
Searching Key Macro-Factors for Cooperation in Cross-Border Tourism: Institutional Matrix vs. PEST Concept

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Abstract:

Purpose: This study presents the concepts of identification and operationalization of key success factors of cross-border cooperation and their interpretation from the perspective of economics and management sciences.

Design/Methodology/Approach: The contribution is based on the three-stage research process, a qualitative assessment of the macro-environment factors. Concepts of the institutional matrix and the PEST method were used in the analysis.

Findings: Four key elements of the macro environment were identified: state policy, focused on the development of cross-border tourism; tax policy; infrastructure; and the power of the economy. These factors, besides being elements of the institutional matrix for the cross-border tourism sector (economic perspective), they are also of key importance for cooperation success in the strategic context at the level of enterprise (management sciences perspective).

Practical Implications: The identified factors should be taken into account in designing public policies and strategies of enterprises.

Originality/Value: New knowledge of relevance from an economic and management sciences' perspective. The added value of this text is to direct the scientific discussion concerning reality to a two-dimensional plane of analysis, leading to joint conclusions.

Keywords: Economic regulation, policy regulation, tourism sector, PEST analysis.

JEL codes: L190, E610

Paper type: Research study.

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1. Introduction

The European Union (EU) has been supporting cross-border cooperation through programs such as Interreg for over 25 years (Capello *et al.*, 2018) or the creation of the Shengen area. Tourism is one of the main areas of this cooperation. Studies show that almost 100% municipalities involved in the cross-border cooperation are cooperating in the fields of tourism, culture and education (Kukovič and Haček 2018). In this light, it seems important to recognize the key success factors of cooperation (Pierscieniak, 2014). The tourist sector, like any other sector, operates in a market economy that operates under certain economic conditions. The market aspect is shaped by management mechanisms related to, among others, the strategies or strategic activities of tourism enterprises (Diakonidze, 2019; Marczak and Borzyszkowski, 2020). Their strategies implemented in the environment are supported by institutions (Guo *et al.*, 2019; Krawczyk-Sokolowska *et al.*, 2019; Seroka-Stolka *et al.*, 2016; Stec *et al.*, 2014).

As noted by Ostrom (2005), the weaker side of the institution's analysis is linking it with reality and identifying individual elements in relation to practice. The Nobel laureate proposes that the framework of individual, community, and social rules which concerns the operational definition of the level of analysis should be defined for each arena of the "institutional game". To meet this expectation, we propose the identification of the environment institutions that are key to the success of cross-border cooperation and to analyze their significance from two different perspectives, the so-called economic institutional matrix theory and management sciences using PEST analysis.

It is accepted in the scientific literature that a given phenomenon is analyzed from the perspective of one area of knowledge, which on the one hand allows it to be more fully understood, but it, on the other hand, limits its analysis to the concepts and concepts characteristic of a given science. This approach is not entirely accepted by practitioners who work in reality and do not stick to strict theoretical concepts in any one specific field of knowledge. In the light of these considerations, the purpose of the article is to identify and operationalize the key success factors of cross-border cooperation and interpret them from the perspective of economics and management sciences. In the theoretical context that we have adopted in this article for consideration, our concern for the macro-environmental elements has made both perspectives in the area of analysis interesting to us.

The paper is structured as follows: In the next section, we present the theoretical concepts of institutional matrix and institutional environment, indicating similarities and differences in the interpretation of the individual elements of the environment. Next, we present five case studies and analyse the example based on the key success factors of cooperation, comparing it with the general concepts of the key success factors of cooperation as elements of validation of our results. The final section draws conclusions based on the results of analysis.

2. Institutional Matrix vs. Strategic Analysis PEST

One of the possible concepts interpreting the existence of the institutional environment of entities on a macro scale is the "theory of the institutional matrix" (Kirdina, 2005; Nowakowski, 2013), whose aim is to present the spatial dimension of basic social institutions in co-creating mutual relationships. They facilitate the analysis of the driving forces behind the surface of any socio-economic phenomena. The interpretation of this concept boils down to the assumption that each sector of the economy operates under historically, politically and environmentally defined conditions, the main elements of which serve as the basis for the so-called institutional matrix (Bednar, 2018; Radieva, 2019; Sancho, 2017; Stankiewicz, 2012; Kirdina, 2012). The essence of this concept is to identify its main elements within 3 key areas: economic, political and ideological. The first two areas can be seen as the core of the institutional environment, created by institutions (offices and the way they operate) supporting economic reality, and having a direct impact on the areas of the state's functioning. The third element is a set of rules and ideologies that direct the operation of all institutions, referring to the role of state oversight (indirect influence on the areas of state functioning). In Europe, unlike China or India, there is a smaller role of ideological factor in favour of a greater overriding importance of economic factors.

The PEST method, relying on the diagnosis and identification of macro surrounding factors, constitutes a perfect supplementation for screenplay methods (Leyva, 2018). It is an expert method in which the authors' knowledge, experience and innovative approach are crucial for its efficiency and accuracy (Olmstead, 2002). This method divides the external factors into political, economic, social and cultural, and finally technological (Barkauskas and Jasinskas 2015).

The concepts of the institutional matrix and PEST's strategic analysis, although derived from different scientific area, are constructs describing the same phenomenon, i.e., the institutional environment on a macro scale. From an economic perspective, the enterprise is an element of the local environment, while as elements of the local environment they are the institutions in strategic analysis, directly supporting the company. Another perspective shows that the macro-environment in which the company operates from the perspective of management and economics can be defined in the same way. The same institutions are elements of macro-environment in both concepts. The consequence of this observation is the possibility of using economic knowledge to describe the phenomena in the perspective of the science of management and vice versa.

3. Research Methodology

The article uses the authors' assessment model based on the case study analysis method (Yin, 2017) and qualitative assessment of identified environmental factors.

Stage 1: In the first stage, a methodology of systematic literature review was used to look for research, identifying key factors for the success of cross-border cooperation. Targeted selection was made using the Google Scholar database (2010-2017), where, using advanced search, the words "transborder cooperation" OR "transborder collaboration", "tourist" were entered and 1920 records were returned. After an initial analysis of the titles and rejection of incomplete texts, 58 publications were qualified for the study, where, apart from scientific articles, Google Scholar reports and gray literature (Mahood *et al.*, 2014) were also included. After verifying the content, five case studies A, B, C, D and E were selected for analysis.

Case A: The paper assesses the impact of CBC projects by analyzing a protocol established in 2013 between the cities of Elvas and Badajoz, which induced the creation of the Eurocity Elvas-Badajoz (Castanho, 2017).

Methodology: There are 9 study cases. European case studies were described and analyzed, focusing on exploratory methodology based on the case study research method.

Critical Factors: (A1) Connectivity—movement between cities; (A2) Better life quality standards; (A3) A strong territorial strategy; (A4) Attracting young and talented people; (A5) Avoiding duplication of infrastructure; (A6) Common objectives and master plans; (A7) Increasing the sense of belonging; (A8) Stronger political commitment; (A9) Diverse infrastructure availability—Euro citizenship; (A10) Citizen involvement; (A11) Access to European funds; (A12) Political transparency and commitment; (A13) A stronger economy; (A14) Eurocity marketing and advertisement.

Case B: This case are the results of the project No SSH-2010-2.2-1- 266920 title EU External Borders and the Immediate Neighbours. The Finnish-Russian case study area was located at the north-eastern edge of the European Union territory and included the regions of Kymenlaakso and Etelä-Karjala on the Finnish side and the City of St. Petersburg and Leningrad oblast (Leningrad region) on the Russian side (Németh *et al.*, 2014).

Methodology: It included institutions like 'travel agencies in St Petersburg' or 'schools in Finland'. Total number is 175. Surveys and interviews carried out between October 2012 and September 2013 in the case study area, and the project database of the Southeast Finland – Russia ENPI CBC (2007-2013) Programme by using the social network analysis.

Critical Factors: (B1) fashion for tourism; (B2) the increased awareness of internationalization; (B3) proximity to the location of mutually-influential cities; (B4) good restaurants and cafes, accommodation, and spas, swimming pools, saunas as well as solariums; (B5) the increasing affluence of the population on the Russian side of the border; (B6) improved and extended border crossing stations as well as the enhancement of the auxiliary road infrastructure; (B7) the perception of products and services in Finland to be of more reliable quality and of higher standards; (B8) the more favourable prices of certain international brands in

particular on the Finnish side; (B9) tax refund for purchases covering a wide variety of products.

Case C: Research focused on Bosnia and Herzegovina border and analysing the potentials of the tourism sector, anticipated impacts on local development as well as requirements to the local self-government in order to materialize the generally high expectations of many municipalities on this topic (Gavrić and Davidović, 2011).

Methodology: Cross border cooperation near the Drina River, Sava River, which is a natural border between Bosnia and Herzegovina and Croatia (Srem district in Vojvodina, Serbia) by using desk research.

Critical Factors: (C4) awareness of Local Government Authorities of the benefits that tourism brings; (C5) activities of Local Government Authorities in decision making process and tourism development planning; (C6) citizens' acceptance for local level Tourism Development Programme; (C7) effective management of Tourism areas proclaimed by the Government; (C8) establishment of local and regional tourism organizations and charge; (C9) tourism taxes; (C10) utilization of revenues for further tourism development or infrastructure; (C11) creation of tourist offers based on local products and labour force.

Case D: The study aims to identify characteristic features of tourism development in the border regions of the Republic of Poland (the Warmian-Masurian voivodeship) and the Russian Federation, the Kaliningrad region (Batyk and Semenova, 2013).

Methodology: Survey of representatives of local authorities and business carried out in 2001 in all municipalities of the Warmian-Masurian voivodeship and in the Kaliningrad region.

Critical Factors: (D1) limited financial opportunities; (D2) official local support for cooperation activities; (D3) government support; (D4) an insufficient number of crossing points; (D5) a poor command of the Russian language; (D6) complicated visa regime; (D7) institutional bureaucracy.

Case E: The aim of this paper is to introduce factors that influence cross-border cooperation between businesses in the Alps-Adriatic region between Carinthia, Friuli-Venezia Giulia (FVG) and Slovenia (Cankar, Seljak, and Petkovšek, 2014).

Methodology: Questionnaire in mother language, total number 399 (158 businesses, 241 Public administration offices) by using SPSS.

Critical Factors: (E1) Complex administrative and funding systems; (E2) Legislation, that is not harmonized or too different in border areas; (E3) Frequent changing of the business practice regulations; (E4) Unstable political situations; (E5) Unfavourable historical events; (E6) Infrastructure; (E7) Differences in culture that hinder intercultural communication; (E8) Language barriers; (E9) Difficulties rooted in historical or political differences; (E10) Local, regional, national government assistance; (E11) Assistance from business associations; (E12) Purchasing power of nearby markets from the other side of the border; (E13) Quality and productivity of local firms; (E14) Quality of the banking systems.

Stage 2: To determine the strategic identity of the extracted success factors of cross-border cooperation by induction, taking into account logical probability and using the PEST pattern (Gupta, 2013) 37 factors that are part of the macro environment were designated to its key areas. They are ordered by four main areas: political and law (A6, A3, A8, A9, A11, A12, B9, C9, C7, D3, D6, D7, E1, E10, E2, E3, E4); economics (A1, A5, A13, B7, B6, C10, D4, E6, E12, E14); social and cultural (A1, A4, B1, B2, B5, B8, E5, E7, E9); and technical (E6). Then, factors in individual areas were grouped according to similarity, determining their frequency of occurrence in the studied case studies. Group I is the occurrence of a given factor in all five or at least in four case studies. Group II is the occurrence of a given critical factors in at least 3 case studies, and group III is the other factors (Table 1).

Stage 3: For the indicated factors of group I, operationalization was performed indicating suggestions for measuring the indicated factors, which is an example of linking theory with practice. In this stage, a review of the literature was used again, indicating examples of the use of indicators to measure the identified critical factors (Table 2).

4. Findings

The expected outcome of the qualitative analysis is to indicate a group of factors that occur most often in the analyzed case studies and can be assigned to a specific macro area (Table 1).

Table 1. *Most important macroeconomics critical factors for cooperation in cross-border tourism sector (results from case studies)*

Factors groups	Mentioned in 5 or 4 case studies	Mentioned in 3 case studies	Mentioned in 2 or less
Politics and Law	State-oriented policy for tourism development, tourism development strategy (A,C,D,E)	Tax policy (B, C, E)	Legal solutions (differences in visa regulations, legal solutions) (D, E) Adaptation to EU requirements (A) Regulations for doing business (E) Unstable political situation (E)
Economic s	Infrastructure (A,B,C,D,E)	Power of Economics(A,C,E)	Quality of banking system (E)
Social - Cultural	-----	-----	Quality of Life (A) Social mobility (B) Income level (B) Cultural conditions (E)
Technolog y	-----	-----	-----

Source: *Own study.*

The research results indicate that the key factors for cooperation success include state policy oriented towards tourism development, in associated with a conscious

strategy of tourism development in cross-border areas. Tax policy is another important element in the political and legal area (study cases B, C, E). Infrastructure has been identified as the most important element of the cross-border cooperation success, regardless of the type of cross-border cooperation studied or its nature, which indicates it is an important element in the development of cross-border cooperation. The second important element, in the economic area, is a strong economy, which seems logical. A strong economy provides the basis for further socio-economic development of a given country.

The detailed analysis has allowed the distinguishing of yet other elements of the areas indicated in the PEST analysis, but they are characteristic only for individual case studies. In the political-legal area of case study A for example, the element of EU membership is important, as reflected in the factors: Access to European funds (A11) and Diverse infrastructure availability, and Euro citizenship (A9). Another factor in this area are legal solutions (including differences in visa regulations) which were identified in two case studies, D and E as: complicated visa regime (D6), institutional bureaucracy (D7) and Legislation, that is not harmonized or too different in border areas (E2). Other factors relate to E-life and are related to the regulations governing economic activity (E3) and unstable political situation (E4). In the area of contractual studies, the E study was devoted to E14.

In the social area, the factor of quality of life identified in case study A was identified as: better life quality standards (A2) and attracting young and talented people (A4). In case study B, attention was paid to social mobility, indicating factors B1 and B2, and the level of income, indicating the increasing affluence of the population on the other side of the border (B5) and even more on the international side. (B8). In the case of study E, the elements identified in the socio-cultural area were: Unfavourable historical events (E5), differences in culture that hinder intercultural communication (E7) and difficulties rooted in historical or political differences (E9). In this analysis, attention is drawn to the fact that no factors in the technology area have been identified in the analysed case studies.

Elements of the institutional matrix, which are also elements of the institutional environment, should be identified by measures appropriate for a given element. This involves identifying critical factors and determining how they will be operated, i.e. how they will be empirically measured. Operationalization starts with specifying an "operational definition" (Bhattacharjee, 2012 p.11). Table 2 indicates the proposed indicators for the four main factors identified as key elements of the institutional matrix for cross-border cooperation.

In the area of state policy, three groups of measures were indicated. The strategic elements refer to the implementation of joint strategies for cross-border cooperation. The second group of elements are activities (initiatives, programs) related to political decisions that support the development of tourism (measured in numbers).

The third group are reports, analyses related to the assessment of activities supporting cross-border tourism. Indicators from these three groups can be expressed in numbers.

Table 2. Operationalisation of the main macro-environment factors of cooperation in cross border tourism

Key factors	Measurements proposed - (example of indicators)
State-oriented policy for tourism development, tourism development strategy	Number of common goals, tourism development strategy (document), degree of implementation of strategic goals concerning tourism, number of political initiatives supporting the development of tourism, number of programs supporting the development of tourism, number of reports on tourism development.
Tax policy	The level of taxes for activities related to tourist activities, the existence of a tax refund regulation, the complexity of the tax system, the level of tax breaks.
Infrastructure	Number of border crossings, average border clearance time, level of development of cross-border road infrastructure, quality of gastronomic infrastructure, quality of hotel infrastructure,
Power of Economics	Purchasing power parity, employment rate, economic activity rate, social development rate, level of economic development, quality of the banking system.

Source: Own study.

In the area of tax policy, two groups of measures can be distinguished: tax regulations, namely rules related to settlements in the cross-border area measured in acts (how many tax regulations were created, expressed numerically) or the level of a given measure (e.g., taxes, concessions) and analyzed in relation to the general level of a given indicator (e.g., tax). The assessment of this indicator was expressed as a percentage.

The third critical factor is infrastructure whose operationalization is relatively simple due to the wide spectrum that it may cover. Researchers, have in subject literature, analyzed the infrastructure by adopting various indicators (Mesjasz-Lech, 2017; Miloradov and Eidlina, 2018). For example, infrastructure had been analyzed as development from varied perspectives. In the area of cross-border cooperation it may be operationalized (as a number) in the form of border crossings, average time of clearance, the level of development of road facilities or catering. Another measure that can appear in the assessment of infrastructure is the quality, operationalized in subject literature on contractual scales (e.g., average, high, low) or assessed by quality standards (e.g., standardization).

The fourth crucial factor is the strong economy, which as a complex variable can be freely interpreted by researchers through identical economic indicators related to the phenomenon under investigation (Stec and Grzebyk, 2018; Fura and Wang, 2017). The analyzed case studies show that the researchers took into account such indicators in the area of entrepreneurship as employment, economic activity or with

regard to the development of the economy (development level or purchasing power parity).

5. Conclusion

In this article, we looked for key success factors of cross-border cooperation from the perspective of economics and management sciences. Conclusions from the theoretical analysis has enabled us to identify similarities between the concept of the institutional matrix and strategic analysis of PEST. In both concepts, treated as an example of institutional analysis, one can identify the area of macro-processing. Generalizing the substantive part of the conclusions, it is worth noting that in the studied cases there is a group of factors that can be considered critical factors at the macro level, which are specific to a given sector. With respect to the results of the current research, it is worth noting that:

- four key elements of macro-environment were identified: state policy focused on the development of cross-border tourism: tax policy; infrastructure; and the strength of the economy,
- these critical factors are elements of the institutional matrix for the cross-border tourism sector (economic perspective), and should be included in any analysis of factors affecting its implementation, functioning or development of the sector,
- indicated factors are of key importance for planning strategic activities at the level of enterprises implementing cooperation in the cross-border area (perspective of management sciences),
- the use of scientific achievements of various fields of knowledge to describe the same reality allows not only for the better understanding of what reality is, but also for the development of knowledge.

This article presents the use of the achievements of management sciences knowledge about PEST analysis for the interpretation and operationalization of the theoretical scientific construct which is the concept of the institutional matrix (economics) by designating its key areas and indicating methods of measurement.

The comparability of the concept can be made after adopting two assumptions: the first is that institutional matrix concerns a specific sector of the economy and in this context macro-development factors are identified. The second important assumption is the adoption of a position on the ideological aspect of the institutional matrix, which should be identified from the perspective of the characteristics of the economy (ideological direction) and not from the level of individual factors.

There are several limitations of the research concept herein presented. Although the studies selected for the analysis may have fulfilled the requirements of reliability of the analysis and generalization of the methodology, the identified factors refer only to the specific nature of the areas covered by the study. Another very important

aspect is the subjective level of generalization of the findings adopted by the researcher, the choice of areas and factors for the PEST analysis.

Despite these limitations, the results show that the direction of research adopted by the presented methodology can be continued. An interesting question that arises is whether the critical factors for international or national tourism are in the area of macro-perception in similarity to those designated for cross-border tourism. Are the main factors of institutional matrix for tourism development in current politico-economic dispensation the same in Europe as in, for example in Asia, India or the USA?

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