first uses of the term *digitalization* appear in the 1970th in the literature about computerization and its impact on society. Since that time studies about digitalization have grown into a massive literature. Mainly, discussions comprise primarily different aspects of social life. For instance, van Dijk (2012) argues transition from mass society to the network society due to digitalization. From this it is clear that scholars primarily point out influence of digitalization on social life.

Academics do not provide any strict definition of digitalization. Ubiquitously, this term is not defined. The single exception is the study by Brennen and Kreiss (2014) that investigate two conceptual terms Digitization and Digitalization in details. They conduct a comparison of these two terms and suggest definitions according to widespread practice application the term to social life. They define digitalization as "the way in which many domains of social life are restructured around digital communication and media infrastructures" (Brennen & Kreiss, 2014). This definition limits digitalization to the social side. However, other recent studies increasingly consider this phenomenon in many, if not all, sides of contemporary life. Currently it is common to speak about the digitalization of "the new economy, society, and culture" (Castells, 2011, p.5). This meaning of digitalization goes beyond any particular area and refers to "the ongoing adoption of digital technologies across all possible societal and human activities" (i-Scoop, n.d.). Summing up, no comprehensive definition of digitalization is suggested by academics.

On the contrary, business publications are characterized by a presence of common meaning of the term digitalization accepted by companies and publishers. Gartner (n.d.), the

world's leading research and advisory company, define digitization as "the use of digital technologies to change a BM and provide new revenue and value-producing opportunities; it is the process of moving to a digital business". Another analytic company, i-Scoop (n.d.) also stresses complexity and presence of several aspects of digitalization. The first aspect is described as a process that "refers to enabling, improving and/or transforming business operations and/or business functions and/or BMs/processes and/or activities, by leveraging digital technologies and a broader use and context of digitized data, turned into actionable, knowledge, with a specific benefit in mind" (i-Scoop, n.d.). The second point is creation a specific 'environment' or area of business which are digital systems, enabling them to work in a more "digital way". And as a result of the presence of such environment, there is a penetration of digital technologies in all sides of life. Thereby, it could be clearly seen that business literature has more consistent definition than academic studies.

The present study adopts the interpretation of digitalization by i-Scoop which is discussed in the previous paragraph. This definition highlights the disruptive role of digital technologies and the depth of changes caused by them. In order to clarify the differences between terms digitization and digitalization the next section specifies key distinctive points and common practices of using these two terms.

Digitization vs Digitalization

In comparison, digitalization and digitization are connected but different terms. Although they are sometimes misused in academic and practical works, the meanings of them could be distinguished from each other. Digitization creates digital information and encourage paperless processes. Digitalization, by contrast, refers to "the adoption or increase in use of digital or computer technology by an organization, industry, country, etc." (Oxford English Dictionary, n.d.). Ultimately, there is no digitalization without digitization.

Substitution of one term for another occurs sometimes in academic literature. For example, Gray and Rumpe (2015) use word "digitalization" instead of word "digitization" that could confuse a reader because the topic is models of digitalized data (i.e. Big Data). Guo, Li, Zhou, and Zhang (2015), and Kagermann (2015) use "digitalization" to describe the processing of data that actually is a process of digitization (converting to digital from) of geometrical parameters of fractured rock masses. Van Dijk (2012) write about digitalization in telecommunications and mass communication as a process of chopping signals into little pieces and converting to 0s and 1s that actually mean digitization.

Since the study considers digitalization and its influence on the travel industry, the clarifying of the terms "digitalization" and "digital business" are a critical need for the study. Three previous sections has clarified the meaning and definition of digitalization. The tendency to emphasize the business side of the concept digitalization is clear. The next section directs towards the concept of Digital Business, its interpretations in different sources, and the development of the digital business in the travel industry.

2.1.3 Concept of Digital Travel Business

Concept of Digital Business

The process of digitalization leads to digital transformation of business. I-Scoop (n.d.) defines Digital Transformation as "the profound transformation of business and organizational activities, processes, competencies and models to fully leverage the changes and opportunities of a mix of digital technologies and their accelerating impact across society in a strategic and prioritized way, with present and future shifts in mind". Therefore, Digital Transformation, or digitalizing the business, leads to digital business. However, different theoretical and practical studies imply different things mentioning the term of digital business.

The broadest concept of digital business includes all technology-driven enterprises. Researchers from McKinsey Center for Business Technology (2012), Capgemini Consulting (Fitzgerald, Kruschwitz, Bonnet & Welch, 2014), and some academics such as Châlons and Dufft (2017) view digital business as any kind of business supported by ICT innovations. From this point of view, digital business is defined by a large number of technological drivers and effects such as mobile technologies, social media, big data, cloud computing technologies, Internet of Things and etc. Scholars across disciplines often use the term Digitalization as a synonym of Internet and Internet-used technologies (Brennen & Kreiss, 2014). However, such broad approach does not suggest a certain definition and certain criteria of digital business. Sassen (2006) stresses the importance of not conflating digitalization with the Internet. This broad concept of digital business seems untrustworthy.

Another vision of digital business relies on a single technological innovation. For example, some academics treat the digital business as business that is solely based on IoT. IoT is "the networked interconnection of everyday objects, which are often equipped with ubiquitous intelligence" (Xia, Yang, Wang & Vinel, 2012, p.1101). Growing impact of IoT provides an opportunity for many companies for being digitalized. This opinion is popular as around business research (e.g. Accenture Digital, 2015, Gerjets, 2017) as academic researchers

(e.g. Zimmermann et al., 2016). This approach is partially valid for some research topics. However, equating of digital business to business enabled by one technological driver such as IoT is a considerable simplification. Such approach does not display complexity of the phenomenon of Digitalization which is discussed in part 2.1.2.

Some recent studies equate Digital business to Industry 4.0 (e.g. Katunskis & Neamtu, 2016, Kagermann, 2015). Industry 4.0 is relatively new concept introduced by German federal government (Katunskis & Neamtu, 2016). It means fourth industrial stage caused by ICT revolution (Kagermann, 2015). However, Scheer (2017) points out that the concept of Industry 4.0 is defined too narrowly that could cause discrediting because of depreciation. Therefore, interpretation of Digital Business as Industry 4.0 is an oversimplification.

	Analog	*Web*	*E-Business*	*Digital Marketing*	*Digital Business*	*Autonomous*
Focus	Build relationships that drive business or lower cost	Extend relationships into new markets or geographies	Transform sales channel into a global medium to drive efficiencies	Exploit the nexus to drive greater efficiency	Extend potential customers from people to things	Smart, semi-autonomous things become the primary "customer"
Outcomes	Optimize relationships	Extend relationships	Optimize channels	Optimize interactions	Build new BM	Maximize retention of and relationships with things
Entities	• People	• People • Business	• People • Business	• People • Business	• People • Business • Things	• People • Business • Things
Disruptions	Emerging technologies	Internet and digital technologies	Automation of business operations	Deeper customer relationships & analytics	Creation of new value and new nonhuman customers	Smart machines and things as customers
Technologies	ERP, CRM	CRM, Web	EDI, BI, portals	Mobile, big data, social	Sensors, 3D printing, smart machines	Robotics, smarter machines, automation
For the travel industry	ACCOMPLISHED			TRANSFORMATION		FUTURE

Figure 2.1 Gartner's Digital Business Development Path Adapted for the Travel Industry. Adapted from Lopez (2014).

Business researchers have developed one more approach to the Digital Business concept. The consulting company Gartner developed a scheme of evolution of business which

adaptation for the travel industry is presented on Figure 2.1. Gartner (2017) stresses in the company's report that, in contrast to previous eras, the digital business stage is characterized by creation of new values. Gartner also predicts the development of digital business and its future transformation in Autonomous business, a new stage of digitalization. The Digital Business is characterized by extensions of potential customers' units. Nonhuman customers appear. In order to achieve the creation of new value companies adapt IoT, 3D Printing, smart machines and other technologies mentioned in this section. The main need and outcome of a digital company are building of new (digital) BM. The concept of BM is discussed in part 2.2. This interpretation of the digital business reflects the meaning and complex nature of Digitalization which is a cause of the emergence of the Digital Business.

Summing up, interpretations of the concept of Digital Business differ among both academics and practitioners. The study adopts the position suggested by Gartner (Lopez, 2014) as the most applicable for the study. Thereafter, the Digital Business is characterized by the creation of new values, emerging of non-human customers and invention of new BMs. These new BMs in the digital era are named digital BMs. The concept of BM generally and particularly digital BMs are discussed in section 2.2.

Concepts of Smart Tourism and Digital Tourism

Researchers often connect digitalization in tourism with Smart Tourism and Digital Tourism (e.g. Peceny et al., 2019; Del Chiappa & Baggio, 2015; Yalçınkaya, Atay & Korkmaz, 2018). Terms *Smart Tourism* and *Digital Tourism* are widely used in connections with ICT adoption and digital data and for a description of modern travel environment. This study requires clarification of these terms and their relations to the objects of the study. Concepts of Smart Tourism and Digital Tourism, their interpretation by different authors, and applicability for the study are discussed in this section.

ICT adoption generally and in the travel industry specifically is often accompanied by word "*smart*". "Smart" is usually used to describe phenomena supported by technologies such as sensors, open data, IoT (Kortuem, Kawsar, Sundramoorthy & Fitton, 2010). In the context of tourism, "smart" has very broad application and a very fuzzy concept (Gretzel, Sigala, Xiang, & Koo, 2015). Researchers separate three components of smart tourism supported by ICT: smart experience, smart destination, and smart business (Gretzel, Sigala, Xiang, & Koo, 2015). The business component of smart tourism includes dynamically interconnected stakeholders (smart hub), digital business processes, and organizational agility (Buhalis & Amaranggana, 2013). Academics identify three layers of smart tourism across these three components: the information layer (collecting data from different tourism sources), the

transport layer (smart exchange of data), and the smart processing layer (processing of data) (Tu & Liu, 2014). Smart tourism is also characterized by an opportunity for consumers to create, add and offer value, share business or governance roles (Gretzel et al., 2015).

Summarizing, the concept of smart tourism is closely connected with technology adoption. Smart tourism includes adoption of modern technologies that brings it together with the digital era. However, the concept of Smart Tourism is focused on the adoption of a wide range of technologies and innovations regardless to the depth of ICT influence on a company. Such approach does not match with the concept of digitalization and digital business by Gartner (Lopez, 2014) which is discussed in section 2.1. Also, it mainly focused on travel destinations. The shift to destinations from the business does not facilitate examination of the wide range of travel companies.

Digital tourism is one more concept which is contiguous to ICT adoption in tourism. Generally, digital tourism is using digital technologies to enhance the tourist experience (Benyon, Quigley, O'Keefe & Riva, 2014). This digital support of the tourist experience embraces activities before, during and after the tour. For example, it could be a recommendation system for searching of tourist attractions and accommodations (Ardissono, Goy, Petrone, Segnan & Torasso, 2003).

Comparing the concepts of smart tourism and digital tourism, it could be clearly seen that both concepts undermine broad technology adoption and support of tourists' experience. At the same time, both concepts do not correspond with the adopted concept of digital business, because neither smart tourism nor digital tourism is focused on the creation of new value and invention of new BMs. Therefore, both concepts do not fit to the research question. Accordingly, the study adopts the concept of digital business regardless of the concepts of Smart Tourism and Digital Tourism in travel and hospitality research.

2.1.4 Digitalization across Nations

Apart from the different level of digitalization among industries (see 1.1.2), the different level of ICT penetration across the globe has direct impact on the digital business. This section detects factors affecting the development of the digital business and specifies the role of culture.

The development of digital business is strongly connected with the digital divide. The impact of ICT around the world is diverse and substantial (Weber & Kauffman, 2011).

However, there are disparities in ICT diffusion among countries and social groups. This phenomenon is named as “digital divide”. This huge gap in information and technology access appears in different ways and in different degrees among different nations (Riggins & Dewan, 2005). Scientists note the digital divide between developed and developing countries (Kraemer, Ganley & Dewan, 2005, Norris, 2001). According to Billon, Lera-Lopez, and Marco (2010), the common definition is given by Organization for Economic Co-operation and Development (OECD) and tells that digital divide is “the gap between individuals, households, businesses and geographic areas at different socio-economic levels with regard to their opportunities to access information and communication technologies and to their use for a wide variety of activities” (OECD, 2001, p. 5). Global digital divide among countries is of great interest among academics and practitioners because it causes increasing international competitive pressure (Dahlman, 2007). Several studies investigate drivers of factors driving the digital divide and global ICT adoption. The findings show an impact of various factors which are discussed below.

First of all, researchers note the strong influence of economic factors on ICT adoption. At the country-level, the GDP per capita is positively associated with the Internet penetration (Zhang, 2013), and national income has a positive correlation with ICT adoption (Kraemer et al., 2005). Researchers also have explored different patterns of digitalization across countries depending on different stages of ICT adoption (Kraemer et al., 2005, Billon et al., 2010). Significant differences in the patterns exist between developed and developing countries (Kraemer et al., 2005, Billon et al., 2010). For instance, human capital and the size of the trade sector have a strong positive impact in developing countries (Kraemer et al., 2005).

Other factors of global ICT adoption include legal, environmental, and social factors. For example, Billon et al. (2010) state that quality of legal regulation and high level of infrastructure explain ICT adoption in high-income countries. In addition, there is an impact at the individual level which occurs when an individual adopt digital technology for personal utility (Weber & Kauffman, 2011).

Besides, there is an unobvious link between culture and technology. Several studies reveal that culture has an impact on ICT adoption at the country level (Weber & Kauffman, 2011). National culture dimensions which are discussed in part 2.3.2 predict ICT product adoptions (Bagchi, Hart & Peterson, 2004). Cultural distance between countries possibly has an indirect influence on technology adoption (Bagchi, Mandala & Choden, 2013) that could affect via media (Vogelsang, 2010). Academics highlight significant influence of national culture on adoption of innovations (Van Everdingen & Waarts, 2003, Medcof & Wang, 2017).

Country-specific culture plays a role in managing innovation and technology (Misra, Memili, Welsh, Reddy & Sype, 2015). The dimensions of national culture and their influence on ICT adoption are discussed in part 2.3.3. Although the impact of national culture on the digital divide and the level of ICT adoption is recognized and examined by researchers, the role of national culture in the development of digital BMs across countries is not clear and required additional investigation.

Moreover, culture has an impact in shaping of technology adoption of a travel company at the individual level. Spencer et al. (2012) suggest a framework of firm technology adoption. The framework is presented in Figure 2.2. It shows that culture with its norms, values, and social systems takes its place in a set of external factors influencing technology decision-making. Culture plays an indirect role in the shaping of individual's views of technology adoption. Spencer et al. (2012) also point out that investigation across cultures might be insightful in the field of digital divide issues. Additionally, they stress the high influence of ICT adoptions on tourism: mainly on tourists, destinations, and small owner-managed travel firms.

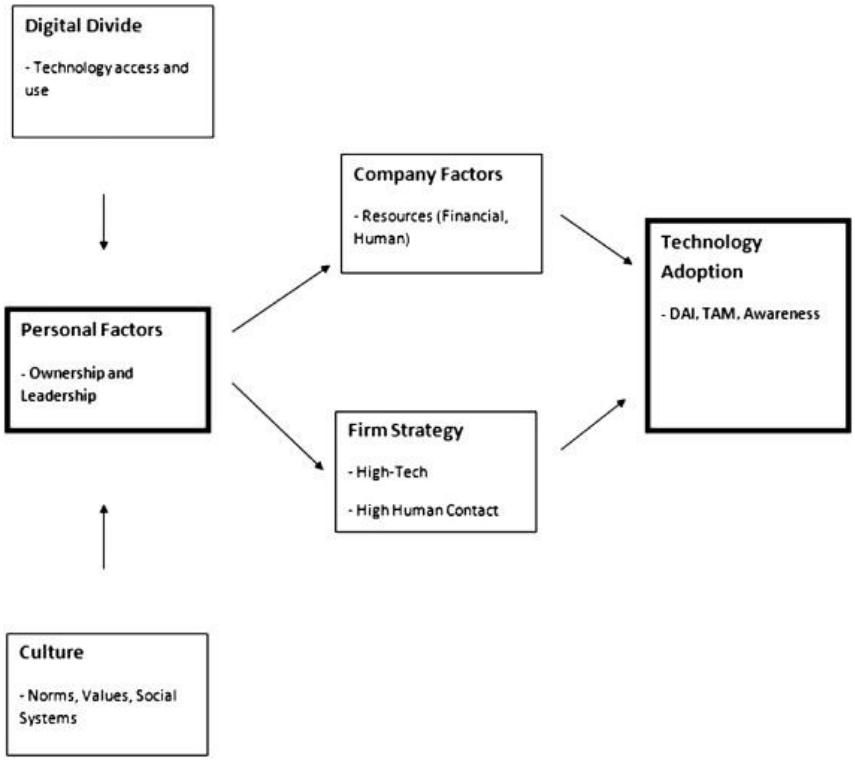

Figure 2.2 Firm Technology Adoption. Retrieved from Spencer et al. (2012, p. 1196)

Globalization and digitalization together cause contradictory phenomena. On the one hand, a dramatic Digital Divide exists around the world. On the other hand, digitalization and globalization have subsequently eroded national sovereignty and facilitated a new approach to culture, capital, commodities, and people (Brennen & Kreiss, 2014). An impact of borders decreases simultaneously blurring phenomenon of country specifics and national cultures.

In summary, the development of the digital business in tourism depends on a number of factor as directly as indirectly. It is common to explain the digital divide and development of the digital business by economic, political and social causes, technology diffusions, legal, environmental and cognitive factors. At the same time, the aspects of national cultures stay aside. Although scholars have noted the mutual influence of ICT adoption and national culture (Weber & Kauffman, 2011, Norris, 2001), no in-depth analysis was conducted in order to investigate the effect of national cultures on the development of digital business. The discussion of the concept of culture and national culture is presented in section 2.3. The specific aspects and dimensions of national cultures that affect adoption of innovation and ICTs around the world are discussed in section 2.3.4.

2.2 BMs in Digital Era

2.2.1 Concept of BM

Digitalization and digital transformation have the greatest impact on business and especially on BMs. New digital business and new digital BMs have grown in the travel industry. In general, the concept of BM is not new and has been researched over decades. Accordingly, the concept of BM as the object of the study requires clarification.

The term ‘BM’ has recently been used by managers, consultants, and scholars. It is common to hear about it from diverse fields and media. However, even a cursory analysis of sources shows that this term is often used implying different phenomena. In order to understand the underlying meaning of the term BM, the following paragraphs review a literature related to the history of the origin and use of the term BM, definitions of BM and interpretations of BM concept by academics and practitioners. Also, the section provides reasons of importance and the wide application of this term. In order to clarify the BM concept, the section also reviews differences and connections of the BM concept and other related concepts such as Strategy, Business Processes, Revenue model, and etc. The section ends with a review of frameworks of BMs. Firstly, the investigation of the history of the term BM is provided.

History of the Term and Concept BM

The history of the term BM is investigated by some researchers as well as definitions and dimensions of BM. According to the research by Zott, Amit, and Massa (2011), the start of using the term BM in academic and non-academic journals refer to the period of 1975-1980. DaSilva and Trkman (2014), Novak (2014) share the opinion that the first paper that mentioned words *business model* in an academic article was published in 1957. To be exact, in this first paper Bellman, Clark, Malcolm, Craft, and Ricciardi refer this combination of words just once (p.474). Then, the term appears in the title and abstract for the first time in the study by Jones (1960). Subsequently, the number of mentions and academic studies on BM has grown (DaSilva & Trkman, 2014). The most significant increase of using the term BM in texts and titles of academic papers started in 1995 (Zott et al., 2011) and the growth still continues (Novak, 2014, DaSilva & Trkman, 2014).

BM was initially perceived as just a buzzword (Magretta, 2002, Ghaziani & Ventresca, 2005 Seddon, Lewis, Freeman & Shanks, 2004, Gassmann, Frankenberger & Csik, 2014). It was fashionable to use the term and explain a wide range of phenomena by it. The term is often misused and overused. Researchers analyze a new BM for preservation of national park in Slovenia (Sovinc, 2009), a BM of city logistics (Quak, Balm & Posthumus, 2014) or a BM of development of rare disease (Ferry, 2010), and other irrelevant interpretation of BM listed for example by DaSilva and Trkman (2014). With time and growth of research, the interpretation of BM becomes clearer.

Scholars do not have a single opinion about reasons of the emergence of the BM concept and a dramatic growth of using it since the 1990s. Some researchers explain them by connection with growth of technology-based companies and industries (Perkmann & Spicer, 2010, Al-Debei & Avison, 2010, DaSilva & Trkman, 2014), the advent of the Internet per se (Amit & Zott, 2001) and the dot-com bubble burst (DaSilva & Trkman, 2014). Other scholars assume that development of BM concept might be driven by rapid growth of emerging markets and interest in "bottom-of-the-pyramid" effect (Seelos & Mair, 2007; Thompson & MacMillan, 2010) when poor people are considered as potential customers.

The term BM was and remains widespread among both practitioners and scientists. As well as academic journals, the keyword "BM" began to be discussed particularly in public talks in the early 1970s (Ghaziani & Ventresca, 2005). In addition, according to Novak (2014), the first use of the term 'BM' was as recent as November 2009 in published IFRS 9 Financial Instruments. International Accounting Standards Board (IASB) states in this document that classification and measurement of financial assets depend on the company's BM. Although

IFRS 9 is the first official appearance of the term, it does not have a definition of the term 'BM'. So, BM could be also interpreted in the context of financial reporting. However, the connection of the BM concept and financial assets is not clear. Novak (2014) argues "the link between the ways a company does business and its reporting in financial statements should be better articulated" (p.80). Thus, based on above-mentioned arguments it might be concluded the nature of the origin of the BM concept is not clear in both academic and practice fields.

The concept of the term BM has been evolving in literature. A certain progression is observed as in the definition of this term as in conceptualization of studies devoted to this term. Thus, Osterwalder, Pigneur, and Tucci (2005) describe 5 phases in the evolution of the term and change in research focuses. According to this study, the majority of papers in each phase considers and proposes respectively following items. The studies in brackets are considered typical and some examples of important studies by Osterwalder et al. (2005):

1) BM definition and classifications (Timmers, 1998, Rappa, 2001);
2) list of elements included in BMs (Chesbrough & Rosenbloom, 2000, Magretta, 2002);
3) detailed descriptions of components (Afuah & Tucci 2003);
4) conceptualization and proposition of meta-models (Osterwalder, 2004);
5) application of models in management and information systems.

The last stage is not represented by authors because at the time of creation this historical evolution (2005) this stage was appearing. Table 2.1 includes Osterwalder et al.s' (2005) Evolution. Generally, this historical review is similar to other historical analyses of literature focused on BM concept (Lambert, 2006, Pateli & Giaglis, 2004, Veit et al, 2014). For example, the BM Research Schema by Lambert (2006) and the analysis of the BM literature by Pateli and Giaglis (2004) show very a close periodization.

Review Definitions of BM

Researchers and practitioners have not developed a unified definition of BM. Although papers represent a great number of definitions from different angles, there is a "lack of consistent definition(s)" (Novak, 2014, p. 92). Over time, definitions were developing and changing according to actual trend in the interpretations of this term. Zott et al. (2011) designate definitions of BM in different studies as a statement, a description, a representation, an architecture, a conceptual tool or a model, a structural template, a method, a framework, a pattern, and a set (p.1022). Moreover, practitioners and theorists highlight different aspects of BM (Chesbrough & Rosenbloom, 2002) and could put different meanings in this term. At the

same time, several studies do not define the term at all. As a result, a multitude of possible interpretations sometimes causes a confusion between studies.

Table 2.1 Definitions and Components of BM in Different Phases of Evolution of the BM Concept

Phase according to Osterwalder et al. (2005)	**Core authors** according to Osterwalder et al. (2005)	**Definition of BM by one of the given core authors**	**Components/elements of BM by one of the given core authors**
1) definitions & taxonomies	Rappa, Timmers	BM is "an architecture of the product, service and information flows, including a description of the various business actors and their roles; a description of the potential benefits for the various business actors; a description of the sources of revenues" (Timmers, 1998, p. 4).	N/A
2) "shopping list" of components	Linder & Cantrell, Magretta, Amit & Zott	BM "depicts the content, structure, and governance of transactions designed so as to create value through the exploitation of business opportunities" (Amit & Zott, 2001, p. 511).	Content of transactions Structure of transactions Governance of transactions Value creation design (Amit & Zott, 2001)
3) components as building blocks	Afuah and Tucci; Weill and Vitale; Hamel	The BM is "a model designed to make money for their owners in the long term" (Afuah & Tucci, 2001, p. 40).	Ten blocks: 1) profit site, 2) customer value, 3) scope, 4) price, 5) revenue sources, 6) connected activities, 7) implementation, 8) capabilities, 9) sustainability 10) cost structure (Afuah & Tucci, 2001)
4) reference models & ontologies	Gordijn, Osterwalder and Pigneur	"A BM is a conceptual tool that contains a set of elements and their relationships and allows expressing the business logic of a specific firm. It is a description of the value a company offers to one or several segments of customers and of the architecture of the firm and its network of partners for creating, marketing, and delivering this value and relationship capital, to generate profitable and sustainable revenue streams." Osterwalder et al. (2005, p. 10)	Nine building blocks: - value proposition, - target customer, - distribution channel, - relationship, - value configuration, - capability, - partnership, - cost structure - revenue model (Osterwalder, 2010)
5) applications & conceptual tools	N/A (Authors for definition and elements are chosen according to definition of period and by highest number of quotes)	The BM is "an abstract representation of an organization, be it conceptual, textual, and/or graphical, of all core interrelated architectural, co-operational, and financial arrangements designed and developed by an organization presently and in the future, as well all core products and/or services the organization offers, or will offer, based on these arrangements that are needed to achieve its strategic goals and objectives" (Al-Debei & Avison, 2010, p. 372).	Four dimensions: 1) value proposition, 2) value architecture, 3) value finance, 4) value network (Al-Debei & Avison, 2010).

Note. The evolution is by Osterwalder et al. (2005), definitions before 2005 are mainly based on Osterwalder et al. (2005, p.6-7) and Novak (2014, p.121-125).

The review of literature focused on the BM concept has revealed significant changes in BM definition in historical perspective. As mentioned in the previous section, Osterwalder et al.s' (2005) evolution of the BM concept includes 5 phases. Following this evolution, definitions of BM in different studies in different times could be listed. Table 2.1 presents typical definitions in each phase.

Generally, the BM terminology implies the way of doing business (DaSilva & Trkman, 2014). This implied meaning follows every study about BM, even if this definition is not provided. Some definitions combine organizational design and strategy perspectives (i.e. Zott & Amit, 2007). Sometimes BM is shown as "flows" of information and resources (Timmers, 1998), processes that transform innovations to opportunities and value (Chesbrough & Rosenbloom, 2002), and there are many other interpretations. Examining deeper, it could be clearly seen that differences in definitions laid into the theoretical foundation of each study (George &Bock, 2010, DaSilva &Trkman, 2014). The common grounds are the resource-based view, the transaction cost economic theory, and their combination (DaSilva &Trkman, 2014).

Some studies point out that both academics and practitioners frequently misuse and misunderstand the term BM. Chesbrough and Rosenbloom (2002), DaSilva and Trkman (2014), Zott and Amit (2013), and Magretta (2002) report that BM has been often confused with other popular terms. In business and academic literature, the term *BM* often appears accompanied by terms *strategy*, *economic model*, *revenue model*, *business concept*, and *business processes*. Accordingly, they are often misused, replaced by each other or overlap each other in meanings. Such misusing enhances misunderstanding between scholars which also encouraged by too broad and multifaceted definitions of BM. The core difference and connections with these terms are discussed in details in the following section.

BM and Other Related Concepts

BM as a term is often misused or misinterpreted (Chesbrough & Rosenbloom, 2002, DaSilva & Trkman. 2014, Zott & Amit, 2013). This confusion might cause incorrect interpretations and improper conclusion-making. In most cases, BM replaces other terms in strategic management area or revenue management area. The reverse is also possible. Few studies point out statements about something but actually imply BM. This section clarifies differences across common cases of replacements and also point out the relationship between these related terms and BM. Firstly, the concepts of Strategy, Business Processes and BM are reviewed. Second, Revenue Model, Economic Model are discussed.

Majority of modern academics distinguish terms BM and strategy, although some researchers do not divide these phenomena. Porter (2001), and Magretta (2002) define BM in a parallel with the term strategy. Firstly, BM might be interpreted as a part of another broader concept such as mission, competitive strategy or other concepts. Thus, Chesbrough and Rosenbloom (2002) argue that the BM is not a strategy, but it is a component of the strategy. Also, the BM concept could be considered in opposite way. Thus, Shafer et al. (2005) include mission and strategy in the BM concept as components.

The alternative way of looking at the BM concept and strategy concept is based on a statement that even though these terms are related, they represent different levels and have to be used for different purposes. Teece (2010), Zott and Amitt (2007), Veit et al. (2014) and other researchers argue that strategy and BM are distinguishable. Strategy describes how business organizations hope to do, while the BM implies how the pieces of a business all fit together. Osterwalder et al. (2005) estimate strategy in a role of a way to prevail over competitors, while BM reports the logic of value creation and the effective coordination of business resources. Generalizing existing studies, DaSilva and Trkman (2014) argue that strategy is a long-term perspective, while BM is a present or short-term perspective. Strategy sets up dynamic capabilities which then constrain possible BMs to face either upcoming or existing contingencies.

Figure 2.3 Connections of Strategy, BM and Business Processes. Adapted from Veit et al. (2014)

A BM is also connected with business processes. Morris, Schindehutte, and Allen (2005), and Veit et al. (2014) perceive BM as an intermediate layer between strategy and business processes. They develop and adapt previous investigations into the scheme of correlations that is represented in Figure 2.3. The connections between Strategy, BM, and Business Process Model are mutual and bilateral (Veit et al., 2014). Business processes have an influence on a company's BM (Bonakdar et al., 2013). And in the opposite direction, BM represents the underlying business processes by explaining why they implement in a particular way (vom Brocke & Sinnl, 2011).

The BM term is also often mixed with other related terms such as Business concept, Revenue Model, and Economic Model. Some authors state that they are synonyms or the meanings are so unclear that they are indistinguishable. However, key points for eliminations were suggested. Thus, there is no consensus around researchers about meaning and idea behind the Business Concept term (DaSilva & Trkman, 2014). As a result, it is hardly possible to find the resemblance between studies in order to synthesize them or make generalizations. DaSilva and Trkman (2014) predict its disappearance from academic literature and replacement by more rigorous term BM. In addition, BM has often been confused with the term "revenue model" and "economic model". Due to historical reasons, economists frequently misused the term "economic model" to describe what is nowadays defined as BM (DaSilva & Trkman, 2014). The term "economic model" is using as a tool to analyze a behavior of a company and its outcomes in different economic terms. Therefore, it is more related to economical and mathematical modeling than to logic of operations of firms that lies at the basis of BM concept. The revenue model relates to the revenue sources, their volume and distribution (Amit & Zott, 2001) and researchers consider it as a component of BM (DaSilva & Trkman, 2014).

Significance of BM Concept

The BM is an important concept for academics as well as for practitioners. Perceived initially as a buzzword (Magretta, 2002, Ghaziani & Ventresca, 2005, Seddon et al., 2004, Gassmann et al., 2014), the BM concept has grown to a certain and sustainable concept. The raise of investigation leads to deeper understanding of the phenomenon and Al-Debei and Avison (2010) argue that the increase of interest in BM field is connected with the exploration of the high significance of the BM. BM is accepted as a fundamental concept to any organization (Magretta, 2002). Academics note both theoretical and practical significance of BM concept.

BM is a critical construct for understanding value creation processes in a company (Amit & Zott, 2001, Chesbrough & Rosenbloom, 2002). BM helps to understand, analyze, communicate, and manage strategic-oriented choices (Osterwalder et al., 2005; Shafer, Smith & Linder, 2005, Pateli & Giaglis, 2004). BM demonstrates the roles of different actors more clearly (Al-Debei & Avison, 2010). BM concept is also important in order to inform the design of information systems (IS) supporting an organization (Eriksson & Penker, 2000) and relationships among business and technology stakeholders (Gordijn & Akkermans, 2003). A novel BM is a potential that pushes forward the formation, growth, and success of new organizational forms, especially in turbulent industries (Franke, Gruber, Harhoff & Henkel, 2008).

The importance of the BM concept grows with the spread of the Digital Business. As it is discussed in section 2.1.2., one of the main features of the Digital Business is invention of new BM (Lopez, 2014). The ICT adoptions give a great number of opportunities for digital BMs in contrast to the traditional ones (Henne, 2014). Moreover, digital economy facilitates companies not only ICT adoption which causes BM development but also the innovation of BM itself (Mitchell & Coles, 2003). Several studies investigate BM innovations as a continuing process that creates value and competitive advantages.

The BM concept also has a special significance for the modern travel industry. Digitalization has a significant impact on the industry and causes changes in traditional BMs and invention and implementation of new ones (Mitas et al., 2015). Travel companies have to invent more adaptive BMs in order to adapt new technologies (Spencer et al., 2012). Few attempts to classify BMs in the travel industry are made. Part 2.2.4 reviews BMs in the travel industry in details.

Now BM is accepted as an important concept. No one organization can escape from BM issues. Moreover, even if an organization is not aware of the existence of such a term, it cannot avoid questions related to forming, implementation and changes in BM. Therefore, interest in BM research keeps growing. It is also confirmed by the growing corpus of practical and theoretical literature.

Components (Elements) of BM

A variety of frameworks of BM elements and dimensions is caused by the complexity of the BM concept to a large extent. Although some scholars do not suggest their list of BM elements (i.e. Timmers, 1998, Magretta, 2002), there are many approaches to them. Moreover, these approaches differ significantly. Comparison and systematization of them are considerable difficulties due to diversity and heterogeneity. Furthermore, the approaches change and develop over time.

At the same time, some attempts to generalize and catalogue the concepts of BM elements are made. Thus, Novak (2014) summarizes and list the most often quoted and famous studies that identify BM components. Based on the evolution of BM concept by Osterwalder et al. (2005) and the list of selected BM components/elements by Novak (2014), the list of definitions and components of BM in different phases is compiled. The summary is presented in Table 2.1. It shows key definitions and suggested lists of components of BM by core authors in each period of evolution by Osterwalder et al. (2005).

Despite the multiplicity of approaches to BM elements, there are few frameworks that are the most common around scholars. Their greatest impact on the theoretical development of the BM concept stimulates many researchers to use as a basis for further research. Considering applications of BM frameworks in academic research in last 10 years, the e3-value methodology was the most frequently used method in publication (Marolt, Maletic, Borštnar, Lenart & Pucihar, 2016). However, in the past five years, the BM Canvas (BMC) applying has raised dramatically and has become the most popular framework (Marolt et al., 2016). These well-known frameworks are analyzed in details as follows: BMC by Osterwalder and Pigneur (2010) and the e3 -value methodology by Gordijn and Akkermans (2003).

The BM canvas (BMC) is the well-known tool for the BM generation. Initially, Osterwalder and Pigner (2002) proposed a new framework, namely e-BM Ontology (e-BMO). It suggests four pillars of BM which are Product Innovation, Customer Behavior, Infrastructure Management, and Financials. Each pillar also consists of sub-elements which form the second (underlying) level of BM. E-BMO also represents bilateral relationships between 4 pillars. Later, authors complemented and expanded the framework with new findings. The wide-known book (Osterwalder & Pigner, 2010) presents expanded framework by new name BM Canvas (BMC). Firstly, it enlarges the area of influence from e-business to all BMs. BMC is applicable for any organization in any industry. Secondly, 4 initial pillars and their elements are transformed to the one-level system that consists of 9 building blocks. It is not only a list of elements but rather a complex system that includes supplementary blocks.

Table 2.2 Concepts of the BMC

Pillar by initial e-BMO (Osterwalder & Pigner, 2002)	Building Block in BMC (Osterwalder & Pigner, 2010)	Definition (Osterwalder & Pigner, 2010)
Product Innovation	Customer Segment	the different groups of people or organizations an enterprise aims to reach and serve
	Value Propositions	the bundle of products and services that create value for a specific Customer Segment
Customer Relationship	Customer relationships	the types of relationships a company establishes with specific Customer Segments
Infrastructure	Key activities	the most important things a company must do to make its BM work
	Key resources	the most important assets required to make a BM work
	Key partnerships	the network of suppliers and partners that make the BM work
Finances	Cost structure	all costs incurred to operate a BM
	Revenue streams	the cash a company generates from each Customer Segment (costs must be subtracted from revenues to create earnings)
N/A	Channels	how a company communicates with and reaches its Customer Segments to deliver a Value Proposition

Note. Adapted from Osterwalder and Pigner (2002, 2010).

The BMC describes an organization's BM by nine interconnected components: customer value proposition, segments, customer relationships, channels, key resources, key activities, partners, costs and revenues which are described in Table 2.2. The table represents the development of the BMC framework. It combines initial approach of 4 pillars by Osterwalder and Pigner (2002) and actual building blocks of BMC (Osterwalder and Pigner, 2010). Only “Channels” cannot be collocated to any initial pillar.

Advantages of the BMC around other frameworks allow it to be widely used both in practice and academic research. Practitioners from different industries widely use this methodology (i.e. OECD, European Commission & Nordic Innovation, 2012; Kaplan, 2012). Especially, practitioners note its effectiveness in helping users understand an organization's BM through a visual representation of a business and ability to guide the creative phase of prototyping, gathering feedback, and revising iterations on BM innovation (Joyce & Paquin, 2016). In particular, the BMC helps to visually represent visually the elements, potential interconnections, and impacts on value creation in a BM (Joyce & Paquin, 2016). It facilitates discussions and exploration of potential innovations in an underlying BM itself; it gives a systemic perspective of an organization and highlighting its value creating impacts (Wallin, Chirumalla & Thompson, 2013; Bocken, Short, Rana & Evans, 2014).

BMC is widely adopted for BM innovation research (Abraham, 2013; Massa & Tucci, 2013, Trimi & Berbegal-Mirabent, 2012), BM modeling and generation (Leschke, 2013, Eppler, Hoffmann & Bresciani, 2011) and other research fields. Moreover, scholars not only adopt it for further research in BM area, but also develop BMC itself. Joyce and Paquin (2016) expand it and suggest the Triple Layer BM Canvas (TLBMC) which includes among original canvas environmental and social layers. Toro-Jarrín, Ponce-Jaramillo, and Güemes-Castorena (2016) complement the BMC with another framework, Technological Roadmap transforming them in a new methodology. This new tool allows constructing a BM in time perspective in order to achieve short, medium and long-term objectives and facilitates visualization of elements for the current business.

Analyzing academic literature, interviews of practitioners and online review lists limitations of BMC, Coes (2014) summarizes them in a flowing list: the absence of external factors such as competition, market forces and other external forces, the limited usability for different sorts of organizations (for example, it excludes social and non-profit organizations), a different level of detailing among building blocks, the interaction of teams and the value of the creator of the BM are not taken into account. Researchers also point out that developing a sustainability-oriented BM likely requires an expert facilitator to support this orientation or a

use of a different tool altogether (Bocken et al., 2014, Joyce & Paquin, 2016). The most significant inconvenience of BMC for exploratory research within an industry is its single-firm perspective, or, in other words, a firm-centered focus (Dara, 2013).

The e3-value methodology is a common alternative to the BMC. The goal of e3 -value is to clarify and evaluate a business idea thoroughly, "not to find the ideas themselves." (Gordijn & Akkermans, 2003, p. 121). Authors of the e3-value framework state that the creation of this methodology is dictated by the need to develop an e-commerce BM and evaluating it for potential profitability, rather than a vaguely described idea. Initially, the e 3 -value methodology is aimed to represent and analyze the economic value aware exploration of e-commerce ideas (Gordijn & Akkermans, 2003). This value-based approach implies demonstration of a value model of a BM. This value model shows actors who are exchanging things of economic value with each other and paths of the economic value.

The e3-value methodology combines a scenario-based approach and a graphical, conceptual modelling approach. The conceptualization of an e-commerce idea in the e3-value methodology is a graphical construction. To express economic value creation, distribution, and consumption, authors suggest to depicture it as a multi-actor network. Authors of the methodology have developed an ontology that is suggested to be used to represent an abovementioned multi-actor network. The ontology includes generic concepts, relationships, and rules. They are listed in Table 2.3.

Authors of the e 3 -value methodology aim to represent and analyze the economic value aware exploration of e-commerce ideas "call such an exploration track an exploration track value-based requirements engineering" (Gordijn & Akkermans, 2003, p. 131). Caetano et al. (2017) consider the e3-value model as an abstract set of value transactions occurring between actors. Or in other words, the e3-value methodology is a drawing a map or creation of an architecture of economic value in a BM based on the developed system of signs, symbols, and paths.

Although the e3-value method focuses on BM in general and potential profitability of the idea in particular, it is rather software-oriented. The e3-value methodology is widespread especially in e-business projects (for example, studies by Akkermans et al, 2004, Glova, Sabol & Vajda, 2014) because new actors and relationships can be relatively easily added to or removed from the treated BM (Gordijn, Akkermans & Van Vliet, 2001) and a value model contributes to a better understanding of the buyer-seller chains in the e-commerce (Gordijn & Akkermans, 2003).

Table 2.3 Summary of Concepts and Relationships in the e3-value Ontology

	Name	Definition
Concept	Value object	A service or a product that is of value to at least one Actor
	Actor	An economically independent entity able to exchange Value Objects
	Market segment	A group of Actors that evaluate the same Value Object in a similar way
	Value port	An abstraction of how an Actor provides or requests Value Objects. It is realized by one or more Value Activities
	Value activity	An activity performed by an Actor that directly yields profit or that increases the value of a Value Object
	Value offer	A group of Value Ports with the same value flow direction (either inbound or outbound)
	Value interface	A group of Value Ports with economic reciprocity. It consists of one or more pairs of Value Offers
	Value exchange	The transmission of a Value Object from an outbound to an inbound Value Port
	Value transaction	The set of all Value Exchanges associated to the same Value Interface. A Value Transaction is atomic
Relationship	Scenario path	One or more segments, related by Connection Elements, start and stop Stimuli, and responsibility points. It indicates via which value interfaces objects of value must be exchanged
	Stimulus	A scenario path starts with a start stimulus, which represents a consumer need. A stop stimulus indicates that the scenario path ends
	Connection element	It is used to relate individual segments
	Responsibility element	It shows that a scenario path hits a value interface

Note. Adapted from Gordijn and Akkermans (2003).

Researchers note usefulness and convenience of the e3-value methodology for the exploration of e-business ideas (Akkermans et al, 2004, Glova et al., 2014). The e3-ontology is a language that helps conceptual modeling (Massa, Tucci & Afuah, 2016). The challenge to this framework is to identify exactly what is the value in the e-business ideas and what kind of relationships can be expected in the network in order to provide a real value proposition to actors (Glova et al., 2014).

Comparing two frameworks which are discussed in the current section, it could be clearly seen that both BMC and the e3-value methodology have their advantages and drawbacks for research. At the same time, both of them are hardly applicable to the identification of BM configurations. Both of them lack of tangible dimensions.

Summing up the previous paragraphs, there is no consensus regarding the meaning of the term BM. Despite the relatively young history of the term, the concept and definitions have evolved over time. However, neither scholars nor practitioners have developed a unified definition. Researchers have also mentioned that the field of BM is fragmented (Al-Debei & Avison, 2010). Existing in literature partially overlappings with other connected terms cause different interpretations. In order to clarify the BM concept, the following paragraph presents key points distinguishing BM and other close concepts.

This section expands a picture of BM. Although this term is frequently mixed with other connected terms such as strategy, business processes, revenue model and economic model, the distinctive features of BM are clear. It allows to distinguish BM around the cloud of terms and deeper understand the meaning of this term. In addition, connections with the related terms are explored. Approaches to BM classifications are discussed in the following section.

2.2.2 Classifications of BMs

Although a variety of BMs is great, they could be analyzed and compared. Based on context and dimensions, researchers group, classify, and compare BMs as within industries as across them. Generic BM configurations exist across industries. At the same time, there are BMs classifications which categorize BMs inherent to a particular industry or based on other criteria, e.g. digital BMs, e-BMs. The present section reviews BM frameworks for BM classifications and criteria for classifications.

Typologies and Taxonomies of BMs

BMs being a broad concept could be investigated from different perspectives. Apart from a wide range of definitions of this term which are discussed in sections 2.2.1, there are different approaches for identification of BM patterns and their classifications. Osterwalder et al. (2005) have developed a comprehensive hierarchy of research in the BM field. The hierarchy of BM research by Osterwalder et al. (2005) consists of three levels. The top level includes the examination of definitions of BM and meta-model of BM. On this level, BM looks as an abstract concept. Examples of the studies about definitions and elements (components) of BM could be found in section 2.2. The second level of BM concept hierarchy reflects studies about BM taxonomies and typologies. Here is as generic BM research as research in specific industries. Search for similarities among BMs allows to categorize them and specify sub-classes of meta-model (level 1 of the hierarchy). The low level of the hierarchy involves real world companies. It implies conceptualization, representation, and description of BMs.

According to the BM Concept Hierarchy, the present study engages all three levels of research. Firstly, it involves real world companies from the travel industry and their conceptualization which is relevant to the third level. Secondly, one of the objectives of the study is identification BMs inherent to the certain industry (travel) and certain type (digital). Investigation of sub-classes matches with the second level in the hierarchy. Finally, the examination of the effect of national cultures on BMs regards to the top level of the hierarchy as research about meta-model of BM. Two following paragraphs specify BM research in two directions: BMs related to digital business and BMs inherent to the travel industry.

The BM field also separates taxonomic research and typological research (Lambert, 2006). BM typologies are a classification that are based on a specific criteria. They usually identify and classify BMs according to a few characteristics (one or two) at one time. In contrast, taxonomies of BMs are general classifications of BMs. Taxonomies are usually based on a large number of variables.

Typological research in the BM field could be conducted as within one industry as based on other criteria. Based on different frameworks, researchers develop typologies of BMs in the recorded music industry (Bourreau, Moreau & Gensollen, 2008), mobile game industry (MacInnes, Moneta, Caraballo & Sarni, 2002), publishing (Øiestad & Bugge, 2014), public wireless local area network (PWLAN) industry (Shubar & Lechner, 2004) and etc. Another stream of literature attempt to classify BMs inherent to web-, e-business, digital business or other specific types of BMs. For example, Timmers (1998) suggest 11 types of e-BMs. Rappa (2001) proposes classification of BMs for digital enterprises. Fleisch, Weinberger and Wortmann (2014, 2015) identify and classify BMs supported for IoT enterprises. More details about typologies of BMs in the travel industry and digital BMs are presented in sections 2.2.4 and 2.2.3 respectively.

The recent studies also suggest taxonomies of BM patterns which classify BMs generally. Taxonomies a basis for generalization and classification of BMs across industries and any other criteria. Every taxonomy has a framework for classification which include a number of dimensions. The existing taxonomies and their frameworks are discussed in the following section.

Dimensions of BMs

Although the frameworks of BM elements are widely used for BM generation, innovation and implementation, they do not allow to identify and classify BMs. There are different approaches to BM classification. A significant part of the academic and business literature evaluate a BM in a particular organization empirically, i.e. without a certain criteria. For example, Shubar and Lechner (2004), Slater, Gasser, Smith, Bambauer, and Palfrey (2005), and Accenture Digital (2015) do not suggest any criteria for BM identification and classification.

At the same time, recent literature suggests a few theoretical approaches to BM taxonomies. Few of these approaches become common among researchers for the description and the classification of BMs. There are BM Navigator (BMN) by Gassmann et al. (2014), V^4 BM Dimensions by Al-Debei and Avison (2010), and the 5-V framework by Taran,

Nielsen, Montemari, Thomsen, and Paolone (2016). The review of these frameworks is presented below.

There are a few attempts in the literature to create a unified framework of BM concept based on BM Canvas and the e3-value methodology which are discussed in part 2.2.1. It is caused primarily by weaknesses of existing BM frameworks: they cannot show dynamics in the structure of BM (Westerlund, Leminen & Rajahonka, 2014) and do not give an opportunity to identify and classify BM patterns (Gordijn, Osterwalder, & Pigneur, 2005). Thus, Morris et al. (2005) suggest a unified framework for characterizing a BM which, however, did not spread among academics. Nevertheless, another unified framework, V^4 BM Dimensions, gains recognition and wide practical application on an academic sphere.

The unified BM conceptual model which includes V^4 BM Dimensions is developed in two studies: mostly in an article by Al-Debei and Avison (2010) and partly in the article by Al-Debei and Fitzgerald (2010).This unified framework is based on models and frameworks that existed at that moment including BM Canvas, the e3-value methodology, and others which fully or fragmentally examined BMs and their components. The unified framework consists of four dimensions (V^4 BM Dimensions), modeling Principles, BM Reach, and BM Functions. Each of these major facets includes sub-arrangements.

Table 2.4 V^4 BM Dimensions from the Unified Framework of the BM Concept

Dimension	**Description of the dimension**	**Sub-dimensions**
Value proposition	A way that demonstrates the business logic of creating value for customers and/or to each party involved through offering products and services that satisfy the needs of their target segments	Products/services
		Value elements
		Targeted market segment(s)
Value architecture	An architecture for the organization including its technological architecture and organizational infrastructure that allows the provisioning of products and services in addition to information flows	Core resources
		Value configuration
		Core competency
Value network	A way in which an organization enables transactions through coordination and collaboration among parties and multiple companies	Actor
		Role
		Relationship
		Flow communication
		Channel
		Governance
		Network mode
Value finance	A way in which organizations manage issues related to costing, pricing, and revenue breakdown to sustain and improve its creation of revenue	Total cost of ownership
		Pricing methods
		Revenue structure

Note. Adapted from Al-Debei and Avison (2010)

The BM dimensions in the V^4 framework are interdependent (Al-Debei & Fitzgerald, 2010). They are listed as follows: value proposition, value architecture, value network and value finance. Each dimension consists of sub-dimensions. Totally, there are 16 sub-

dimensions. The V^4 BM Dimensions, their descriptions, and their sub-dimensions are shown on Table 2.4. The V^4 BM Dimensions framework has shown itself as an extensive and contemporary framework to BM description (Dara, 2013). At the same time, a large number of sub-dimensions (16) makes it overweight and low suitability for exploratory research.

V^4 BM Dimensions are initially developed and presently widely used for analysis of digital BMs. Scholars also apply this framework for investigation of specific BMs. For example, V^4 BM Dimensions are adapted and applied for evaluation of BMs of cloud-based start-ups (Bhat &Shroff, 2014). The specialization on Digital Business is a considerable benefit of the V^4 framework for studies about digital BMs. However, application of unspecialized frameworks is possible as well. Two of them are the BMN and the 5-V framework which are reviewed below.

The BMN (Gassmann et al., 2014) is another tool for BM identification and classification. In contrast to the V4 BM Dimensions framework, it is simply based on four dimensions. These four dimensions form the *Magic Triangle* as it shown on Figure 2.4.

Four dimensions in BMN are four core questions:

- "Who?" means the target customer;
- "What?" is the value proposition to this target customer;
- "How?' refers to the value chain aimed to carry the value proposition;
- "Why?" clarifies the profit mechanism.

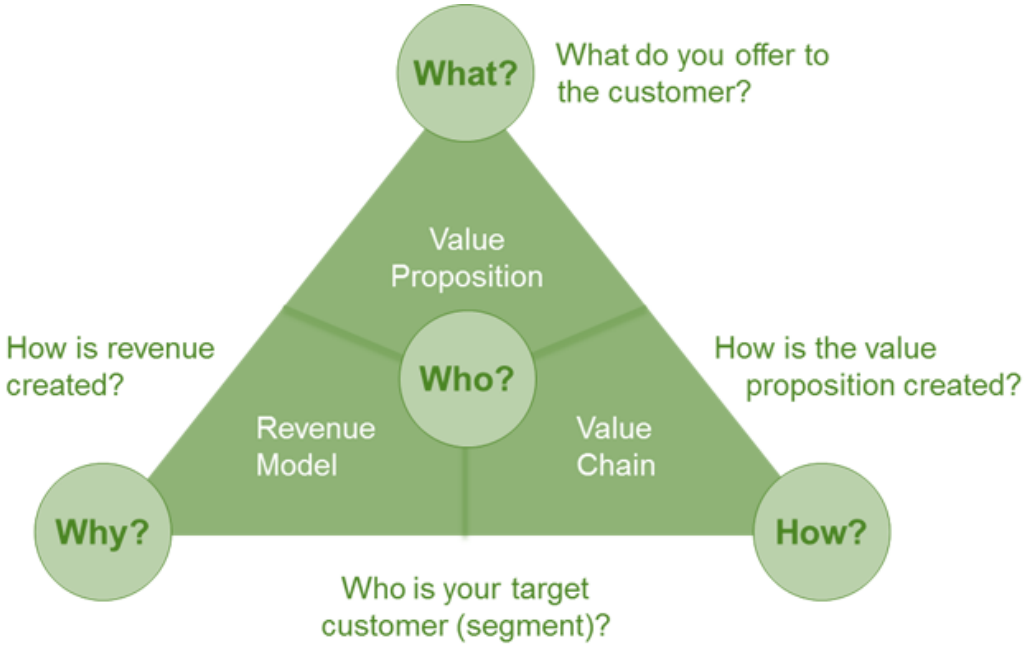

Figure 2.4 Magic Triangle. Adopted from Gassmann et al. (2014, p. 7)

First two questions are addressed to external aspects of a BM, the second two are internal aspects. Based on these four questions, Gassmann et al. (2014) identify and describe 55 actual BMs. They all are described with respect to each of the four questions in a book with the same name *The Business Model Navigator* (Gassmann et al., 2014).

Although the BMN is initially created as a framework for any BMs analysis, some researchers have applied it to analysis of BMs in IoT driven markets. Turber and Smiela (2014), Turber, Vom Brocke, Gassmann and Fleisch (2014) adapt and develop the BM framework by Gaussmann et al. (2014) in the IoT environment. They lay out each dimension to several Modules that are intrinsic to IoT BMs. Another studies use the BM Navigator for identification of BMs facilitated and possible by Internet-of-Things. For instance, Fleisch, Weinberger, and Wortmann (2014, 2015) argue that 20 of 55 patterns of BM identified by Gaussmann et al. (2014) are newly possible with IoT.

The BMN as well as the V^4 BM Dimensions framework are time-tested frameworks. They were developed some times ago (2014 and 2010 respectively) and applied to BM research by academics. However, the third framework is developed in 2016.

The 5-V framework (Taran et al., 2016) largely summarizes frameworks and approaches that are discussed in the current section. The authors develop their framework and dimensions based on BMC, e3-value methodology, studies by Amitt and Zott (2001), Afuah and Tucci (2001), DaSilva and Trkman (2014) which contributed significantly to the BM research (see 2.2.1). Moreover, the authors of the 5-V framework consider other developed frameworks of BM dimensions to a great extent such as V4 BM Dimensions by Al-Debei and Avison (2010), and the BMN by Gassmann et al. (2014) which are discussed above.

The final categorization list in the 5-V dimensions includes five possible driven categories (dimensions):

1. Value Proposition: the key offer of a company to the Value Segment;
2. Value Segment: the target customers and relationships with them;
3. Value Configuration: combination of core resources, activities and distribution channels for creation and delivery the Value Proposition to the Value Segment;
4. Value Network: partners for collaboration to develop, distribute, sell the Value Proposition;
5. Value Capture: the revenue model and the profit mechanism.

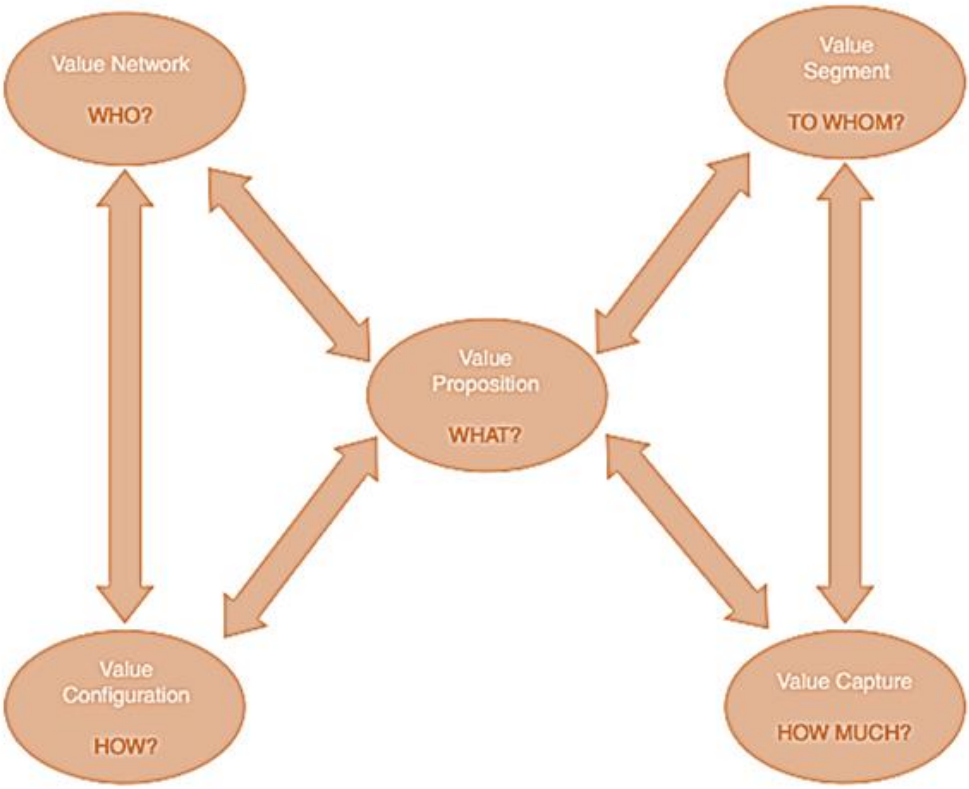

Figure 2.5 The 5-V Framework. Retrieved from Taran et al. (2016, p.517)

The system of the 5-V dimensions works in another way than BMC, e3-value methodology or other BM frameworks. Each possible configuration (pattern) of BMs is driven by one of the five categories listed above. Each driven category encompasses from 10 to 23 BMs. A BM configuration can be supported also by the secondary value drivers. Accordingly, location of dimensions on the framework (Figure 2.5) does not predetermine BM configuration. A BM in the 5-V framework specifies by the dominant role of one value driver. It allows easily identify, categorize and compare BM patterns by clarifying driven categories. Totally, the authors list 71 possible BMs. The whole list of BM configurations by Taran et al. (2016) is presented in Table 1 in Appendix 2.

Comparison of BM Patterns frameworks

Three most widely used in academic sphere frameworks of BM dimensions are reviewed. These are V^4 BM Dimensions, the BMN, and 5-V-framework. According to objectives of the study, identification of digital BMs in the travel industry is the first step of the investigation. Therefore, the choice of the conceptual framework requests comparison of them. Table 2.5 shows the comparison by different parameters.

Table 2.5 Comparison of BM Patterns Frameworks

	V^4 BM Dimensions by Al-Debei and Avison (2010)	**Magic Triangle & BMN** by Gassmann et al. (2014)	**5-V-framework & Classification list of BM configurations** by Taran et al. (2016)
Year of the study	2010	2014	2016
Number of dimensions	4 dimensions and 16 sub-dimensions	4	5
Applicability	Created for digital BMs	Universal (a few studies have developed the adaptation for IoT BMs)	Universal
Number of BM patterns	No lists	55 (see Appendix 3)	71 (see Appendix 4)
Focus of dimensions	Value creation	Elements of BM	Universal
Perspective of dimensions	All stakeholders	Mostly customers	All stakeholders

Each framework of BM dimensions in the comparison has its advantages and disadvantages. Due to the distinctive feature of digital business as the creation of new value (Lopez, 2014, see 2.1.2), the focus of dimensions on value creation is required for exploring of digital BMs. The second core need for the study is the multiple perspective of the BM framework. An opportunity to look on BMs from different angles significantly facilitates academic research and theoretical implications of the study. The 5-V-framework by Taran et al. (2016) meets all the requirements. Although this BM framework is relatively new, it has already proved its reliability in identification of BM. Thus, the 5-V-framework was applied in examinations of BMs by Aranha, Garcia, da Silva and Santos (2017) and Aranha and Deprê (2017).

Summarizing, researchers have developed a large number of frameworks of BMs patterns. The review of commonly used frameworks of components (elements) of BM has identified two key frameworks: the BMC and the e3-value methodology. However, none of them gives an opportunity to identify BM configurations. Accordingly, the BM dimensions are discussed. Three frameworks of BM dimensions are reviewed and compared. The study adopts the 5-V-Dimensions framework by Taran et al. (2016) for the fulfillment of research objectives to identify digital BM patterns in the travel industry.

2.2.3 Concept of Digital BMs

Different approaches to the definition of a digital business cause consistent diversity of approaches to the concept of digital BMs. Similarly to the variety of interpretations of the Digital Business concept (see part 2.1.3), interpretations of digital BMs have a diverse base. As it is stated above, the main outcome of digital transformation of business is building digital BMs. This section presents approached to analysis of digital BMs in academic and business literature.

Some researchers simply equal digital BMs to BMs driven by a single technology. For instance, there are some studies that interpret digital BM as equal to IoT BM (e.g. Fleisch et al., 2014). Katunskis and Neamtu (2016) introduce the digital BM concept from Industry 4.0 perspective. Several academic and business works do not give any certain definitions or distinguishing criteria of digital BMs (e.g. Accenture Digital, 2015). Few researchers simply equal digital BM to e-business (e.g. Novak, 2014).

Recent studies define digital BM as a distinctive concept. Based on adopted concept of Digital Business which is discussed in part 2.1.2, a BM is digital if ICT adoptions initiate creating of a new value and force the invention of a new BM (Lopez, 2014). Accordingly, the study adopts the definition by Veit et al. (2014, p.48) which states as "a BM is digital if changes in digital technologies trigger fundamental changes in the way business is carried out and revenues are generated". This definition stresses significance and depth of changes initiated by ICT adoption for digital BMs. The interpretation of a digital BM as any BM

Academic and practitioners also discuss opportunities of BM innovations that emerge for companies because of digitalization. Katunskis and Neamtu (2016) note that the most influential components of digitalization which foster digital BMs are RFID technology (scanners), cloud computing, real-time analytics, sensors, wearable technology, and tight corporate collaboration. Amit and Zott (2001) point out four drivers for value creation through the exploitation of business opportunities for e-business. They are Novelty (new transaction structures, new participants, new transactional content, and etc.), Lock-In (positive network externalities, switching costs), Complementarities (between technologies, between activities, between online and off-line assets), and Efficiency (search costs, selection range, speed, simplicity, and etc.). Although these four value creation potentials initially were based on e-business (Internet-based firms), researchers apply conclusions of Amit and Zott (2001) to any kind of BMs supported by ICT adoption, including digital BMs.

There are several approaches to determination of digital BMs. Although some researchers equate digital BMs to BMs of technology-based companies, there is also a singular approach. The approach by Veit et al. (2014) highlights fundamental changes in a BM caused by ICT in order the BM to be digital. A BM in the digital era grows on innovations caused by new opportunities. New digital BMs are driven creating of new value that is required by modernity. Since Digital Business is significant for the travel industry (see part 2.1.3), the following paragraph examines literature about BMs in the travel industry with emphasis on digital BMs.

2.2.4 BM Configurations in the Travel Industry

Due to ongoing fundamental changes caused by digital technologies, the travel industry observes emerging new BMs which do not fit into traditional BMs. It raises a question of identification of BMs configurations particularly in the travel industry. As it is stated in section 2.2.2, BM configurations could be identified within an industry. Existing typologies of generic and digital BMs in the travel industry are presented in this section.

The recent overviews of studies about BMs in tourism by Reinhold, Zach, and Krizaj (2017, 2018) show that the vast majority of papers are focused on topics distinct from the BM identification. The existing studies are mainly focused on success factors of BMs, developing BMs for a specific sector of hospitality or food service and etc. A few attempts to identify and classify BM configurations are done in the last years. They are discussed below.

Among studies in BM configurations, airline companies got the highest attention of researchers. For instance, Papatheodorou and Lei (2006), Frank (2011), Diaconu (2012) investigate BM configurations of airports and air companies and their effectiveness. Reinhold, Beritelli, and Grünig (2018) have developed a typology of destination management organizations. However, these classification has a very narrow focus and specified only for the investigated sector of tourism and hospitality.

Attempts to identify BM patterns in the travel industry are often lack of theoretical foundation. For example, Henne (2014) attempts to systematize and to highlight the most common BMs in the travel industry. BM patterns and examples of them by Henne (2014) are presented in Table 2.6. This classification includes both traditional (non-digital) BMs (e.g. traditional travel agencies) and digital BMs (e.g. platforms).

Table 2.6 Overview of BMs in the Tourism Industry by Henne (2014)

BM configuration	Value Proposition	Customer Interface	Financial Aspect	Example
Traditional travel agency	Travel products: flights, accommodations &complementary service offerings	Omni-channel distribution	Commissions from third-party supplier, charge mark-up	Thomas Cook
OTA	Travel products: flights, accommodations & complementary service offerings	Online channel only	Booking & processing fees; buying inventory at discounted prices, selling at a premium	Expedia Inc
GDS/CSR	Saving and retrieving travel information	Main users: travel agents, airline employees, but also traveler	Booking/traffic fees from airlines, subscriptions from agencies	Sabre, Amadeus, Galileo, Worldspan
Infomediaries	Travel and destination information	Online channel	Click and display-based advertising	Tripadvisor
Platforms	Accommodations	Online channel	Service fees to hosts and guests	Airbnb

Note. Modified from Henne (2014)

Digital BM patterns in the travel industry is even less investigated than the general BM field. Based on the BMC, Kreinberger, Thinnes and Timmermans (2014) have suggested a taxonomy of BMs for the re-use of digital public content for the theme Tourism. The taxonomy is a result of a project developing a BM that integrates existing digital collection of cultural content into a digital touristic service. The taxonomy is converted into a table and presented on Table 2.7. The BM Taxonomy for the re-use of digital public content for tourism (Kreinberger et al., 2014) consists of two levels divided by customer segments: Business to Business (B2B) and Business to Consumer (B2C).

Table 2.7 Taxonomy of BMs in Tourism by Kreinberger et al. (2014)

Level	BM	Description
B2B	Service Based BM (Event Organizing)	Companies sell specific services around a product rather than selling the product itself. Following the global service trend to activate additional value by providing service offerings that supplement a product, a company could address the right needs by providing event organizations
	Service Based BM (Customization)	The idea is to create customized versions of the product for other sectors, e.g. the educational sector. The customer will pay for a version that is differing from the standard and tailored according to his needs
	White Labelling	A party uses a service through a provider by rebranding the product. The provider labels the product in way that shows the quotes related to the party. According to this white labelling is corresponding to a product or service that is delivered to a customer who rebrands the product or service to create the impression that it is part of his product or service

Level	BM	Description
	Advertising Revenue Model	Websites or applications with high visitor traffic can monetize their attractiveness through such models. With respect for the different stakeholders that are relevant this can be done
	Corporate Sponsorships	The sponsor pays partially or fully for the costs in exchange of recognition. Two ways to supplement and deepen sponsorships are partnerships, and crowdsourcing
B2C	Freemium	It allows users to get a free access to a service or product and offers supplementary features or services against payment
	Service Based BM (sell merchandise / fan products)	Merchandise articles with a strong relation to the application (e.g. posters, canvas prints, dishes, badges or user generated pictures) can be sold in cooperation with companies that provide such services. A next step could be personalized merchandising, meaning that anyone can print his own recreated image on a mug.
	Donation-Based Crowdfunding Model	It is receiving resources from a community of users. Thereby the community gets no monetary return of investment. Instead the product or service can be used for free. Additionally gifts like brand merchandise can be an option to honour the support of the users.

Note. Modified from Kreinberger et al. (2014)

A system of digital enterprises could be also interpreted as an architecture of travel companies supported by digital technologies. From this perspective, an important contribution to the analysis of a system of digital business is made by Schmidt et al. (2017). Based on the overview of the general architecture of a tourism enterprise, Schmidt et al. (2017) suggest four models of tourism enterprises enabled by ICTs: omnichannel business, ecosystem driver, supplies and modular producer. However, as the authors themselves admit, this classification does not represent underlying digital capabilities and have a conceptual nature. Besides, these four models are a significant contribution to the BM field due to the limited number of studies.

Focusing on online travel intermediaries, Daniele and Frew (2006) five BM:

- Agency – online intermediary deducts commissions from each purchase;
- Merchant – online intermediary adds mark up to the price negotiated with suppliers;
- Distressed inventory focuses only on last minute bookings;
- Demand collection BM accepts trade-offs between suppliers and customers;
- Comparison shopping offers price comparison across suppliers.

Summarizing existing findings, the emerging and development of digital BMs in the travel industry are clear. However, digital BM patterns in the travel industry lack of a systematic identification. Specifics of the travel industry such as sensitiveness to information and innovations, the prevalence of non-technological innovations make the identification and classification of digital BMs of a particular interest in the travel industry.

2.3 Cultural Diversity and Digital Travel Business

2.3.1 Effects of Cultural Differences in Tourism

The growth of welfare, globalization, technological development, and other reasons cause a rise of a number of tourists and tourist arrivals over last years. Worldwide tourism demand rapidly growths for the last five decades (Peng, Song, Crouch & Witt, 2015). A significant power is the impact of emerging markets. New markets contribute to an increase of international departures and arrivals (Li, 2016). Tourism faces new tourists who are representatives of new cultures. More and more tourists from different countries, nations, and countries are involved in the global tourism economy.

Intercultural analysis has emerged as a popular approach in the world of management during the past three decades. Researchers, teachers, and management consultants have been working to improve understanding of the relationships between management and culture, especially national culture (Chanlat, Davel & Dupuid, 2013). Explorations in this area have created a new managerial field: cross-cultural management (Schneider & Barsoux, 2003).

Cross-cultural perspective allows to better examine different phenomena and processes in tourism. For example, researchers apply cultural frameworks to analyze tourists behavior (Crotts, 2016), visitors profiles, trip profiles as it is done, for example, in the study by Ahn and McKercher (2015), or preference for tourist activities (Pizam &Fleischer, 2005). National culture largely determines a destination image perception. Tourists reactions depend on cultural differences and implementation of brand-personification destination strategies might be more or less effective depending on cultural differences (Matzler, Strobl, Stoburger-Sauer, Bobovnicky & Bauer, 2016). Also, culture can be a basis of unique cultural attractiveness and special added value for tourist destinations (Pechlaner, Lange & Raich, 2011).

The nature of the travel industry is inherently intercultural. Travel business unites employees from different countries and cultures. Travel organizations face cultural differences in many aspects of activities. Influence of cultural context is examined in business strategy development in hospitality (Ayoun & Moreo, 2008a, 2008b), selecting and purchasing a hospitality franchise brand (Yeung, Brookes & Altinay, 2016). Cultural differences have affected management philosophies in hospitality (Choi, Stahura, Sammons & Bernhard, 2013) including personal and ideal management philosophies, and ideal images of supervisor.

Summarizing, national cultures have a significant power that affects the travel industry due to its global nature. Tourists and travel companies face cultural differences constantly. The following section discusses the concepts of culture and national culture, specifies the sides of

international management and travel business affected by cultural differences across the world, and the reviews the streams of tourism studies applied cross-cultural perspective.

2.3.2 Concept of National Culture

Concepts of Culture and National Culture

There are many theories trying to explain the phenomenon of culture. A wide range of definitions includes even contradictory to each other (Browaeyrs & Price, 2011). Researchers invariably state multidimensionality of culture. The common approach was developed by Schein (1985) and often calls as Schein's model. It includes 3 levels of culture:

1) Behavioral or 'explicit' level. It can be observed immediately when there is a contact with a particular culture;
2) Norms and values (written and unwritten);
3) Assumption and beliefs which are difficult to describe or explain.

The number of definitions of culture is extremely large. According to the book by Pedersen, Lonner, Draguns, Trimble, and Scharron-del Rio (2016), American educator Clemmont Vontress mentions a number of more than 100. Some examples of different definitions of culture are presented in Table 2.8. Hence, the study adopts the definition of culture by Kluckholn (1951) as the most comprehensive.

Table 2.8 Definitions of Culture

Author	**Definition**
Hofstede (2001)	Mental programming at the group level; 'software of the mind'
Kluckholn (1951)	Beliefs, values, behaviors, customs, and attitudes that distinguish people from one society from another
Trompenaars & Hampden-Turner (1997)	"The way in which a group of people solves problems and reconciles dilemmas" (p. 6)
GLOBE project (House et al., 2004)	Shared motives, values, beliefs, identities, and meanings caused from common experiences of members
Tayeb (2003)	"A constant thread…through our lives which makes us distinguishable from others" (p. 13)

Culture is multi-level construct. There are several approach to hierarchy of levels of cultures (e.g. Medin, 2015, Vijver & Leung, 1997, Tsui et al., 2007, Thomas & Peterson, 2014). In general, scholars identify 3 levels: individual, group (e.g. organization), nation (or country). The majority of studies are at the single level (Tsui et al., 2007) and the majority of them have

focus on national cultures at the country level (López-Duarte, Vidal-Suárez & González-Díaz, 2016). Culture incorporates the collective values of a group of people (Schein, 1985). According to Browaeyrs and Price (2011), this group of people can be either big (i.e. nation) or small (i.e. family). Erez and Gati (2004) distinguish global national, organizational, group and individual levels of culture. Their multi-level model of culture is presented in Figure 2.6.

Figure 2.6 Multi-Level Model of Culture. Adapted from Erez and Gati (2004)

At the national level of culture, terms *culture*, *nation* and *country* have to be distinguished. Tayeb's (2003) research shows how one nation (Kurds) has one cultural identity, even though they are divided by state boundaries. Due to this observations, she also points out that national culture initially created by 2 elements: the physical environment and the history of the nation. They cause the emergence of differences in institutions across nations: family, religion, education, mass communication media, and the multinational company. The converse statement is also true: multiple cultures can exist within one country and the same cultural group can be shared by many nations (Lenartowicz &. Johnson, 2003).

Years of cross-cultural research have revealed that culture is a dynamic, rather than a static entity. Researchers stress alterability of national culture (Jackson, 2015). Despite the absence of a certain framework for analysis of changes in cultures (Tsui et al., 2007), changes of various dimensions of national cultures are observed in several studies (Beugelsdijk,

Maseland & Hoorn, 2015; Ralston, Terpstra-Tong, Terpstra, Wang, & Egri, 2006). Specifically, cultural norms and values may more rapidly change during periods of environmental transformation in economy or under the influence of technological innovations (Fertig, 1996). As it is mentioned in part 2.1., technology adoption and digital divide is caused by many reasons including country-specific culture. Consequently, national cultures and technology development have mutual influence. Details of connections between national culture and ICT development are discussed in section 2.1.4.

Country-specific factors are broader and focus on unique regulatory or social practices across nations or cultures (Soh, Kien & Tay-Yap, 2000). Nations differ in relation to time (Hall, 1966), to space (Adler, 1983, Schein, 1985), property (Trompenaars & Hampden-Turner, 1993), language differences (Hall, 1966, Trompenaars & Hampden-Turner, 1993), contracts (d'Iribarne, 1996), etc. A variety of these differences creates a variety of theories and approaches to national cultures. Several attempts are made to measure different aspects of national cultures and classify countries based on different characteristics. They are discussed in details in the next part.

Effects of National Cultures on Management

The influence of national culture and country-level institutes is significant in different domains of life. Even although some researchers abide culture-free approach (Hickson & Pugh, 2001, Parker, 1998) and state that "national borders are losing their meaning as economic frontiers" (Bartholomew, 1997, p. 37), they do not deny the existence of cultural differences. Rather, they stress the significance of other factors affecting company's effectiveness such as size, strategy and technology. At the same time, many researchers examine relationships of cross-cultural aspects and business.

Cultural perspective helps to examine phenomena in different scopes of these fields in details. The analysis of articles in tourism research clearly shows a stable rise in the number of published articles about cultural difference over the past two decades (Crotts, 2016).

Several studies about cross-cultural management have the regional perspective, they analyze specifics of a particular nation, country or cluster of countries. Europe, Asia and Northern America make up a large part of them. For example, Hofstede (1993) present analysis of inner processes among European countries, and in collaboration with Bond (Hofstede & Bond, 1988) present a study about the Confucian world. The minority of studies have the rest of the world as the research setting. Considering the history of cross-cultural research, this

inequality is understandable. Moreover, the recent trend of geographical expansion of research objects meets this gap.

At the same time, scholars also use the intercultural approach to cross-cultural studies about business. Area of their interest includes different management practice: everyday business activities and special processes as well. A lot of studies are devoted to differences in styles of management across the world (Hall & Hall, 1987, Trompenaars & Hampden-Turner, 1993, Mead, 1994 and many others). Cross-cultural approach is also used to analyze International human resources management (Schuler, Budhwar & Florkowski, 2002, Brewster, 1993, 1995, Adler & Bartholomew, 1992) including specifics of expatriates and migrants (Doherty, Richardson, Thorn, Al Ariss & Crowley-Henry, 2013, Berry & Bell, 2012), communication across boundaries (Usunier & Lee, 2005, Mead, 1990), negotiation process (Fisher, 1980) and cross-cultural leadership (Brodbeck, Chhokar & House, 2007, House et al., 2004), team building (Davison & Ekelund, 2009, Lewis & Gates, 2005), and intercultural conflicts (Morris et al.,1998, Ting-Toomey and Kurogi, 1998) etc. Therefore, it leads to a conclusion that all management activities are influenced by cultural differences.

The recent overview of articles about the role of culture in hospitality and tourism by Crotts (2016) shows the dominance of country-level comparisons. Crotts (2016) also notes the dominance of Hofstede's measures over other frameworks. The overwhelming majority of studies use quantitative approach and most of the research (almost three quarters of studies over 20 years) use surveys as a method for data collection. In contrast to the general stream of cross-cultural literature, the frequency of examined countries shows the relatively even representation of countries from different regions in the cross-cultural studies in tourism and hospitality (Crotts, 2016).

The analysis of works devoted to strategic management and culture shows that this field is narrowly focused. Some topics are much more popular than others. Meanwhile, some areas are not fully deployed. A significant part of papers and books shows connections of national culture and organizational structure, organizational culture and behavior. The key works by Bartlett, Ghoshal, and Birkinshaw (2011), Adler and Gundersen (2008), Schein (2009), Trompenaars and Woolliams (2004) show that there is a very close relationship because a structure is not independent of culture as well as other concepts connected with strategy. A vast corpus of literature examines international mergers, acquisitions and alliances. Rottig, Reus, and Tarba (2014), Dow, Cuypers, and Ertug (2016) review previous research in this area in details. They consider cultural, linguistic and religious diversity that influences processes of foreign merger and acquisitions.

Especially, researchers conduct a lot of analyses related to multinational corporations (MNCs) in different industries. Bae, Chen, and Lawler (1998), Chevrier (2003), Tihanyi, Griffith, and Russell (2005), Ashkenas, Ulrich, Jick, and Kerr (2002), Moore (2016) and many other authors investigate cultural differences on the examples of MNCs. Perhaps, it is caused by several reasons including simplicity of getting information, potential sponsorship from big organizations and others. However, small and medium enterprises (SMEs), and especially start-ups remain out of sight of researchers or get very low attention.

Academics also meet the needs of practitioners in questions about "globalization" and "local differentiation" of strategy. The absence of a single continuum gives rise to several theories about the role of culture (Buckley & Ghauri, 2004, Luthans & Doh, 2009). Moreover, two calls "for global-scale efficiency and local responsiveness simultaneously" (Bartholomew, 1997, p. 37-38) lead to creation a strategy of 'glocalization' (Robertson, 1995).

Overview of research topics of cross-cultural studies in tourism and hospitality (Crotts, 2006) has revealed a disproportionate distribution of attention from researchers. The vast majority of the studies are focused on consumer behavior including topics of brand awareness, trip planning, purchase intentions, behaviors and satisfaction, etc. Some articles examine issues of human resource management such as employee satisfaction, leadership, teamwork in the cultural perspective. The rest of studies examines different aspects of management including corporate social responsibilities, transnational issues and, finally, a very last topic is interactions between host/resident and tourists.

Recent overviews of international business and national culture literature show overwhelming dominance of quantitative methods (López-Duarte et al., 2016). Mostly, it is due to dominance of the comparing perspective of studies which aim to compare across samples from different cultures or nations (Tsui et al., 2007, Usunier, 1998). The most common method of data collection around qualitative studies is a case studies (López-Duarte et al., 2016). Other qualitative methods are hardly used although methodological diversification is recommended by many researchers (Hofstede, 2015, López-Duarte et al., 2016). Qualitative methods in cross-cultural research can make significant contribution by providing rich descriptions of real phenomena, stronger conceptualization, and, finally, theory building and theory development (Doz, 2011).

Although the number of studies using the cross-cultural approach in tourism increases as it mentioned above, the review of studies has revealed some gaps and inconsistency in research. First, there is a disparity of topics in studies. Very few studies are focused on issues of management. Second, studies about management issues are conducted in a single field.

Researchers are more likely to choose hospitality than the travel industry for research. Lastly, most studies apply the quantitative approach to compare countries/nations. Meanwhile, exploratory investigations and qualitative methods are hardly used.

The significance of national culture in tourism and hospitality is clear. National culture has an important impact on international management and business generally. The modern simultaneous trends of globalization and local differentiations raise questions about differences and similarities among nations and countries. It increases the significance of cross-cultural studies and the need for relevant frameworks of cultural dimensions for applications. The classical and modern cross-cultural theories are discussed in the following section.

2.3.3 Cross-Cultural Theories

The classification of cross-cultural studies is based on considered cultural context. The common approach by Adler (1983) identifies three types of cultural context: unicultural (within one culture), comparative (looking for similarities or differences between two or more countries), intercultural (looking for specific aspect of culture influencing on object of research).

In general, literature on cross-cultural theories follow two approaches: ideational and institutional. These two approaches represent two perspectives of research on national cultures. Ideationalists stress that cultural values shape national institutions. In opposite, institutionalists tend to highlight the role of societal institutes in shaping cultural values. Nevertheless, the mutual influence of ideational and institutional sides of national cultures is clear. The relationships between cultural values and national institutions are two-way (Tayeb, 2003).

The common practice for research is to apply one approach: either ideational or institutional. Studies with a complimentary approach that look on cultures from both sides are rather exceptions. Overall, the ideational approach got more attention of scholars, meanwhile the institutional approach is underresearched.

This part of the thesis is designed as a review of cross-cultural theories. The review includes major cross-cultural theories that are chosen based on highest citation indexes of studies that present the theory and studies that use the particular theory. First, theories within the ideational approach are discussed. Then theories within the institutional approach to national cultures are reviewed.

Ideational Approach to National Cultures

Ideational theories of cultures interpret national cultures as a set of values, ideas, and meanings (Child & Tayeb, 1982). Systems of shared values, ideas, and meanings shape peoples' motivation and behavior. As a result, nations have certain traditions, symbols and other cultural distinctiveness. Most of the theories within this approach has quantitative approach and are organized as dimensional frameworks. They are sets of dimensions that indicate cultural values of the nation.

The review starts with Hofstede's theory and its critical evaluation, then other theories are presented one by one. Separation of Hofstede's theory is caused by its great contribution to the cross-cultural research and its wide application in academic research. Then, the comparison of theories and current trends in cross-cultural research (general and special for tourism) are discussed.

Hofstede's Theory

The dominant perspective in the cross-cultural field is the Hofstede's dimensions (Chanlat et al., 2013). Geert Hofstede's books and papers about national culture and its influence on management are known worldwide. He develops a dimensional approach by studying values as the basis of culture and separating to scales. The original Hofstede's methodology (1980) included four dimensions to describe aspects of national cultures, i.e. power distance index (PDI), uncertainty avoidance index (UAI), individualism index (IDV) and masculinity index (MAS). These dimensions were derived through a survey containing many questions about values, conducted in a huge multinational corporation (IBM) in 72 countries. Subsequently, a fifth dimension, long-term orientation (LTO) was added to the framework (Hofstede, 2001). Still later, a sixth index, namely Indulgence versus Restraint (IND), has complemented this method (2010). Table 1 in Appendix 1 summarizes indexes, their implications and some typical examples of countries (modified from the website of The Hofstede Centre).

Significance of Hofstede's Dimensions

It is impossible to overestimate the importance and value of Hofstede's works. Hofstede's methodology has become wide-spread. Researchers note and praise its clarity, parsimony, and resonance with managers (Kirkman, Lowe & Gibson, 2006), applying cultural research to practical management problems (Tayeb, 2003). Some researchers even call it "almost certainly the best study of cultures" (Tayeb, 2003 p. 71). It is also a good example of proper and rigorous data collection: samples from different countries are well matched, the survey is translated into local languages, response bias is under control etc. (Smith, Bond & Kagitcibasi, 2006). Moreover, the numeric scale of assessment for each dimension and a large

number of data around the world provide an opportunity to compare countries and do quantitative analysis (Kogut & Singh, 1988, Chanlat et al., 2013).

Critique Hofstede's Dimensions

Although the contribution of Hofstede's approach is great and outstanding, his works have not been without critics. There are several reasons that were mentioned by different scholars. First, representativeness of data is questionable. The initial data included respondents' answers only from a single multinational corporation (i.e. IBM). It is possible that it has a highly distinctive organizational structure (Søndergaard, 1994) and represents values of the IBM employees (Hickson & Pugh, 1995). Therefore, it could influence the results of research by making it biased. Indeed, several attempts to replicate Hofstede's indexes with new samples got failures. Minkov, Bond, and Blagoev (2015), Merritt (2000) collected national samples from different categories of people, social layers and professions and then compared results with original Hofstede's indexes. These efforts are unsuccessful or only partially successful.

The second weakness is a disregard to a within-country heterogeneity of culture into the methodology and strict linking to the territorial bounds (Baskerville, 2003). Undoubtedly, the results include considerable variation within the sample of each country (Browaeys and Price, 2011). Thus, McSweeney (2009), and Mazanec, Crotts, Gursoy, and Lu (2015) point out that distinct regions could differ significantly along the Hofstede's dimensions. Later, Beugelsdijk et al. (2015), Berry, Guillén, and Zhou (2010) develop methods that incorporate the heterogeneity of cultures into the analysis of dimensions and cultural distance between countries. However, these approaches look overloaded and too engrossed into mathematical modeling. In addition, the question is territorial bound. Disputed territories, special districts are supposed to shape subcultures (Browaeys & Price, 2011). It is not considered in the Hofstede's indexes. One more controversial point of the approach is equating nation with culture noted by Baskerville (2003). Later, examining tourists from different countries, Reisinger and Crotts (2010) have found a large deviation from numbers from Hofstede's dimensions and convergence of indexes of countries from one region (clustering).

Third, Hofstede's approach has been also criticized by supporters of less positivistic approaches (Chanlat et al., 2013). They draw attention to an idea that five dimensions are not enough to tell a "whole story". D'Iribarne (1996), McSweeney (2002), Tayeb (1987), Pugh (1995), Thomas and Peterson (2014) point out that statistical approach inevitably leads to compresses and simplifies. It is impossible to avoid oversimplifications because of using averages from respondents of each nation. Moreover, just a few closed questions for each

dimension do not represent thoroughly such complex and complicated phenomenon like national culture (D'Iribarne, 1996).

Fourth, some researchers point to overlapping across dimensions. According to Browaeys and Price (2011), critics doubt on the independent nature of each of Hofstede's dimensions. Thus, Mead (1994), Hickson and Pugh (1995) state that some descriptions paraphrase each other. They note that dimensions of power distance and Individualism-collectivism are basically one dimension and non-conformism with group norms can be explained by other dimensions.

And finally, one more point for the critique of Hofstede's approach is its failing to capture changes in national cultures over time D'Iribarne (1996) at first and then Kirkman, Lowe, and Gibson (2006), and Chanlat et al. (2013) argue that this approach does not show historical processes in a national culture. Thereby, a substantial part of the information is not reflected.

Overview of Other Theories of National Cultures

Traditionally, almost all cross-cultural theories get names by author's or authors' surname(s). Hofstede's theory which is described in the previous paragraph is not an exception. Although the theory may be represented in few studies and be written by few authors, it is common to call theory by one researcher. Perhaps, the only exception is the project GLOBE which is described below in this part. It is conducted by several researchers and results are published in many books and papers. Therefore, cross-cultural theories are named by one author hereinafter with one exception of the project GLOBE.

Basically, the cross-cultural dimensional approaches are rooted in one work. In 1961, anthropologists Kluckhohn and Strodtbeck compared cultures of some nations in the American Southwest. They suggested a framework for comparison of cultures that consists of six dimensions related to basic problem areas faced by people:

1) Nature of humans: people are inherently good, evil, or a mixture of good and evil;
2) Relationships among people: social structure should be arranged based on individuals (individual), groups of individuals with relatively equal status (collective), or it is naturally unequally (hierarchical);
3) Relationships to nature: people should control, direct and change the environment (mastery), or submit to nature (subjugation), or keep a balance (harmony);
4) Activity: people should be spontaneous (being), focused on goals (doing), or reflecting (thinking);

5) Orientation to time: people should make decisions guided mostly by tradition (past-orientation), by current needs (present), or by long-term aims (future);
6) The conception of space: space is private, public, or a mixture of private and public.

Subsequently, this framework by Kluchkoln and Strodtbeck significantly influenced the development of cross-cultural research and was a basis for other studies and theories about comparing cultures. Although these six dimensions are used in a very few cultural and management studies (Thomas & Peterson, 2015), this study inspired other researchers (Browayers & Price, 2011). Reflections of the framework could be found in abovementioned Hofstede's framework as well as in studies by Adler, Schein, Trompenaars, and others which are reviewed below.

The first publication of Hofstede's framework in 1980 has stimulated the development of research in the cross-cultural field and conducting surveys of values across nations. One of them is Schwartz Value Survey and subsequent Schwartz's framework (Schwartz, 1994a, 1994b, 1999, Sagiv & Schwartz, 2000a, 2000b).

Schwartz (1999) identifies seven types of values to compare cultures:

- Harmony: acceptance of place in the environment;
- Embeddedness: collectiveness, avoiding change and retaining traditional order;
- Hierarchy: legitimacy of hierarchical (unequal) resource allocation;
- Mastery: individual success through personal action;
- Affective autonomy: pursuit of positive experience, seeking pleasure;
- Intellectual autonomy: pursuit of ideas, creativity;
- Egalitarianism: equality, helpfulness.

However, Schwartz's framework is not constructed in a way of Hofstede's dimensions. These seven cultural values give an opportunity to examine cultures in a different way. The values are usually arranged in a circle or co-plot map. The opposite values in the circle are can not be strong at the same time. Schwartz's framework contrasts Hierarchy vs. Egalitarianism, Mastery vs. Harmony, Embeddedness vs. Autonomy (combined affective and intellectual). Such vectoral representation of cultures allows Schwartz's framework to show a general picture of the distribution of countries and nations according to values. Also, distances of national cultures of different countries are easy to estimate on a two-dimensional figure (Schwartz, 2006). The co-plot map of Schwartz's framework actual for 2006 is presented in Appendix 2.

Edgar Schein (1990, 1996, 2009) developed not only a general model of levels of culture which is described in part 2.3.1.1. but also a system of cultural dimensions. His framework includes six dimensions:

1) The nature of reality and truth;
2) The nature of time;
3) The nature of space;
4) The nature of human nature;
5) The nature of human activity;
6) The nature of human relationships;

A cross-cultural framework by Inglehart and Baker (Inglehart & Baker, 2000) is developed based on data from the World Value Survey (WVS). WVS is a large longitudinal investigation around the globe. It is a multi-purpose survey which is widely used for research in sociology, culture and other disciplines. Inglehart and Baker took the data from the Wave 1, Wave 2, and Wave 3 of WVS that means a quite long period of time since 1981 till 1998. It covers more 60 countries on all continents, and represents more than 75 percent of the world's population (Inglehart & Baker, 2000). Inglehart and Baker summarize findings into two dimensions:

1. Traditional vs. Secular-Rational Values: importance (in traditional societies) or unimportance (in secular-rational societies) such values as religion, nation, and family;
2. Survival vs. Self-Expression Values: the importance of economic and physical well-being (in survival societies) or subjective quality-of-life (in self-expression societies).

Researchers note sound methodology, extensive sample size, and duration of used dataset (Hsu, Woodside & Marshall, 2013). However, Inglehart and Bakers' framework is less popular than Hofstede's one.

Another well-known anthropologist, Hall, developed the cross-cultural framework from the management perspective. Looking for communication patterns within countries, he suggested (Hall & Hall, 1987) three dimensions for comparison societies: context (extent to which the context of a message must be stated in order communication to be successful), space (extent to which it is comfortable to share physical space with others), and time (monochronic - precise concept of time, or polychromic - relative concept of time). Many terms which are commonly used today in the field of cross-cultural management (e.g. high/low context culture, monochronic/polychromic time schedule) are initially developed in his studies (Browayers &Price, 2011).

Nancy Adler and Fons Trompenaars have developed their theories like Geert Hofstede and Edward Hall, examining the impact of national culture on management. Adler alone and in collaboration with other authors (Adler, 1983, Adler & Bartholomew, 1992) have published studies that were pioneers in a field of organizational functions in the cross-cultural perspective. She also suggests six dimensions that could be used to analyze cultural differences (Adler, 1983). Suggested dimensions are similar to those already mentioned dimensions by other authors. There are (1) understanding of the nature of people; (2) relationship to the external environment; (3) relationship to other people (individualism/collectivism); (4) the primary mode of the activity; (5) orientation to space; and (6) temporal orientation.

Dutch management researcher Fons Trompenaars also follows the mainline of Kluchkoln and Strodtbeck (Trompenaars, 1993; Trompenaars & Hampden-Turner, 1998). His framework includes totally seven dimensions: five of them concern relationship with people and two are about orientation to time and the environment. All dimensions are explained in Table 2.9.

Table 2.9 Cultural Dimensions by Trompenaars

	Dimension	**Explanations**
Relationship among people	Universalism vs particularism	To what extent do the rules apply in all situations, or are they different according to circumstances
	Individualism vs communitarianism	Is it more important to be able to act as an individual or to be able to contribute to and stay loyal to group's goal
	Specific vs diffuse	Is it important to compartmentalize or to generalize: is everything linked or nothing linked
	Neutral vs emotional	Is it better to show emotions or to keep them hidden
	Achievement vs ascription	Do people gain success from what they do or from how they are
Orientation to time	Sequential time vs synchronous time	Is time a finite resource to be closely managed, or flexible and integrative with past and future possibilities
Orientation to space	Internal direction vs outer direction	To what extent people control the environment and environment control people

Note. Adapted from Trompenaars (1993) and Trompenaars and Hampden-Turner (1998)

Moreover, Trompenaars in collaboration with Woolliams (Trompenaars & Woolliams, 2000, 2004) suggested a classification of national cultures regarding their attitude to organizational relationships. There are four types. The model is shown in Figure 2.7.

Two dimensions are two axes for the scheme of national cultures by Trompenaars and Woolliams (2000, 2004) (Figure 2.7). These dimensions are not selected from abovementioned Trompenaars's framework. One is the level of formalization (high or low, or in other words utilitarian approach with the orientation to tasks or loyal involvement with people orientation),

the second one is the level of centralization (high or low, or in other words egalitarian with the orientation toward social relationships or hierarchical with the orientation to obligations).

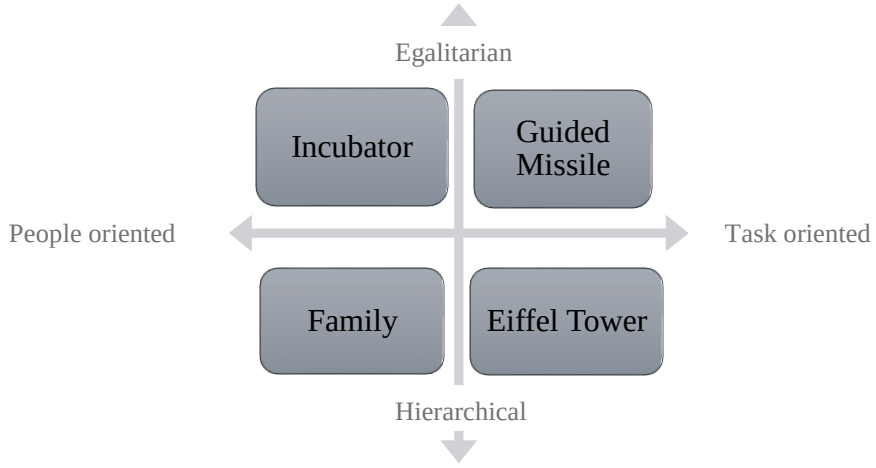

Figure 2.7 The Classification of Cultures by Trompenaars and Woolliams. Adapted from Trompenaars and Woolliams (2000, 2004)

In this way, there are four types of cultures:

- Incubator: low degrees of both formalization and centralization. It is person-oriented and focused on professional development and self-realization;
- Guided Missile: low degree of centralization and a high degree of formalization. It is task-oriented with a focus on commitments and management by objectives;
- Family: a high degree of centralization and low degree of formalization. It is power-oriented with a focus on personal relationships;
- Eiffel Tower: high degrees of both formalization and centralization. It is role-oriented with a focus on job descriptions, evaluations, and procedures.

Another well-known study of cultural differences in value orientation is the Global Leadership and Organizational Behavior Effectiveness (GLOBE) research program (House, Javidan, Hanges & Dorfman, 2002, House et al., 2004). The GLOBE project involved a large number of researchers, organizations and an enormous number of participators in all parts of the world. Questioners were collected from 62 countries. Data processing was a multiphase and multimethod process. One of the outcomes of the GLOBE project is the framework of 9 dimensions of societal cultural variations. The list of dimensions is shown in Table 2.10.

Table 2.10 Cultural Dimensions according to the GLOBE Project

Dimensions	Explanations
Uncertainty Avoidance	the extent to which members of an organization or society strive to avoid uncertainty by reliance on social norms, rituals, and bureaucratic practices to alleviate the unpredictability of future events
Power Distance	the degree to which members of an organization or society expect and agree that power should be unequally shared
Collectivism I: Societal Collectivism	the degree to which organizational and societal institutional practices encourage and reward collective distribution of resources and collective action
Collectivism II: In-Group Collectivism	the degree to which individuals express pride, loyalty and cohesiveness in their organizations or families
Gender Egalitarianism	the extent to which an organization or a society minimizes gender role differences and gender discrimination
Assertiveness	the degree to which individuals in organizations or societies are assertive, confrontational, and aggressive in social relationships
Future Orientation	the degree to which individuals in organizations or societies engage in future-oriented behaviors such as planning, investing in the future, and delaying gratification
Performance Orientation	the extent to which an organization or society encourages and rewards group members for performance improvement and excellence
Humane Orientation	the degree to which individuals in organizations or societies encourage and reward individuals for being fair, altruistic, friendly, generous, caring, and kind to others

Note. Adapted from House et al. (2002)

Authors of the GLOBE cultural dimensions framework describe first four dimensions as the direct extension of Hofstede's framework. Moreover, other dimensions could be concerned as a reconceptualization of other Hoftede's and Kluckholn and Strodtbecks' findings (Thomas & Peterson, 2015).

The specific of the GLOBE cultural framework is its unusual duplicity. All statements in the questionnaires were formulated twice. The first time is phrased in terms of "is/are", the second time is with using "should". Thereby, the measures show 2 sides simultaneously: in practice (the way things are) and values (the ideal way of doing things). It allows estimating the extent of discrepancy between "as is" and "should be" for each country. For example, Brodbeck et al (2007) note the significant difference between these two scores for Power Distance in India.

In addition, the GLOBE project has applied funding to create a map of clusters based on cultural similarities and differences. The broad measurements of cultures by GLOBE dimensions and inclusion of other country-specific factors such as religion, language, historical development are used. Initially, the first version of clusters of countries' cultures is suggested by House et al. (2004). Then, the clusters were described in details (Brodbeck et al., 2007) and are updated in process of time (e.g. Dorfman, Javidan, Hanges, Dastmalchian & House, 2012).

Scholars praise the GLOBE project for the easiness for practical and managerial implications (López-Duarte et al., 2016). At the same time, it has been criticized for an appeared significant correlation between the dimensions and resemblance to the original Hofstede's framework (Hofstede, 2006) and redundancy (Hofstede, 2010). The recent point could be observed by a simple comparison of these 2 frameworks. However, as it mentioned above, all classical approaches tend to have similarities, mostly due to common roots in the study by Kluckholn and Strodtbeck (1961).

A very different approach is developed by d'Iribarne (1996). The core difference is rather qualitative than quantitative studies in contrast to the previously described work. He uses interpretative, ethnographic methods to fully describe the country culture. His studies provide in-depth examinations of cultures by identification the cultural logic specific to a country. Although this approach does not allow statistical comparison, it is possible to identify differences in cultural logics between countries. For example, one study (d'Iribarne, 1996) shows how organizations vary in sense of duty, the hierarchical relations, the perception of control, the definition of responsibilities and the quality of cooperation in the multiple culture perspective.

Rejection of binary thinking (Chanlat et al., 2013) enables d'Iribarne's framework to create a portrait of a culture. Also, this approach is complementary with more common quantitative ones (Hofstede, 1999). However, d'Iribarne's approach is less systematic and relatively fewer countries are covered (Chanlat et al., 2013).

This paragraph has reviewed major cross-cultural theories and suggested dimensions. Undoubtedly, there are few frameworks that are not included in the review. A part of not-reviewed frameworks is combinations of classical theories (for example, Steenkamp, 2001). Others have a low acknowledgment around researchers. The next paragraph continues the discussion of cross-cultural theories and presents a comparison of frameworks which are discussed above.

Practices of Using Cultural Dimensions in Tourism Research

Despite a wide variety of frameworks in the cross-cultural field, the dominance of Hofstede's framework is clear. It is supported by literature overviews over the years. Nakata (2009), López-Duarte et al. (2016), Schaffer and Riordan (2003) claim clear predominance of Hofstede's framework. The advantages of Hofstede's framework are discussed in part 2.3.2.2 Additionally, the common application of this framework is caused by the present prevalence of comparative studies on the national/country level (López-Duarte et al., 2016). Hofstede's

framework as a dimensional model emerged from comparative studies (Hofstede, 2015) that make it quite suitable for comparative studies.

The predominance of Hofstede's framework is also true for research in the travel field. Reisinger and Crotts (2010) have found the support of reliability of Hofstede's dimensions as a measure of the mean of tourists from different nations. Researchers from the travel field use Hofstede's approach to examine a wide range of issues such as spending behavior of tourists around the world (Gholipour & Tajaddini, 2014), trip search and planning, and specifics of a purchase of international vacations (Money & Crotts, 2003), destination images (Stepchenkova, Kim & Kirilenko, 2015), tourists satisfaction and willingness to report dissatisfaction and to repeat a purchase (Crotts & Erdmann, 2000). Hofstede's theory is also used to develop a framework to evaluate tourists satisfaction (Truong & King, 2006), analyze the perception of risk of travellers from different regions (Kozak, Crotts, & Law, 2007), and differences in attitudes and behavior of tourists during browsing destination websites (Alcántara-Pilar, del Barrio-García, Crespo-Almendros & Porcu, 2017).

At the same time, academics stress that existing cross-cultural frameworks do not satisfy modern requirements of cross-cultural research. All frameworks which are described above do not fit complicated research questions in different research fields. Most of the limitations of the classical cross-cultural theories are the same as for Hofstede's framework which is reviewed in part 2.3.2.2. All frameworks tend to depreciation of within-country heterogeneity and strict linking to the territorial bounds (Mazanec, Crotts, Gursoy & Lu, 2015, Baskerville, 2003, McSweeney, 2009), oversimplification, limited number of dimensions, empirical, non-theoretical design of questioners (Thomas & Peterson, 2014), inconsideration to geopolitics, history, gender, ethnicity, religion, language, social class and specific contexts (Primecz, Mahadevan & Romani, 2016), and others.

Many researchers state over years that consolidate cross-cultural framework is a critical need (Tsui et al., 2007, Doz, 2011, López-Duarte et al., 2016). However, the configuration approach is not developed yet and most studies keep using Hofstede's framework. Another way to facilitate cross-cultural research is to apply multiple methods to the research question (Schaffer & Riordan, 2003, Doz, 2011) as it is done, for example, by Hsu, Woodside. and Marshall (2013). They used four cross-cultural frameworks (Hofstede, Inglehart and Baker, Schwartz, and Steenkamp) for explaining overseas tourists' behavior. The findings support Schwartz' cultural theory.

The analysis and comparison of frameworks of cultural dimensions are conducted. Summing up, a great diversity of cross-cultural frameworks has two sides. On the one hand, a large number of theories allows selecting the most appropriate and suitable for any study. On the other hand, the comparison of cross-cultural frameworks shows little overlapping and the choice of one framework possibly suppress a significant part of findings. While there is no consolidate cross-cultural framework, the present study does not adopt one framework for cross-cultural analysis.

Comparison of Dimensional Frameworks of National Cultures

Theoretical frameworks of cultural dimensions which are reviewed in the previous part have formed the basis of cross-cultural research. They are the most commonly used by academics. Summing up, the number of identified cultural dimensions is limited. Although scholars suggest different sets of dimensions, the overlapping could be certainly observed. One attempt to synthesize existing dimensions and create consolidated framework is made by Schneider and Barsoux (2003). They have developed a conjunct framework which unifies existing cross-cultural theories based on basic foundations of culture (cultural assumptions). The framework includes three interconnected groups of cultural assumptions each of which includes following assumptions:

1) External adaptation (relationship with nature, nature of human activity, nature of reality and truth);
2) Internal integration (human nature, nature of human relationships);
3) Linking assumptions (attitude to space, language, time).

Schneider and Barsoux (2003) also suggested a layout united dimensions among different authors. However, it should be also noticed that this scheme was actual at the year of publication. Certainly, it did not include later significant studies (e.g. the project GLOBE) and additions to existed ones (for example, Indulgence versus Restraint dimension by Hofstede). Even in this case, the origin of classical cross-cultural frameworks from the study by Kluckhohn and Strodtbeck (1961) is clear.

Based on groups of cultural assumptions developed by Schneider and Barsoux (2003), the comparison of cross-cultural theories is presented on Table 2.11. The comparison includes the most well-known and frequently used approaches to categorizing and comparing cultures which are described above divided by authors. Table 2.11 shows a number and a list of dimensions, and presents or absence of dimensions inherent to each group of cultural assumptions.

Table 2.11 Comparison of Cross-Cultural Theories based on Representativeness of Cultural Assumptions

Cross-cultural theory	**Number of dimensions**	**List of dimensions**	**Presence of a group of underlying assumptions developed by Schneider and Barsoux (2003)**							
			External adaptation			Internal integration		Linking assumptions		
			Relationship with nature	Nature of human activity	Nature of reality and truth	Human nature	Nature of human relationships	Space	Language (high/low context)	Time
Kluckhohn and Strodtbeck	6	Nature of humans; Relationships among people; Relationships to nature; Activity; Orientation to time; Conception of space	✓	✓		✓	✓	✓		✓
Hofstede	6	Power distance index (PDI), Uncertainty avoidance index (UAI), Individualism index (IDV) Masculinity index (MAS), Long-term orientation (LTO), Indulgence versus Restraint (IND)	✓	✓			✓			✓
Hall	3	Context, Space Time						✓	✓	✓
Adler	6	Nature of people; Relationship to the external environment; Relationship to other people; Mode of activities; Orientation to space; Temporal orientation.	✓	✓		✓	✓	✓		✓
Trompenaars	7	Universalism versus particularism Individualism versus communitarianism Specific versus diffuse Neutral versus emotional Achievement versus ascription Sequential time versus synchronous time Internal direction versus outer direction	✓	✓			✓	✓	✓	✓

Cross-cultural theory	Number of dimensions	List of dimensions	Presence of a group of underlying assumptions developed by Schneider and Barsoux (2003)								
			External adaptation			Internal integration		Linking assumptions			
			Relationship with nature	Nature of human activity	Nature of reality and truth	Human nature	Nature of human relationships	Space	Language (high/low context)	Time	
Schein	6	Nature of reality and truth; Nature of time; Nature of space; Nature of human nature; Nature human activity; Nature of human relationships;		✓	✓	✓	✓	✓		✓	
GLOBE	9	Uncertainty Avoidance Power Distance Collectivism I: Societal Collectivism Collectivism II: In-Group Collectivism Gender Egalitarianism Assertiveness Future Orientation Performance Orientation Humane Orientation	✓	✓		✓	✓			✓	
Inglehart and Baker	2	Traditional vs. Secular-Rational Values; Survival vs. Self-Expression Values		✓			✓				
Schwartz	7	Hierarchy vs. Egalitarianism, Mastery vs. Harmony, Embeddedness vs. Autonomy (combined affective and intellectual).	✓	✓			✓				
d'Iribarne	N/A	Sense of duty, the hierarchical relations, the perception of control, the definition of responsibilities and the quality of cooperation in multiple culture perspective and others	N/A			N/A		N/A			

N/A – the approach has interpretative nature

The comparison of theories reveals multiple overlapping among theories that most probably caused by common allusion to dimensions by Schneider and Barsoux (2003). The number of dimensions varies significantly. Almost a half of theories include dimensions related to all three groups of cultural assumptions. However, more detail revision shows an unequal and incomplete representation of all sub-groups in a theory. For example, Trompenaars's framework has dimensions of space and time related to the group of linking assumptions but does not have any dimensions of language/context. Careful analysis shows that no theories include all three groups of assumptions comprehensively. Researchers also recommend to apply in cross-cultural studies polycontextual approach and consider new categories of cultural differences (Primecz, Mahadevan & Romani, 2016, Tsui et al., 2007, and Kirkman, Lowe & Gibson, 2017).

Institutional Approach to National Cultures

The institutional approach is an alternative approach to national cultures. Institution-based view is based on political, social and legal root principles of a society and national specifics (Peng, 2002). The term *national context* means the complex of institutions of a nation or a country. Scholars also use the term *institutional environment* with the same meaning. Although institution-based theories confirm the influence of cultural values on social institutions, they consider institutions as "the tangible manifestations of cultural distinctiveness" (Child & Tayeb, 1982, p. 46). People and organizations reflect the specifics of social institutions of their country. Unlike ideational theories, institution-based studies look through the lens of social structures, practices and activities, rules and regulation. Institutionalists mostly apply qualitative approach.

Social institutions within the institutional approach to national cultures include a huge range of formal and informal institutions. Academics distinguish completely different sets of institutions. For example, Usunier (2013) specifies the following institutional components of culture: language and communication, legal system, and relationship patterns. The institutional approach to national cultures is mainly elaborated by Monir Tayeb. She has summarized impactful institutions as following: family, religion, education, mass media, multinational companies, political regime, economic policies, social policies, industrial relations and trade unions, legal practices, capital markets, and supranational institutions (e.g. intergovernmental organizations) (Tayeb, 2003).

The institution-based approach is insufficiently developed in comparison to the ideational approach. Social institutions within the concept of national cultures got significantly

less attention of researchers than the dimensional theories which are discussed in previous sections.

2.3.4 Connections of National Cultures and ICT Adoptions and Innovations

This part reviews literature about technology and innovation development in connections with country-specific factors. By reason of relative novelty of the term Digitalization, the literature about connections of adoption of digital technologies and national vultures is extremely limited. The further overview includes papers and books about innovation and ICT adoptions related to e-business, e-commerce, digital and other technology-based companies.

National differences in the present technological level are not a border for technology and innovation adoptions, but rather a driving force of the diffusion and globalization of technology. Archibugi and Michie (1995b, p.136) conclude: "The effects of techno-globalism on national technological specialization does not seem … to be leading to any greater uniformity in patterns of strength and weaknesses. Nations are becoming increasingly different and the international operations of large firms are exploiting and developing this diversity.' The interpretation of the technological development process in the global/local dichotomy seems to be insufficient (Bartholomew, 1997).

Technology development is embedded in a country's history, cultural values, and attitudes (Bartholomew, 1997). Societal institutions including education, industrial structure and government policies create socially determined opportunities that an organization can, in turn, exploit (Tayeb, 2003). Kogut (1991) emphasizes the important role of institutional context in learning and forming technological opportunities. Technological development is a country-specific phenomenon, rooted in the skills, capabilities, and knowledge which are accumulating over time (Archibugi & Michie, 1995a). Hence, institutional structures are a peculiar setting of context for technology-based organizations that predetermines their competitive advantages, because "competitive advantage is created and sustained through a highly localized process" (Porter, 1990, p. 19).

As global competition is increasing and becomes more and more driven by technology and innovation, growing interest in the technological and competitive advantages of nations has come to light. Country-specific differences in national values, culture, institutional structures and history contribute to competitive success (Porter, 1990). Although all firms operating in a given country cannot use these capabilities equally, the strongest and the more

component ones use what is on offer and make themselves competitive in a local and international market (Tayeb, 1995).

Summing up the global forces and national context, Bartholomew (1997) suggest a framework uniting functional-historicist approaches to socio-cultural systems and technological development. Figure 2.8 illustrates this framework. The model by Bartholomew (1997) stresses both societal institutes and values affect firms' behavior and national technological trajectories. Also, the scholar states that national institutional systems supporting technology and innovations are distinct and lie in the historical roots.

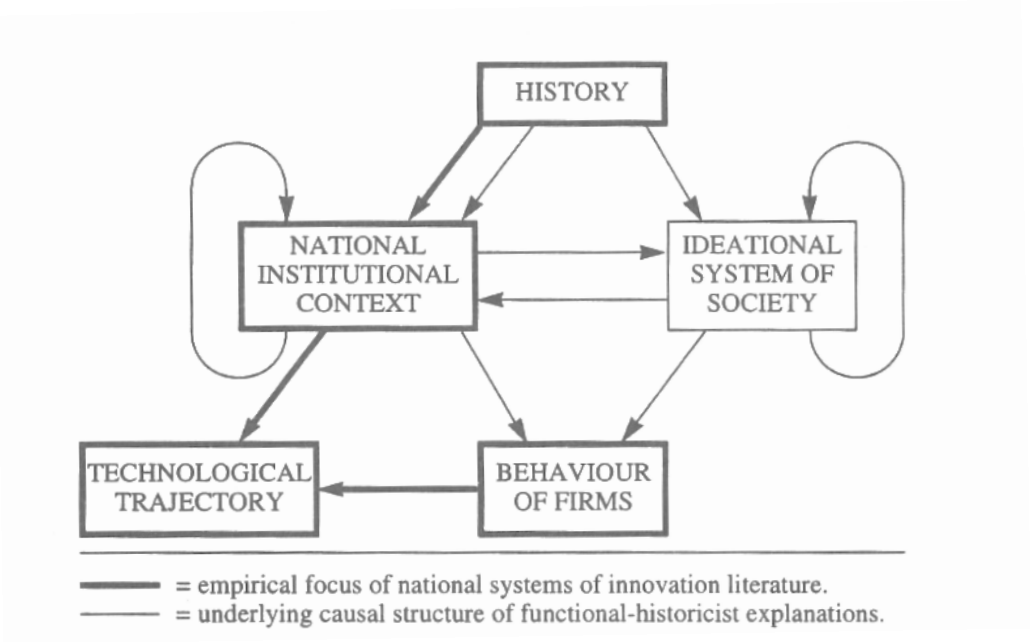

Figure 2.8 Integration of Cultural Elements with National Innovation Systems and International Technological Agreement. Retrieved from Bartholomew (1997, p.45)

Although it is recognized that national cultures affect attitudes to technology and innovations, researchers highlight different aspects of national cultures with positive or negative effect on ICT adoptions. The study by Van Everdingen and Waarts (2003) analyzes countries' adoption of innovation by Hofstede's and Hall's frameworks. Both methods have revealed a significant impact on the country adoption rates. Thus, higher levels of the uncertainty avoidance, masculinity and power distance in a country have a negative influence on innovation adoption, while higher levels of long-term orientation influence positively. Bagchi, Hart, and Peterson (2004) note that high level of individualism and low power distance from Hofstede's framework have strong relationships with ICT products adoption. Medcof and Wang (2017) have developed a model that explains relationships between innovations and national cultures. According to this model, cultures which support exploratory innovations are

characterized by low power distance, individualism, low masculinity, low uncertainty avoidance, and long-term orientations. On the contrary, countries which support exploitative innovations have high power distance, collectivism, high masculinity, high uncertainty avoidance, and short-term orientations.

Similarly, there is no a consensus about the aspects of national cultures which influence Business-to-Consumer (B2C) e-commerce adoption. As a particular case of technological adoption in business, it is (B2C) e-commerce affected by national culture values, risk and trust (Teo & Liu, 2007, Sohaib & Kang, 2014). Uncertainty avoidance, masculinity, and long-term orientation have moderate effects on different aspects of consumer acceptance of e-commerce (Yoon, 2009). Using Hall's cultural approach (1966) and Hofstede's dimensions (1980, 2001), Gong (2009) has shown that high-context and polychronic cultures are more conducive to internet retailing. Also, uncertainty avoidance has the significant positive impact on B2C e-commerce adoption.

Summing up, culture and national culture particularly play a significant role in business and management. Creation and implementation of a company's strategy have the mutual link with culture and depend on cultural aspects at individual and group (organizational, national, and etc.) levels. The recent studies also show close relationships between BMs and BPM with culture and national culture in particular. Additionally, national culture as a part of national institutional context supports technological and innovational adoptions in technology-based organizations including digital businesses.

2.3.5 Impact of National Cultures on BMs

Cross-cultural studies show a significant impact of cultural differences across nations in a wide range of processes. Apart from cultural dimensions, researchers investigate connections of national culture with strategic management issues. As national culture has a significant impact on international business (see section 2.3.1), the influence of national culture on BMs is discussed in the present section. Considering limitations of literature about impact of national culture on BMs and a fact that the BM concept has grown from the strategy concept, the next section discusses not only the connection with BM, but also connections of the closest to BM concepts: strategy and business processes.

National Cultures and Strategy

Scholars observe strong connections between strategy and culture. Strategy as the long used and key concept got the biggest attention of researchers in the cross-cultural field.

Schoenberger (1997) notes that the relationship between culture and strategy is closer than it seems at first glance and states that strategy is a product of culture and vice versa. Hammerich and Lewis (2013) also support this approach. They argue that culture and strategy cannot be separated and illustrate them together in a shape as yin and yang (Figure 2.9). The link is mutual. Thereby, two ways of influence are observed, i.e. culture on strategy and vice versa. The model by Hammerich and Lewis (2013) on Figure 2.9 (a) which shows yin and yang of Culture and Strategy is also true for other strategy-related concepts. Moreover, this model can be also added by external forces. Figure 2.9 (b) represents advanced model of relationships between Strategy, Culture and External Forces by Hammerich and Lewis (2013).

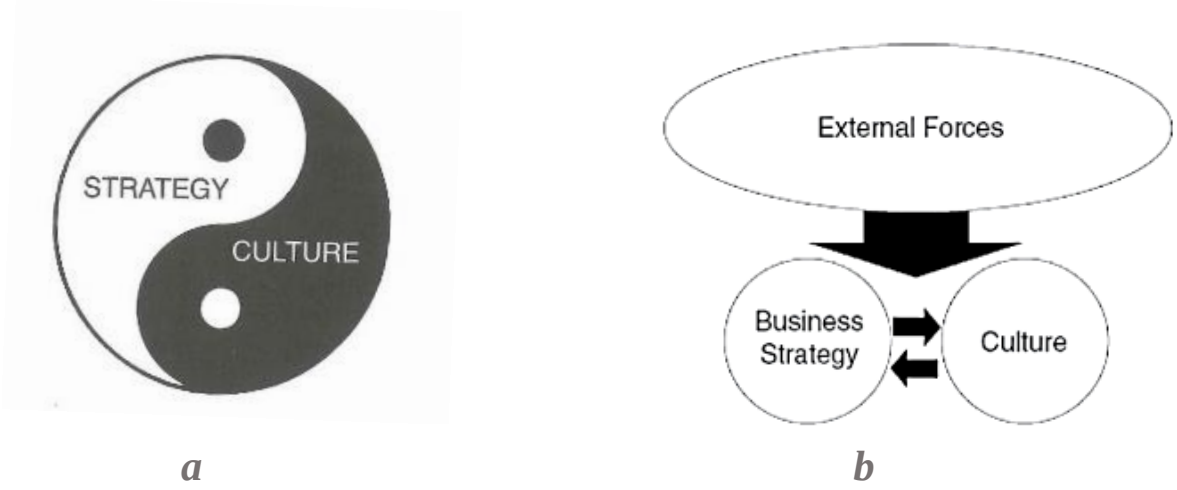

Figure 2.9 Relationship between Strategy and Culture. Retrieved from Hammerich and Lewis (2013, p.31 and p. 123)

The biggest part of literature examines the influence of culture on strategy. A back connection between strategy and culture is studied less. Mostly, it comes down to an explanation of the influence of strategy on corporate culture. Generally, researchers point out two-level influence of national culture on strategy. Individual level implies effect of a personal point of view, i.e. manager's or customer's one. Collective effect emerges at organizational, industrial and other group levels (Tayeb, 2003, Schneider & De Meyer, 1991). Within these levels, researchers observe different aspects of strategy and related concepts that are under the effect of culture.

The individual level of influence of national culture on strategy can be attributed with individual personal characteristics and interpersonal relationships. First of all, scholars highlight the role of managers' personality. Yeung et al. (2016) stress that national culture plays an important role in the hospitality franchise purchase decision-making process. Gregersen,

Morrison, and Black (1998) claim that people with their belief and values is a key to success of a company. This stream of research often has connections with scopes of leadership, styles of management and cultural intelligence. On the contrary, the study by Schneider and De Meyer (1991) has shown that no individual demographic differences play a role in affecting strategic issues. In addition, Fatehi (1996) notes relationship among people as one of two scopes that are affected by national culture. Formulation and implementation of strategic goals refer to the interpersonal relationship within a hierarchical structure of a company. It is concluded that countries differ in attitude among employees towards a company's strategy.

The collective influence of national culture on strategy includes many directions. Authors specify different effects. Among other things, there is strategy formulation (Schneider, 1989, Fatehi, 1996), company goals (Porter, 1990) and even approach to competitors (Trice & Beyer, 1993). The decision-making process has also an influence of national culture. Schneider and Barsoux (2003) distinguish two types of strategic management from different countries based on values, assumptions and behavior. The first, controlling model implies a control by a small group at the top of the company and directive style of planning, decision-making and evaluation. Another, the adapting model involves more people in the organization and relies on informal evaluation procedures and reactive approach. It implies sharing of responsibility of strategic decisions with all levels of an organization. This theory is closely associated with the understanding of an environment of an organization. The first model (controlling) is based on the assumption that the environment can be manipulated in order to implement an organization's strategy. And conversely, the second model underlie the understanding of strategic adjustment as an ongoing task.

Other authors also confirm affect of cultural assumptions regarding the relationship with the environment on strategy and in particular emphasize importance "to recognize that the same environmental event can be interpreted and responded to in different ways in different countries" (Schneider & De Meyer, 1991, p.318). National culture presses on "the manner in which organizations scan, select, interpret and validate information from the environment in order to identify and prioritize issues that become the context for strategic decision-making and implementation" (Schneider, 1989, p.162). Fatehi (1996) also distinguish two types relationship with an environment. It refers to two types of people: those who belief that humans can control surroundings and therefore look for opportunities to alter the environment to the benefits for a company and those who prefer non-destructive approach for dealing with an environment.

Summarizing, Tayeb (2003) lists three main areas where national culture has an impact on strategy. First, national culture shape nature of goods and services that consumer demand

and success of enterprise as a result. The second area is a possible impact of the social institutes that are different at the national level on market structure. And the third one is a realization of strategy through national differences in organization design, leadership styles and etc. Other studies also support that implementing of strategy can and does vary across countries (Cray & Mallory, 1998, Schneider & De Meyer, 1991, Axelsson, Cray, Mallory &Wilsom, 1991, Bartlett, Ghoshal & Beamish, 2011). For example, Schneider and De Meyer (1991) demonstrate that national culture influence interpretations and response to strategic issues and especially interpretations and responses on 'crisis' and 'threat'. These studies also show connections of a strategy's realization with strategic decision making and leadership.

An alternative approach to the question why strategies of firms from different countries differ relies on the effect of societal institutions. Steer, Sanchez-Runde and Nardon (2010) highlight (1) bribery and corruption, (2) employment relations, and (3) environmental stewardship. Schneider and Barsoux (2003) summarize previous studies about social institutions that affect strategy. The aspects that play the role in national context are following: differences in government policies, in ownership systems, currencies and sources of financing, attitude to investments, approach to social welfare, educational systems, business systems, laws, labour-management relations, and supra-regional institutions (e.g. intergovernmental organizations). However, a few attempts to examine which of institutions are the most powerful in explaining the relationship between culture and strategy has failed (Gibson, 1994, Peng, 2002). No one has appeared sufficient support.

A few studies do not find a support for connections of strategy and culture. Academics do not reveal the impact of two dimensions from Hofstede's framework, namely power distance (Ayoun & Moreo, 2008a) and uncertainty avoidance (Ayoun & Moreo, 2008b) on hotel managers' approach to business strategy development. Probably, the lack of statistically significant differences might be caused by small choice of variables for the investigations. Attention to only one or two dimensions of national culture does not show full picture.

One point of view tells that globalization and digitalization smooth out cultural differences across the world (Fang, 2005). The newly emerging *global culture* has its special characteristics and members who are socialized in it (Bird & Stevens, 2003). Global culture extrudes national cultures, global strategy extrudes traditional approach to a company's strategy (Peng, 2013). National cultures will if not replaced, then at least reconsider the approach to the adaptability of national culture (Bird & Stevens, 2003).

At the same time, absence of findings could also be caused by effect called 'fish can't see water' (Hammerich & Lewis, 2013, p. 4). Managers are usually blind to impact of culture on their company's activity due to personal biases. Schmidt and Cohen (2013) support the

position of intensification of both processes: globalization and localization of culture. Future will be more global and more local at the same time.

National Culture and BMs and BPM

Business processes faces cultural differences as well as other BM-related concepts. As it is noted in part 2.2.2., scholars point out close connections between BM and BPM and current interchangeability of these terms (sometimes wrong) in the literature. Therefore, studies about BPM and culture have high correspondence with connections BMs with culture.

International companies face several challenges transferring their BMs from one country to another. Interesting results are shown by research of Dalby et al. (2014) using the BMC (Osterwalder & Pigneur, 2010) and national culture dimensions by Hofstede. It analyses how American and Danish companies need to adjust their BM if it is expanded into another cultural context. The revelatory case study finds out that BMs in different countries rely on different building blocks of BMC. Consequently, they meet different challenges transferring it to another country and need to change the BM including, for example, the company's communication, team composition, and customer involvement in projects.

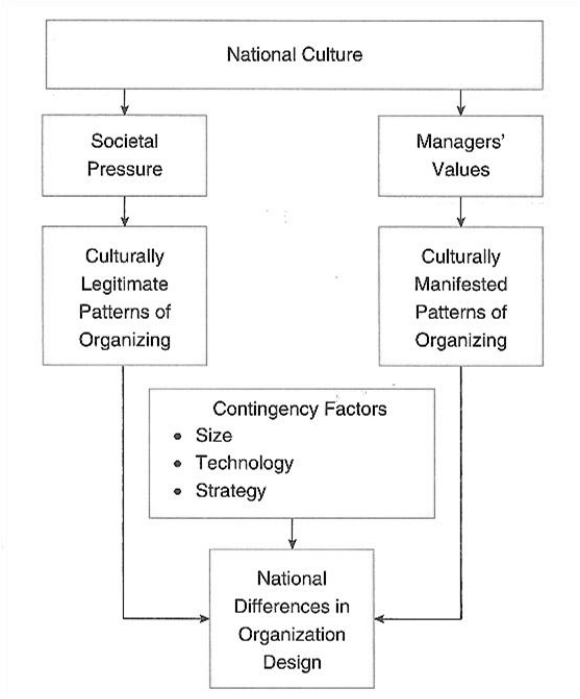

Figure 2.10 Cultural Influence on Organizational Design. Retrieved from Thomas and Peterson (2014, p. 192)

Summarizing existing findings about the influence of national differences on companies, Thomas and Peterson (2014) suggest a model of cultural influence on organizational design. Presented on Figure 2.10, it shows two main ways of the impact: individual (managers' values) and group (societal pressure). Although the focus of the study is on the group (national) culture, the model by Thomas and Peterson also shows the mechanisms of the effects. National cultures at the group level (the left side of the model) affect organizational design through societal pressure that shape culturally acceptable patterns of organizations.

Academics are united in the opinion that culture and values have influence on BMP. Although Schmiedel, vom Brocke and Recker (2013) are not focused on national cultures, authors suggest specific values s that are relevant for successful BPM. Based on these findings, Rosemann and vom Brocke (2015) complement culture-related capabilities and include culture in their model as one of six core elements critical to BPM. Vom Brocke and Sinnl (2011, p. 357) also call culture as "a key element in BPM practice". In general, the body of literature about connections between culture and BPM is significantly smaller and culture is still an under-researched topic in BPM area (vom Brocke & Sinnl, 2011).

Organization of business processes is highly correspondent with national culture from both ideational and institutional sides. Majority of the literature focuses on the analysis of cultural values. Thus, Wehner, Falk, Leist and Ritter (2017) explore the strong connections of three Hofstede's indexes (Power Distance, Uncertainty Avoidance and Individualism) with customer-specific product development processes in similar companies in different countries. Jayaganesh and Shanks (2009) find discernable effects of cultural influence on BPM strategy and governance using a framework based on some Hofstede's dimensions (1980) and one dimension by the GLOBE project (House et al. 2004). Although the study focuses on a single cultural context (India), it is concluded that high power distance, low uncertainty avoidance, and collectivism result in highly informal BPM governance practices.

Differences in social institutions as a part of national cultures also affect organizational processes. Schneider and Barsoux (2003) identify the following impactful social institutions:

1) Nature of policies and procedures (including the level of formalization and standardization of policies, reporting systems, job description and other aspects);
2) Planning and control (including centralization of control, coordination, and other aspects);

3) Information processing and communication (including transparency of information, communication patterns, use of physical and cyber space, degree of hierarchy, formalization, level of participation, language and other aspects);
4) Decision making (including speed of decision making, centralization, commitment to consensus, participation and formalization of environment and other aspects).

Summarizing, national cultures have shown a significant impact on traditional business. Moreover, cultural differences at the country level affect various aspects related to digital business, including the approach to innovation and ICT adoptions. Giver these findings of previous studies, this study focuses on the impact of national cultures on digital BMs in the travel industry.

CHAPTER 3. METHODOLOGY

Chapter 3 presents the methodology adopted by the study. The aim of this chapter is to introduce the methodological approached taken in this thesis. The chapter begins with a discussion of research paradigms. It is followed by the description of the qualitative character of the study and inductive-deductive research cycle. Then, data collection method, selection techniques, and sample design are discussed in detail. Furthermore, processes of data analyses are scrutinized. The chapter ends with a discussion of methods of reliability and validity of the study.

3.1 Research Paradigm: Pragmatism

The concept of research paradigms is mostly associated with the name of Thomas Kuhn and his work *The Structure of Scientific Revolutions* (1962). Kuhn expounds historical development of the philosophy of science, and nature of shifts between common paradigms. However, the book does not clarify components of a paradigm (Arbnor & Bjerke, 2009). Later, Guba and Lincoln (1985, 1994) have presented a comparison of common research paradigms. In the study in 1994, they analyze and compare four common paradigms (positivism, post-positivism, critical theory, and constructivism) based on their epistemological, ontological, and methodological considerations. Also, the study gives some practical recommendations to an implication of research paradigms. Subsequently, with the growth of the application of different paradigms, comparisons began to appear more often and to specialize in different research fields and methods. Existing corpus of literature contains interpretations and guidance for currently used paradigms.

A research paradigm or research philosophy determines how a researcher view the world and the study. Guba and Lincoln (1994) have introduced the commonly accepted definition of research paradigm. A research paradigm is ‘a worldview that defines, for its holder, the nature of the “world,” the individual’s place in it, and the range of possible relationships to that world and its parts’ (Guba & Lincoln, 1994, p. 107).

The study takes pragmatism as a scientific paradigm. Ontological consideration of pragmatism depicts the nature of reality from diverse viewpoints (Tashakkori & Teddlie, 2009). The researcher’s view of the nature of reality is multiple (Saunders et al., 2009). Pragmatists not only accept the existence of different viewpoints but also recognize the value of different approaches (Morgan, 2007). Pragmatists share the opinion of

positivists/postpositivists that there is an external world, independent of our mind (Cherryholmes, 1992). At the same time, pragmatists deny that there is only one way to determine truth about reality (Tashakkori & Teddlie, 2009). Epistemology in pragmatism describes relationships of the knower and the known as both objective and subjective (Tashakkori & Teddlie, 2009) integrating different perspectives to help interpret the data (Saunders et al., 2009). Axiological considerations of pragmatism stress the importance of value in the interpretation of results (Saunders et al., 2009). The position of pragmatic researcher implies the acceptance of the importance of values in conducting research and in drawing conclusions but the absence of particular concern about them (Tashakkori & Teddlie, 2009).

In general, the choice of the scientific paradigm for research should be led by a research question (Saunders, Lewis & Thornhill, 2009). The research question of the study which is specified in part 1.4 touches upon a number of research fields. Also, the research question admits the possibility of multiple points of view, while a single reality exists. The cross-cultural approach of the study, and especially the intercultural perspective, require acceptance and consideration of different narratives during the data collection period and interpretation of results. Pragmatic research paradigm facilitates the consideration of different opinions of participants of the study and benefits from the data interpretation. Pragmatism states that no theories and perspectives can explain reality fully, it endorses pluralism (Tashakkori & Teddlie, 2009) and pragmatism is based on critical mode and applicability of findings (Maxcy, 2003). Therefore, considering the nature of the research question and the research fields, pragmatism is the most suitable paradigm for the study.

Pragmatism has a number of advantages for this study. Pragmatism allows the application of different research designs (Tashakkori & Teddlie, 2009). Pragmatism facilitates taking into account findings of previous studies which used other paradigms without the need for additional assumptions (Morgan, 2007). The pragmatic research paradigm is a way to combine social and problem-solving approaches (Pansiri, 2005). In addition, pragmatic research paradigm is recommended for research in strategic management and tourism (Pansiri, 2006).

3.2 Research Approach: Grounded Theory

This study is guided by a qualitative approach. The research question and the research objectives are directed to an in-depth understating. The study has the exploratory character as

it is stated in section 1.3. Accordingly, the study has to be opened to new categories and theories.

Grounded theory is a research methodology that is commonly applied in social sciences. Glaser and Strauss first introduced grounded theory in 1967 as an alternative approach to the classical grand theories approaches. In contrast to the classical hypothetic-deductive approach, grounded theory was developed to construct theories based on inductive reasoning. A study using grounded theory could start data collection without any review of previous literature, or even without a research question (Giles, King & de Lacey, 2013). Now ground theory has evolved and got various interpretations (see Charmaz, 2000, Glaser, 2001, Strauss & Corbin, 1998). The modern grounded theory is a full, well-developed empirical methodology. It could be applied as a general methodology (research paradigm) as well as a conceptual description approach (research approach) (Holton, 2008).

This study adopts grounded theory as a research approach. In contrast with other approaches, the grounded theory does not require to choose a certain theoretical framework before the data collection step (Strauss & Corbin, 1998). As a theory-building approach, grounded theory aims to develop a theory conceptualizing data (Corbin & Strauss, 2008). The strength of grounded theory's approach is to provide a systematic and conceptual overview of a phenomenon under study (Holton, 2008). Application of grounded theory within the pragmatic research paradigm shows a number of benefits for the study that are presented in the following section.

3.3 Inductive - Deductive Circle and Abductive Reasoning

The present section presents a general description of the research design. Three types of reasoning are included in the investigation: induction, deduction, and Abduction. Specifics of each of them and the combination of them in a circle are presented in this section.

Deductive type of reasoning implies the start with an abstract concept and the following test this created concept with empirical evidence. In contrast, inductive reasoning begins with no predetermined concepts or ideas of what will be found. Investigation implies identification and reporting of a research problem and then specification of potentially important factors based on existing literature. Abduction is a third method of reasoning. Abduction searches for the most probable explanation. Researcher looks for the cause that is the most plausible way of explaining data (Krupnik & Turek, 2014).

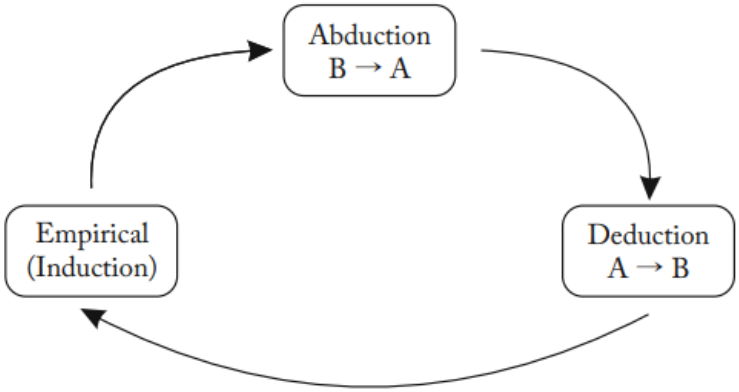

Figure 3.1 Scheme of Pragmatic Research Process (Krupnik & Turek, 2014)

The pragmatic grounded theory combines both inductive and deductive methods in the way of abductive reasoning (Krupnik & Turek, 2014). This study adopts the combination of methods. Although it complicates the choice of data collection methods and data interpretation, this combination provides an opportunity to the in-depth understanding of research objects. Strübing (2007) has described the research process in terms of pragmatic grounded theory as a continuous repeating way from data to hypothesis and returning back. Krupnik and Turek (2014) describe pragmatic grounded research process as a movement from induction to abduction, then to deduction and back to empirical data and induction. The graphical representation of the research process in pragmatic grounded theory is in Figure 3.1.

Combination of deductive and inductive reasoning results in inductive-deductive research cycle. Generally, the inductive-deductive research cycle "performing deductive research based on the results of the inductive research and that these steps require iteration" (Lambert, 2006, p.6). In other words, it combines inductive and deductive reasoning combining them into a circle. Adoption of the inductive-deductive research cycle facilitates developing concepts into theories. Also, the inductive-deductive research cycle is recommended for research in the BM field (Lambert, 2006).

The research consists of four subsequent steps. These four steps include data collection, data proceedings, data analysis, and summarizing and the model proposal. Each step consists of several tasks. Details of each step are discussed in the following sections.

3.4 Data Collection

3.4.1 Data Collection Method

Qualitative studies face a range of potential methods for data collection including focus groups, interviews, observations and other methods and their combinations (Ritchie et al., 2013). The choice of the research method should be followed by a research question and reasonably relevant to the available resources: time, participants and etc. The choice of a particular method for data collection and data analysis for a pragmatic study should be guided by the quality of the study rather than the tradition of a particular research field (Ritchie, Lewis, Nicholls & Ormston, 2013). Also, the study should apply flexible methods which are sensitive to social and cultural contexts. Good data is meaningful, robust, relevant, and realistic (Ritchie et al., 2013).

The data collection process of this study consists of two steps and involves both primary and secondary data. The first part of the data collection includes the collection of secondary data which is available in open access. The second part is the collection of primary data through conducting and recording interviews with a number of different stakeholders of digital business in the travel industry.

The preliminary step of collection of secondary data includes the search of travel companies that possibly have a digital BM and analysis of information about them. Secondary data include documentary data such as reports of the companies to shareholders, news from media, market analytics, business research reports, and multiple-source secondary data including industry statistics and reports, statistics and report of international non-governmental and intergovernmental organizations in tourism such as the World Tourism Organization (UNWTO), etc. All secondary sources can be freely accessed via the Internet. It excludes the need of negotiations for the use of information with organizations. Based on the results of the first part of the data collection, travel companies with digital BMs are identified. Leaders of travel companies with digital BMs are potential participants among practitioners.

The main part of data collection implies capture of primary data by semi-structured interviews. It includes interviews with representatives of different viewpoints from digital travel ecosystem. The individual interview is one of the two key methods around qualitative methods (Ritchie et al., 2013). An interview is a discussion between two or more people with a purpose (Kahn & Cannell, 1957). Verbal communication and spoken narratives generate data.

As a research method, interviews have a number of advantages for the study. Interviews give opportunities to detailed investigation and in-depth understanding of the context through

individuals perceptive. Ritchie et al. (2013) stress that interviews are one of the most powerful tools for gaining understanding and exploring topics in depth. Complex systems and processes which the study is aimed to examine require clarification and detailed understanding.

The traditional classification distinguishes three types of interviews: structured, semi-structured, and unstructured (Saunders, Lewis & Thornhill, 2009). Structured interviews are designed of completely pre-set standardized questions, usually closed-ended (Seidman, 2006). They are more applied to generate quantitative rather than qualitative data. Unstructured interviews use open-ended questions with no predetermined order of questions and they are conducted in an informal manner (Seidman, 2006). Unstructured interviews are in-depth interviews and life history interviews (Tharenou, Donohue, & Cooper, 2007). Semi-structured interviews are in the middle between structured and unstructured. They have an overall topic, general themes, selected issues, and specific questions (Lee, 1999). Semi-structured interviews are more flexible than structured interviews, but they are more focused on a subject than unstructured interviews. Since the study has the explorative character, the structured interviews do not allow collecting required detailed data. At the same time, the study has certain research topics, questions and targeted to particular research issues. Accordingly, the study uses semi-structured interviews as a method for collection of primary data.

3.4.2 Sampling Strategy

The choice of approach to sampling should be followed by a purpose of a study. Also, pragmatic factors of time and availability of resources play a part in the decision (Ritchie, et al., 2013). In contrast to quantitative research, qualitative studies use non-probability methods for sampling technique. Participants are deliberately selected to reflect special features of a group or a population. A sample in a qualitative study does not possess the characteristic of statistical representativeness. A typical sample in qualitative research has a relatively small size (Ritchie et al., 2013).

Main approaches in sampling could be divided into three streams: purposive, theoretical, and convenience samplings. Purposive sampling means selection of participants due to their possession of particular features or characteristics. These may be as social-demographic factors (e.g. age) as specific experience, roles and etc. There are several types of purposive sampling. Based on previous literature, Ritchie et al., (2013) identify four types of purposive sampling: homogeneous, heterogeneous, extreme case (deviant sampling), stratified purposive, and critical (typical case) samplings. Theoretical sampling is based on criteria of

theoretical relevance and potential theoretical contribution. Another sampling approach, convenience sampling, is purely based on who is available.

The study adopts stratified purposive sampling. Stratified sampling means dividing the population into groups (Arbnor & Bjerke, 2009). Strata is a sub-group, sub-sample. Stratification ensures that views from all important subgroups are included in the study (Orcher, 2016). Also, this technique gives an opportunity to a researcher to discover and describe in details features that are similar or different across the strata (subgroups) (Patton, 2002). At the same time, a stratified purposive sample is fairly homogeneous. It supports giving a full picture of a research phenomenon. Summing up, the most relevant to the research question and the most beneficial for the study is stratified purposive sampling. The sample design and the choice of sub-groups (strata) for the sample are discussed in the following paragraph.

Selection and design of a sample involve several steps and decisions. According to Ritchie et al., (2013), the designing of a purposive sample includes several stages: identifying the population of research, identifying and prioritizing the selection criteria, deciding on the location for the study, designing a sample matrix, and setting quotas for selection. Following this design, the study has planned and implemented the sampling selection. The details are presented in the following section.

3.4.3 Screening and Interviewees Selection

The stratified purposive sampling requires stratification and the choice of the selection criteria. Setting the selection criteria and quotas should be caused by representativeness and diversity. The size and constitution of groups depend on the nature of the research question and possible differences among experts' opinions (Okoli & Pawlowski, 2004). Since the study has an intercultural perspective and collects opinions across the digital travel ecosystem, two main criteria are identified: region of residence and occupation. Table 3.1 shows the numbers of participants in all groups.

This study settles the stratification within the criteria of occupation three groups: digital travel business leaders, travel accelerators and incubators leaders, and market experts. These groups of participants have important and valuable knowledge about digital BMs in the travel industry. The choice of these groups is based on achievement of representativeness of different points of view across the travel industry. These groups have different perspectives to some extent. Digital travel companies are the main body of the digital travel ecosystem and their

leaders are entitled to have full knowledge about their BM. Travel accelerators and incubators are the centers where many digital travel businesses start their growth. Leaders of travel accelerators and incubators are involved in their BM development. Therefore, they are experienced in digital BM in the travel industry. Additionally, the group of market experts is separated from the group of practitioners. In contrast to other groups, these experts can express ideas about the general picture of digital business in the travel industry. While the majority of practitioners are familiar with the BMs of their own companies, BMs of competitors and suppliers, market experts encountered many various digital travel companies in present and past. As the result, they have more information about digital BMs. By including all three perspectives in the data collection, it could be stated that three major points of view in the travel industry are covered.

Table 3.1 Sample Design

Current region of business operation	**Occupation**		
	Digital Travel Business Leaders	Travel Accelerators and Incubators Leaders	Market Experts
Europe	7	1	2
Asia & Africa	10	1	1
Australia	4	-	1
Northern & South America	6	1	1
Subtotal	27	3	5

The second criteria for stratification is the current region of location of business. Since there are no certain geographical criteria for the investigation, a special focus on a certain location is not required Contrariwise, since this study has intercultural perspective, the interviews have to be conducted with representatives of different cultures and countries. Therefore, the representativeness of participants is the reason for the second criteria. Regions of current business operation represent cultural values of participants in a certain degree. Additionally, practical reasons of availability of interviewees influenced the choice of locations of participants.

The numbers of participants are unevenly distributed across groups and sub-groups. Thus, the group of digital travel business leaders has dominance among the sub-groups based on occupation. This is done to represent inequalities are made first, to reflect the general

population. The group of digital travel business leaders is significantly bigger in the digital travel industry than two other groups.

During the preliminary step of data collection, the selection criteria for are settled to ensure relevance and trustworthiness of interviewees for your study. The group of practitioners includes CEOs, COOs, managing directors, presidents, executive vice presidents, and founders of digital travel companies with at least 2 years of experience in the digital travel business. The group of market experts includes business researchers, journalists, consultants in the digital travel business with at least 7 years of experience in the travel business. The group of leaders of travel accelerators and incubators includes managing directors, CEOs, COOs with at least 2 years of experience in the digital travel business.

3.4.4 Profiles of Interviewees

Overall, 35 interviews are collected. The profiles of the interviewees are presented in Table 3.2. The participants are listed in chronological order of the collection of the interviews. All the participants are a single representative of each company; in other words, companies are not repeated.

The interviewees have diverse sociodemographic characteristics. The full information about age, gender, level of education and location of participants is represented in Table 3.2. Some of the participants prefer to stay an age range rather than a certain number. It is also reflected in Table 3.2. However, it could be seen that the age of participants varies from 24 to 63. The majority is male that represents the current situation around leaders in the digital travel industry. The level of education varies from high school to the doctorate degree, although the majority has the postgraduate level or higher. The average experience in the travel industry among participants is 14.4 years.

Table 3.2 Profiles of Participants

N	Location of current activities	Age	Gender	Level of Education	Experience in the travel industry (in years)	Strata based on occupation criteria	Language of interview
P1	Melbourne	40	F	MBA	2	Business	English
P2	Sydney	63	M	MBA	43	Expert	English
P3	Sydney	30-40	M	MBA	5	Business	English
P4	Sydney	36-45	M	MBA	7	Business	Russian
P5	Tallinn	31	M	Post-graduate	14	Business	Russian
P6	Hong Kong	36-45	M	Master	10	Business	English
P7	Melbourne	49	F	Post-graduate	9	Business	English

N	Location of current activities	Age	Gender	Level of Education	Experience in the travel industry (in years)	Strata based on occupation criteria	Language of interview
P8	Hong Kong	36-45	M	Doctoral	20	Expert	English
P9	Assam, India	29	F	Bachelor	2	Business	English
P10	New Delhi	31	M	Bachelor	5	Business	English
P11	Istanbul	24	M	Not-finished Bachelor	3	Business	English
P12	Almaty	51	M	Higher	3	Business	Russian
P13	Gdansk	37	M	Master	15	Business	English
P14	Breda	57	M	Master	38	Expert	English
P15	Ljubljana	31	M	Master	16	Business	English
P16	Jerusalem	37	M	MBA	30	Business	English
P17	Dornbirn	41	M	Bachelor	19	Business	English
P18	Singapore	36-45	M	College	7	Business	English
P19	London	45	M	Incomplete undergraduate	11	Business	English
P20	Munich	58	M	University (higher)	34	Business	English
P21	Toronto	53	M	Bachelor	30	Business	English
P22	Johannesburg	32	M	Post-graduate	9	Business	English
P23	Barcelona	45	M	Bachelor	20	Business	English
P24	Tel Aviv-Yafo	38	M	Bachelor	11	Business	Russian
P25	Jacksonville, Florida	44	F	Bachelor	15	Business	English
P26	São Paulo	36-45	M	Doctoral	13	Business	English
P27	Moscow	33	M	Incomplete higher	7	Expert	Russian
P28	Phuket	25	M	Higher	7	Business	Russian
P29	San Francisco	62	M	Bachelor	36	Expert	English
P30	San Francisco	44	M	High school	20	Business	English
P31	New York	49	M	MBA	18	Business	English
P32	Mexico	32	M	MBA	4 1/2	Business	English
P33	Shannon	39	M	MBA	5	Accelerator	English
P34	Tel Aviv	48	M	MA	15	Accelerator	English
P35	New York	26-35	M	College	2	Accelerator	English

Regions of current business operation include all the continents with the exception of Antarctica. Criteria of diverse cultural representativeness and availability of interviewees are main reasons of the certain locations. The geographical distribution of the interviewees is shown on the map in Figure 3.2.

Figure 3.2 Geography of Data Collection

The specifics and backgrounds of each stratum of the participants are considered in the design of the interview. The design of interviews is discussed in detail in the following section.

3.4.5 Interview Design

The interview consists of five sections. Scholars suggest five sections for the semi-structured interviews. The general structure of the interview design follows the recommendations by Hennink, Hutter, and Bailey (2011) that list questions in the following order: introduction, opening questions, key questions, and closing questions. The full structure, the list of questions, and probes are shown in Table 3.3. However, it should also be considered that a semi-structured interview is a flexible tool. This flexibility allows adjusting of the particular order of questions to the context of the interview.

Table 3.3 Structure of Interviews

Interview Section	**Research Objective**	**Questions for Digital Travel Business Leaders**	**Questions for Travel Accelerators & Incubators Leaders**	**Questions for Market Experts**
Terminology reconfirmation	-	First, I would like to confirm that we speak the same language and understand terms in the same way. There are some definitions of key terms that are used in the interview questions. If you do not agree with them and want to change / correct, please inform me. • Digitalization - the use of digital technologies to change a BM and provide new revenue and value-producing opportunities; it is the process of moving to a digital business; • BM (BM) - the way of doing business; • Digital BM – a BM is digital if changes in digital technologies trigger fundamental changes in the way business is carried out and revenues are generated; • National culture – a culture of a certain country, region or nation (nationality). This research is focused on the influence of national culture at the country/region level of an organization's location.		
Opening question	-	Q1: How would you describe the influence of digitalization on BMs in the travel industry?		
Digital BMs in the travel industry	to identify and classify digital BMs in the travel industry based on the 5-V framework	Q2*: What is the BM of your current company? Previous companies? BM of your competitors?	Q2*: What BMs did you face in your experience? What are the BMs of companies in your accelerator/ incubator?	Q2*: What BMs did you face in your experience?
		Q3: Could you describe each digital BMs in the travel industry you are familiar with? Q4: What are the main drivers of each digital BM in the travel industry that you have described (*probe: Value Proposition, Value Segment, Value Configuration, Value Network, Value Capture*)? Q5: Could you please provide examples of companies for each digital BM from the real world?		
Effects of national cultures	to examine cross-cultural aspects that affect the development of digital BMs in the travel industry	Q6: Have you seen any influences of national cultures on the development of digital BMs in the travel industry among different countries? Direct? Indirect?		
		Q7*: Do national cultures affect your company? How? Do you know any other cases showing the influences (e.g. competitors)?	Q7*: Did you face any cases in your research experience showing these influences? How did national cultures affect?	Q7*: Did you observe in your practice any specific cases showing these influences? How did national cultures affect?
		Q8: What aspects/features of national cultures affect the development of digital BMs around the globe? How do they affect? Do they encourage or inhibit the development of digital BMs? Why? Q9: More specifically: - Is there any influence of approach to nature (*probe: people should control or submit to nature*)? / approach to human activity (*probe: people should be spontaneous, focused on goals, or reflecting*)? / approach to reality and truth (*probe: truth is determined by facts and figures, by interpretation and reasoning, or by feeling and intuition*)? - Is there any influence of view on human nature (*probe: people are basically good or evil*) / view on human relationships (*probe: task or relationships*)? - Is there any influence of orientation to time *(probe: people should make decisions guided mostly by tradition, by current needs, or by long-term aims*) / attitude to language (*probe: communications are direct or dependent upon the person or situation*) / attitude to space (*probe: space is private, public, or a mixture*)? If yes, how do they affect? Are these effects positive or negative?		
Background information (socio-demographic characteristics of participant)	-	Q10: Gender Age or age range Education level Nationality Country(ies) of current residence and previous residences Current position Professional experience in the travel industry (in years)		

*These questions have narrative perspective

The first section is the terminology reconfirmation. On this stage, the interviewer and interviewee ensure that their understandings of key terms match. Four definitions (Digitalization, BM, Digital BM, and National culture) are prepared and given to each participant in a written or oral way. In response, interviewees could agree, correct the given definitions or suggest their own definitions.

The second section of the interview includes one general question. It is broadly related to the topic of the interview. This section aims to establish a rapport with the interviewee and supports narrowing to key questions in the following sections. As it is recommended by Hennink, Hutter, and Bailey (2011), the opening section outlines the topic of the interview and settles the mind.

Two following sections of the interview aim to examine the research objectives of the study regarding digital BMs in the travel industry and the specific influence of national cultures on their development. The last section collects personal information about participants, including the demographic, professional, and cultural background.

Two questions have narrative perspective. These questions are adapted to each stratum of the sample. Questions for practitioners, accelerators' leaders, and market experts differ due to the different experience and qualifications of the participants. The use of questions with narrative perspective gives two advantages. Firstly, narrative questions give opportunities for participants to share a personal experience in the fields of the study and reveal complementary perspectives for researchers. Second, questions with the narrative perspective allow in-depth understanding of research issues and clarify different facets of research issues through personal stories (Flick, 2004).

The interviews and questions are designed in the way to not overload with theoretical concepts and specific terminology. The study uses four tools for avoiding biased interpretations. Firstly, the reconfirmation of meanings of specific terminology such as BM, national culture, and digitalization needs to be conducted with the interviewees. The matching of terms is required to ensure that both the interviewer and the interviewee understand terms in the same way. Secondly, the probes and examples could be provided for interviewees to facilitate understanding of terms. The probes are shown in the tentative structure of interviews in Table 3.3 as well. Thirdly, the questions are designed in the way in order to avoid including too many theoretical terms and overloading with specific terminology. Lastly, the semi-structured interviews allow asking clarifying questions and test the correctness of understanding by summarizing explanations provided by the participant (Saunders et al., 2009).

The test of understanding gives an opportunity for the interviewee to evaluate the sufficiency and accuracy of the interpretation and correct if necessary (Healey & Rawlinson, 1994).

The interviews include open questions as well as probing and specific questions. The design of questions also affects the attitude and answers of interviewees. Specific (closed) questions are applicable to obtain specific information. Probing questions ask a particular focus or direction. Open-ended questions aim to encourage participants to provide an extensive and developmental answer (Saunders et al., 2009).

3.4.6 Data Saturation

The interviews had been collected from February 2019 to August 2019. The overall number of interviews is 35: 6 of them were collected in Russian, 29 - in English. Most of the interviews (26) were conducted online, the rest of 9 were face-to-face interviews. The interviews last from 28 minutes to 2 hours 28 minutes. The average duration is 47 minutes.

The data collection process was finished at the moment of data saturation. Saturation means the collection of sufficient and redundant data that include information about all investigated aspects (Morse et al., 2002). In the grounded theory approach, a theory might be developed at the point when no new themes and categories emerge (Glaser & Strauss, 1967; Corbin & Strauss, 2008). Since the last interviews lack of new observations, the data saturation is reached, and the data collection processes are completed (see Dingwall et al., 1998).

3.5 Data Analysis

3.6.1. Stages of Data Analysis

The step of data analysis follows the step of data collection. Data analysis started immediately after collection of the first records of interviews, continues during the rest of data collection, and concludes with the proposition of the model.

The study adopts qualitative content analysis. Unlike basic and interpretive approaches to content analysis, the qualitative (thematic) content analysis uses systematic techniques for analysis of texts, focused not only manifest content but also latent content (themes and core ideas) found in texts (Drisko & Maschi, 2015). The qualitative content analysis does not employ any statistical methods. Adoption of qualitative content analysis gives benefits for the study. Firstly, qualitative content analysis is suitable for exploratory purposes (Drisko & Maschi, 2015). Second, qualitative content analysis expands the original data and enlarge it

due to the revealing of latent content. It facilitates identifying and highlighting key content. Third, qualitative content analysis is useful for the study of diverse populations. The study has the intercultural perspective that means the participation of interviewees from different part of the world (see part 3.4 for details). This approach facilitates consideration of the cultural background of participants. Fourthly, qualitative content analysis is a flexible method, usually combining both concept-driven and data-driven categories. Thereby, categories always match with data (Schreier, 2014).

The study adopts directed content analysis as more relevant to the research question. Accordingly, data analysis includes both processes: inductive and deductive reasoning. The design of data analysis is created based on recommendations by Elo and Kyngäs (2008), Hsieh and Shannon (2005), and Lambert (2006). The process of data analysis is shown in Figure 3.3.

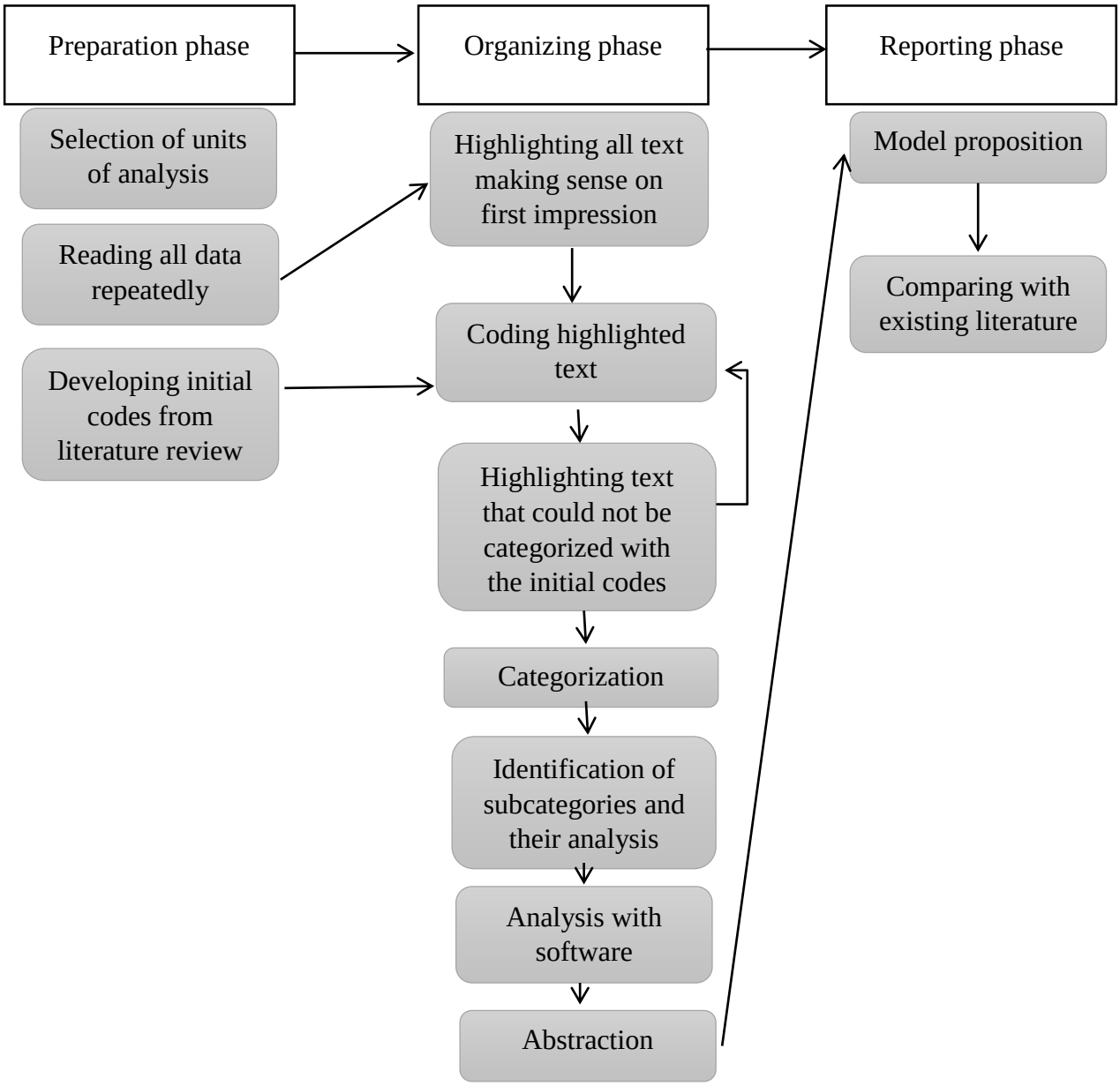

Figure 3.3 Design of Data Analysis of the Study

The process of data analysis consist of three stages: preparation, organizing, and reporting (Elo & Kyngäs, 2008). The preparation phase includes the selection of units of analysis and initial readings all texts to obtain a sense of the whole. A unit can be a letter, word, sentence, or more than one sentence and contain several meanings (Elo & Kyngäs, 2008).

The organizing phase consists of several sets of highlighting and subsequent coding. Since the study aims to identify and categorize all facets of a particular phenomenon (digital BMs in the travel industry), the study adopts the strategy of data analysis beginning with highlighting text without initial (open) coding as it is recommended by Hsieh and Shannon (2005). Initial highlighting text without coding increases trustworthiness (Hsieh & Shannon, 2005). Identification and subsequent analysis of sub-categories might be conducted if it is needed.

The reporting stage includes general summarizing in a model (model proposition) and comparison of the findings with previous literature. The reporting stage results in the discussion (Chapter 5).

3.6.2. Inductive and Deductive Analyses

The data analysis process combines inductive and deductive analyses. In academic literature, inductive and deductive analyses also have other names, for example, conventional content analysis and directed content analysis (Hsieh & Shannon, 2005), data-driven and concept-driven coding (Schreier, 2014). However, they all refer to the same types of data analysis.

The inductive part implies developing codes, categories, and themes from data. In contrast, codes and categories for the deductive analysis elaborated based on existing literature. Given the research objectives of the study, two categorization matrixes have been developed. The first categorization matrix follows the first research objective. The basis for this categorization matrix was the literature review on traditional and digital BM patterns/configurations (see part 2.2). The second research objective drove the development of the second categorization matrix for the deductive analysis. The foundation for this categorization matrix included cross-cultural theories presented in section 2.3 in the Literature Review.

The development of two abovementioned categorization matrixes followed the systematic framework of deductive category development by Mayring (2014). Although this

framework is relatively new, it has already proved its reliability in previous studies. Thus, the framework by Mayring (2014) was successfully applied in studies by Moradi and Vagnoni (2018), Alghamdi, Nylén and Pears (2018), and Szűcs (2018).

The process of the development of categorization matrixes and deductive data analysis included 7 main steps. Following the framework of deductive category development by Mayring (2014), after the formulation of the research question and review of theoretical background (Step 1), main categories and sub-categories for both categorization matrixes are identified from existing literature (Step 2). Then, category labels and coding rules are developed (Step 3). After that, the initial process of data coding was conducted (Step 4) with subsequent revisions of categories and coding schemes (Step 5). Final data coding (Step 6) considered the revised categories and coding rules. Finally, thematic analysis was conducted in fully coded data.

For the inductive part of the analysis, no software is applied. For the deductive part, the study applied special computer software: NVivo 11. In other words, both manual and automated computer-assisted ways were applied. For the software-assisted way, an embedded search engine was used for labeling and categories assignment. Using keywords from the developed categorization matrixes, the data analysis also applied the function of search with synonyms. Such combined design of data analysis takes benefits of both deductive and inductive research. Adoption of both inductive and deductive analyses also increases the validity and reliability of findings. All types of triangulations adopted by the present study are discussed in the following section.

3.6 Reliability and Validity

In order to avoid measurement bias and support the reliability of findings of qualitative research, researchers endeavor to create such design for studies that will give a multidimensional perspective of the phenomenon. Triangulation in social sciences refers to observation of the research problem from two different points of view (at least) (Flick, 2004). Although the application of triangulation causes some disadvantages such as the increase of the amount of time needed for research, difficulties of dealing with extensive data and etc. (Thurmond, 2001), triangulation has proven to be a reliable validation strategy in qualitative research (Flick, 2004).

The study adopts several types of triangulation simultaneously. Denzin (1978) and Patton (1999) have specified four types of triangulation: (a) method triangulation, (b) investigator triangulation, (c) theory triangulation, and (d) data source triangulation.

Data source triangulation means variance in events, situations, times, places, and persons which increase confidence in the findings (Thurmond, 2001). The study uses data source triangulation in two ways: by adoption stratified purposive sampling technique with two criteria for sampling and by using both primary and secondary data.

The stratified purposive sampling technique facilitates the display of variation of opinions about the research phenomenon (Ritchie et al., 2013). Conducting interviews with people with different background and experience selected by the stratified purposive sampling technique increases variation of opinions. Section 3.4 discusses the sampling technique in detail. The stratification by occupation allows collection opinions from people with different professional background. The representativeness of point of views from different cultures helps to avoid the vision from a single cultural perspective (Western/Asian) which is the common omission for cross-cultural studies.

The using of primary and secondary data as well ensures the validation of the results. The analysis of a number of independent data sources prevents distortion of data. The verification across data courses is a way to avoid bias. If the findings from independent data sources are similar, it increases the confidence in the conclusions of a study.

Triangulation of theories implies the conduction of the study with multiple theoretical lenses in the researcher's mind in order to lend support to or disprove findings (Thurmond, 2001). The study uses theory triangulation by application of multiple theories to examine the research question. As the literature review showed in chapter 2, digitalization, the BM concept, and especially the cross-cultural approach have a diverse theoretical background. The nature of the study encourages the application of different theoretical grounding.

Methodological triangulation aims to increase the validity of field efforts by using rigorous methods. The study adopts within-method triangulation by addition narrative perspective to the questions in the interviews as it recommended by Flick (2004). The complementary perspective on the research problem helps in the verification of conclusions. One more way of methodological triangulation is data-analysis. Data-analysis triangulation refers to the combination of two or more methods of data analysis (Thurmond, 2001). The study uses data-analysis triangulation by analysis of transcripts in both ways: manually (without special software) and electronically (applying NVivo software).

CHAPTER 4. FINDINGS

Chapter 4 presents the research findings that are derived from data collection and data analysis explained in Chapter 3. The first part of the chapter discloses findings on digital BM configurations in the travel industry. The revealed BM configurations are listed and supported by quotes by interviewees. The second part of the chapter is devoted to findings on the effects of national cultures on the development of BM configurations presented in the first part. The part about national cultures consists of three sections. First, there is the support for the presence of the effects. The second section shows the revealed relationships and connections that build the mechanisms of the effects. The last section indicates findings from the investigation about the impactful aspects of national cultures (both institutional and ideational) and their interconnections.

4.1 Digital BM Configurations in the Travel Industry

The identification of the digital BMs in the travel industry has revealed 53 configurations. Table 4.1 presents the list of the revealed BM configurations, quotes about them from participants, and the examples of companies. Interviewees note that BM configurations are a general description of companies' BMs. The BM configurations are flexible; they could be adjusted to a certain context and business idea. It is also important that BM configurations could be both B2B and B2C. Moreover, they could also be used for non-profit organizations.

Among participants, the most often cited BM configuration is OTA. 14 interviewees mentioned this BM. They also highlight that OTA is the most popular BM configuration in the travel ecosystem: *"OTA is very dominant in kind of online distribution" (P29)*. There are two sub-types of OTAs' BM configurations: Merchant and Agent. The difference is in streams of payments. The Merchant model means online payment on the website. At the Agent model, tourists pay at check-in, and after the hotel and OTA share the revenue. An OTA may also combine these two sub-types. The well-known examples of OTAs are Expedia, Booking.com, Yatra, MakeMyTrip, Travelata, CTrip.

Table 4.1 Findings on Identification of Digital BMs in the Travel Industry

Name of BM pattern	N	Quotes Style and grammar of the original are kept	Examples of companies
OTA **Sub-types: Merchant/ Agent**	14	"They go and contract rates with hotels. It's not a self-signup process like Uber" (*P2*) "Agents when they are selling tickets or hotels they're earning commission from what they sell and that is by far the most popular BM in the industry" (*P13*) [translated from Russian] "For example, there is a hotel offer. It is sold to a client for a commission. An OTA could sell it both by Merchant model and Agent model. In other words, when there is online payment on the website or when a person arrives at the hotel and pays at check-in" (*P27*); "This BM is to convert users and to sell travel" (*P31*)	Expedia; Booking.com; Yatra; MakeMyTrip; Travelata; Level Travel; CTrip; ROOMKEY
Affiliate (Lead generator)	9	"I don't need to sign [contracts]. I'm not selling the product myself. [we] generate enough interest to require to travel. I provided lead to the traditional players to do that fulfillment" (*P6*) "We partner with OTAs by putting a link to their website within our content. When a reader reads our article and click through to our partners and make a booking, we get a commission" (*P18*)	Trip101; OneDollarTrips; BenkisTrip; Darsi Travel
Online Travel Marketplace (OTM)	7	"Here you can list your products, you can manage your variabilities, you can manage your bookings, you can manage your customers, you can manage your payments, you can take offline payments." (*P3*) "We connect travelers and local guys on the platform and local people can make money by showing travel attractions." (*P11*) "Marketplace BM works when you can kind of be the intermediary between a supplier and the end user" (*P32*)	WeTravel; Get Your Guide; Viator; TourRadar; KLOOK; KKday; withlocals.com; Simple Luxuries; Isratourist
Facilitator (Solution Provider)	7	"They help us facilitate and deliver the end the result to local clients, people who contact us." (*P7*) "We offered a tool - if a customer is shopping on a particular travel website, we would ingest that customers travel intent" (*P31*)	PayPal; YouLi; TripHero; EASA
Metasearch Platform	7	"They give you the lowest price" (*P8*); "This BM helps very effectively to drive the traffic to the, for example, travel agents on the booking platform" (*P8*) "Where they offer a lot of transparency in terms of information but they don't necessarily a transact the final portion of the booking. They send it to the site" (*P32*)	Skyscanner; Trivago; Momondo; GDX; Rome2Rio; Kiwi.com; Kayak
Display Advertising	6	"Their end supplier takes the content for free and they try to monetize it with advertising. there's some models where there's trying to just sell things." (*P30*); "Travel magazines only survives through advertising" (*P19*)	Conde Nast Traveler; Argos
SaaS (Software-as-a-Service)	6	"travel technologies supplier to travel suppliers" (*P6*) "It tries to help travel agencies work faster because travel agencies even today are basically pen and paper and Excel files" (*P15*) "big data players that help airlines sift through their information" (*P29*)	Hotailors; Bókun; FareHarbor; Sift Science; Peakwork; Traveltainment; BoxEver; BD4Travel
E-commerce	6	"Our main goal was to bring service provider in the Internet or any data or any information about the hotels, about tour guides and etc. to be online." (*P17*) "Even suppliers (the airlines, hotels), they have a digital side to their business which it's supposed to be represented online and on mobile." (*P29*)	Melbourne Observation Wheel; Lake Constance DMO
Sharing Platform (Peer to Peer / P2P Platform)	6	[translated from Russian] "We operate without intermediaries. A person does not need to open his hotel, invent something else in order to offer some services to guests, share accommodation, and so on" (*P27*) "the Home Sharing would not be possible without the digital aspect" (*P29*)	BlaBlaCar; Grab; AirBnB; GetMyBoat; JetSmarter; Uber; Stasher; Bounce
Mass Customization (Dynamic Packaging)	5	"Everything is dynamic and they can pick and choose whatever they want but ultimately it's a package that the user creates for himself or herself and then they can book everything with one swipe of the card and if they have any problems our support takes care of them for the whole trip." (*P16*) "It's more individualized. We still have traditional package tours and you can also built up package tours in the same time when you are selling." (*P17*)	X-TUI; Hotelplan; Holidays.ch; Lufthansa Holidays; Vacations by Marriott; RoutePerfect; InnaTour
Subscription (Membership)	4	"Now platforms also ask for a yearly payment for instance. You don't have to cost directly but that you are paying monthly to use this platform" (*P14*); "Kind of a club with regular payments" (*P27*)	SkyHi; Bidroom; FinalPrice
White Label	4	"Publish your trips as your own branding, your own color scheme" (*P1*)	TRAVELfusion

Name of BM pattern	N	Quotes Style and grammar of the original are kept	Examples of companies
		"They can actually use their own brand to sell the product and then the invoice, everything are under the sub-agents name but actually in behind they cut all the products from someone else" (*P8*)	
Cross-selling (Cross bundling)	4	"Last few years they've [airlines] been very busy working on bundling products: flights + Hotel, insurance, progress package and all that the best they can do" (*P6*) "Only selling ticket the margin is too low. You have to bundle everything" (*P8*)	Frontier Airlines
Expertise Monetization	4	"Now Trivago is more going into helping hotels optimize revenue. They help hotel managers run hotel better, measure better, define better prices." (*P15*)	AirHelp; Trivago
Infomediary (Content aggregator)	4	"Helping to find places to go, where to go with a bot which is powered with a real human-power operator." (*P11*)	Mezi; National Geographic
"Turn-key" Solution	4	"We are a service provider for those who don't want to experience the pain of digitization directly" (*P1*) "We take care of the car rental portion for the partner. They outsource it to us." (*P20*)	CarTrawler; Habashwe Africa
Meta-booking Platform	3	"We want to own customer experience from start to finish." (*P32*) "We eliminate the pain in having to go through many different sites, compare prices" (*P16*)	TripFactory; Rentalcars.com; GoEuro; Reservamos
Modular Solution	3	"Partners' customers use our booking engine to make car rental booking. We do not have any stand-alone version, it's always on the website where you find flights, hotels, package tours." (*P20*)	Autobooker; DESTYGO; Cangooroo (Juniper)
Customer Data Monetization	3	"That is their digital strategy – to gather information. They sell that data to the industry - that's where they make money" (*P29*)	izi.Travel
Disintermediation	3	"A company like Marriott they bought their own direct channel to the customer, so they are still able to manage their price. They are trying to create a more direct connection with the customers using technology" (*P6*) "Nearly every part of a service provider in tourism is trying to get more and more and direct contact with the customer" (*P17*)	Marriott; Qantas; Lufthansa
First Discoverer	3	"Right now we have a lot of them. But Trivago were the first ones and they could really play the game" (*P15*)	Trivago
Club (Small Niche)	3	[translated from Russian] "based on the constant involvement of people" (*P5*); "We unite people based on some common problem, people with common requests" (*P5*) [about value proposition] "they are so specified" (*P14*)	Russian Expeditions; Eclipse Traveling; VAWAA; ALTOURISM
Custom Content	3	"Content producer particularly in the video space, for example, film production space" (*P6*) "I have a blog where I write every fortnight for another company. They pay me for this. I write a newsletter for the WTTC. They pay me every month to write their content." (*P19*)	The View South; ; TravIndi
On-the-go (Mobile First)	3	"It's really further exasperated the idea of control that basically I have complete control as a customer as a traveler that I can look any place at any time with my device always connected". (*P29*)	HotelTonight
Affiliate Network	3	[translated from Russian] "A single platform for everything. You do not have to figure it out every time, you set up some payment details one time, that is, you have already worked out everything. You can calmly expand the range of services. You sell tickets, hotels, cars. All in one place." (*P28*)	Travelpayouts; Admitad; CJ Affiliate; Affiliate Future
Travel Commerce Platform	3	"Aggregator is a way for somebody like us to connect directly to many many suppliers without having to have a contract with each of them and beyond the contract you usually have to also put some money sitting in their bank." (*P16*) "It prevents the customer from seeing repeated content during navigation" (*P26*)	go global; instant travel; Travelfusion; Travolutionary; Travelport; HotelBeds
Unsold (distressed) inventory	3	"They sell all the unused estate. Gym, swimming pool. Traditionally reserve their inventory for their guests. This applies to a lot of places." (*P21*); "That exists for both plane seats, for accommodations" (*P35*)	Daycation; HotelsByDay; SeatFrog
Crowd Sourcing	2	[translated from Russian] "Content is partially generated by users, then checked." (*P12*) "you can go on TripAdvisor that you can see all the photographs that the users have shared of the thing" (*P19*)	Atlas Obscura; Google Maps; TripAdvisor
Analytics & Connections	2	[translated from Russian] "Skift is media, research and events. Exactly in that order. PhocusWright is research, events and media." (*P27*)	PhocusWright; Skift; Arival
Virtual Community	2	"They are totally online" (*P9*); "Such communities unite tourists, tourism professionals… Some of them are non-profit" (*P9*)	TripTogether; TravelMassive

Name of BM pattern	N	Quotes Style and grammar of the original are kept	Examples of companies
Expense Management	2	"Digital tools for corporations" (*P29*) "They offer clients to book a hotel and they will rebook the hotel when they find the better rate." (*P17*)	Deem; SAP Concur; GetThere by Sabre; Lola; Rocketrip
Ecosystem Creator	2	"Sometimes by suppliers we I consider OTA but we are not an OTA, not at all. We are not an app, we are more than that" (*P3*); "We have aggregated the biggest database in the travel space in the last two years. we enabled the light availability check-in and instant booking" (*P3*)	LeezAir
Crowd investing / crowdfunding platform	2	"The idea was to help SMEs in tourism to start their business like Kickstarter right to get funding" (*P15*) "We don't expect the accelerator to be profitable. We're using what's called a GP LP structure. It's a general partner and limited partner structure. It's a pretty regular structure for an investment and accelerators." (*P33*)	we4tourism; TravelStarter
Trusted Service Leader ("big players")	2	"For those with a brand name last ones with brand names there's a trust in the customer for those who have already things like loyalty program, in place proper investment, in CRM though they're connected with their customers." (*P6*) "We have different segments. Private travelers, individuals searching holidays, they trust us because we know-how and because we make suggestions about what to do, where to go and so on." (*P17*)	Thomas Cook; TUI
No win, no fee	2	"We only earn when our customers earn. Our core business is that we take the cut of the compensation that we earn for our customers." (*P13*) "They will rebook the hotel when they find the better rate." (*P17*)	AirHelp; Compensair; RefundMyTicket; Pruvo; DreamCheaper
Edufication	2	[translated from Russian] "We give an opportunity to our client, we teach him for free" (*P12*)	Center Smart Tourism
Accelerators / Incubators	2	"They have hundreds and millions of dollars investors. Like… I put in 20 million, you put in 20 million. We have 40 million dollar of a fund which now is run by a group of people" (*P21*)	Chan Brothers; Booking Booster; Propeller Shannon
Independent Consultant	2	"My entire BM based on the need for independent trusted thinking commentator about the issues and the industry." (*P19*) "I've got a reputation that they will publish me. I want to write honest things about a problem" (*P19*)	TravIndi; Travel Tech Consulting Inc.
Barter	2	"The bloggers get paid by staying for free in the hotel and then writing a nice piece saying "what a pretty hotel, I love this hotel, thank you for lunch" and that is their payment." (*P19*)	The Travel Leaf; That Travel Blog
Rent instead of Buy	2	"It's quite experiential. All the pictures are branded. So the brand will pay for you to be in..." (*P23*)	Mytriphoto
License	1	"Having correct information at scale at the processes to manage that is a strong value-add what we do." (*P30*)	Wcities
Low-coster	1	"It is basically a company which provides cheap service" (*P10*)	Oyo Rooms; CheapTrip
Freemium	1	[translated from Russian] "They walk [for free]. Then they come to our office, start asking where to go, then we are already selling. We offer a tour guide, it is no longer free, (s)he will walk with you, take a ride on the famous MTR, show you where to eat." (*P12*)	Free Walking Tours Melbourne
Ultimate Outsourcing	1	[translated from Russian] all the tour guides are on freelancing (*P5*); "no need for full-time staff" (*P5*)	G Adventures
Affinity Club	1	"We are an online travel agency specializing in enabling discounts for corporate benefit programs. We serve the main banks, telephone operators, insured companies etc. with differentiated services and discounts that are significant to their clients." (*P26*)	Rocketmiles; LTM group; Travel Pool
Deal of the Day (Daily Deal)	1	"Member-only flash-sales. Members exclusive deals" (*P9*) "Whatever the booking made, we do get some revenue back from the photographers." (*P10*)	TravelBird; Secret Escapes; Travelzoo
Open Access / Open Source	1	"Everyone can contribute. Like Wikipedia. And it's for free" (*P9*)	Flio
Self-service	1	"You can check-in and you don't have to go to the front desk" (*P29*)	Keesy
Gamification	1	"Game component increase interest, motivate users to act and to compete with others" (*P9*)	Adventure Junky; Stray Boots
Hide Advertising	1	"If you don't want to see advertisement, pay" (*P9*)	Maps.me
Auction	1	"You're actually haggling on the on the room rate of the hotel. You can see the full rate but you as potential guests of the hotel you can tell well 'I'm not interested in paying hundred dollars for the nights, I'm interested in paying seventy and I would like to arrive on Sunday and stay for two nights' and then the hotel here decides if they want it or not." (*P13*)	Room Auction
Venture Capitalists	1	"I know one venture companies are invested only in travel." (*P34*)	Thayer Ventures
Ultimate Luxury	1	"It's about self-esteem. Luxury products." (*P6*)	Quintessentially Travel; Luxury Link; Virtuoso

The list of digital BM configurations (Table 4.1) represents the travel industry in the broadest sense. The list includes BMs of pure tourism companies that provide mainly offline travel services as well as companies that are on the intersection with other industries. Thus, *E-commerce* BM (e.g., Melbourne Observation Wheel and Lake Constance DMO) and *Disintermediation* BM (e.g., Qantas and Lufthansa airlines) refer to the core travel services: offline experiences, accommodation, and transportation. At the same time, *SaaS* BM configuration is linked to *"Pure tech players" (*P1*).* Companies with this BM offer software (for example, FareHarbor), data storage and analysis (Boxever), fraud protection for payments (Sift Science) and other technological offers specialized for travel companies. Specialized tourism *Accelerators-Incubators* BM and *Venture Capitalists* BM operate investing in travel companies. They are not directly linked to travel services and tourists. *Crowdsourcing/ crowdinvesting platforms* support travel companies in getting foundation from general public. For instance, Propeller Shannon, we4tourism and Thayer Ventures help travel companies to start and to grow. The complexity of digital travel ecosystem requires a large number of *Facilitators (Solution Providers)* and *"Turn-key" Solutions* from other industries. These companies facilitate payments and management of group tours (YouLi), localization (Habashwe Africa), intercultural marketing (China Digital) and etc. The main difference between *Facilitators (Solution Providers)* and *"Turn-key" Solutions* is in value configuration: *Facilitators* offer a single solution while *"Turn-key" Solutions* eliminate needs in whole units (marketing, finance or others). The *Modular Solution* configuration is in the middle between *"Turn-key" Solution* (or, in other words, Full service Provider) and *Facilitator (Solution Provider).* Usually, travel companies outsource certain functions to companies with Modular Solutions. However, the solution is implemented as a module. For example, Autobooker offers website modules with car rental solutions to other companies. In summary, the digital travel ecosystem includes the broad range of companies that involve as pure tourism companies as well as companies linked to tourism services indirectly.

In contrast to traditional travel companies, travel businesses with digital BMs use various sources for profit-making. Even the pure tourism players could sell not only travel services but also get revenue from available data (*Customer Data Monetization* BM), their knowledge in certain narrow area (*Expertise Monetization* BM), space for advertising (*Display Advertising* BM and *Hide Advertising* BM), and their reputation as independent reliable experts (*Independent Consultant* BM). Apart from the production of travel services or tourism-related content, a number of digital BM configurations are focused on aggregation and/or comparison of value propositions of other companies. *Meta-search platform*s and *Meta-booking platforms* aggregate offers of different *OTAs* and compare price across suppliers. *Travel Commerce*

Platforms aggregate suppliers in one site. *Infomediaries* (for example, travel magazines) collect content from various content-creators. Companies with *Unsold (distressed) inventory* BM apply different ideas to sell the unused estate. This BMs may be used to different segments of tourism: plane seats (SeatFrog), accommodations (HotelsByDay, Daycation), and other inventory. Summarizing, digital travel companies apply innovative and creative BMs for being competitive and successful.

A number of digital BMs is based on connecting various stakeholders. *OTMs* and *Sharing (P2P) Platforms* work as intermediaries connecting service providers and end users. *Affiliate Networks* (e.g. Travelpayouts) organize effective interactions between *Affiliates* (for example, travel bloggers) that generate leads (consumer interest, clicks on websites and further purchases) and *OTAs* which pay Affiliates commission for each booking. For companies following *Analytics and Connection* BM such as Skift, Phocuswright, Arival, customers are tourism professionals. They organize events for tourism professionals, offer business research, and reports the news from the industry.

Findings show that digital travel companies are not limited to the application of one BM configuration. They might combine and create multiple BMs even within one company: *"By the way, these can be used in combination, of course" (P31)*. Some combinations have become typical and time-tested: *"There are others that have kind of a mixed model where they can transact that they also can lead to other providers." (P32)*. As a result, the number of actual BMs that could be created and implemented in the digital travel industry is unrestricted and open-ended.

4.2 Impact of National Cultures on digital BMs in tourism

4.2.1 Presence of the Effects

The findings show that cultural differences at the national level affect the development of digital BMs in tourism. Almost all participants (32 out of 35) confirm that differences in national cultures continue to influence the business development in the travel industry even in the digital era. For example,

> *"Cultures act differently, Cultures communicate differently, very differently. And cultures have different experiences of travel. And also different expectations of services." (P17)*

> *"The needs are different. The way of thinking is different." (P34)*

The impact of differences in national cultures could be perceived by participants as a negative phenomenon as well as a positive. The negative side of these cultural differences lies in their power to become a barrier for the business development and BM internationalization processes. 30 out of 35 participants have disclosed that they faced difficulties caused by cultural differences at the country level during their experience in the digital travel industry:

> *"When it comes to doing business it does get a little difficult. The things we're able to do in one country - we may not be able to do in another country just because somebody said no and then you have to do things in a very different way" (P15)*

> *"There's definitely big differences in how different cultures will accept certain BMs, how they prefer to orient those models." (P31)*

> *"Look at Bahrein. Very rich country but very conservative with their traditional values. A very few women work in hospitality. That's why adaptation in some parts are very slow." (P21)*

At the same time, 2 participants refer to the positive side of cultural differences. These participants have developed their companies' BMs based on these cultural differences across countries. Their companies use their expertise in the cross-cultural field as a competitive advantage and successfully develop their business, which helps other companies to adapt their business to a new country.

> *"We're counting on the fact that they're all quite different way through to business" (P1)*

The opinion about the absent of the effects of national cultures was expressed by a modest number of participants. The minority of 3 participants stated that they have never experienced or observed any impact of national cultures on the BM development in the travel industry *("I haven't come across something culturally where it's being an issue for us" (P18*)). They made a conclusion that in the modern digital world, national cultures lack power, and there are two causes for that. First, according to these interviewees, the effect of national cultures is such weak that should be ignored. Political, economic, and technological factors are much more important and valuable for the BM development than the national cultures. As a result, these insignificant effects of national cultures have not to be taken into consideration. Second, digital BMs do not require adjustment to the local cultures because of their universality. The same BMs work over the globe due to similar global trends:

"We're starting to see that the same things and that's why BMs work in India, the same BM working in China which are the same as models that worked in Europe, in the US before. I think those big macro trends are kind of the wind in the back of the sails of the boat that make it significant. To your question I think that a cultural interest of each country are particular and each one is kind of interested in different things but overall I think the tendency or the trend tends to be pretty similar across the globe." (P32)

Summarizing, the vast majority of interviewees evident that national cultures keep their effects on travel businesses and specifically on the BM development. Two following sections present the findings of the impact of national cultures in detail. First, the mechanisms are presented, following by the specific characteristics (aspects) of national culture that make an impact on the BM development.

4.2.2 Mechanisms of the Impact of National Cultures

The previous section showed the preponderance of the opinion about the impactful effect of national cultures. Following the line of the investigation, this section presents findings on how the influence of national cultures works, or, in other words, the mechanisms of this impact.

Stages of Travel Company

In general, national cultures affect the development of digital BMs in the travel industry on two stages of a company's development. In a typical scenario of the successful development of a company, these two stages when national culture shape BMs follow each other. These two steps of the development of a digital travel company and the associated impact of national culture on its BM are shown in Figure 4.1.

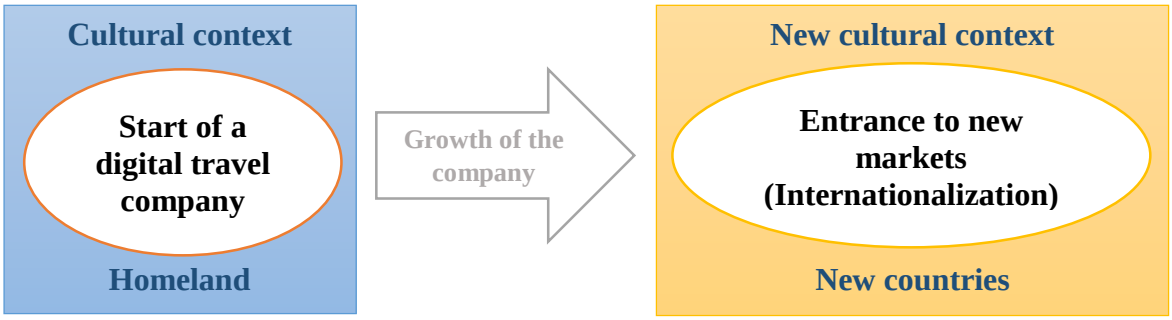

Figure 4.1. Stages of Effects of National Cultures on the Development of Digital BMs

On the first stage, the national culture of a country shapes a BM of a newly developed company. Participants stated that specific characteristics of national culture could either foster or not foster the development of digital travel companies and their BMs. On the first stage (a company's start and first growth) a company is affected by the national culture of the first country of operation. Usually, it is a country of the physical location of a travel company. The effect on this stage of a company's development is caused by pragmatic reasons to test a BM on a smaller scale. Even relying on digital technologies, a travel company cannot start globally:

> *"The plan was to start globally but then very quickly we decided to focus on Australia & New Zealand, to run the experiment, the tests because to be successful you have to focus and we couldn't focus everywhere." (P3)*

The second stage of the impact of national cultures is the situation of implementing internationalization strategy. This stage is the step of internationalization when a company refocuses on new markets, or, in other words, new countries with new cultural context. As the majority of the participants shared, the application of the same BM to all countries is not possible due to the cultural differences between them. Any BM configuration has to be adjusted according to specifics of the new cultural context. The entrance of a digital travel company to the global market requires reshaping of its BM because of cultural specific of the new country(ies):

> *"I'm an Australian company and I just pick up and get in the States? No, it won't work. The way they do business in the States doesn't suit the way people do business in Australia." (P2)*

Effects of Geography & History

During the description of the mechanisms of the effects of national cultures, participants stressed the importance of geographical and historical contexts of a country. These two contexts are significant powers that influence the people's values, attitude to tourism and attitude to international relationships. *"so the geography is also a part of a culture" (P1)*

Participants highlighted that history and geography are two issues that are beyond peoples control. They are independent of peoples, but they are impactful on their mind. Regarding some political and historical issues, the participants have expressed even a sense of fatalism: *[about international politics] "That's a thing. That what is happening" (P1)*

In this case, the terms *geography* and *history* imply broad meanings. *History* refers to global and local processes that are out of control. It includes political context, digital divide,

form of government, military conflicts and etc. *Geography* includes internal features of a country such as predominant landscape on the territory, natural barriers across the country, climate. It also includes external specifics: distances to other countries, geopolitical situation and etc.

To illustrate these effects, two participants from Australia shared examples of how the location and the geographical remoteness of Australia have been affecting the decision-making process and the preferences in the type of tourism. Thus, Australian tourists plan a tour in a very long time in advance comparing to others due to the geographical remoteness:

> *"Imagine. I'm gonna plan my holiday. I'm gonna book my holiday. So in Europe that might be a three-week process. In Australia it's a nine-month process" (P2)*

Also, Australian tourists are limited in their short-distance choices of a destination. As a result, it will be most likely Sun&Sea option:

> *"You are in Australia and you want to go anyway. It's almost inevitably two sectors: Fiji or New Zealand - find a beach, sit on the beach… Whereas in the UK I can go I can go to Paris for the weekend, I can visit Moscow for the weekend" (P1)*

Different BM configurations

The findings of this study show that some aspects of national cultures make an impact on specific BM configurations or groups of BM configurations, while other aspects affect the development of digital BMs in general. Thus, some BM configurations could work in any cultural context just with some minor adjustments: *"There are different small adaptations of the model per country." (P13)*. At the same time, some BM configurations could be applied only in a specific cultural context: *"Some BMs only work in special area of culture." (P17), "Instant booking are for spontaneous cultures" (P11).* In this case, a specific BM configuration is important: *"Depending on the type of BM" (P23).* For example, the participants shared that the upfront payment BM and implementation BM are sensitive to attitude towards banking institutions and payment systems. The commission BM configuration is affected by companies' confidence in market power. These BMs that are driven by value capture, or in other words, by the revenue model. Therefore, the issues of payment systems and confidence in market power are critical for these BM configurations.

The mechanisms of the effects of national cultures on different components (elements) of BMs may also be diverse. Some aspects make an impact on specific BM components, while

other aspects affect the development of the whole BMs. Thus, for instance, attitude to sport and attitude to nature affects Value Proposition:

> *"Here it's all about the nature. You live outdoor. It's all about surfing and when you go to Queensland you will expect to discover the nature. So that was actually for us the best country for starting and to run the experiment." (P3)*

Clusters

Apart from other abovementioned comments, the participants also argued that culture is more relevant to analyze at the cluster level than at the national level. They criticized the traditional classification of cultural groups (e.g. national culture, organizational culture) and recommended to pay attention to clustering: *"I think a lot of it [culture] has to do with that commercial clustering piece and developing in that way." (P33*). Within a single nation or a country could include a few clusters with their own specifics and culture. For example, different clusters can be observed in the USA: *"New York has big industries – fashion and finance. LA has a lot of entertainments." (P35). "And also you need to take into account that they [the USA] have the Silicon Valley over there and the big startups are there in the Silicon Valley" (P34).* These clusters have their own culture that might be different from the national culture of their country: *"I think it's the intention of the city. I think it's not even more of a national thing, it's more of a local thing" (P15).*

Stakeholders' Approach

Describing the mechanism of effects, respondents have illustrated the effects of national cultures through stakeholders' mindsets. In their examples, stakeholders' mindset plays the role of intermediary. First, national cultures affect stakeholders' attitude towards individual parts of BMs (for example, towards specific revenue models) and towards BM configurations in general. Then, stakeholders' attitudes shape BMs and their components.

Participants shared that various stakeholders are involved, both internal and external. Interviewees mentioned the importance of the attitude of investors, customers, partners, owners, managers, government and local authorities, communities, and etc. Here are some examples:

- Suppliers

> *"In the US [Pause] suppliers feel like they have more market power and they don't need to pay as much for the services." (P31)*

- Employees

"You can get away with a little bit of that in terms of automation but there's a certain amount of human attention that is required to make that happen. I don't think that fits very well with cultures that like to be offline a lot. The thing I love about Australia is that they like work-life balance. It doesn't fit well with the culture of building and always-on digital presence" (P1)

- Government

"So it [national culture] matters what a country does in terms of how they manage their resources for tourism." (P1)

- Partners and sub-agents

"For example, in Russia. I actually learn about a kind of a quite little platform from a Russian company. A travel agent. They are doing very good and then the small agents or even sub-agents, they can easily pop the hotel and from the booking stage to invoice to payment. Everything can be done for a smoothly and the best thing, for example, I can just simply click and then the voucher will be in my name with my content" (P8)

In summary, participants have described the mechanisms of effects of national culture on the BM development. The ways how national cultures affect are multiple. At the same time, they could be summarized in a model. The proposed model of relationships is presented in Chapter 5. The following section shows research findings of deep investigation of characteristics of national cultures that affect the development of digital BMs.

4.2.3 Affecting Aspects of National Cultures

Thematic analysis of interviews which is described in section 3.6.1 have revealed 39 categories related to the effects of national cultures appearing in the data. The effects of national cultures on digital BM in the travel industry include multiple aspects. Table 4.2 presents all the revealed aspects of national cultures that affect the development of digital BMs. The aspects are listed with respect to the number of participants mentioned.

Table 4.2 Findings on Effects of National Cultures

Aspect of national cultures	N	Examples (Quotes) Style and grammar of the original are kept
Banking institutions and Payment systems	12	"The most difficult internationalization is the financial process. Each country uses its own payment means and, if it wants to guarantee competitiveness, opening up local branches is the only way to make the business scalable. The Brazilian pays the services in installments. The credit card is not the main payment." (*P26*) [about Russia] "It's also culture. People are paying in to the vending machines. They don't have any credit cards." (*P34*) "Western democracies that generally had stronger banking institutions and so that's enabled people to trust more and to offer credit and things like that which is basically a trust of you're gonna paid for that service for that good. I would say the institution that are developed over time" (*P30*)
Uncertainty Avoidance	12	[translated from Russian] "If a person is from Russia, Ukraine, Belarus, (s)he most likely does not plan, (s)he is more spontaneous. 'What if tomorrow a bear eats me up and I will not go on vacation, so I do not book now.' " (P24)
High/Low Context	8	"Connecting with people on email that's English people don't get to the point very quickly. We like to say 'hello, how are you I'm fine I just wanted to see but as possible to talk about such-and-such' and I'll sit there for 10 minutes looking how I've written the first paragraph of my email and then I'll obsess about how I sign off with have I been too friendly have I been not friendly enough and etc." (*P19*)
Presentation of Information	7	"I think the cultural difference affects tourism in the way that people find the places that they want to stay in and what information is represented in order for them to make that decision." (*P22*) "How you present the information, how you actually use the information, how do you present a content, whatever content you present to the different audience it varies based on the audience. Chinese websites still very cluttered. Even the new one. it is a quite cluttered a lot of information, whereas in the Western is cleaner, less information flows better" (*P6*)
Knowledge capital and knowledge transfer	7	"Ireland had this heritage around aviation and a bit of a cluster aviation and travel, a bit of a cluster already there that we could work with. San Francisco has a tech cluster. Germany has a manufacturing cluster. Russia - mathematics and engineering and that kind of thing. I think Hong Kong probably will see more in terms of FinTech than it will be travel tech." (*P33*)
Attitude towards different revenue models	6	"I think in in Europe in particular it's very difficult to get a company to pay upfront for any service that you're providing. Here, in the US, that's an accepted sort of mechanism and you can get away with charging an implementation fee and then maybe a monthly maintenance fee as well. But my experience in Europe is that it's very hard to do that. They just don't really want to lay out any money until they start to see the revenue coming in." (*P31*) "For instance, Americans they're willing to pay a premium but they want full packages. The British people didn't care about this but more cost-conscious." (*P16*) "For example, you can buy something, subscribe something for long-term. American people subscribe for everything but in Turkey buy just one time." (*P11*)
Attitude towards innovations	6	"Cultures that move ahead rapidly run into these challenges. There are cultures that would rather not be the ones to kind of go through that process and would rather wait until it becomes clear what the right answer is" (*P1*)
Attitude to communication and communication technologies	6	"English people would find me offensive but Dutch people are just going come on come on we don't need this rubbish." (*P19*) "Finish people would rather communicate via email than via phone. Dutch customers would prefer to talk and French customers would talk more rather than email. Similar to Spanish customers whereas German customers would prefer email" (*P13*) "The frequency of newsletters have to be different. In Australia, for ex, they send letters mostly twice a month. In the UK – every two days. They bombard people with newsletters." (*P20*)
Entrepreneur Culture & Startup culture	6	[about Israel] "The entrepreneurship is a cultural thing and for us it is really. We are not afraid to take the chance, and we are not afraid to be fail" (*P34*)
Attitude towards technologies	6	"When it comes to technology, like, for example, if my business is just a platform what happens when a country where the Internet is really slow. Then I have to adapt my business and people may not use it that way. Look at India is doing very very well is because network" (*P15*)
Openness to foreign businesses	5	[about China] "It's more like close area where only the local players know how to play in it." (*P34*)

Aspect of national cultures	N	Examples (Quotes) Style and grammar of the original are kept
Bureaucracy & Corruption		"Corruption. India, South-East Asia – there are a lot of corruption. You are paying to get business started. Can I get better room? It makes doing business difficult. We plan to expand into Serbia Bosnia Romania in the next two years because we are going to try to take her to the Balkans but I know that I'm gonna have a hard time getting some registrations or licenses in some countries." (*P15*)
Approach to human nature	5	[translated from Russian] "About people's trust in each other. It is clear that BlaBlaCar appeared in Europe and AirBnB appeared in America. Now there are projects in different countries that somehow try to copy these models of Sharing Economy. But this is an interesting aspect: these BMs have appeared in cultures where people have the highest level of trust to each other." (*P27*)
Sensitivity to language translation aspects	5	"German customers would prefer email to be very formal, very strict on the proper language. Whereas for instance Scandinavian customers are not that on the language. They are used to some inproficiency to the language. So it's ok to them to speak Swedish but it doesn't need to be a native speaker. For German or French people, it is very important. If they speak to somebody, it has to be a native-speaker. Otherwise, they don't feel the trust." (*P13*)
Government attitude to the industry	4	[about Australia] "Tourism is huge for this country but it's not as huge as mining" (*P1*) "I think that the way culture and the government behaves can either foster or not foster innovation within the travel sector. In Hong Kong, authorities are concerned about other issues" (*P29*)
Transportation behavior	4	"In the US there are not even any analogues of BlablaCar? Because there is a different type of transport behavior itself." (*P27*)
Long-term vs short-term Orientation	4	[translated from Russian] "In those cultures that are short-term oriented, planners like Hotel Tonight and other last-minutes deals are important. In the United States, in Europe, the guys who are doing "today" receive a very powerful leap. Similarly - last minute packages" (*P5*)
Openness to travel and acceptance of traveling	4	"Some cultures are more open to travel and some are a little more assertive. With the globalization overall that's tend to have lowered but there are some countries that historically didn't travel or did not have the funds to travel." (*P30*)
Consumer culture	4	[translated from Russian] [about CIS] "Super-elastic demand. The difference of even 1 ruble is a critical factor for decision making." (*P4*)
Approach to innovations and number of early adopters	4	[about Australia] "So as a digital business it can be very hard to find early adopters here" (*P1*) [about Germans and Russians] "they're still stuck in kind of the structured predefined packages. People still buy package tours rather than doing something dynamic and that's kind of a characteristic of the culture and that presents a challenge. The strength of the offline model is confidence and familiarity." (*P29*)
Laws for Internet and e-commerce	3	"I think that because most of the companies starting from Europe or San Francisco is that they are more developed countries so they have laws for Internet and e-commerce" (*P11*)
Attitude towards changes	3	"I think digitization is all about changing rapidly. Cultures that are happy to accept rapid change a little adopt digitization faster which is why I think Australia hasn't digitized their industry as quite as quickly as the United States" (*P1*)
Masculinity vs Femininity	3	[translated from Russian] [about CIS] "Also, I would say that there is such a point as showing-offs. When people do not quite understand what they want. In America, there is no this excessive *window dressing. » (P1)*
Attitude to Public Space: Indifferent vs Caring	3	[translated from Russian] "In the USA and Australia, the approach is in the format: "We must protect it, because it's common." And in the Russian mentality there is an opposite approach: "We do not care about it, it's common, what's the point." (*P5*)
Nature of reality and truth	3	[about Asia] "I try to analyze the trend the patterns and some decisions then I'll reveal actually some decisions were not too rational. the decision was not based on the figures. I mean is not easy to high up anything anymore so it's somehow may hurt the relationship among colleagues" (*P8*)
Trust to Internet and digital information	3	[translated from Russian] "In Italy, everything is done on personal relationships. People do not trust the Internet" (*P5*)
Idea-driven vs profit-driven	3	"If you look at Silicon Valley, there is very much of focused on the growth as fast as possible. I think there's much more of an attempt to build sustainable businesses in other parts of the world and fair enough they may not become unicorns." (*P33*)

Aspect of national cultures	N	Examples (Quotes) Style and grammar of the original are kept
		[translated from Russian] "Overall, as I noticed that in Europe it is slightly more focused on the financial component. If I do something - I want to get a clear understanding for this that I will get the money. But in Eastern countries people are easier. They can do something for an idea, for the potential of an idea." (*P28*)
Negotiation culture & Bargaining	3	"For my previous company, in the UK. It is called Room Auction when you're actually haggling on the on the room rate of the hotel. You can see the full rate but you as potential guests of the hotel you can tell well 'I'm not interested in paying hundred dollars for the nights, I'm interested in paying seventy and I would like to arrive on Sunday and stay for two nights' and then the hotel here decides if they want it or not. It still exists in the UK and but it was surprising at that time that all the sudden hotels from Morocco started to sign up and the BM even though I didn't directly intended that market or directed. in any way, it was massively popular in Morocco and that's because people in Morocco our haggling on the daily basis. They never want to pay a full price. For them from this national culture both for the hoteliers and for the customers it was natural to haggle, to negotiate." (*P13*)
Survival vs Self-Expression Values	3	"The thing I love about Australia is that they like work-life balance. It doesn't fit well with the culture of building and always-on digital presence" (*P1*) "In Australia, for example, people are used to no support on Sunday. Nobody works on Sunday. People respect that. So they expect to be more self-service." (*P6*)
Achievement vs Egalitarianism (*American Dream* vs *Tall Poppy Syndrome*)	3	"If someone becomes famous, Australians intend to start disparaging them. Kind of we that cut them down and it's called the tall poppy syndrome. If you showing off about your travels, in Australia we will criticize you" (*P7*) "the US where I think people are more confident in saying you know look this is our strategy this is what we're planning to do" (*P31*)
Attitude to nature	2	[translated from Russian] "Now this trend begins in developed countries, the trend of Sustainable tourism, which is still not very, perhaps, understandable even in Russia." (*P27*)
Attitude to privacy and security	2	"Chinese they don't have privacy but Hong Kong we have a lot and we concern about it but when we talk about business I will say I'm not stealing the data but at the same time I may try to get a balance between the data privacy in my position" (*P8*)
Universalism vs. Particularism	2	"In Asia there's still a lot of specific travel agency fares. There's that cultural aspect of the way the particularly the airlines behave in the international locations mostly I've seen in Asia that prevents this from truly being digitized because they continue to negotiate individual deals." (*P29*)
Indulgence vs Restraint	2	[translated from Russian] "He has to come, talk with someone he has known for 10 years, who lives in a nearby street. This is traditionalism. In America, people are more moving, they are more prone to adventures" (*P12*)
Cultural Diversity and Cumulative CQ	2	"Diversity plays a big part in innovation in my eyes. If you look at the places that are most diverse, they often tend to also be the places that are most innovative. For example, San Francisco. Places who haven't had the same level of immigration or outside contact, I think struggle a little bit more with that level of innovation." (*P33*)
Attitude to sport	1	"about Australian culture, it's a bit more they call it sporty here's like people like to be outside here today and I find nature is closer here than it is in the States, for example" (*P1*)
Attitude to partnerships	1	"In the past a lot of our players we just concern of ourselves of our own products and we don't believe in partnership" (*P8*)
Hierarchy vs Egalitarianism	1	"If you are in Asian countries, you have to show a lot of respect to somebody who is a senior in the company. You have to kiss their feets to get business just because these guys are director in that company. In Western countries it is not the case." (*P15*)
Transparency of business	1	"If you are doing in Germany, you have to be absolutely transparent. In other parts of the world, I have to be conscious about how much information I have to give them. Sometimes, the less information you give, the better it is." (*P15*)
Individualism vs Collectivism	1	[translated from Russian] "Estonians do not like to see other people. 'I'd rather sit at home.'" (*P5*)

The revealed aspects include as ideational as well as institutional ones. To be exact, 25 out of 39 aspects are institutional, 14 are ideational. In terms of numbers, the highest number of interviewees (12 people) points out the impact of two aspects: (1) different approaches to payment systems and banking institutions, and (2) Uncertainty Avoidance which is a dimension in Hofstede's and GLOBE's frameworks.

Given the practical background of the participants, the important part of data collection was the investigation of latent content (themes and categories). Thus, interviewees often told about different observations that are actually united in one aspect. For example, talking about Uncertainty Avoidance related to

- Planning and customer behavior (the USA has a low index of Uncertainty Avoidance, while Turkey has a high one):

  "For example, you can buy something, subscribe something for long-term. American people subscribe for everything but in Turkey buy just one time." (11)

- Start of a digital travel company (Israel has a high level of Uncertainty Avoidance):

  [about Israel] *"They have a fear of failure they prefer not to take any chances, and they prefer to have their own quiet life, easy life, they go to walk, they go back from walk. And go out with the family and again. So this is everything they want to do from 20 30 years from now. Here you don't know what you will do next week and because you know everything is changes very rapidly. (P34)*

- Perceived risk and trust to digital sources (Austria has a high level of Uncertainty Avoidance):

  "The strength of the offline model is confidence and familiarity. Yes, Austria still has a lot of offline travel agencies. There's a level of risk that might have to be taken. For the Austrian example, for a citizen to do that… but what kind of fights that is overall digital adoption globally." (P29)

- And others. All the abovementioned points are related to Uncertainty Avoidance although they are observed in different forms. Similarly, other revealed aspects include various expressions

Generally, the explored aspects refer to different dimensions in different cultural theories. For instance, interviewees shared examples of effects of national culture related to differences in Universalism vs. Particularism (Trompenaars & Hampden-Turner, 1993), Long-

term – Short-term Orientation (Hofstede, 2001), and Survival vs. Self-Expression Values (Inglehart & Baker, 2000). Details of affiliation of the aspects to different frameworks are presented in section 5.2.

Mutual influence of institutions and values

In addition to the findings on mechanisms presented in the previous section, the findings also highlight the connections of aspects with each other. The revealed impactful aspects include both institutional and ideational aspects, as it is stated in the previous section. Interviewees also note the mutual influence of these two sides of national cultures. For example, the interviewee describes the impact of attitude to human nature (the dimension that is included in the frameworks by Kluckhohn and Strodtbeck (1961), Adler (1983), Schein(1985) on attitude to justice, presence of corruption and attitude to laws for Internet and e-commerce:

> *"About the human nature and then being basically good or evil* [Pause] *Some nations are more willing to go to court whenever they see that there is a valid reason for that. Whereas some others would rather don't go to court they'd always it wasn't that much of a big deal I don't want to sue the airline. It was it was not that much of a problem at all, whether were some others they demand justice they that they deserve the money. So the airline has to pay." (P13)*

Summarizing, it could be seen that national cultures keep their impact in the digital era as they were actual for traditional travel business. National cultures shape digital BM configurations. Certain aspects of national cultures support the development of digital BMs. However, there is no one best country or one best culture for the development of digital travel business. The diversity of the impactful aspects is enormous.

CHAPTER 5. DISCUSSION

Chapter 5 aims to discuss the findings presented in the previous chapter. Chapter 5 starts with the discussion of newly revealed digital BMs in the travel industry, followed by the comparison of the findings with the previous literature. The second part of the chapter discusses the findings related to the effects of national cultures. First, the model of relationships between national cultures and digital BMs in the travel industry is proposed. Then, affecting ideational and institutional aspects of national cultures are scrutinized and compared with results of previous studies. The last section presents relationships in the model that are developed based on findings of the mechanisms of the effects of national cultures.

5.1 Digital BM Patterns in the Travel Industry

This study has revealed 53 digital BM configurations in the travel industry. The overall list of the digital BM configurations is provided in Table 5.1 with references to the description of associated BM configurations in previous literature. Additionally, the references to names of the BM configurations by other authors are provided (if any). The BMN by Gassmann et al. (2014) and the classification list of BM configurations by Taran et al. (2016) are two lists of BM configurations that are used as the basis for comparison. These lists of BM configurations are provided in Appendix 3 and Appendix 4. At the same time, references to other literature are provided in cases when both BMN and the classification list of BM configurations by Taran et al. (2016) lack of investigated BM configurations.

Table 5.1 Digital BM Patterns in the Travel Industry with References to the Previous Literature

	Name of BM pattern	**In existing literature**
1	OTA	E-shop (T)
2	Affiliate (Lead generator)	Brokerage (T)
3	Online Travel Marketplace (OTM)	Shop in Shop (G),E-mall (T)
4	Facilitator (Solution Provider)	Value Chain Service Provider (T), Layer Player (G)
5	Metasearch Platform	Comparison shopping (Daniele & Frew, 2006)
6	Display Advertising	Advertising (Rappa, 2004)
7	SaaS (Software-as-a-Service)	Ojala (2012)
8	E-commerce	Digitization & E-commerce (G)
9	Sharing Platform	Peer to Peer (G, T)
10	Mass Customization (Dynamic Packaging)	Mass customization (G), Mass-customized commodity (T)
11	Subscription (Membership)	Subscription (T,G)
12	White Label	White Label (G, T)
13	Cross-selling (Cross bundling)	Cross-selling (G)
14	Expertise Monetization	Inside-out (T)
15	Infomediary (Content aggregator)	Infomediary (T)

	Name of BM pattern	In existing literature
16	"Turn-key" Solution	Full Service Provider (T)
17	Meta-booking Platform	-
18	Modular Solution	Modular producer (Weill &Woerner, 2018)
19	Customer Data Monetization	Leverage Customer data (G)
20	Disintermediation	Disintermediation (T), Direct selling (G)
21	First Discoverer	Breakthrough markets (T)
22	Club (Small Niche)	-
23	Custom Content	-
24	On-the-go (Mobile First)	-
25	Affiliate Network	-
26	Travel Commerce Platform	-
27	Unsold (distressed) inventory	Distressed inventory (Daniele & Frew, 2006)
28	Crowd Sourcing	Crowd Sourcing (T,G)
29	Analytics & Connections	-
30	Virtual Community	Virtual Community (Weill & Vitale, 2001)
31	Expense Management	-
32	Ecosystem Creator	Adaptive (T), Open Business (G)
33	Crowd investing / crowdfunding platform	Two-Sided Market (G), Multi-sided platforms (T)
34	Trusted Service Leader ("big players")	Customer Loyalty (G), Trusted product/ service leader (T)
35	No win, no fee	-
36	Edufication	-
37	Accelerators (Incubators)	Business incubators (Grimaldi & Grandi, 2005)
38	Independent Consultant	Trusted Advisor (T)
39	Barter	Barter (T, G)
40	Rent instead of Buy	Rent instead of Buy (G)
41	License	Licensing (G)
42	Low-coster	No frills (G, T)
43	Freemium	Freemium (T, G)
44	Ultimate Outsourcing	Core Focused (T)
45	Affinity Club	Affinity Club (T), Customer Loyalty (G)
46	Deal of the Day (Daily Deal)	Revenue Sharing (G)
47	Open Access / Open Source	Open source (G)
48	Self-service	Self-service (T, G)
49	Gamification	Gamification (Celaya et al., 2016)
50	Hide Advertising	Embedded Advertising (Celaya et al., 2016)
51	Auction	E-auction /auction (T), Auction (G)
52	Venture Capitalists	Venture Capital Firms (Gerasymenko, De Clercq, & Sapienza, 2015)
53	Ultimate Luxury	Ultimate Luxury (T)

Notes: G - BM patterns by Gassmann et al. (2014), see Appendix 3;
T - BM configurations by Taran et al. (2016), see Appendix 4;

The names of the explored BM configurations sometimes differ from the names of BM configurations in the general stream of BM literature. Generic BM classifications have a general approach and lack consideration of specifics of the travel industry. Practitioners in the travel industry give more specific names, more suitable and common for the travel industry.

The majority of the BM configurations is described in the general stream of BM literature. As it could be seen in Table 5.1, the large number of digital BMs in the travel industry has equivalents described in the general stream of BM literature. Gassmann et al. (2014) and Taran et al. (2016) have already presented BMs such as *Sharing Platform*, *Freemium*, *White Label*, *Mass Customization*, and others (see Appendix 3 and Appendix 4). A number of BMs is presented in specialized literature but not included in general lists. For instance, *SaaS* BM has investigated by Ojala (2012), *Gamification* BM is described by Celaya et al. (2016). A few BM configurations are introduced only in tourism literature. For example, *Distressed inventory* and *Metasearch platforms* (Comparison shopping) are presented in the study about the travel intermediaries by Daniele and Frew (2006). A number of the revealed BM configurations (Table 5.1) have no equivalents in the previous body of literature. Neither general stream of BM literature, nor tourism studies have described these BM configurations before.

The revealed list of BMs has similarities with the findings of previous studies in the tourism field. In comparison to the results by Henne (2014), 3 out if 5 configurations got support by findings of the study. The remaining 2 BMs from the typology by Henne (2014) are traditional BMs and they are not in focus of the study. All four models of tourism enterprises enabled by ICTs by Schmidt et al. (2017) are reflected in the findings of this study. Though the names of models could be different, the essence of the models is similar. For example, supplies from the typology by Schmidt et al. (2017) are equal to *E-commerce* BM, the ecosystem driver has the same name in the findings of the study as well. The findings also show support to 5 out of 8 BM patterns by Kreinberger et al. (2014): Freemium, White Labeling, Crowdfunding, Advertising, and Customization. Furthermore, all five BMs by Daniele and Frew (2006) are presented in the list of the revealed BMs. At the same time, the revealed BM configurations in the travel industry differ significantly from the previous studies in terms of numbers. While previous studies in the tourism field included from 4 to 8 BMs, this study has revealed 53 BM configurations. Unlike previous fragmented findings, the findings of this study are systematic and consistent.

Overall, the findings of this study summarize various BM patterns into a comprehensive outline of the modern digital travel industry. The identified list of digital BMs incorporates a large number of BM configurations described in earlier literature as well as newly explored BM configurations. The classification of the revealed patterns by the primary value driver is given in the end of the part 5.1 and Appendix 5. The following section presents the newly explored BMs in detail.

Newly discovered digital BMs in the travel industry

In addition to the BM configurations noted in the previous literature, this study has revealed 10 digital BM configurations particular to the travel industry. Based on the interviews, their names, descriptions, and examples of companies are presented below:

1. *Meta-booking platform*. The meta-booking platform configuration has grown on the basis of the Metasearch platform configuration. As metasearch platforms, meta-booking platforms search for the cheapest price. Both BMs compound databases from various suppliers and shows possible options. In contrast to Metasearch platform, Meta-booking platforms own the full cycle of tourist's purchase experience. A meta-booking platform does not redirect users to a third party website. For example, meta-booking platforms Omio (ex-GoEuro) and Reservamos search and buy tickets across multiple transportation suppliers, including even different types of transportation (flights, trains, buses and etc. simultaneously).

2. *Club (small niche).* The small niche companies are focused on a specified product or a segment. New digital ICTs allow people in different corners of the world to find each other based on their narrow interests. Thus, travel company Eclipse Traveling organizes tours to observe eclipses. The main drivers of this configuration is an interest of customers in a certain type of tourism and their loyalty to the club. This BM configuration should be distinguished from Membership configuration. Membership implies subscription and regular payments. In the club BM, customers pay per purchase. In this case, consumers' affiliation to a *Club* has rather emotional and psychological meaning.

3. *Custom Content*. This BM configuration has created as a reply to the growing need in digital content. They offer to create exclusive digital content (text, photo, video, AR and VR solutions, and etc.) and sell it directly to business clients. For example, The View South produces tailor-made films for travel companies.

4. *On-the-go (Mobile First).* In contrast to other companies, their offers are available only in a certain digital channel, usually by a mobile application. This approach gives the opportunity to enter the market faster than competitors due to less spending for building a distribution system. Other benefits are possibilities for real-time updates, dynamic pricing, and being always connected with travelers. Constant access to customers' location gives wide opportunities for personalization. Thus, HotelTonight and LeezAir apply *On-the-go* BM.

5. *Affiliate Network.* Companies with this BM aim to organize effective communication and collaboration between *Affiliates* such as travel bloggers, key opinion leaders and suppliers. Suppliers pay commission to *Affiliate Network* and *Affiliates.* This BM may also be interpreted as a particular case of Two-Sided Market (Gassmann et al., 2014) and Multi-sided platforms (Taran et al., 2016) because it involves various companies. One of the most well-known *Affiliate Networks* is Travelpayouts.

6. *Travel Commerce Platform* is another particular case of Two-Sided Market (Gassmann et al., 2014) and Multi-sided platforms (Taran et al., 2016). *Travel Commerce Platforms* such as Travelport connect several stakeholders. Generally, they aggregate various suppliers and their offers in one search engine. Working with a *Travel Commerce Platform*, travel distributors and OTAs have to sign only one contract instead of many. Also, *Travel Commerce Platforms* aggregate a large number of offers, and their customers have no need to compare them across suppliers.

7. *Analytics & Connections*. Companies with this BM configuration in the travel industry earn money by reporting news, selling research, and organizing events for professionals in the industry. Having various channels for profit, they work within the travel industry, although their work is connected with travel services only indirectly. Among others, Phocuswright, Arival, and Skift apply *Analytics & Connections* BM pattern.

8. *Expense Management*. This BM configuration has raised from business tourism. Companies with this BM configuration motivate business travelers to spend less. Therefore, employers of these business travelers may reduce budgets for business tours. The most famous companies with this BM configuration are Deem and Rocketrip.

9. *No win, no fee*. Companies with *No win, no fee* configuration earn profit only when customers win. This BM pattern has roots legal agencies. Following a request of a customer, companies work hard to get money entitled to him or her. In the case, if they get that money, they also get a commission. For example, AirHelp and Compensair are famous for this BM configuration. The main driver of this BM is Value Capture (revenue model). Companies have a commission or a flat fee only from winning cases. If the case did not get compensation, customers lose nothing. Recently, this BM has been expanded to rebooking services that try to rebook tickets or accommodation for a cheaper price. Customers would pay a commission from the price difference to the rebooking service if only the price for tickets or accommodation was reduced.

10. *Edufication*. The name is created in analogy to the name of *Gamification* BM. *Edufication* travel companies aim not only to offer a particular value proposition but also to educate their customers. For instance, travel companies may educate sustainable behavior (like Center Smart Tourism) or legal literacy (like AirHelp).

Classification of digital BM patterns based on primary value driver

Based on the 5-V framework (Taran et al., 2016), the revealed BM configurations could be grouped by the primary value driver. According to this framework, possible primary value drivers are Value Proposition, Value Segment, Value Configuration, Value Network, and Value Capture (see Figure 2.5). In order to reveal the current priorities in the travel industry, 53 revealed BM configurations are summarized based on the primary value driver. The groups of BM configurations are presented in Table 1 in Appendix 5. The classification process has shown the following outcomes:

- 25 BM configurations are mainly driven by Value Proposition;
- 5 BM configurations are mainly driven by Value Segment;
- 8 BM configurations are mainly driven by Value Configuration;
- 8 BM configurations are mainly driven by Value Network;
- 7 BM configurations are mainly driven by Value Capture.

Based on numbers, it might be concluded that the value proposition is the epicenter of BM innovation in the travel industry. Value Proposition mainly drives almost a half (47%) of BM configurations.

Summarizing, the findings of the study have revealed actual digital BM patterns in the travel industry. In comparison to the results of previous studies, it could be seen that the list of revealed digital BM patterns incorporates BM configurations explored in earlier tourism literature to a large extent. The majority of BM configurations from previous research is reflected in the findings of the study.

5.2 Proposed Model

Nearly all interviewees support the presence of impact of national cultures on digital BMs in the travel industry. Two main reasons might cause the absence of support by a few interviewees. First, those interviewees might have never experienced significant cultural

differences due to the operation of their business within a similar cultural context. Countries of the companies' activities might have minor differences in national cultures, and therefore, do not cause significant effects on their BM development. Second, interviewees might be affected by personal bias and do not perceive cultural differences. This effect is called *fish can't see water*, and it is described by Hammerich and Lewis (2013). In general, the effects of national cultures on the development of digital BMs in the travel industry are confirmed by the participants of the study.

Summarizing the findings, the model of relationships between national cultures and digital BMs in the travel industry. Figure 5.1 presents the proposed model.

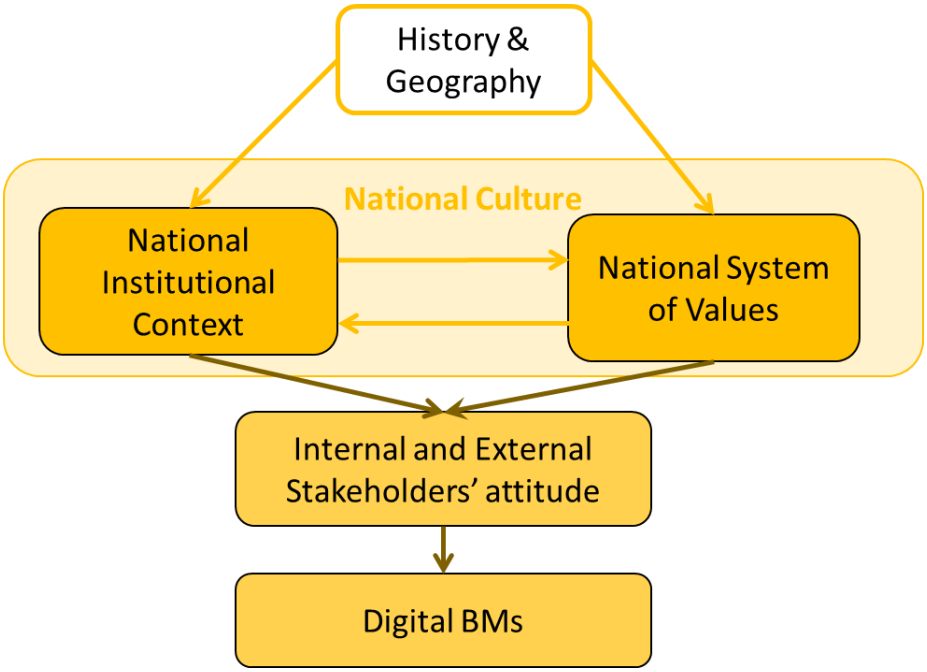

Figure 5.1 Model of Relationships between National Cultures and Digital BMs in the Travel Industry

Initially, history and geography as independent powers affect national cultures. In its turn, national cultures impact on stakeholders' mindset and attitude to BMs. Subsequently, the stakeholders' attitude shapes digital BMs in the travel industry. National cultures include two sides: national institutional context and national system of values (ideational context). Table 5.2 presents the summary of the affecting aspect of national cultures.

Comparing to the previous studies, minor similarities with other models could be observed. First, a model of culture's association with entrepreneurship by Hayton, George, and Zahra (2002) also include cultural values and institutional context. However, in that model,

these two constructs are not two sides of national cultures. In the model by Hayton, George, and Zahra (2002), cultural values moderate the impact of institutional context on entrepreneurship. Similar to the proposed model, the model by Thomas and Peterson (2014) (Figure 2.10) also shows the mediation of managerial mindset to national differences in organizational design.

Table 5.2 Affecting Aspect of National Cultures

	Aspect of national cultures	**Framework**
1	Banking institutions and Payment systems	Social Institution
2	Uncertainty Avoidance	Dimension by Hofstede, GLOBE
3	High/Low Context	Dimension by Hall & Hall
4	Presentation of Information	Social Institution
5	Knowledge capital and knowledge transfer	Social Institution
6	Attitude towards different revenue models	Social Institution
7	Attitude towards innovations	Social Institution
8	Attitude to communication and communication technologies	Social Institution
9	Entrepreneur Culture & Startup culture	Social Institution
10	Attitude towards technologies	Social Institution
11	Approach to human nature	Dimension by Kluckhohn & Strodtbeck, Adler, Schein
12	Sensitivity to language translation aspects	Social Institution
13	Openness to foreign businesses Bureaucracy & Corruption	Social Institution
14	Government attitude to the industry	Social Institution
15	Transportation behavior	Social Institution
16	Long-term vs short-term Orientation	Dimension by Hofstede
17	Openness to travel and acceptance of traveling	Social Institution
18	Consumer culture	Social Institution
19	Approach to innovations and number of early adopters	Social Institution
20	Laws for Internet and e-commerce	Social Institution
21	Attitude towards changes	Social Institution
22	Masculinity vs Femininity	Dimension by Hofstede
23	Attitude to Public Space: Indifferent vs Caring	New dimension
24	Idea-driven vs profit-driven	New Dimension
25	Negotiation culture & Bargaining	Social Institution
26	Nature of reality and truth	Dimension by Schein
27	Trust to Internet and digital information	Social Institution
28	Survival vs Self-Expression Values	Dimension by Inglehart & Baker
29	Achievement vs Egalitarianism (*American Dream* vs *Tall Poppy Syndrome*)	New Dimension
30	Attitude to nature	Social Institution
31	Attitude to privacy and security	Social Institution
32	Universalism vs. Particularism	Dimension by Trompenaars
33	Indulgence vs Restraint	Dimension by Hofstede
34	Cultural Diversity and Cumulative CQ (Cultural Intelligence)	Social Institution
35	Attitude to sport	Social Institution
36	Attitude to partnerships	Social Institution
37	Hierarchy vs Egalitarianism	Dimension by Trompenaars
38	Transparency of business	Social Institution
39	Individualism vs Collectivism	Dimension by Hofstede

In general, the affecting aspects of national cultures include 39 aspects (Table 5.2). 14 of them are related to values (ideational side of national cultures), 25 of the affecting aspects refer to social institutions (institutional side of national cultures). Details of each side are discussed in the following sections. Details on relationships in the proposed model are given in the last section of this chapter.

5.2.1 Ideational Aspects of National Cultures

With this study, it was found that the development of digital BMs in tourism is affected by multiple characteristics of national cultures embedded in the national system of values. These characteristics refer to diverse theories of national cultures and their dimensions. The list of affecting dimensions from existing cross-cultural theories includes 11 dimensions:

1. Uncertainty Avoidance (Hofstede, GLOBE) – 12 participants;
2. High/Low Context (Hall & Hall) – 8 participants;
3. Approach to human nature (Kluckhohn & Strodtbeck, Adler, Schein) – 6 participants;
4. Long Term Orientation vs Short-Term Orientation (Hofstede) – 5 participants;
5. Masculinity vs Femininity (Hofstede) – 3 participants;
6. Nature of reality and truth (Schein) – 3 participants;
7. Universalism vs Particularism (Trompenaars) – 2 participants;
8. Survival vs Self-Expression Values (Inglehart & Baker) – 2 participants;
9. Indulgence vs Restraint (Hofstede) – 2 participants;
10. Hierarchy vs Egalitarianism (Trompenaars) – 1 participant;
11. Individualism vs Collectivism (Hofstede) – 1 participant.

With the agreement with the previous studies, BM development is connected with a few dimensions by Hofstede, Hall, and GLOBE. Thus, the effects of Uncertainty Avoidance which are mentioned by the highest number of interviewees are also noticed by Yoon (2009), Gong (2009), Jayaganesh and Shanks (2009) and other academics. The impact of the Individualism vs Collectivism dimension is proved by Wehner et al. (2017), and Jayaganesh and Shanks (2009). The effects of High/Low Context are confirmed by Gong (2009). At the same time, Power Distance by Hofstede lacks support in contrast to the studies by Bagchi, Hart, and Peterson (2004) and Wehner, Falk, Leist and Ritter (2017). Similarly, the impact of the dimension of Monochronic vs Polychromic time by Hall is not revealed as it is done by Gong (2009). In addition, the findings also show the effect of other Hofstede's dimensions:

Indulgence vs Restraint, Long Term Orientation vs Short-Term Orientation, and Masculinity vs Femininity.

Other affecting dimensions refer to various cultural frameworks. Apart from mentioned above, this study has explored the impact of (1) Approach to human nature (people are basically good/bad), (2) Nature of reality and truth (truth is determined by facts and figures, by interpretation and reasoning, or by feeling and intuition), (3) Universalism vs Particularism (to what extent do the rules apply in all situations, or are they different according to circumstances), (4) Survival vs Self-Expression Values (the importance of economic and physical well-being or subjective quality-of-life), (5) Hierarchy vs Egalitarianism (level of centralization). These aspects refer to cultural frameworks by Inglehart and Baker, Schein, Trompenaars. As the literature review in Chapter 2 shows, scholars rarely apply these frameworks. Therefore, the relationships with the dimensions from their frameworks are under-researched.

Apart from 11 dimensions from existing cultural frameworks, this study has found evidence of effects of ideational aspects that are not explored in the previous literature. Apart from those cultural dimensions that are reviewed in section 2.3.3, 3 new dimensions are presented in the following section.

New dimensions

Apart from those dimensions that were introduced in previous literature, the findings of this study also have revealed 3 new dimensions. Based on the description of the respondents and cultural values behind them, they are named as follows:

1. Idea-driven vs Profit-driven – mentioned by 3 participants;
2. Attitude to Public Space: Indifferent vs Caring - by 3 participants;
3. Achievement vs Egalitarianism (*American Dream* vs *Tall Poppy Syndrome*) – by 2 participants.

The first newly suggested dimension refers to differences in basic people motivation for business: ideas or profit. Idea-driven nations tend to take initiatives and build sustainable businesses. For them, the value of money is smaller. Those include some Asian cultures (e.g. Saudi Arabia, Georgia). Profit-driven people prefer to know clearly in advance how they will get profit. They have mostly financial motivation. Unlike idea-driven people, they develop their companies focusing on the growth. An example of profit-driven nations is Scandinavian countries.

The second new dimension aims to show the differences in attitude to public (or communal) space and things. Unlike the existing dimensions linked to the general attitude to space, it does not aim to measure personal and public space. More specifically, this dimension highlights the attitude to public (sharing) space and its content. This dichotomy is based on opposite attitudes to public (or communal) things. On the one hand, there are people who are conscious and caring about public space. On the other hand, some people are indifferent and neglectful to the public environment. For instance, this difference subsequently affects attitude to ecology and sustainability.

The third newly suggested dimension is based on differences in attitude to an individual's achievements and high status. Opposing Achievement and Egalitarianism, this dimension take as the extreme points the typical US phenomenon of *American Dream* which praises an individuals' success and the typical Australian *Tall Poppy Syndrome* which tend to criticize highly successful people. Although the cultural differences in attitude to an individual's ambitions and achievements were mentioned in previous literature, this dichotomy had no further development into a cultural dimension. For instance, Schein (1985) and later Mandisodza and Unzueta (2006) described the extreme cases of the US culture and Australian culture and their differences in attitudes to being rich or poor. However, other countries stay aside from this dichotomy due to the lack of the verified scale.

Summary

Figure 5.2 Affecting Ideational Aspects of National Cultures

From the perspective of representativeness of cultural assumptions, this list of dimensions includes all groups of underlying cultural assumptions by Schneider and Barsoux (2003). All three groups - external adaptation, internal integration, and linked assumptions are represented. At the same time, no groups got a predominance. All the groups are represented evenly. In terms of sub-groups such as relationship with nature, nature of human activity, nature of reality and truth, etc., all of them are presented in the above list of affecting dimensions of national cultures.

In summary, 14 dimensions of national cultures have been explored as affecting digital BMs in the travel industry. They are created by different authors and belong to different frameworks. 3 out of 14 are not introduced in the previous literature. Figure 5.2 summarizes the affecting ideational aspects of national cultures. The list of affecting cultural dimensions is broken down by author(s). As presented in the proposed model, another side of the impact of national cultures is caused by institutional side of national cultures. The following section discusses the affecting institutional aspects.

5.2.2 Institutional Aspects of National Cultures

The institutional aspects revealed as affecting digital BMs are diverse and numerous. 25 out of 39 explored aspects are institutional. Although there is a large number of affecting institutional aspects, they might be summarized in four general domains. Each aspect might be included into one or more domains. Summarizing, Table 5.3 presents four domains and institutional aspects included in each of them.

As the literature review in Chapter Two indicates, Tayeb (2003) consolidate the institutional side of national cultures into 13 social institutions. It could be seen that the findings of the study exceed this number. This may be due to a number of reasons. First, since 2003, new social institutions have grown, for instance, startup culture. Second, the study by Tayeb (2003) is focused on general management, not on the travel industry. Therefore, the findings by Tayeb (2003) do not reflect the specifics of the industry. Third, the in-depth interviews and intercultural perspective of this study allows exploration of new aspects of institutions and their effects and to contribute to the development of theories about social institutions.

Table 5.3 Four Domains of Institutional Aspects

Domain of aspects	**Institutional Aspects**
Attitude to Tourism and the Industry	Transportation behavior
	Knowledge capital and knowledge transfer
	Government attitude to the industry
	Openness to travel and acceptance of traveling
	Attitude to nature
	Attitude to sport
Business and Market Issues	Banking institutions and Payment systems*
	Presentation of Information*
	Attitude towards different revenue models
	Entrepreneur Culture & Startup culture*
	Openness to foreign businesses*
	Bureaucracy &Corruption
	Consumer culture
	Negotiation culture & Bargaining
	Attitude to partnerships
	Transparency of business
Attitude to ICT	Banking institutions and Payment systems*
	Presentation of Information*
	Startup culture*
	Attitude to communication and communication technologies
	Attitude towards technologies
	Sensitivity to language translation aspects
	Laws for Internet and e-commerce
	Trust to Internet and digital information
	Attitude to privacy and security*
Approach to Innovations	Overall attitude towards innovations
	Startup culture*
	Openness to foreign businesses*
	Number of early adopters
	Attitude towards changes
	Attitude to privacy and security*
	Overall Cultural Intelligence (CQ)

* - These institutional aspects refer to a few (two or three) domains

In general, four domains of institutional aspects include attitude to tourism and the industry, business and market issues, attitude to ICT, and approach to innovations. Attitude to tourism and the industry incorporate aspects related to people's attitude towards tourism as a phenomenon of activity: the general attitude to travelling and attitude to different aspects of tourism such as nature, sport, and transportation. Additionally, two aspects are related to the travel industry in particular: the presence of knowledge capital about tourism and the ability to transfer this knowledge and governments' attitude to the industry. Overall, these institutional

aspects shape stakeholders' mindset about tourism and the travel industry, and subsequently, shape digital BMs.

Business and market issues are the biggest group of institutional aspects. It includes the various aspects related to management (for example, attitude to partnerships), market culture (negotiation culture and bargaining, attitude to revenue models), and specifics of financial institutions (including banking institutions and payment systems). In general, these aspects shape business and market culture that in turn, affect the development of digital BMs.

Attitude to ICT could be observed as in direct as well as in indirect manifestations. For example, attitude towards technologies and attitude to communication and communication technologies are clear manifestations of attitude to ICT. Banking institutions and payment systems, startup culture also refer to attitude to ICT, although other institutions mediate their demonstrations.

The last domain is an approach to innovations that refer to the theory of diffusion of innovation by Rogers (1983). The overall attitude towards innovations and attitude towards changes are critical for early adoptions of digital BMs as around owners and investors as around customers. Additionally, the domain is an approach to innovations includes the Overall Cultural Intelligence (CQ), which refers to the theory of cultural intelligence by Bucher (2008). In this study, overall cultural intelligence implies cultural intelligence at the country level, accumulating key cultural competencies of people in one nation.

The findings of this investigation are close to the results of Schneider and Barsoux (2003). Similar to them, this study has explored the impact of issues related to government policies, currencies, approach to social welfare, business systems, and laws. However, no evidence of the effects of educational systems, attitude to investments and intergovernmental organizations are founded. Similar to Steer et al. (2010), corruption and attitude to the environment have confirmed their effects in this study. The effect of the employment relations is also reflected in the mechanisms of effects, and more specifically, in the stakeholders' attitude as a mediator of the effects. Likewise, team and customer involvement explored by Dalby et al. (2014) are confirmed by findings and included in the relationships in the model that are discussed in the following section.

5.2.3 Relationships in the Proposed Model

Historical development and geopolitical location of nations are two independent but impactful factors that shape national cultures. Since the findings show that history and

geography become a cause of national cultures, these relationships are shown in the proposed model (Figure 5.1). To a great extent, geography predetermines countries' climate specifics, landscape barriers, distances to other countries, and as a result affects peoples' cultural values, attitude to tourism, innovations and other social institutions. Similarly, global and local historical processes, substantial changes and milestones result in the system of values, religions, languages and other social institutions. These relationships have been reflected in the previous literature over the decades. For example, Tayeb (2003) points history, climate and geography as significant parts shaping national cultures. Hofstede (1980) also specifics of cultural clusters by the common history of countries within a cluster. Regarding technology and firms' behavior, Bartholomew (1997) also has proved the historical roots of national innovations and other social institutions.

National cultures are represented from two interconnected perspectives: ideational and institutional sides. The mutual influence of these two sides is confirmed by the findings of the investigation as well as by previous literature. For instance, Bartholomew (1997), Child and Tayeb (1982), Steer, Sanchez-Runde and Nardon (2010) consider national cultures as a two-sided phenomenon. Although not all scholars share the opinion of mutual influence, findings of this study confirm that social institutions affect the system of values and vice versa. Although the vast majority of researchers disregard the institutional approach to national culture, the findings of this study show that national institutional context is as important as the national system of values.

The effect of national cultures on the digital BMs goes via stakeholders' attitude to BM components and BM configurations. As findings show, national cultures shape the mindset of both internal and external stakeholders such as investors, customers, owners, employees, managers, suppliers and etc. Thomas and Peterson (2014) also mentioned in their study that national cultures affect organizational design through managerial attitude. Culture makes certain patterns of organizations acceptable, or, in other words, legitimate them (see Figure 2.10). The findings also confirm this mechanism. However, the model by Thomas and Peterson (2014) considers only the managerial attitude. The findings of this study show that the attitude of all stakeholders (not only managers) mediate the effects of national cultures on the digital BMs in the travel industry. These findings are shown on the proposed model in a two-step process.

CHAPTER 6. CONCLUSION

The purpose of Chapter 6 is a summary of the results of the study. This chapter begins with an overview of results, following by the section about contributions of the study: theoretical, methodological and practical implications. Then, it follows the section about research limitations. The last section ends the main body of the thesis and suggests future research directions and recommendations for future studies.

6.1 Summary

Under the impact of digitalization, new BMs are widely growing in the modern travel industry. Based on new technologies, these new BMs develop in the great variety over the world. However, reports show that digital travel companies grow in different regions and countries to varying extents. The effects of national cultures are recognized for traditional business but stay unclear for the digital business. The study investigates digital BMs in the travel industry and the impact of national cultures on their development.

Following the research question '*How do national cultures affect the development of digital BMs in the travel industry?*', three research objectives were achieved. First, based on the 5-V framework (Taran et al., 2016), 53 digital BM configurations in the travel industry were identified and compared to the existing body of literature. 10 BM configurations are absent in the literature and, therefore, described in detail. Second, the presence of effects of national cultures on the development of digital BMs in the travel industry is investigated, following by examination of affecting cross-cultural aspects. 39 impactful aspects are revealed, including 14 ideational and 25 institutional. Subsequently, affecting institutional aspects are summarized into 4 domains. Third, the study has summarized findings into a model of relationships between national cultures and digital BMs in the travel industry.

The study has applied the pragmatic grounded theory approach as the most appropriate for the investigated research gap. The study views reality and truth as observed and interpreted from different viewpoints (Tashakkori & Teddlie, 2009) where the existence of different perspectives is valuable. From this perspective, the role of the researcher was to integrate different perspectives. Since the initial presupposition about the presence of effects of national cultures had only indirect premises, grounded theory approach (Charmaz, 2000) was chosen. Advantaged of this approach allowed the in-depth examination of the phenomenon and developing the model which integrates both previous theories and newly discovered effects.

After the preliminary step of analysis of secondary data such as news, market analytics, and business research reports, possible participants were selected and invited. In total, 35 semi-structured interviews were conducted with digital travel business leaders, travel accelerators and incubators leaders, and market experts. The stratified sampling technique was adopted as the most suitable for representation of different opinions across the travel industry. In order to support the reliability of findings and to avoid unilateral and localized data collection, interviewees were selected in a way to achieve maximum possible representativeness of cultures and regions.

Data analysis was conducted in two ways: inductive (data-driven) and deductive (theory-driven). Such combined approach helped to increase trustworthiness and reliability of the findings. The inductive analysis followed categories and themes explored from the collected data. On the contrast, the deductive analysis was based on categories and themes developed based on previous literature. NVivo 11 was used to facilitate the deductive analysis.

The findings clearly indicate that national cultures keep being impactful in the digital era. The study proves that cultural specifics at the country level affect stakeholders' attitude to BM configurations and they, in its turn, affect the development of digital BMs in the travel industry. The affecting aspects of national cultures are numerous and diverse. They fall within different frameworks and represent both sides of national cultures: ideational and institutional. Ideational aspects refer to cross-cultural frameworks by Hofstede (1980 and later works), Trompenaars and Hampden-Turner (1993, 2000, 2004), Inglehart and Baker (2000) and others. Four domains of institutional aspects are attitude to tourism and the travel industry, attitude to business and market, attitude to ICT, and attitude to innovations.

The study has an intercultural perspective. In other words, it did not aim to compare countries and their cultural context. Also, the investigation had no focus on a particular region or a continent. Therefore, the implications of this study are not limited from a geographical perspective. The following two sections present theoretical, methodological and practical contributions of the study.

6.2 Theoretical and Methodological Contribution

The study contributes to theories in three research fields: digitalization, BMs, and national cultures. The theoretical contribution of this study lies in the identification of the digital BM configurations in the travel industry and the proposed model of the impact of national cultures on them.

Firstly, the study integrates the digital travel industry to the BM research fields. Recognizing the BM topic as one of the key issues of the modern digital economy, the corpus of literature in the BM field has been growing. However, tourism stayed aside. This study has explored 53 digital BM configurations presented in the travel industry, classified them and related them to the previous literature as in the tourism field as in the general stream. Identification of digital BMs in the industry provides a bridge from tourism research to the digital BM field. In general, this study contributes to the tourism field by incorporation of frameworks from the BM literature. Moreover, this consistent typology of digital BMs in the travel industry includes findings of previous studies on the BM field in tourism to a large extent. Summarizing fragmented studies in the tourism field, the list of identified digital BM configurations is a consistent and comprehensive outline of the digital travel ecosystem. The revealed list of digital BM configurations in the travel industry might be applied as a base for future studies. Discussing players the digital travel ecosystem in future studies, scholars might refer to this practicable and feasible framework. Overall, the typology of digital BMs in the travel industry makes the digital travel ecosystem tangible. Moreover, the provided real-world examples allow a comprehensive understanding of who is who in the current travel ecosystem.

Also, this study contributes to the BM field by the exploration of new BM configurations. The results include 10 newly explored digital BM patterns. Neither tourism literature nor general stream has presented them earlier. Newly explored BM patterns endorse and enlarge the great variety of BM patterns described in the previous literature. Moreover, revealed in the travel industry, these new BM patterns are likely to appear in other industries. In this way, the study contributes by augmenting the variety of BM patterns. Thus, findings from the tourism field contribute to the BM research field.

Next, the findings of the study restate the role of national cultures in the digital era. The study proves that despite globalization and digitalization, national cultures maintain their strength to impact on the travel industry. Although some scholars state that digitalization and globalization blur cultural differences to a large extent and national culture have become meaningless in the digital era, findings of this study confirm the actuality of impact of national cultures for the digital travel industry. National cultures keep their power to affect stakeholders' mindset and to shape BMs. Therefore, the study proves that cross-cultural research remains its significance and relevance for the modern digital era.

Another important contribution of the study is the emphasis on the importance of the institutional approach to national cultures. The previous body of literature gave low priority to the institutional side of national cultures and as a consequence, institutional aspects of national

cultures stayed underestimated. The findings of this study show that differences in societal institutions have a substantial impact and should be considered in line with the ideational aspects of national cultures. Complementarity of ideational and institutional sides of national cultures is critical for high-quality intercultural research. This study is a step to leveling of balance in the research of these two sides of national cultures. Also, the study summarized affecting institutional aspects into 4 domains. Revealing of these 4 domains are essential for the deep understanding of the impact of national cultures on the digital travel ecosystem. The power of these 4 domains needs to be considered for future industry-based studies in tourism.

In addition, the study has presented 3 new cultural dimensions. Detecting the aspects of national cultures affecting the development of digital BMs in the travel industry, these aspects are summarized in 14 dimensions of values and 4 domains of institutional aspects. While 11 dimensions were elaborated in the previous studies, 3 new cultural dimensions are described based on dichotomies disclosed by interviewees. Although these new cultural dichotomies require further scale development, their detection contributes to the cross-cultural research field. New cultural dimensions expand opportunities for researchers to describe a national culture in more detail.

Finally, the methodological contribution of this study lies in the application of pragmatic grounded theory approach to the investigation of national cultures. This study tests and confirms that the grounded theory approach gives rich data and wide opportunities for the investigation of national cultures. Therefore, pragmatic grounded theory is recommended for industry-based cross-cultural studies.

6.3 Practical Contribution

The study offers wide practical application as theoretically-grounded guidance for existing and emerging enterprises in the travel industry. The present study facilitates orientation in the modern digital environment of tourism. Conclusions and recommendations of the study are addressed to stakeholders of travel companies. The benefits for stakeholders are discussed below.

Findings of this study enrich the amount of digital BMs presented in the travel industry. Being a comprehensive tool, the list of digital BMs (section 5.1) might be useful for traditional travel companies starting digital transformation as well as for digital players in the travel industry. Applying the compiled list of BM patterns, managers can evaluate the current operations of their company and competitors. For instance, managers of a travel company may

analyze the effectiveness and competitiveness of a current BM in using existing digital opportunities for value creation. Travel startups looking for new business ideas may apply the classification of the digital BM patterns (Table 1 in Appendix 5) for identification of possible but rarely using opportunities for developing new digital travel business. Also, the compiled list of BM patterns is created for managers to draw inspiration for BM design and innovation. Application of BM patterns from other sectors of the industry and combination of a number of BMs are powerful ways for new travel companies to create new values, find a niche, and built new competitive advantages.

The role of national cultures is recognized but sometimes forgotten by practitioners. This study stresses the importance of the effects of national cultures for digital business. Findings of the study would be of special importance for practitioners in two cases: for selection of suitable location for a business opening and for minimization of risks related to BM adoption across countries. Knowing which aspects of national cultures are impactful for digital BMs (Figure 5.2 and Table 5.3), practitioners have the opportunity to foresee and to prevent difficulties associated with cultural differences. Given the mechanism of the effects of national cultures revealed by the study, managers of international companies may organize effective intercultural communication within the companies as well as the two-side communication with investors, local communities, and other stakeholders.

6.4 Limitations

Given the limitations of the exploratory approach, this study lacks statistical generalization like other qualitative studies. This investigation aimed to develop a model rather than to prove it. Pragmatic grounded theory approach has great advantages for model creating and hypothesis development. However, the revealed effects need further statistical testing. The quantitative test of the revealed relationships is recommended for future research.

Another significant limitation is caused by rapid changes occurring around BMs in the travel ecosystem. This study pictures the digital travel industry at the moment of data collection. However, the digital travel business is one of the most rapidly developing industries. While an innovative BM is one of the key components of competitiveness in the digital era, new digital BMs will appear in the travel industry. Therefore, the list of digital BMs in the travel industry will most likely be supplemented by new innovative BMs in the near future.

The third limitation is the geographical limitations of the sample of the study. Although the data collection process includes various countries and different regions, a few important

cultures are missing. Among them are Mainland China and Japan. These countries have a high level of digitalization and special cultural characteristics. A deeper analysis of cultures might supplement the findings of the study. Further investigation is recommended.

Lastly, this study does not take into account the intra-national variety of national cultures. In this study, references to certain countries, regions and nations (for example, Israel, Russia, Silicon Valley that are mentioned in chapters 4 and 5) imply general characteristics of the areas. Discussing national cultures interviewees usually mean average values and typical behavior. However, as it is also stated in the previous literature (e.g. McSweeney, 2009), there are within-country variations and people's values and behavior may vary to a different degree.

6.5 Future Research

Based on the findings of this study, three research directions deserve further consideration and development by scholars. First, the cases of multiple BMs within one company require further investigation. Now combinations of two or three BMs in a single company is a common case. This phenomenon could be analyzed from different perspectives. Among others, researchers might pay attention to the key factors of successful combinations of BMs in the travel industry, BM innovation process in cases of multiple BMs, and stakeholders' attitude to growing additional (second/third) BM within one company.

Second, details of BM adoption across countries could be scrutinized from the perspective of national cultures. Especially, the role of the institutional side lacks in-depth investigation. To assist practitioners and to investigate cross-cultural interactions, BM adoptions could be analyzed as within one multinational company as well as between different companies. Additionally, the recommendation is to research the effects of national cultures in BM management and adaptation in cases of international mergers and acquisitions.

Third, future cross-cultural studies should consider a deeper investigation of cultural specifics and cultural differences at the clusters level. As interviewees state (see section 4.2.2), many effects of national cultures are actual at a smaller level. A single nation or a country could include a few clusters with their own specifics and culture (for example, New England, Silicon Valley and Los Angeles in the USA). These clusters have their own culture that might be different from the national culture of their country. The perspective of clusters is also beneficial for consideration within-country variations of characteristics of national cultures. Therefore, it is recommended to adjust a focus of future studies from the country-level (such as China) to the cluster level (for example, the Greater Bay area).

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APPENDIX 1

Table 1. Modern Hofstede's framework of the national culture's dimensions

Index	Definition	Typical counties with high level	Typical counties with low level
Power Distance Index (PDI)	The degree to which the less powerful members of a society accept and expect that power is distributed unequally. How a society handles inequalities among people. People in societies exhibiting a large degree of PD accept a hierarchical order in which everybody has a place and which needs no further justification. In societies with low PD, people strive to equalise the distribution of power and demand justification for inequalities of power.	Russia, UAE, Panama	New Zealand
Individualism vs Collectivism (IDV)	The high side of this dimension, called individualism, can be defined as a preference for a loosely-knit social framework in which individuals are expected to take care of only themselves and their immediate families. Its opposite, collectivism, represents a preference for a tightly-knit framework in society in which individuals can expect their relatives or members of a particular in-group to look after them in exchange for unquestioning loyalty. A society's position on this dimension is reflected in whether people's self-image is defined in terms of "I" or "we."	USA, Australia, United Kingdom	Angola
Masculinity vs Femininity (MAS)	A preference in society for achievement, heroism, assertiveness and material rewards for success. Society at large is more competitive. Its opposite, femininity, stands for a preference for cooperation, modesty, caring for the weak and quality of life. Society at large is more consensus-oriented.	Japan	Norway, Lithuania, Iceland
Uncertainty Avoidance Index (UAI)	The degree to which the members of a society feel uncomfortable with uncertainty and ambiguity. How a society deals with the fact that the future can never be known: should we try to control the future or just let it happen? Countries exhibiting strong UAI maintain rigid codes of belief and behaviour and are intolerant of unorthodox behaviour and ideas. Weak UAI societies maintain a more relaxed attitude in which practice counts more than principles.	Japan, Russia, Belgium	Bhutan
Long Term Orientation vs Short Term Normative Orientation (LTO)	Every society has to maintain some links with its own past while dealing with the challenges of the present and the future. Societies who score low on this dimension, for example, prefer to maintain time-honoured traditions and norms while viewing societal change with suspicion. Those with a culture which scores high, on the other hand, take a more pragmatic approach: they encourage thrift and efforts in modern education as a way to prepare for the future.	China	Australia, Jordan
Indulgence vs Restraint (IND)	Indulgence stands for a society that allows relatively free gratification of basic and natural human drives related to enjoying life and having fun. Restraint stands for a society that suppresses gratification of needs and regulates it by means of strict social norms.	Mexico, New Zealand	China, Lithuania

Note. Modified from the website of the Hofstede Centre (2016)

APPENDIX 2

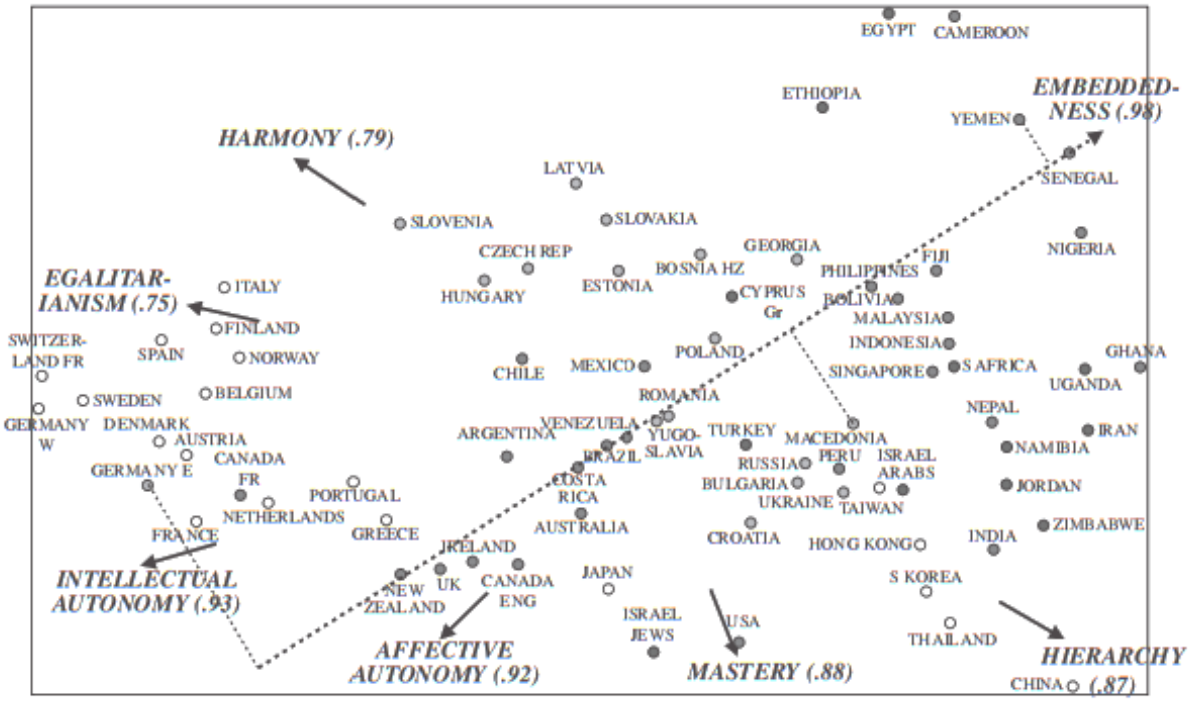

Figure 1. Co-Plot Map representing Schwartz's dimensions. Retrieved from Schwartz (2006).

APPENDIX 3

Table 1. 55 BM Patterns by BMN (Gassmann et al., 2014)

N	Pattern name	Examples	Description
1	Add-on	Ryanair, SAP, Sega	The core offering is priced competitively, but there are numerous extras that drive the final price up. In the end, the costumer pays more than he or she initially assumed. Customers benefit from a variable offer, which they can adapt to their specific needs.
2	Affiliation	Amazon Store, Cybererotica, CDnow, Pinterest	The focus lies in supporting others to successfully sell products and directly benefit from successful transactions. Affiliates usually profit from some kind of pay-per-sale or pay-per-display compensation. The company, on the other hand, is able to gain access to a more diverse potential customer base without additional active sales or marketing efforts.
3	Aikido	Six Flags, The Body Shop, Swatch, Cirque du Soleil, Nintendo	Aikido is a Japanese martial art in which the strength of an attacker is used against him or her. As a BM, Aikido allows a company to offer something diametrically opposed to the image and mindset of the competition. This new value proposition attracts customers who prefer ideas or concepts opposed to the mainstream.
4	Auction	eBay, Winebid, Priceline, Google, Elance, Zopa, MyHammer	Auctioning means selling a product or service to the highest bidder. The final price is achieved when a particular end time of the auction is reached or when no higher offers are received. This allows the company to sell at the highest price acceptable to the customer. The customer benefits from the opportunity to influence the price of a product
5	Barter	Procter & Gamble, Pepsi, Lufthansa, Magnolia Hotels, Pay with a Tweet	Barter is a method of exchange in which goods are given away to customers without the transaction of actual money. In return, they provide something of value to the sponsoring organisation. The exchange does not have to show any direct connection and is valued differently by each party
6	Cash machine	American Express, Dell, Amazon Store, PayPal, Blacksocks, MyFab, Groupon	In the Cash Machine concept, the customer pays upfront for the products sold to the customer before the company is able to cover the associated expenses. This results in in- creased liquidity which can be used to amortise debt or to fund investments in other areas.
7	Cross selling	Shell, IKEA, Tchibo, Aldi, SANIFAIR	In this model, services or products from a formerly excluded industry are added to the offerings, thus leveraging existing key skills and resources. In retail especially, companies can easily provide additional products and offerings that are not linked to the main industry on which they were previously focused. Thus, additional revenue can be generated with relatively few changes to the existing infrastructure and assets, since more potential customer needs are met
8	Crowdfunding	Marillion, Cassava Films, Diaspora, Brainpool, Pebble Technology	A product, project or entire start-up is financed by a crowd of investors who wish to support the underlying idea, typically via the Internet. If the critical mass is achieved, the idea will be realized and investors receive special benefits, usually proportionate to the amount of money they provided.
9	Crowdsourcing	Threadless, Procter & Gamble, InnoCentive, Cisco, MyFab	The solution of a task or problem is adopted by an anonymous crowd, typically via the Internet. Contributors receive a small reward or have the chance to win a prize if their solution is chosen for production or sale. Customer interaction and inclusion can foster a positive relationship with a company, and subsequently increase sales and revenue.
10	Customer loyalty	Sperry & Hutchinson, American Airlines, Safeway Club Card, Payback	Customers are retained and loyalty assured by providing value beyond the actual product or service itself, i.e., through incentive-based programs. The goal is to increase loyalty by creating an emotional connection or simply rewarding it with special offers. Customers are voluntarily bound to the company, which protects future revenue.
11	Digitization	Spiegel Online, WXYC, Hotmail, Jones International University, CEWE Color, SurveyMonkey, Napster, Wikipedia, Facebook, Dropbox, Netflix, Next Issue Media	This pattern relies on the ability to turn existing products or services into digital variants, and thus offer advantages over tangible products, e.g., easier and faster distribution. Ideally, the digitization of a product or service is realized without harnessing the value proposition which is offered to the customer. In other words: efficiency and multiplication by means of digitization does not reduce the perceived customer value.
12	Direct selling	Vorwerk, Tupper- ware, Amway, The Body Shop,	Direct selling refers to a scenario whereby a company's products are not sold through intermediary channels, but are available directly from the

		Dell, Nestle Nespresso, First Direct, Nestlé Special.T, Dollar Shave Club, Nestlé BabyNes	manufacturer or service provider. In this way, the company skips the retail margin or any additional costs associated with the intermediates. These savings can be forwarded to the customer and a standardized sales experience established. Additionally, such close contact can improve customer relationships.
13	E- commerce	Dell, Asos, Zappos, Amazon Store, Flyeralarm, Blacksocks, Dollar Shave Club, Winebid, Zopa	Traditional products or services are delivered through online channels only, thus removing costs associated with running a physical branch infrastructure. Customers benefit from higher availability and convenience, while the company is able to integrate its sales and distribution with other internal processes.
14	Experience selling	Harley Davidson, IKEA, Trader Joe's, Starbucks, Swatch, Nestlé Nespresso, Red Bull, Barnes & Noble, Nestlé Special.T	The value of a product or service is increased with the customer experience offered with it. This opens the door for higher customer demand and commensurate increase in prices charged. This means that the customer experience must be adapted accordingly, e.g., by attuning promotion or shop fittings.
15	Flat rate	SBB, Buckaroo Buffet, Sandals Resorts, Netflix, Next Issue Media	In this model, a single fixed fee for a product or service is charged, regardless of actual usage or time restrictions on it. The user benefits from a simple cost structure while the company benefits from a constant revenue stream
16	Fractional ownership	Hapimag, Netjets, Mobility Carsharing, écurie25, HomeBuy	Fractional ownership describes the sharing of a certain asset class amongst a group of owners. Typically, the asset is capital intensive but only required on an occasional basis. While the customer benefits from the rights as an owner, the entire capital does not have to be provided alone
17	Franchising	Singer Sewing Machine, McDonald's, Marriott International, Starbucks, Subway, Fressnapf	The franchisor owns the brand name, products, and corporate identity, and these are licensed to independent franchisees who carry the risk of local operations. Revenue is generated as part of the franchisees' revenue and orders. The franchisees benefit from the usage of well known brands, know-how, and support
18	Freemium	Hotmail, Survey-Monkey, LinkedIn, Skype, Spotify, Dropbox	The basic version of an offering is given away for free in the hope of eventually persuading the customers to pay for the premium version. The free offering is able to attract the highest volume of customers possible for the company. The generally smaller volume of paying 'premium customers' generate the revenue, which also cross-finances the free offering
19	From-push-to-pull	Toyota, Zara, Dell, Geberit	This pattern describes the strategy of a company to decentralize and thus add flexibility to the company's processes in order to be more customer focused. To quickly and flexibly respond to new customer needs, any part of the value chain - including production or even research and development - can be affected.
20	Guaranteed availability	NetJets, PHH Corporation, IBM, Hilti, MachineryLink, ABB Turbo Systems	Within this model, the availability of a product or service is guaranteed, resulting in almost zero downtime. The customer can use the offering as required, which minimizes losses resulting from downtime. The company uses expertise and economies of scale to lower operation costs and achieve these availability levels.
21	Hidden revenue	JCDecaux, Sat.1, Metro Newspaper, Google, Facebook, Spotify, Zattoo	The logic that the user is responsible for the income of the business is abandoned. Instead, the main source of revenue comes from a third party, which cross-finances whatever free or low-priced offering attracts the users. A very com- mon case of this model is financing through advertisement, where attracted customers are of value to the advertisers who fund the offering. This concept facilitates the idea of 'separation between revenue and customer'
22	Ingredient branding	DuPont Teflon, W.L. Gore & Associates, Intel, Carl Zeiss, Shimano, Bosch	Ingredient branding describes the specific selection of an ingredient, component, and brand originating from a specific supplier, which will be included in another product. This product is then additionally branded and advertised with the ingredient product, collectively adding value for the customer. This projects the positive brand associations and properties on the product, and can increase the attractiveness of the end product
23	Integrator	Carnegie Steel, Ford, Zara, Exxon Mobil, BYD Auto	An integrator is in command of the bulk of the steps in a value-adding process. The control of all resources and capabilities in terms of value creation lies with the company. Efficiency gains, economies of scope, and lower dependencies from suppliers result in a decrease in costs and can increase the stability of value creation

24	Layer player	Dennemeyer, Wipro Technologies, TRUSTe, PayPal, Amazon Web Services	A layer player is a specialized company limited to the provision of one value-adding step for different value chains. This step is typically offered within a variety of independent markets and industries. The company benefits from economies of scale and often produces more efficiently. Further, the established special expertise can result in a higher quality process
25	Leverage customer data	Amazon Store, Google, Payback, Facebook, PatientsLikeMe, 23andMe, Twitter, Verizon Communications	New value is created by collecting customer data and pre- paring it in beneficial ways for internal usage or interested third-parties. Revenues are generated by either selling this data directly to others or leveraging it for own purposes, i.e., to increase the effectiveness of advertising
26	License	BUSCH, IBM, DIC 2, ARM, Duales System Deutschland, Max Havelaar	Efforts are focused on developing intellectual property that can be licensed to other manufacturers. This model, there- fore, relies not on the realization and utilization of knowledge in the form of products, but attempts to trans- form these intangible goods into money. This allows a company to focus on research and development. It also allows the provision of knowledge, which would otherwise be left unused and potentially be valuable to third parties
27	Lock-in	Gillette, Lego, Microsoft, Hewlett-Packard, Nestlé Nespresso, Nestlé BabyNes, Nestlé Special.T	Customers are locked into a vendor's world of products and services. Using another vendor is impossible without incur- ring substantial switching costs, and thus protecting the company from losing customers. This lock-in is either generated by technological mechanisms or substantial interdependencies of products or services
28	Long tail	Amazon Store, eBay, Netflix, Apple iPod/iTunes, YouTube	Instead of concentrating on blockbusters, the main bulk of revenues is generated through a 'long tail' of niche products. Individually, these neither demand high volumes, nor allow for a high margin. If a vast variety of these products are offered in sufficient amounts, the profits from resultant small sales can add up to a significant amount
29	Make more of it	Porsche, Festo Didactic, BASF, Amazon Web Services, Sennheiser Sound Academy	Know-how and other available assets existing in the company are not only used to build own products, but also offered to other companies. Slack resources, therefore, can be used to create additional revenue besides those generated directly from the core value proposition of the company
30	Mass customization	Dell, Levi's, Miadidas, PersonalNOVEL, Factory121, mymuesli, My Unique Bag	Customizing products through mass production once seemed to be an impossible endeavor. The approach of modular products and production systems has enabled the efficient individualization of products. As a consequence, individual customer needs can be met within mass production circumstances and at competitive prices
31	No frills	Ford, Aldi, McDonald's, Southwest Airlines, Aravind Eye care System, Accor, McFit, Dow Corning	Value creation focuses on what is necessary to deliver the core value proposition of a product or service, typically as basic as possible. Cost savings are shared with the customer, usually resulting in a customer base with lower purchasing power or purchasing willingness
32	Open BM	Valve Corporation, Abril	In open BMs, collaboration with partners in the ecosystem becomes a central source of value creation. Companies pursuing an open BM actively search for novel ways of working together with suppliers, customers, or complementors to open and extend their business
33	Open source	IBM, Mozilla, Red Hat, mondoBIOTECH, Wikipedia, Local Motors	In software engineering, the source code of a software product is not kept proprietary, but is freely accessible for anyone. Generally, this could be applied to any technology details of any product. Others can contribute to the product, but also use it free as a sole user. Money is typically earned with services that are complimentary to the product, such as consulting and support
34	Orchestrator	Procter & Gamble, Li & Fung, Nike, Bharti Airtel	Within this model, the company's focus is on the core competencies in the value chain. The other value chain segments are outsourced and actively coordinated. This allows the company to reduce costs and benefit from the suppliers' economies of scale. Furthermore, the focus on core competencies can increase performance
35	Pay per use	Hot Choice, Google, Ally Financial, Better Place, Car2Go	In this model, the actual usage of a service or product is metered. The customer pays on the basis of what he or she effectively consumes. The company is able to attract customers who wish to benefit from the additional flexibility, which might be priced higher

36	Pay what you want	One World Everbody Eats, NoiseTrade, Radiohead, Humble Bundle, Panera Bread Bakery	The buyer pays any desired amount for a given commodity, sometimes even zero. In some cases, a minimum floor price may be set, and/or a suggested price may be indicated as guidance for the buyer. The customer is allowed to influence the price, while the seller benefits from higher numbers of attracted customers, since individuals' willingness to pay is met. Based on the existence of social norms and morals, this is only rarely exploited, which makes it suitable to attract new customers.
37	Peer-to- peer	eBay, Craigslist, Napster, Couchsurfing, LinkedIn, Skype, Zopa, SlideShare, Twitter, Dropbox, Airbnb, TaskRabbit, RelayRides, Gidsy	This model is based on a cooperation that specializes in mediating between individuals belonging to an homogeneous group. It is often abbreviated as P2P. The company offers a meeting point, i.e., an online database and communication service that connects these individuals (these could include offering personal objects for rent, providing certain products or services, or the sharing of information and experiences).
38	Performance-based contracting	Rolls-Royce, Smartville, BASF, Xerox	A product's price is not based upon the physical value, but on the performance or valuable outcome it delivers in the form of a service. Performance based contractors are often strongly integrated into the value creation process of their customers. Special expertise and economies of scale result in lower production and maintenance costs of a product, which can be forwarded to the customer. Extreme variants of this model are represented by different operation schemes in which the product remains the property of the company and is operated by it
39	Razor and blade	Standard Oil Company, Gillette, Hewlett-Packard, Nestlé Nespresso, Apple iPod/iTunes, Amazon Kindle, Better Place, Nestlé Special.T, Nestlé BabyNes	The basic product is cheap or given away for free. The consumables that are needed to use or operate it, on the other hand, are expensive and sold at high margins. The initial product's price lowers customers' barriers to purchase, while the subsequent recurring sales cross-finance it. Usually, these products are technologically bound to each other to further enhance this effect
40	Rent instead of buy	Saunders System, Xerox, Block- buster, Rent a Bike, Mobility Carsharing, MachineryLink, CWS-boco, Luxusbabe, Flexpetz, Car2Go	The customer does not buy a product, but instead rents it. This lowers the capital typically needed to gain access to the product. The company itself benefits from higher profits on each product, as it is paid for the duration of the rental period. Both parties benefit from higher efficiency in product utilization as time of non-usage, which unnecessarily binds capital, is reduced on each product
41	Revenue sharing	CDnow, HubPages, Apple iPhone/AppStore, Groupon	Revenue sharing refers to firms' practice of sharing revenues with their stakeholders, such as complementors or even rivals. Thus, in this BM, advantageous properties are merged to create symbiotic effects in which additional profits are shared with partners participating in the extended value creation. One party is able to obtain a share of revenue from another that benefits from increased value for its customer base
42	Reverse engineering	Bayer, Pelikan, Brilliance China Auto, Denner	This pattern refers to obtaining a competitor's product, taking it apart, and using this information to produce a similar or compatible product. Because no huge investment in research or development is necessary, these products can be offered at a lower price than the original product
43	Reverse innovation	Logitech, Haier, Nokia, Renault, General Electric	Simple and inexpensive products, that were developed within and for emerging markets, are also sold in industrial countries. The term 'reverse' refers to the process by which new products are typically developed in industrial countries and then adapted to fit emerging market needs
44	Robin hood	Aravind Eye Care System, One Laptop per Child, TOMS Shoes, Warby Parker	The same product or service is provided to 'the rich' at a much higher price than to 'the poor'. Thus, the main bulk of profits are generated from the wealthy customer base. Serving 'the poor' is not profitable per se, but creates economies of scale, which other providers cannot achieve. Additionally, it has a positive effect on the company's image.
45	Self- service	McDonald's, IKEA, Accor, Mobility Carsharing, BackWerk, Car2Go	A part of the value creation is transferred to the customer in exchange for a lower price of the service or product. This is particularly suited for process steps that add relatively little perceived value for the customer, but incur high costs. Customers benefit from efficiency and time savings, while putting in their own effort. This can also increase efficiency, since in some cases, the customer can execute a value- adding step more quickly and in a more target-oriented manner than the company

46	Shop-in- shop	Tim Hortons, Tchibo, Deutsche Post, Bosch, MinuteClinic	Instead of opening new branches, a partner is chosen whose branches can profit from integrating the company's offerings in a way that imitates a small shop within another shop (a win-win situation). The hosting store can benefit from more attracted customers and is able to gain constant revenue from the hosted shop in the form of rent. The hosted company gains access to cheaper resources such as space, location, or workforce
47	Solution provider	Lantal Textiles, Heidelberger Druckmaschinen, Tetra Pak, Geek Squad, CWS-boco, Apple iPod/iTunes, 3M Services	A full service provider offers total coverage of products and services in a particular domain, consolidated via a single point of contact. Special know-how is given to the customer in order to increase his or her efficiency and performance. By becoming a full service provider, a company can prevent revenue losses by extending their service and adding it to the product. Additionally, close contact with the customer allows great insight into customer habits and needs which can be used to improve the products and services
48	Subscription	Blacksocks, Netflix, Salesforce, Jamba, Spotify, Next Issue Media, Dollar Shave Club	The customer pays a regular fee, typically on a monthly or an annual basis, in order to gain access to a product or service. While customers mostly benefit from lower usage costs and general service availability, the company generates a more steady income stream
49	Supermarket	King Kullen Grocery Company, Merrill Lynch, Toys“R”Us, The Home Depot, Best Buy, Fressnapf, Staples	A company sells a large variety of readily available products and accessories under one roof. Generally, the assortment of products is large but the prices are kept low. More customers are attracted due to the great range on offer, while economies of scope yield advantages for the company
50	Target the poor	Grameen Bank, Arvind Mills, Bharti Airtel, Hindustan Unilever, Tata Nano, Walmart	The product or service offering does not target the premium customer, but rather, the customer positioned at the base of the pyramid. Customers with lower purchasing power benefit from affordable products. The company generates small profits with each product sold, but benefits from the higher sales numbers that usually come with the scale of the customer base
51	Trash-to- cash	Duales System Deutschland, Freitag lab.ag , Greenwire, Emeco, H&M	Used products are collected and either sold in other parts of the world or transformed into new products. The profit scheme is essentially based on low-to-no purchase prices. Resource costs for the company are practically eliminated, whilst the supplier's waste disposal is either provided, or associated costs are reduced. This also addresses customers’ potential environmental awareness ideals
52	Two-sided market	Diners Club, JCDecaux, Amazon Store, eBay, Metro Newspaper, Priceline, Google, Facebook, MyHammer, Elance, Zattoo, Groupon	A two-sided market facilitates interactions between multiple interdependent groups of customers. The value of the platform increases as more groups or as more individual members of each group are using it. The two sides usually come from disparate groups, e.g., businesses and private interest groups
53	Ultimate luxury	Lamborghini, Jumeirah Group, MirCorp, The World, Abbot Downing	This pattern describes the strategy of a company to focus on the upper side of society's pyramid. This allows a company to distinguish its products or services greatly from others. High standards of quality or exclusive privileges are the main focus to attract these kinds of customers. The necessary investments for these differentiations are met by the relatively high prices that can be achieved - which usually allow for very high margins
54	User designed	Spreadshirt, Lulu, Lego Factory, Amazon Kindle, Ponoko, Apple iPhone/AppStore, Createmytattoo, Quirky	Within user manufacturing, a customer is both the manufacturer and the consumer. As an example, an online plat- form provides the customer with the necessary support in order to design and merchandise the product, e.g., product design software, manufacturing services, or an online shop to sell the product. Thus, the company only supports the customers in their undertakings and benefits from their creativity. The customer benefits from the potential to realize entrepreneurial ideas without having to provide the required infrastructure. Revenue is then generated as part of the actual sales
55	White Label	Foxconn, Riche- lieu Foods, Printing-In-A-Box	A white label producer allows other companies to distribute its goods under their brands, so that it appears as if they are made by them. The same product or service is often sold by multiple marketers and under different brands. This way, various customer segments can be satisfied with the same product

Note: Modified from Gassmann et al. (2014)

APPENDIX 4

Table 1. Classification List of BM Configurations according to the 5-V Framework

Main driver	Number	Name	Description	Secondary value drivers	Examples
Configurations linked to Value Proposition	VP1	Brokerage	bring together buyers and sellers and facilitate transactions	Value Capture and Value Segment	Orbitz Worldwide, Century21 Real Estate
	VP2	Collaboration platforms	provide a platform (a tool kit and an information environment) for collaboration between enterprises	Value Segment	Podio
	VP3	Cool brands	use a high-end brand marketing for products or services either singly or with expert partners	Value Network and Value Configuration	NIKE
	VP4	Crowd sourcing	obtain services, ideas, or content by soliciting contributions from a large group of external actors, and especially from online communities. Members (customers or partners) add information into a basic environment and thereby create value for one another	Value Segment and Value Network	Wikipedia, YouTube
	VP5	Experience destination	attract customers through a carefully designed environment that increases the value of the product/service offered	Value Configuration and Value Segment	NIKE Town, LEGOLAND, Barnes and Noble
	VP6	Fast follower	under-price competitors and leverage marketing to persuade customers that your offering is equivalent	Value Segment and Value Configuration	MCI WorldCom with AT&T
	VP7	Full service provider	provide a total and complete coverage of services in one particular area (e.g. financial, health)	Value Configuration and Value Segment	Alberta Health Services, Geek Squad
	VP8	Incomparable products/services	exploit proprietary technology to offer unique products/services that command high margins	Value Configuration	Genzyme, Polaroid in the 60s
	VP9	Infomediary	collector/and process information for other in regards to market information, products, producers and consumers	Value Network and Value Configuration	Edmund
	VP10	Mass-customized commodity	customized model options along with competitive prices and fast delivery	Value Configuration and Value Segment	Dell
	VP11	No frills	offer low price, low service/product and standardized version of a traditionally high-end offering	Value Configuration and Value Segment	Ryanair
	VP12	Peer to peer	offer a platform for individuals belonging to homogeneous group so that they can share information and experiences or offer personal items	Value Segment	Airbnb, Zopa
	VP13	Price-reduction bundling	packaging related product together. The price of the package deal is lower than the sum of the prices of the single products or services	Value Configuration	Fast food value meals
	VP14	Quality selling	sell high quality products for premium prices. This configuration comes in two variants: producing quality products and reselling quality products	Value Segment	LEGO, Saks Fifth Avenue
	VP15	Selling product performance	rather than sell product ownership, sell the performance that the product fulfills (e.g. time unit, distance unit)	Value Segment and Value Capture	Rolls Royce engines, Zipcar
	VP16	User design	the customers design the products on their own through the company's online platform and infrastructure. The company gets a fee for every product sold, thus benefiting from the customers' creativity. The customers can develop their ideas without having to create any infrastructure	Value Configuration and Value Capture	Lulu.com, LegoFactory

	VP17	Trusted advisor	stay on top of the information loop and provide customers with answers to complex questions	Value Segment	McKinsey, Merrill Lynch
	VP18	Trusted operation	provide predictable operations that carry big consequences for failure	Value Segment	Rolls Royce, State Street
	VP19	Trusted product/service leadership	ensure long-lasting customer relationships through a platform with a continuous upgrade path	Value Segment and Value Configuration	Teradyne
	VP20	Value added reseller	focus on added value in sales and service while offering a complete selection of readily available products in a focus category for attractive prices	Value Segment and Value Capture	Toys R Us, Berkshire Computer
	VP21	Value bundling	offer a package of acceptable quality goods and services to form a single unique offering. The price of the unique offering is higher than the sum of the prices of the single products or services	Value Segment and Value Configuration	Omnicom, ModusLink Global Solutions
	VP22	Value chain coordinator	provide transaction coordination services and optimization of the communicational and organizational workflows for all parties involved in the same value chain	Value Network and Value Segment	Celarix, PrintConnect.com
	VP23	Value chain service provider	focus on a specific function in the value chain, such as electronic payments or logistics, with the intention to serve a number of different value chains in several industries	Value Configuration	PayPal, UPS
Configurations linked to Value Segment	VS1	Breakthrough markets	invest in opening new markets to gain at least a temporary monopoly	Value Proposition and Value Configuration	AIG Insurance
	VS2	Customer focused	focus on the customer needs and decentralize the infrastructure management and the product innovation activities	Value Configuration and Value Network	Zara
	VS3	Free for advertising	offer free products and services through a platform and make revenues from selling advertising space	Value Capture and Value Proposition	Facebook, Google
	VS4	Multi-sided platforms	Multisided platforms create value by facilitating interactions between two or more distinct but interdependent groups of customers	Value Configuration and Value Proposition	Nintendo, Google
	VS5	Robin Hood	the same product or service is provided to high-income customers at a much higher price than to the low-income customers. Serving the low-income segment is not profitable per se, but creates economies of scale, which other providers cannot achieve	Value Proposition	TOM'S Shoes, Warby Parker
	VS6	Round up buyers	buyers are rounded up to gain purchase discounts and thereby attractive prices	Value Proposition and Value Network	Costco
	VS7	Target the poor	the product or service offering does not target the premium customer, but rather the customer positioned at the base of the pyramid. Benefit from the higher sales numbers that usually come with the scale of the customer base	Value Proposition and Value Configuration	Grameen Bank, WalMart
	VS8	Ultimate luxury	target high-income customers with high quality, high status, luxury products	Value Proposition	Lamborghini, Jumeirah Group
Configurations linked to Value Configuration	VCo1	Branded reliable commodity	Welldesigned brand marketing is used to attract customers in order to earn a small premium in price for an efficiently produced commodity	Value Network	Goodyear, Heinz tomato sauce
	VCo2	Channel maximization	product is distributed through as many channels as possible to create the broadest distribution possible	Value Segment and Value Network	Coca Cola, Nestlé
	VCo3	Core focused	focus on very core competencies of the company (e.g. customer relationship activities) and outsource all others (e.g. R&D, manufacturing, logistics activities)	Value Configuration and Value Network	Mobile Telco, Private banking
	VCo4	Disintermediation	deliver a product or a service directly to the customer rather than through intermediary channels	Value Proposition	Dell

	VCo5	E-mall/mall	a constellation of shops or e-shops, usually a common umbrella having a well-known and trusted brand	Value Proposition	eBay, Walmart
	VCo6	E-procurement/ procurement	tendering and procurement of goods and services by leveraging suppliers against each other in order to reduce the cost of procurement	Value Capture	Public invitation to tender
	VCo7	E-shop/shop	Customers will pay premium prices for broad selection, better information, and fast delivery conveyed under one roof or web site	Value Proposition	ASOS
	VCo8	External sales force	direct sale through an aggressive external sales force motivated by pyramid commission structures. Word of mouth is used to reach the customers	Value Segment and Value Network	Mary Kay, Vorwerk
	VCo9	Integrator	be in command of the bulk of the steps in a given value chain by controlling all resources and capabilities needed to create value	Value Capture	Zara, Ford
	VCo10	Reverse innovation	cheap products created within and for emerging markets are also repackaged and resold in developed nations	Value Proposition	Nokia, Renault
	VCo11	Self-service	customers perform some tasks of the value creation process in exchange for a lower price. Tasks usually add low value for the customers, but generate high costs for the company	Value Segment and Value Capture	Ikea, McDonald's
	VCo12	Trade show	leave marketing or other value chain functions (payment, logistics, ordering) to a 3rd party with a well-known brand name	Value Proposition and Value Network	Alibaba, Exhibition fair
	VCo13	Trash to cash	for the sake of sustainability, used products or materials are reused in another value chain or recycled and sold as new products	Value Proposition	H&M
	VCo14	White label	a product created by one company is packaged and sold by multiple marketers under varying brand names so that different customer segments can be served	Value Segment and Value Network	Foxconn
Configurations linked to Value Network	VN1	Adaptive	create an "ecosystem" by establishing its technologies as the basis for a platform of innovation for the value chain and benefit from the investments of others on the platform	Value Configuration	Apple IPhone
	VN2	Affinity club	the company partners with membership associations and other affinity groups in order to offer a product or other benefits (discounts, points) exclusively to the company's members	Value Proposition and Value Segment	MBNA affinity cards, Payback
	VN3	Barter	exchange of products or services among partners with no transfer of money. Partners get a mutual benefit from bartering. Products and services exchanged are often valued differently by the partners themselves	Value Segment and Value Capture	Magnolia hotels, Pay with a Tweet
	VN4	Content creator	provide content (e.g. information, digital products and services) via intermediaries	Value Configuration and Value Proposition	Bloomberg L.P
	VN5	Crowd funding	get the financing of an idea (project, product, start up) from the general public. Investors support the underlying idea by providing zero-interest financial resources. Then, they receive special benefits if the critical mass is achieved and the idea is realized	Value Capture and Value Segment	Pebble Technology
	VN6	De facto standard	license a proprietary component across industries to establish it as the dominant design	Value Proposition and Value Configuration	SHARP flatpanels
	VN7	Franchising	the owner (franchisor) of a product, service, brand name or method obtains distribution through licensing to affiliated dealers (franchisees) who gain an advantage from a well-known brand name and franchisor's know-how and support	Value Configuration and Value Proposition	McDonald's, Starbucks
	VN8	Inside-out	sell or license own developed R&D, i.e., intellectual properties or technologies which are not used or underused inside the company	Value Proposition and Value Configuration	GlaxoSmithKline

	VN9	Integrated	routinely utilize external sources to fuel the BM and unused ideas are allowed to flow outside to others' BMs. The company becomes a system integrator of internal and external technologies	Value Configuration	Procter & Gamble
	VN10	Outside-in	gather value (e.g. information) from external sources, such as innovation partners and research communities	Value Configuration	Procter & Gamble
Configurations linked to Value Capture	VCa1	Bait and hook	offer customers an inexpensive or free initial product and then have pay more for additional related products	Value Proposition and Value Segment	Gillette, HP inkjet
	VCa2	Cell phone	offer different plans in relation to a product featuring a range of prices depending on varying levels of usage	Value Proposition and Value Segment	Sprint, Mobile Telco
	VCa3	Commission	fees levied on transactions based on the size of the transaction	Value Proposition and Value Segment	Virtual Mall
	VCa4	E-auction / auction	web-based or traditional auction with traditional bidding mechanisms	Value Proposition and Value Segment	eBay
	VCa5	Fractionalization	allow customers to own part of a product, but enjoy many of the benefits of full ownership for a fraction of the price	Value Proposition and Value Segment	time-sharing condos, NetJets
	VCa6	Freemium	customers get basic offerings for free and then pay additional offerings if they desire. The large customer base is subsidized by a small and higher paying one	Value Segment and Value Proposition	Skype
	VCa7	Freemium upside-down	The opposite of the Freemium model, the large customer base subsidizes the small base	Value Segment and Value Proposition	Insurance companies
	VCa8	Instant gratification	make money on high-priced instalment credit by providing a split payment option to customers who can't afford the whole payment immediately	Value Proposition and Value Segment	Capital One
	VCa9	Leasing	make products affordable by renting rather than outright selling them	Value Proposition and Value Segment	Xerox
	VCa10	Pay-as-you-go	charge the customer for metered services based on actual usage	Value Proposition and Value Segment	PG&E
	VCa11	Pay what you want	customers set the price for a given product or service so that companies can attract a wide customer base. It is crucial that the customers understand the real value of the product or service to be priced	Value Proposition and Value Segment	NoiseTrade, Humble Bundle
	VCa12	Reverse auction	set a ceiling price for a product and have potential customers bid the price down	Value Proposition and Value Segment	Elance.com
	VCa13	Reverse bait and hook	offer a low-margin product at low or no cost to encourage sales of the initial highermargin product	Value Proposition and Value Segment	Amazon Kindle
	VCa14	Subscription club	charge the customer a subscription fee (e.g. fixed, daily monthly, or annual) to gain access to a product or service	Value Proposition and Value Segment	Costco, Netflix
	VCa15	The long tail	sell a wide range of products in low quantity	Value Proposition and Value Segment	LEGO, iTunes
	VCa16	Upfront payment	have the customer pay up front and generate high profits by maintaining low inventory	Value Configuration	Amazon.com

Note. Modified from Taran et al. (2016)

APPENDIX 5

Table 1. BM Patterns Grouped by Primary Value Drivers

Primary Value Driver	Digital BM configurations
Value Proposition	Affiliates
	Custom Content
	Cross-selling (Cross bundling)
	Crowd Sourcing
	Customer Data Monetization
	Edufication
	Expense Management
	Expertise Monetization
	Facilitator (Solution Provider)
	Gamification
	Independent Consultant
	Infomediary (Content aggregator)
	License
	Low-coster
	Mass Customization (Dynamic Packaging)
	Meta-booking Platform
	Metasearch Platform
	Modular Solution
	On-the-go (Mobile First)
	Rent instead of Buy
	SaaS
	Sharing Platform
	Travel Commerce Platform
	Trusted Service Leader (“big players”)
	Turn-key Solution
Value Segment	Analytics & Connections
	Club (Small Niche)
	First Discoverer
	Ultimate Luxury
	Virtual Community
Value Configuration	Disintermediation
	E-commerce
	OTM
	OTA
	Self-service
	Ultimate Outsourcing
	Unsold (distressed) inventory
	White Label
Value Network	Accelerators / Incubators
	Affiliate Network
	Affinity Club
	Crowd investing / crowdfunding platform
	Deal of the Day (Daily Deal)
	Ecosystem Creator
	Open Access / Open Source
	Venture Capitalists
Value Capture	Auction
	Barter
	Display Advertising
	Freemium
	Hide Advertising
	No win, no fee
	Subscription (Membership)

Note: BM patterns are organized based according to the 5-V framework (Taran et al., 2016)