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RISK ASSESSMENT MODELS IN THE TOURISM SECTOR

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Abstract

One of the most prominent contemporary success stories is tourism. This industry began to significantly increase only in 1960, and during the last 50 years, tourism revenues and number of outgoing people have increased by a number of times. Therefore, the tourism sector is highly attractive to new business initiation and development of its dynamic growth, new activities, new trends and technologies, new markets and rapid changes. Purpose of the article - to analyze the prevailing risks in the tourism sector and to identify the business risk assessment models.

Scientists pay big attention to risk analysis. A series of risk analysis theoretical, methodological and practical studies are made, but for the tourism risk scientists-economists do not pay attention in practice. Tourism risk assessment models, analyzed in the article, showed their adaptability to tourism industry.

Performed tourism economic risk assessment models showed that in the tourism risk classification it is appropriate to use a procedural approach, which is related to the tourism product identification stages. It would be logical to link the identification of risks to the tourism services in stages, as in each stage prevails certain risk groups

The aim of the article - to analyze the tourism risk assessment models and on the basis of analysis to develop further tourism risk assessment model. Article originality is associated with the prepared tourism risk assessment model that is versatile and can be used in different countries in assessing the risks of tourism.

Keywords: tourism, tourism risk, business risk, assessment models.

JEL Classification: L83, M21, D81, G32.

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Introduction

There are a great number of the theoretical, methodological and practical risk analyses carried out but for the tourism risk, scientist's - economists does not focus on it in practice.

In business, everything cannot be predetermined, and element of risk is inevitable. Today, the tourism can be defined as the industry with the highest growth rate and the potential for job creation around the world (Holloway, Taylor, 2006, Williams, 2004; Sharpley, Telfer, 2002; Theobals, 1998). In addition, tourism, like any other industry, is susceptible to risks. Geguzis (2003) indicate that the risk can take part in many different forms, which can have disastrous consequences for the tourism business. In terms of knowledge of risk and uncertainty, it is necessary to choose the form of the risk to explore. There are many forms of risk (economic, social, physical, and etc.), and many more subspecies.

In the context of scientific analysis, tourism risk identification only with threads and losses is limited. Tourism risk could be considered as a phenomenon, which is not only the opportunity of failure, loss, but also with the probability of success, which could help to achieve a positive effect. Otherwise, the risk in some cases may be a successful factor for the progress of tourism. It may occur in two ways. At first, the increased risk could benefit from tourism businesses by increasing their profits. At current conditions, such tourism form as an extreme tourism has gained popularity.

Scientists, which are studying consumer behavior in tourism industry (Assael, 1995; Engel, Blackwell and Miniard, 1995; Mowen and Minor, 1998; Schiffman and Kanuk, 1991, Fuchs and Reichel, 2008) assumed that consumers which are buying tourism services aware of the risks and are taking steps to reduce it. Therefore, these scientists agree that if the risks are not controlled and managed, job creation in this industry will not be achieved. It displays various researchers (Shaw, 2010) works, which identified risks in tourism industry. He proposes to classify the risk to the natural, crime, health and safety risk, political factors risk, socio-demographic, technological and economic risks.

Previous scientific studies of tourism risk, have found four major risk factors: terrorism (Apostolopoulos and Tarlow 1999; Bar-On 1996; Richter and Waugh 1986; Enders, Sonmez and Graefe 1998a, Sonmez 1998; Leslie 1999; Aziz 1995; Sandler and Parise 1992), war and political instability (Gartner and Shen 1992; Wall 1996; Mansfeld 1996, 1999; Richter 1992; Hollier 1991; Ioannides and Apostolopoulos 1999; Teye 1986; Seddighi, Nuttall and Theocharous 2000), health problems (Garcia and Nicholls 1995; Dimanche and Leptic 1999; Ellis 1995; Brunt, Mawby and Hambly 2000; Pizam, Tarlow and Bloom 1997).

Roehl and Fesenmaier (1992) were among the first researchers who have begun to examine the tourism risk. They asked their respondents about types of risk of their vacation and what type of risk did the respondents experience during the recent holiday. As a risk types they named equipment risk (probability that during the trip mechanical failure will occur), financial, physical, psychological, social, satisfaction and time risks. Using factor analysis, scientists identified three main risks: physical equipment, holiday and route risks. Other researchers argues that the tourism risk includes all possible tourism sector subjects and objects threats (Osborne, 2012; Simanavicius, 2014). These threats are directed to infrastructure, tourism companies and the tourists themselves, and can adjust the level of tourism activity. Russian scientists (Косолапов, 2009; Овчаров, 2009) believe that tourism risks in a broad sense may be regarded as a phenomenon that involves not only the

probability of failure, loss, damage, but with the opportunity of success to get any positive results. In other words, the risk situation can become favourable risk factor for the development of tourism. This approach can be developed for determining risk components. Tourism risk elements consist of four risk elements: loss due to adverse events, likelihood of adverse events, uncertainty on the result and the ability to generate income from risky situations.

The aim of the article - to analyze the tourism risk assessment models and on the basis of analysis to develop further tourism risk assessment model. Article originality is associated with the prepared tourism risk assessment model that is versatile and can be used in different countries in assessing the risks of tourism. The structure of the article consists of an introduction, tourism risk classification and the literature analysis of tourism risk assessment models.

1. The features of tourism risk classification and tourism risk assessment models

The researchers of consumer behaviour (Assael, 1995; Engel, Blackwell and Miniard, 1995; Mowen and Minor, 1998; Schiffman and Kanuk, 1991), distinguish that perceived risk of consumers may be of several types: physical risk (injury for the user of service), financial (risk associated that invested money will be lost), activity (the product won't meet the customer expectations), and social (do not meet the needs of selected purchase groups), psychological (the product will not be compatible with the image of consumer), time (the product use will be too long, and customer has to choose other alternatives). Previously mentioned scientists believe that if the consumer have encountered certain risks, the consumer behaviour can change is changing to the postponement of the purchase decision, to reduce the risk level to the lowest possible (Assael, 1995; Mowen and Minor, 1998; Roselius, 1971; Schiffman and Kanuk, 1991). These strategies could increase the purchase confidence and in the case of misfortune to reduce the impact of risk. It should be mentioned that the perceived risk will influence the user, even if the risk does not exists in reality.

Many economic risk research (Damulienė, 2011; Navickas, 2009; Labanauskaitė, 2011) shows that the risk today is an important condition for obtaining revenue. Risk is an integral part of economic processes that exists independently of the perception of existence. The refusal of risk analysis in the macro level or it's ignorance, at the best, reduces any business entity profitability, and at worst - lead to insolvency.

Lithuanian tourism sector has a great potential of natural tourism. But there is a lack of government support and for this reason Lithuanian tourism industry is a low competitive and has a high-risk level. A risk to stay in tourism services market periphery exist for Lithuania in international markets, as well as the global financial crisis threat, which requires the tourism industry to adapt to the new economic conditions and to find the ways how to avoid the risks in tourism development (Jasinskas, Svagzdiene, and Bandurin, 2014; Simanaviciene, Kilijoniene, Simanavicius and Khadzhynov, 2014; Simanavicius, Lazauskas and Simberova, 2014; Vveinhardt, Andriukaitiene amd Cunha, 2014; Jaseviciute – Ufartiene, Mejeryte – Narkeviciene and Widelska, 2014; Mikalauskas, Strunz and Afifi, 2014; Dabija, Dinu, Tăchiciu, and Pop, 2014).

After the analysis of the various processes, strategies and models, we can conclude that there are several models that can be adapted to the tourism industry. The study (Shaw, G.K., 2010) showed that the risk can affect not only tourism industry business, but also the whole industry in general. These effects could be two types: negative or positive. In order to use these effects usefully, it is necessary to choose the best strategy in order for effective risk assessment.

Tourism risk impacts are different, so it is difficult to assess the risk implications to the tourism industry. For example, the conditions of the financial crisis are easy to identify, and to anticipate the consequences and the goal of the objectives of the contents is very difficult. The tourism industry risk is identified by the specific features, and one of them can be tourism product (Osborne, 2012).

By the data of many scientific studies, the term "risk" is associated with the risk of potential losses in various activities (the loss of material and financial resources, loss of income and unexpected extra costs, and etc.). In other words, in any economic system, the main cause of the risk analysis is related with danger in quantitative or value terms. This takes into account that the tourism sector risks include the possible threats of tourism sector subjects and. These threats include infrastructure, business and tourism industry and tourists themselves. They can adjust the level of tourist activity. In quantitative terms, tourism risk could be defined as the potential financial and material loss, as a result of tourism companies dealing with tourists. Such description is provided by many scientists. Risk identification in terms of tourism services organization stages is given in Figure 1.

Valsamakis A.C. risk assessment model. Valsamakis A.C. (2004) argue that risk assessment is an ongoing process and cannot be seen as a single event. Scientists believe that the process should begin with the identification of risk, since implementing the risk controls (both business and event risk) risk assessment is a key feature, assessing the financial consequences of risk. In order to manage risk, it must be identified, and only then can only be developed risk management programs. Valsamakis A.C. (2004), model is more appropriate to manage the risk arising from a financial loss. Inbound tourism risk assessment can be used in this model, but it would not be good in the sense that not all events are evaluated.

Burke R. risk assessment model. Burke R. (2000) risk assessment model shows the how to integrate each part of risk model and to connect in a whole. In this model, the objectives are rated as business risk tolerance and indicate whether the business is ready to accept the exposure of business risk. Risk identification, quantitative risk assessment and risk factor solutions together with the control and monitoring, formed the risk management plan, which becomes an official document demonstrating in detail how the business will manage and respond to identified risks.

Gray C.F. and Larson E.W. assessment model. Gray C.F. and Larson E.W (2006) concluded risk assessment model is very similar to Burke model, but some model steps are different than in the Burke model.

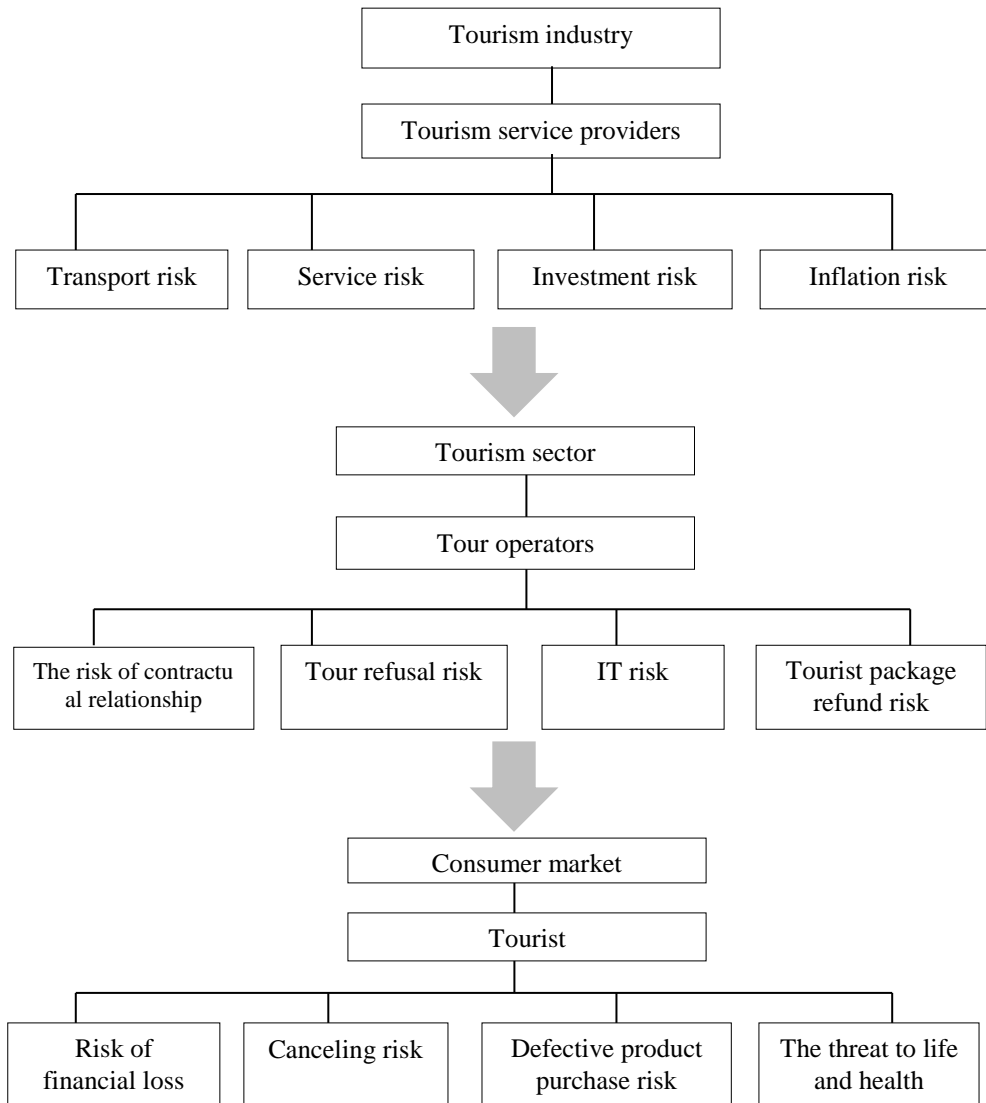


Figure no. 1: Risk identification in terms of tourism services organization stages
Source: own computations

The difference of Gray and Larson model from the Burke model is that Burke concentrates for the identification of the goals, because it is not always clear what must to attain. Another difference between these models is its attention to risk control: in Gray and Larson model risk control is in the final step, and Burke starts his model with a risk control. In Gray and Larson model also is explained what should happen at each stage of the process.

Osborne A. risk assessment model. Osborne A. (2012) proposed risk assessment model is simple, but effective. It could be adapted to different sized businesses, including inbound tourism assessment.

A. Osborne offers a 5-step sequence. A. Osborne considered before taking action on the risks it is useful to be aware of what risk is facing, it is therefore necessary to identify risks that are encountered (step 1). In the second step is proposed to quantify the risk, defining the risk probability and impact. Further scientist proposes to set and implement countermeasures reducing, controlling or eliminating the risk. To complete the risk assessment process, it is necessary to monitor and evaluate efficiency. The proposed Osborne A. five-step risk management process is simple but effective and has been proven that it works regardless of the business type or size. The presented A. Osborne risk impact assessment can also be used on inbound tourism risk assessment.

O. Passenheim risk assessment model. O. Passenheim (2010) considers risk assessment till now are focusing on in order to prevent recurrence, which was done in the past. Standard terms and conditions may change rapidly, as the competitive environment or the cost of raw materials. Scientist believe that in order to make a risk assessment, it is necessary to orient oneself not only for the goals of company, but also in the strategy and culture. Company or sector risk assessment is a procedure that minimizes the potential adverse effects of financial loss when:

- identification of potential sources of loss;
- evaluating the financial consequences of loss;
- control is used to minimize actual losses or their financial consequences.

According to O. Passenheim opinion is appropriate to perform a SWOT analysis, which can be used to identify potential risks. SWOT advantage is that it is simple and relatively inexpensive, excluding the time required for it to handle. In the survey SWOT helps to generate new ideas.

As several studies are carried out, which results showed (Wilks J. et al, 2003, PATA, 2003, Reichel A. et al. 2007, Sun, Rufu, Dailin and Hongnan, 2008, Malakauskaite A., 2009), that the risks of tourism could be analyzed in several ways: first, by a tourist point of view, in terms of tourism destination and by the regulatory authorities approach. Depending on the selected ways, the risks have to be examined differently. Also the creation of a risk assessment methodology can be made from several angles: user, tour operators and government authorities. Tourism risk assessment, no matter which section, require a detailed investigation. Therefore, tourism risk assessment methodology was created, which consists of several stages (Simanavicius, Lazauskas and Simberova, 2014).

1. Conclusion of the theoretical design of the study, showing the main factors influencing the risk of tourism;
2. Tourism macroeconomic environment analysis and the determination of macroeconomic environment influence for the tourism risk;
3. Tourism risk factors, setting of the driving forces and their interaction;
4. The performance of tourism risk assessment models;
5. Preparation of recommendations for tourism risk management services from the supplier and the user side.

2. Tourism risk assessment methodology and assessment model for it

In this article the only one stage of the tourism risk assessment was analyzed - risk assessment models, which is one of the risk management stage. Performed tourism risk assessment models analysis allowed to develop an original tourism risk assessment model. Prepared model shows that, in order to examine the tourism macro-economic environment and to determine its impact on tourism risk, firstly should be performed each country policy on tourism PEST and SWOT analyzes and to perform expert survey, to identify the key internal and external and the individual or subjective tourism risks. Tourist risk assessment model allows to distinguish the different risk categories and levels of risk factors, according to the risk assessment of the risk factors that increase the risk and reduce the risk to determine and assess the individual risk factors and significance of the weights on the basis of both the expert survey and modelling of various risk scenarios and the sensitivity analysis.

A Summary of evaluation of various tourism risk methodologies examination, showed, the most important of them, distinguished that the risk identification process allows us to identify a risk assessment forms and reveals multiplicative effect on the risks, associated with various tourism threats detection to distinguish between themselves and the most significant risks.

Conclusions

The study shows that the method is objective and accurate. The model consists of the levels of objectives, risk sources, risk factors and alternatives. The performed tourism risk assessment model showed that in tourism risk classification it is appropriate to use a procedural approach, which could be related to the tourism product identification stages. It would be logical to link the identification of risks to the provided tourism services stages. In each stage prevails a certain risk groups. For example, in the formation stage of the service the tourism industry infrastructure risk is dominating, and it is associated with a variety of subjects – disorders of the tourism service providers.

Such feature of risk is his uncertainty in the process of tourism, it means that they can also occur and develop independently from tourism object and the user. In the tourism service formation and realization stage an organizational risk plays a significant role - the risks associated with contractual obligations.

The developed model allows us to indicate the different risk categories and different risk factor levels and to evaluate the risks according to the risk factors which increase the risk and reduce the risk to determine and assess the individual risk factors and significance of the weights on the basis of modelling of various risk scenarios and the sensitivity analysis.

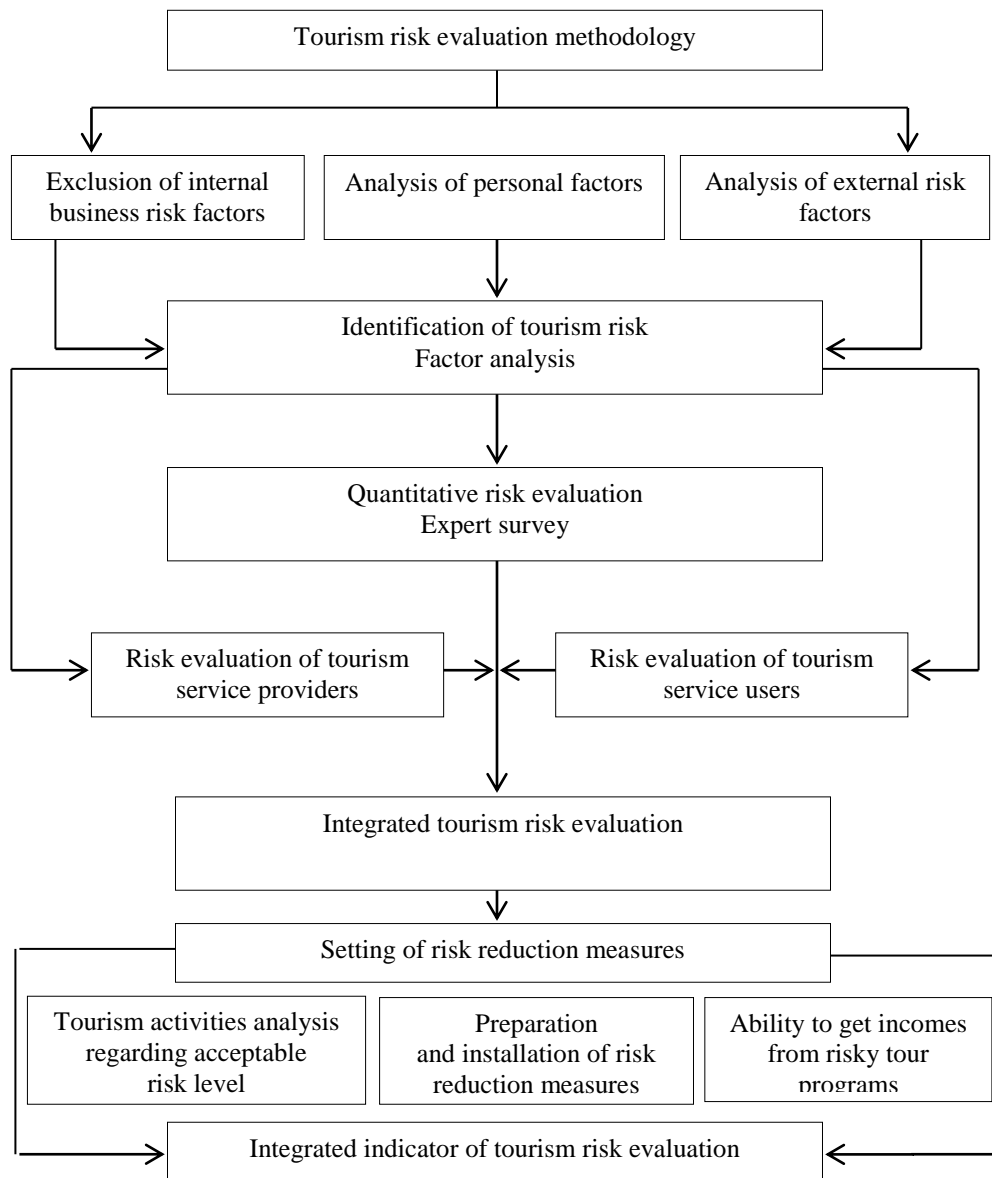


Figure no. 2: Tourism risk evaluation model

Source: own computations

This model can be used for the individual companies which are working in the tourism sector and also for the whole tourism industry risk assessment, systematic monitoring and management. Created model allows assess risks quickly, by changing the number of indicators of risk, the risk criteria weights and values. By extending and modification the developed model the whole tourism area risk assessment can be put into practice.

References

- Assael, H., 1995. *Consumer behavior and marketing action*. South-Western College Publishing.
- Aziz, H., 1995. Understanding attacks on tourists in Egypt. *Tourism Management*, 16(2), pp.91–95.
- Bar-On, R., 1996. Measuring the effects on tourism of violence and of promotion following violent acts. In: *Tourism, Crime and International Security Issues*, A. Pizam and Y. Mansfeld eds., pp.159–174, New York: Wiley.
- Brunt, P., Mawby, R. and Hambly, Z., 2000. Tourist victimization and the fear of crime on holiday. *Tourism Management*, 21(4), pp.417-424.
- Burke, R., 2000. *Project management planning and control*. 3rd ed. Cape Town: Management Press.
- Dabija, D.-C., Dinu, V., Tăchiciu, L. and Pop, C.-M., 2014. Romanian consumers behaviour towards counterfeit products. *Transformations in business & economics*, 13(2), pp.124-143.
- Damulienė, A., 2011. Atvykstamasis turizmas Lietuvoje: analizė ir vystimosi tendencijos. In: *Whither our economies: 1st international scientific conference*, Vilnius, 16-17 November, pp.32-40.
- Dimanche, F. and Leptic, A., 1999. New Orleans tourism and crime: a case study. *Journal of Travel Research*, 38(1), pp.19–23.
- Ellis, R., 1995. A response to crime's war on tourism. *Visions in Leisure and Business*, 14(3), pp.52-60.
- Enders, W., Sandler, T. and Parise, G., 1992. An econometric analysis of the impact of terrorism on tourism. *Kyklos*, 45(4), pp.531-554.
- Engel, J.F., Blackwell, R.D. and Miniard, P.W., 1995. *Consumer behavior*. The Dryden Press.
- Fuchs, G. and Reichel, A., 2008. Tourist destination risk perception: the case of Israel. *Journal of Hospitality & Leisure Marketing*, 14(2), pp.83-108.
- Garcia, R. and Nicholls, L., 1995. Crime in New Tourism Destinations: The Mall of America. *Visions in Leisure and Business*, 14(4), pp.15-27.
- Gartner, W. and Shen, J., 1992. The Impact of Tiananmen Square on China's Tourism Image. *Journal of Travel Research*, 30(4), pp.47-52.
- Geguzis, A., 2003. Neapibrėžtumo ir rizikos samprata ekonomikoje. *Ekonomika*, 62, pp.63-80.
- Gray, C.F. and Larson E.W., 2006. *Project management - the managerial process*. 3rd ed. Boston, Mass.: Irwin/McGraw-Hill.
- Holden, A., 2008. *Environment and tourism*. London - New York: Routledge.
- Hollier, R., 1991. Conflict in the gulf. *Tourism Management*, 12, pp.2-4.
- Holloway, J.C., 2006. *The Business of Tourism*. Financial Times/ Prentice Hall.
- Ioannides, D. and Apostolopoulos, Y., 1999. Political instability, war and tourism in cyprus: effects, management and prospects for recovery. *Journal of Travel Research*, 38(1), pp.51-56.

- Jaseviciute – Ufartiene L., Mejeryte – Narkeviciene K., Widelska U., 2014. Organizational Development Based on Leader's Self-Development Theory and Practice. *Transformations in business and economics*, 13(2A), pp.506-524.
- Jasinskas, E., Svagzdiene, B. and Bandurin, A., 2014. Significance of financial support of structural funds for the competitive ability of rural tourism homesteads. *Transformations in business and economics*, 13(2A), pp.324-342.
- Leslie, D., 1999. Terrorism and tourism: the Northern Ireland situation—a look behind the veil of certainty. *Journal of Travel Research*, 38(1), pp.37-40.
- Mansfeld, Y., 1996. Wars, tourism and the “Middle East” factor. In *Tourism, Crime and International Security Issues*, pp. 265–278.
- Mikalauskas R., Strunz H. and Afifi, G.M.H., 2014. Relationship between Sport Events and Destination Image: Some Theoretical Approaches. *Transformations in business and economics*, 13(2A), pp.297-310.
- Mowen, J. and Minor M., 1998. *Consumer Behavior*. Englewood Cliffs, NJ: Prentice-Hall.
- Navickas, V., 2010. *Valdymo kontrolė tarptautinėse firmose*. Technologija.
- Osborne, A., 2012. *Risk management made easy*. Ventus publishing.
- Passenheim, O., 2010. *Enterprise risk management*. Ventus publishing.
- Pizam, A., 1999. A comprehensive approach to classifying acts of crime and violence at tourism destinations. *Journal of Travel Research*, 38(1), pp.5-12.
- Pizam, A., Tarlow, P. and Bloom, J., 1997. Making tourists feel safe: whose responsibility is it? *Journal of Travel Research*, 3(3), pp.23–28.
- Richter, L., 1992. *Political instability and tourism in the third world in tourism and the less developed countries*. New York: Wiley.
- Richter, L. and Waugh, W., 1986. Terrorism and tourism as logical companions. *Tourism Management*, 7, pp.230-238.
- Roehl, W.S. and Fesenmaier, D.R., 1992. Risk perception and pleasure travel: an exploratory analysis. *Journal of Travel Research*, 30, pp.17-26.
- Roselius, T., 1991. Consumer rankings of risk reduction methods. *Journal of Marketing*, 55, pp.56-61.
- Schiffman, L.G. and Kanuk, L.L., 1991. *Consumer Behavior*. NJ: Prentice-Hall.
- Seddighi, H., Nuttall, M. and Theocharous, A., 2001. Does cultural background of tourists influence the destination choice? An empirical study with special reference to political instability. *Tourism Management*, 22, pp.181-191.
- Shaw, G.K., 2010. *A risk management model for the tourism industry in South Africa*. PhD. North-West University.
- Simanaviciene, Z., Kilijoniene, A., Simanavicius, A. and Khadzhyrov, I., 2014. Transformations of Lithuania and Ukraine regional policy. *Engineering economics*, 25(3), pp.350-359.
- Simanavicius, A., Lazauskas, A. and Simberova, I., 2014. Methods of tourism risk perception: Economic assessment. *Transformations in business and economics*, 13(2A), pp.311-323.
- Sönmez, S. and Graefe, A., 1998. Influence of terrorism risk on foreign tourism decisions. *Annals of Tourism Research*, 25(1), pp.112-144.

- Sönmez, S., 1998. Tourism, terrorism and political instability. *Annals of Tourism Research*, 25(2), pp.416-456.
- Sönmez, S. and Graefe, A., 1998. Determining future travel behavior from past travel experience and perceptions of risk and safety. *Journal of Travel Research*, 37, pp.171-177.
- Sun, Y., Rufu, H., Dailin, C. and Hongnan, L., 2008. Fuzzy set-based risk evaluation model for real estate projects. *Tsinghua science and technology*, 13(S1), pp.158-164.
- Teye, V., 1986. Liberation wars and tourism development in Africa: the case of Zambia. *Annals of Tourism Research*, 13, pp.589-608.
- Valsamakis, A.C., Vivian, R.W. and Toit, D., 2004. *Risk management: managing enterprise risks*. 3rd ed. Sandton: Heinemann.
- Vveinhardt J., Andriukaitiene R. and Cunha L.M., 2014. Social Capital as a Cause and Consequence of Corporate Social Responsibility. *Transformations in business and economics*, 13(2A), pp.483-505.
- Wall, G., 1996. Terrorism and Tourism: An Overview and an Irish Example. In: *Tourism, Crime and International Security Issues*, A. Pizam and Y. Mansfeld, eds., pp.143-158., New York: Wiley.
- Williams, S., 2004. *Tourism: Critical Concepts in the social sciences*. Routledge.