# BUSINESS MODEL COMPLEMENTARITY AND THE FACTORS THAT DETERMINE IT IN TOURISM BUSINESS FORMATIONS: THE THEORETICAL ASPECT

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Abstract. In order to reveal the complementarity of business models, the factors that determine it in incoming tourism, and to prepare the conceptual model, the following discussion questions should be answered (the research problem is formulated by presenting questions in theoretical context): what is a business model and its structure?; what is business model complementarity?; what traits and identification characteristics are characteristic of it?; what factors determine business model complementarity in incoming tourism? The aim of the research — theoretically substantiate the traits and characteristics of business model complementarity and the factors that determine it in incoming tourism by preparing a conceptual model. Research methods: systematic analysis of scientific literature, comparative analysis. The key results of the research: the concepts and structures of a business model, complementarity and business model complementarity are defined by systematising conceptual insights, interorganizational relations and complementarity; according to the systemic point of view that explains the result of the interaction between an incoming tourism company business model and its structural elements, the conceptual model of business model complementarity and the factors that determine it in incoming tourism, are presented.

Keywords: business model, complementarity, incoming tourism.

#### Introduction

The complementarities perspective is not itself a theory of organizational design or performance but rather an approach to help researchers to understand relational phenomena and how the relationships between parts of a system create more value than individual elements of the system (Ennen & Richter, 2010). This approach helps to enrich understanding of how different practices and strategies are combined and recombined, and how such combinations shape subsequent performance (Ballot, Fakhfakh, Galia, & Salter, 2011).

The phenomenon of business model complementarity, as the research object, only begins to find its place in the scientific discussions. Fragmented researching

of a business model or its element complementarity and the existing variety of definitions do not reveal the individuality of the complementarity phenomenon. The analysis of information sources on the management sciences allow us to state that research on business model complementarity is performed only fragmentarily and passively, and the complementarity itself is deemed a somewhat new object of research (Ennen & Richter, 2010; Schallmo & Brecht, 2010; Wirtz, Pistoia, Ullrich, & Göttel, 2015). The research that would examine the factors that determine the business model complementarity, identify the nature, intensity, orientation, and identification, is missed.

The research problem is formulated by presenting questions in theoretical context: what is a business model and its structure?; what is business model complementarity?; what traits and identification characteristics are characteristic of it?; what factors determine business model complementarity in incoming tourism?

*The object of the research* – business model complementarity and the factors that determine it.

The aim of the research – theoretically substantiate the traits and characteristics of business model complementarity and the factors that determine it in incoming tourism by preparing a conceptual model.

Tasks of the research:

- 1. To reveal the concept and structure of a business model;
- 2. To analyse the concept of business model complementarity and the factors that determine it in tourism business;
- 3. To present and describe the conceptual model of business model complementarity and of the factors that determine it in incoming tourism business.

Research methods: systematic analysis of scientific literature, comparative analysis. The analysis of scientific literature covered the search for theoretical and empirical scientific research papers and their content analysis in the following scientific databases: "EBSCO Publishing", "Emerald Management eJournals Collection", "Taylor & Francis Group", "Sciencedirect", others. The papers were selected according to the keywords: business model, complementarity, interorganizational ties, cooperation of business models, partnerships of business models, strategic choices, inbound tourism. The search selected papers that were of a conceptual nature and reflected some interaction between business elements and related to the discipline of management science for analysis. The analysed sources of scientific literature are included in the literature list.

## Concept of business model and its components

The concept of business model (BM) has become a global object that is constantly analysed by scientists and practitioners, it helps to strengthen the creation of value and directly affects the competitiveness of companies. In the recent years, the definition of business model (BM) in the global works of management science is usually explained as: cooperation of suppliers, clients and partners; certain business logic; creation of an offer of a new value; measure for the development of entrepreneurship when creating innovations, etc. (Zott, Amit, & Massa, 2011; Wirtz et al., 2015). Therefore, the author of this paper defines a business model as: a measure that helps to create a new value by uniting important elements inside and outside the company; a tool to identify and analyse the strategic choices of the company; and as a "frame" or a platform to analyse company relations, activities and their capabilities. The business model concept and its peculiarities are revealed in detail during the analysis of the business model structure and the elements that comprise it (Kinderis, 2018).

Structure of a business model is an integral part of the business model concept, this part in the scientific discussion and empiric works is usually presented as a certain set of elements (Osterwalder & Pigneur, 2010) that allow us to express business logic and the specifics of company activity, as well as to set their mutual relations in the system of business. The aforementioned scientists identify 4 blocks of business model structural elements and 9 elements that comprise them: product (value offers); consumer (consumer segment, distribution/presentation channels, relations with consumers); infrastructure and its management (essential partnerships, capacities: main resources, abilities, essential activities — value configuration); financial aspects (cost structure, income flows). The exclusion of the business model structure helps to clarify and show the interdependence and interaction of model elements, creating a new value for stakeholders.

# Business model complementarity and the factors that determine it in tourism business formations

According to Chesbrough (2010), Grandori and Furnari (2009), as well as Wirtz et al. (2015), one of the most important premises of business development in the tense and rapidly changing modern business environment is business model or their element interaction and its result – complementarity. Complementarity is a result of an interaction of homogeneous or heterogeneous units when mutual relations of individual units and their evolution create higher value than their separate functioning (Lokshin, Belderbos, & Carree, 2008; Grandori & Furnari, 2009).

Complementarity is characterized by two-way orientation (symmetric interaction and its outcome), though the intensity of the direction depends on the importance of the particular unit. Complementarity may be due to the similarities or differences between the units of interaction. Porter and Siggelkow (2008) and Cavaco and Crifo (2014) have identified in their work that if two organizations with very similar business elements can achieve economies of scale and greater market power, they may not be able to create a synergy effect. Conversely, by integrating different business elements, synergy capability is much higher. Thus, complementarity can have similar or different elements: strategic choices (key choices for companies in pursuit of strategic goals), business elements and tools (business model structure elements: resources, partners, activities, users, value propositions, distribution channels, customer relationships, cost and revenue). The more these elements and the more intensive interactions between different companies there are, the greater the chances of complementarity arise (Ennen & Richter, 2010). The works of Grandori and Furnari (2009) distinguish two types of complementarity, depending on the interrelationship between the elements of the interaction or the differences: symbiotic complementarity and pooled complementarity. Symbiotic complementarity occurs when value added is created by interacting with different elements, and pooled complementarity occurs when value added is created by interacting with similar elements. This classification of complementary of the scientists complements the statement that complementarity arises due to certain existing differences or similarities, and this shows its nature. In the paper, the complementarity of business models is analysed on a micro level, which reflects the result of interaction between two or more enterprises based on the logic of systemicity in inbound tourism. Micro-level complementarity occurs when two or more companies combine their activities, resources, and other business elements with a common, new and better possible outcome that cannot be achieved by acting alone or by eliminating existing shortcomings.

Complementarity is derived from the concept of the interaction result and is based on the access to theories on business models, interorganizational relations (business combination formation). The author analysed the scientific literature on the most typical types of tourism business combinations: tourism alliances and tourism clusters (Kavusana, Noorderhavenb, & Duysters, 2016; Lee, Wall, & Kovacs, 2015; Fundeanua, 2015), in order to further reveal the complementarity of business models for business, its recognition features and determinants. Summarizing the analysis of the scientific literature on business combinations - tourism alliances and clusters, it can be noted that these are the associations of organizations formed on the basis of a certain formal and informal interaction result based on mutual benefit - the implementation of strategic goals that cannot be achieved by any party acting separately. This interaction is considered to be complementary, which results in a new value generated.

The complementarity of business models is the result of the interaction between business model structure elements when their business models or individual elements of these models reinforce/highlight each other's advantages or reduce/eliminate disadvantages and, at the same time, create higher value than acting individually. The business models complementarity is attributed to certain traits and features of recognition. Complementary business models, due to their similarities and interactions, create a complex, adaptive business system. The complementarity of business models forms a specific social and economic value generation configuration across the business system (Porter & Siggelkow, 2008; Ennen & Richter, 2010; Cavaco & Crifo, 2014).

The analysis of the scientific literature has allowed us to distinguish features (situations) of complementarities of business models: obvious changes in a specific business activity or business model (increased value proposition, increased number of users), greater coherence between the activities of cooperating companies and their business models (configuration of activities, improved customer availability, consumer relations, more efficient use of resources, increased operational efficiency), faster application of innovations in activities (higher decision-making speed and higher competence). The characteristics (intensity, orientation, character in the context of strategic choices) and the recognition features depend on the size of the company, the company's dependence on a particular sector, the specificity of the sector, the orientation, type of business model, etc.

The complementarity of business models is the result of the interaction between the elements of corporate business modelling, so it is important to identify the factors that determine the emergence of complementarity because knowing them can accelerate the interaction process (Porter & Siggelkow, 2008; Ennen & Richter, 2010; Cavaco & Crifo, 2014). After analysing the works of researchers (Buhalis & Law, 2008; March & Wilkinson, 2009) it can be argued that the complementarity of business models is influenced by changes in the external environment (technological, political-legal, socio-cultural, economic and natural-ecological - external factors) and changes in the internal structure of the organization (organizational, management, economic-financial, human, cultural, physical-technological - internal factors).

# Conceptual model of business model complementarity in incoming tourism

After performing the analysis of the scientific literature, it can be stated that incoming tourism as a sub-system of the tourism business system is also defined as a value creation system, including a totality of relations and connections among tourism sector entities that merge into formations of the respective form of cooperation and create distinctive tourism products in different geographic

regions. Usually the companies of tourism business that are operating in incoming tourism try to operate independently and tend to cooperate more only if they are faced with challenges (threats or possibilities), and combine their business models, e. g., the company that is providing travel planning and organization services cooperates with the company that provides transportation services, etc. (Baggio, Scott, & Cooper, 2010; Buhalis & Foerste, 2015). If the aforementioned cooperation is mutually beneficial, then it can be said that certain interaction of activities exists: more resources are mobilised, business logic is changed, new market segments are looked for, financially useless activities are dropped, etc. Therefore, mutual interaction of tourism companies in incoming tourism is possible between certain elements of business model structure and depends on the business situation and the business expansion needs of the companies themselves (Casadesus-Mansell & Ricart, 2010; and Wirtz et al., 2015). Strategic choices are the best solutions (alternatives) to achieve strategic objectives, which also indicate certain "limits" of the business model and affect the interaction of their elements in incoming tourism. Strategic choices relate to alternatives to solutions in all the structural elements of the business model (Casadesus-Masanell & Ricart, 2010; Haubro, Lomholt, Lueg, Nielsen, & Knudsen, 2015). Also certain strategic choices and the groups thereof appear in each structural element of the incoming tourism business model: the element – essential resources – is characterised by a strategic choice between physical resources and human, intellectual resources; the element – essential activities – is characterised by a strategic choice among marketing, sales network management and product creation, as well as assurance of its quality; the element – essential partnerships – is characterised by a strategic choice between cooperation for the elimination of deficiencies and failures and cooperation for the identification and reinforcement of advantages; the element – value proposition – is characterised by a strategic choice between the price, accessibility, economy and massification of the value proposition and an individualised, exceptional unique value proposition; the element - consumer segment – is characterised by a strategic choice between mass consumers and increase of sales volumes, as well as individual consumers, orientated at the exceptional value of the product; the element - distribution channel - is characterised by a strategic choice between indirect and direct sales channels and between IT channels and direct personal channels; the element – relations with consumers – is characterised by a strategic choice between non-repeating transactions (location of more new consumers) and repeating transactions (retention of current consumers); the element – cost structure – is characterised by a strategic choice between cost minimisation and the assurance of the value and uniqueness; the element – income flows – is characterised by a strategic choice between the emphasis on the income from the direct activity and the emphasis on the income generation from auxiliary and complementary activities Proceedings of the International Scientific Conference. Volume VI, May 24th -25th, 2019. 258-268

(Kracht & Wang, 2010; Granados, Gupta, & Kauffman, 2012; Bethapudi, 2013; Buhalis & Foerste, 2015).

The author of the paper, based on the systematic approach and the analysis of the scientific literature, presents a conceptual model of complementarity of business models and its determinants in inbound tourism (Fig. 1).

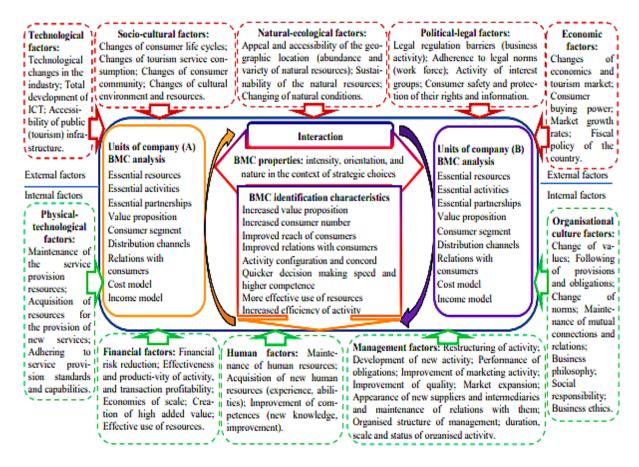


Figure 1 Conceptual model of business model complementarity (BMC) and of the factors that determine it in incoming tourism (Kinderis, 2018)

In the first (central) part of the model nine elements of company business models are discerned, in the dissertation they are equated to the analysis units of the company business model complementarity (BMC). Since the complementarity of company business models is researched at the same time, but only between two companies, therefore two companies "A" and "B" are displayed in the model. The result of an interaction between two structural elements (BMC analysis units) of company business models is deemed to be complementarity that is characterised by certain intensity (very weak, weak, medium, strong and very strong) and orientation (monodirectional, mutual directional) and acquires a certain nature (complementarity due to similarities or differences: "symbiotic", "accumulative") in the context of the earlier discerned strategic choices.

Also the BMC identification characteristics are presented in the conceptual model, these characteristics allow us to ascertain complementarity between business models of researched companies: increased value proposition, increased number of consumers, improved reach of consumers, improved relations with consumers, activity configuration and concord, quicker decision making and higher competence, more effective use of resources, increased economy of activity.

Part of this model is prepared according to the obtained findings by analysing the concepts of business model complementarity, theory on interorganizational connections and potential premises of complementarity in incoming tourism that are discussed in it (Dyer & Singh, 1998; Osterwalder & Pigneur, 2010; Casadesus-Mansell & Ricart, 2010; Schallmo & Brecht, 2010; Ennen & Richter, 2010; Wirtz et al., 2015). In the presented model nine groups of strategic choices are discerned – one or two choices in each element/interaction unit of business model structure.

In the second part of the presented model two factor groups of are discerned, they determine the complementarity of business models for incoming tourism companies: internal and external factors. This section of the model is prepared by taking into consideration the obtained findings and analysing the theory on business models and interorganizational relations (tourism alliances, tourism clusters), and the structure of incoming tourism. The author of the dissertation decided to present the following classification of factors that were discerned in the theoretical discussion, taking into consideration recommendations provided in the works of scientists: Ritchie (2004), Buhalis and Law (2008), Kracht and Wang (2010) and Eungblut (2011). The group of external factors is comprised of: technological, socio-cultural, natural-ecological, political-legal and economic factors, and the group of internal factors is comprised of: economic-financial, human, physical-technological, management, organizational culture, and the size and status of the company. The aforementioned factors affect business models, their activity and interaction in incoming tourism in one way or another. The discerned factors can disrupt, alter or promote the occurrence of complementarity in incoming tourism.

#### **Conclusion**

1. A business model is described more like a logical structure of actions and elements that helps to create a new value; a tool for the identification of strategic choices of the organization and the analysis of the relations of companies, activities and their capabilities. Business model structure is an integral part of the business model concept that in the scientific discussion and empiric works is usually presented as a set of certain elements: value

- proposition, consumer segment, distribution channels, relations with consumers, essential partnerships, main capabilities and resources, essential activities, cost structure and income flows. This structure of the business model allows us to express the business logic and reflect the specifics of the company activity in the best way.
- Companies that form functioning partnerships usually already have their 2. certain (basic) complementarity that is considered to be the result of interaction between the elements of company business model structure, where their business models or individual elements of these models strengthen/emphasize advantages of each other or reduce/eliminate disadvantages and together create higher value than when functioning individually. Complementary business models create a complex adaptive business system due to the interaction of their similarities and differences, and form a distinctive configuration for the generating of the social and economic value. Certain properties are characteristic of business model complementarity in the context of strategic choices (nature, orientation and intensity) and the characteristics of identification. Business model complementarity is affected by changes in the external environment external factors –, as well as by the internal environments of the organization - internal factors.
- 3. The aforementioned model is comprised of three main components: analysis units of business model complementarity business model elements; a system of company business model complementarity criteria that helps to determine certain characteristics of complementarity in the context of strategic choices and characteristics of identification; as well as external and internal factors that determine the complementarity of company business models.

The first component of the model – business model analysis units – is comprised of: essential resources, essential activities, essential partnerships, value proposition, the consumer segment, distribution channels, relations with consumers, the cost model and the income model. Analysis (interaction) units are a premise and at the same time a field for the manifestation of complementarity between different company business models in incoming tourism.

The second component of the model is comprised of the characteristics of company business model complementarity: intensity (very weak, weak, average, strong and very strong), orientation (monodirectional, bidirectional), a nature ("symbiotic" and "accumulative") in the context of strategic choices and the characteristics of identification (increased value proposition, increased number of consumers, improved reach of consumers, improved relations with consumers, activity configuration and concord, faster decision making and higher competence, more effective use of resources, increased economy of activity).

The third element of the model is comprised of the factors that determine the complementarity of company business models in incoming tourism. Two groups of factors are discerned: internal and external factors. The group of external factors is comprised of: technological, socio-cultural, natural-ecological, political-legal and economic factors, and the group of internal factors is comprised of: economic-financial, human, physical-technological, management, organizational culture, as well as the size and status of the company.

#### References

- Baggio, R., Scott, N., & Cooper, C. (2010). Network science a review with a focus on tourism. *Annals of Tourism Research*, *37*(3), 802–827.
- Ballot, G., Fakhfakh, F., Galia, F., & Salter, A. (2011). The fateful triangle: Complementarities in performance between product, process and organizational innovation in France and the UK. *Research Policy*, 44(1), 217-232.
- Bethapudi, A. (2013). The Role of ICT in Tourism Industry. *Journal of Applied Economics and Business*, 1(4), 67-79.
- Buhalis, D., & Foerste, M. (2015). SoCoMo Marketing for Travel and Tourism: empowering co-creation of value. *Journal of Destination Marketing & Management*. DOI: http://dx.doi.org/10.1016/j.jdmm.2015.04.001
- Buhalis, D., & Law, R. (2008). Progress in informatikon technology and tourism management: 20 years on and 10 years after the Internet-The state of eTourism research. *Tourism management*, 29(4), 609-623.
- Casadesus-Masanell, R., & Ricart, J.E. (2010). From strategy to business models and onto tactics. *Long Range Planning*, 43(2-3), 195-215.
- Cavaco, S., & Crifo, P. (2014). CSR and Financial Performance: Complementarity between Environmental, Social and Business Behaviours. *Applied Economics*, 46(27), 3323-3338.
- Chesbrough, H. (2010). Business model innovation: opportunities and barriers. *Long Range Planning*, 43(2/3), 354–363.
- Dyer, J., & Singh, H. (1998). The relational view: Cooperative strategy and sources of interorganizational competitive advantage. *Academy of Management Review*, 23(4), 660–679.
- Ennen, E., & Richter, A. (2010). The Whole is More Than the Sum of Its Parts-Or is It? A Review of the Empirical Literature on Complementarities in Organizations. *Journal of Management*, 36(1), 207-233.
- Eungblut, S. (2011). *PESTLE and Porter's 5 Forces Analysis: Two Crucial Concepts for Business Leaders & Sales People*. Retrieved from http://sterlingchase.com/2011/09/27/pestle-and-porters-5-forces-analysis-two-crucial-concepts-for-business-leaders-salespeople/3/
- Fundeanua, D. (2015). Innovative Regional Cluster, Model of Tourism Development. *Procedia Economics and Finance*, 23, 744 749.
- Granados, N., Gupta, A., & Kauffman, R.J. (2012). Online and offline demand and price elasticities: Evidence from the air travel industry. *Information Systems Research*, 23(1), 164-181.
- Grandori, A., & Furnari, S. (2009). Types of Complementarity, Combinative Organization Forms and Structural Heterogeneity: Beyond Discrete Structural Alternatives. In: M.

- Morroni (Ed.). Corporate Governance, Organization and the Firm: Co-operation and Outsourcing in a Globalised Market (63-86). London, UK: Edward Elgar.
- Haubro, A.P., Lomholt, H.A., Lueg, R., Nielsen, S.V., & Knudsen, U. (2015). Tactical and strategic choices in business models: evidence from a Danish fashion outlet. *Journal of Fashion Marketing and Management*, 19(3), 274-289.
- Kavusana, K., Noorderhavenb, N.G., & Duysters, G.M. (2016). Knowledge acquisition and complementary specialization in alliances: The impact of technological overlap and alliance experience. *Research Policy*, 45, 217-233.
- Kinderis, R. (2018). Business model complementarity in inbound tourism. Doctoral Dissertation Summary. *European Journal of Tourism Research*, 19, 140-144.
- Kracht, J., & Wang, Y. (2010). Examining the tourism distribution channel: evolution and transformation. *International Journal of Contemporary Hospitality Management*, 22(5), 736-757
- Lee, A., Wall, G., & Kovacs, J. (2015). Creative food clusters and rural development through place branding: Culinary tourism initiatives in Stratford and Muskoka, Ontario, Canada. *Journal of Rural Studies*, 39, 133 144.
- Lokshin, B., Belderbos, R., & Carree, M. (2008). The productivity effects of internal and external R&D: evidence from a dynamic panel data model. Oxford Bulletin of Economics and Statistics, 70, 399–413.
- March, R., & Wilkinson, I. (2009). Conceptual tools for evaluating tourism partnerships. *Tourism Management*, 30(3), 455–462.
- Osterwalder, A., & Pigneur, Y. (2010). Business Model Generation A Handbook for Visionaries, Game Changers and Challengers. New Jersey: John Wiley and Sons, Inc., Hoboken.
- Porter, M., & Siggelkow, N. (2008). Contextuality within activity systems and sustainability of competitive advantage. *Academy of Management Perspectives*, 22, 34-56.
- Ritchie, B.W. (2004). Chaos, crises and disasters: a strategic approach to crisis management in the tourism industry. *Tourism management*, 25(6), 669-683.
- Schallmo, D.R.A., & Brecht, L. (2010). *Business Model Innovation in Business-to-Business Markets Procedure and Examples*. The Proceedings of the 3rd ISPIM Innovation Symposium. Canada: Quebec.
- Wirtz, B., Pistoia, A., Ullrich, S., & Göttel, V. (2015). Business models: Origin, development and future research perspectives. *Long Range Planning*, forthcoming: 1-19.
- Zott, C., Amit, R., & Massa, L. (2011). The business model: recent developments and future research. *Journal of Management*, *37*(4), 1019–1042.