

20. <https://reginfo.ge/economic/item/1617-enguris-bidroelegtrosadguris-kashxalze-turistuli-zona-moexyboba>
21. Shekvetili Dendrological Park ready to receive visitors. Agenda.ge, 15 Jul 2020. Tbilisi, Georgia
22. <https://agenda.ge/en/news/2020/2253>
23. Todua, Nugzar (2019). Using Social Media Marketing For Attracting Foreign Tourists To Georgian Destinations. Globalization And Business, #7, June 2019, pp. 39-48. (In Georgian). <https://doi.org/10.35945/gb.2019.07.005/>
24. https://www.researchgate.net/publication/348373678_USING_SOCIAL_MEDIA_MARKETING_FOR_ATTRACTING_FOREIGN_TOURISTS_TO_GEORGIAN_DESTINATIONS
25. Tbilisi Municipality City Hall. Tourism. <https://tbilisi.gov.ge/page/13?lang=ge>
26. Philip Kotler, John T. Bowen, James C. Makens, Seyhmus Baloglu. Marketing for Hospitality and Tourism. 7-th Edition, Pearson Publisher, 2016, pp. 262-269
27. Lekashvili Eka, Tbilisi as the Agent of the Tourism Market. Ivane Javakhishvili Tbilisi State University, 2015
28. <http://ejournals.atsu.ge/BLSS2015/eJournal/Alphabet/4314.html>
29. Seturi, M. (2016). Some Aspects of Successful Brand (at Tbilisi consumer's market), August 2016. Business Systems Laboratory 4th International Symposium. "Governing Business Systems. Theories and Challenges for Systems. Thinking in Practice". At: Vilnius, Lithuania, 9788890824234; pp. 214-218. https://www.researchgate.net/publication/325710282_Some_Aspects_of_Successful_Brand_at_Tbilisi_consumer's_market
30. Daria Minashkina, Ari Happonen (2019). Experience report: foreigner's point of view on the Luumäki Independence Road sightseeing locations. DOI: 10.13140/RG.2.2.14318.23365/1. May 2019. LUT Scientific and Expertise Publications; pp.5-42
31. https://www.researchgate.net/publication/333199304_Experience_report_foreigner%27s_point_of_view_on_the_Luumaki_Independence_Road_sightseeing_locations

Nugzar Todua,
 D.Sc., Professor,
 Marketing Department,
 Ivane Javakhishvili Tbilisi State University
nugzar.todua@tsu.ge
Urotadze Ekaterine,
 Ph.D., Associate Professor,
 Marketing Department,
 Ivane Javakhishvili Tbilisi State University
ekaterine.urotadze@tsu.ge

IMPACT OF SMART TOURISM TECHNOLOGIES ON TOURISTS SATISFACTION (CASE OF GEORGIA)

Keywords: Smart Tourism Technologies (STT); Perception of STT; Tourists satisfaction.

Abstract. The article explores the role of smart tourism technologies in the modern tourism business. The main determinants of smart travel technologies in the paper are informativeness, accessibility,

interactivity, personalization and security. Based on the conducted marketing research, the assessments of the levels of smart tourism technologies offered by the Georgian destinations have been established. Using regression analysis, statistically significant values are obtained that reflect the impact of informativeness, accessibility, interactivity, personalization and security on the perception of smart tourism technologies, as well as the impact of perception of smart tourism technologies on Georgian Tourists satisfaction.

Introduction. In the 21st century, the development of new technologies and means of communication is fundamentally changing the world. The introduction of Industry 4.0 leading technologies affects many sectors of the economy, including tourism (Stankov and Gretzel, 2020). Influenced by Industry 4.0, the concept of Tourism 4.0 envisages similar technological transformations in the field of tourism and hospitality, which brings significant public benefits (Buhalis et al., 2019). Consequently, the traditional tourism industry has entered the era of smart tourism (Neuhofer, 2012; Um and Chung, 2019). Smart tourism is a universal information service that tourists receive during the travel process (Li et al., 2017). Smart tourism technologies (STT) belong to any form of information technology that tourists use to find information, transactions, communications, and create content (Yoo et al., 2017).

STT includes general and specific applications that can enhance the tourists' experience and create added value (Neuhofer et al., 2015). STT includes both smart devices as well as social platforms, big data, ubiquitous connectivity through Wi-Fi, smartphones, mobile-connected devices, integrated payment methods, smart cards, artificial intelligence, and others, which have become particularly popular in recent times (Wang and Li, 2013; Gretzel et al., 2015; Pai et al., 2020). Researchers distinguish between different characteristics of STT, based on which we can distinguish the following: informativeness, accessibility, interactivity, personalization, and security (No and Kim, 2015; Huang et al., 2017; Lee et al., 2018; Jeong and Shin, 2020). Informativeness is the Integrity of quality, reliability, and accuracy of information provided by travel destinations via STT (Huang et al., 2017). Accessibility is a measure by which tourists can easily obtain and use the information offered by destinations through the STT (Huang et al., 2017). Users will find out more about destinations when STT access levels are high. Interactivity provides feedback and active communications with consumers when using STT (Tan et al., 2018). Personalization helps consumers to obtain specific information based on their needs through of STTs when planning travel (No and Kim, 2015; Jeong and Shin, 2020). Security is determined as the protection of consumers' personal information when

using the STT. Therefore, many researchers view it as an important component of STT (No and Kim, 2015; Huang et al., 2017). Despite numerous studies on STT, there is less work related to smart tourism development in considering the COVID-19 pandemic. However, it is clear that the COVID-19 pandemic is significantly expanding the use of smart travel technologies (Gretzel et al., 2020). It should also be noted that in the Georgian realities, some research has been carried out to study consumer behavior in the tourism sector (Apil et al., 2009; Todua and Jashi, 2016a; Todua and Jashi, 2016b; Todua, 2017a; Todua, 2017b; Todua, 2018; Todua, 2019a; Todua, 2019b; Urotadze, 2019a; Urotadze, 2019b; Urotadze, 2019c; Urotadze, 2020; Todua, 2020; Seturi and Urotadze, 2020), but the specifics of using STT have not yet been studied. To fill this gap, we conducted market research in February-March 2021. Based on the literature review, we propose the research's conceptual framework (see Figure 1) and the following hypotheses:

- H1: Informativeness associated with STT positively influence on the Perception of consumers.
- H2: Accessibility associated with STT positively influence on the Perception of consumers.
- H3: Interactivity associated with STT positively influence on the Perception of consumers.
- H4: Personalization associated with STT positively influence on the Perception of consumers.
- H5: Security associated with STT positively influence on the Perception of consumers.
- H6: Perception of STT positively influence on the consumers' satisfaction.

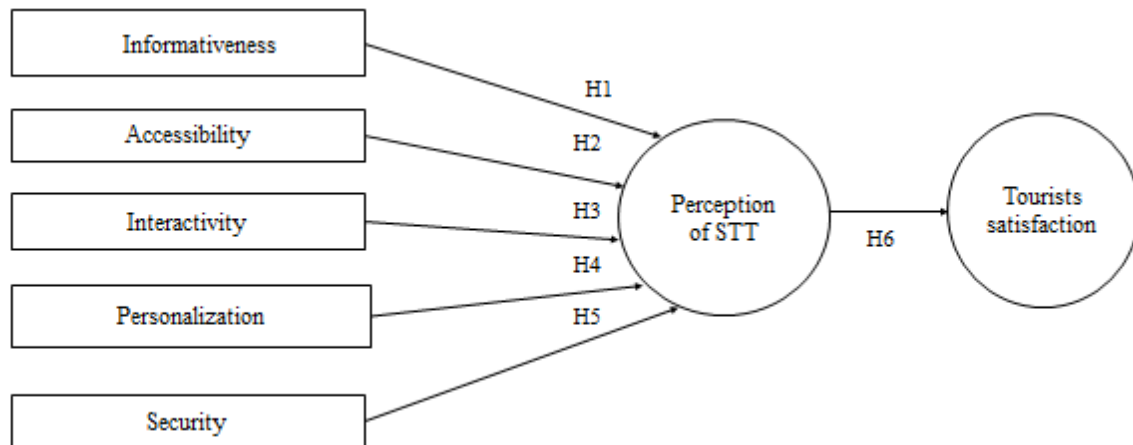


Figure 1. Conceptual framework of research

Research Methodology. The study was conducted a personal survey of respondents. A systematic random sampling method was used. The survey was conducted among 620 respondents

using a well-structured questionnaire. The survey involved 237 men and 383 women, whose ages ranged from 18 to 45 years and who are active internet users. The confidence interval is 95%, and the standard deviation is 1,96%. To assess the attitude of consumers to Smart Tourism, a five-point Likert scale was used. The data collected for the study were analyzed by applying SPSS 21.0 package. Regression analysis was used for processing the received data (Malhotra, 2010).

Research Results. The survey revealed the levels of STT information, accessibility, interactivity, personalization, and security offered by Georgian tourist destinations, which were assessed by respondents using a five-point scale, namely, in the order of values from 1 to 5 (see Figure 2). As the analysis shows, respondents mainly assess the characteristics of STT at an average level.

To test the hypothesis of interest, Regression analysis was carried out. Regression analyses were used to understand the interaction between the independent variables and the dependent variables. At first, investigated how the informativeness, accessibility, interactivity, personalization, and security of STT influences consumers' perception (see Table 1). The findings indicate the above variables are significant at the 5% level. This means that informativeness, accessibility, interactivity, personalization, and security are significant determinants of STT.

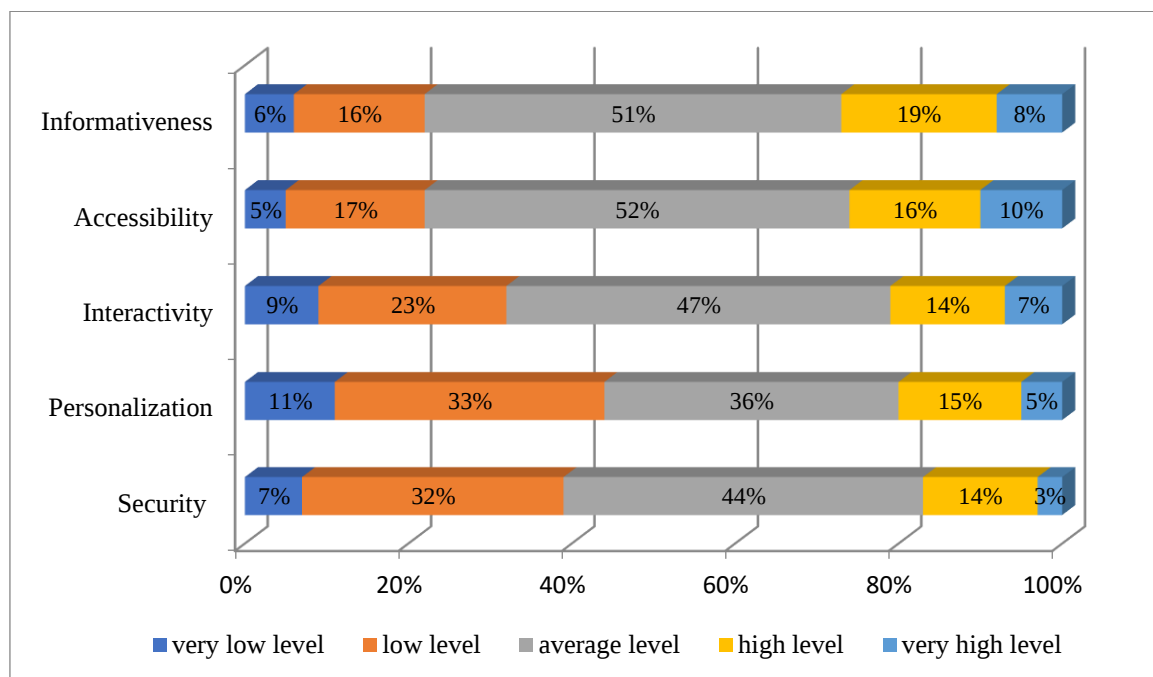


Figure 2. Levels of informativeness, accessibility, interactivity, personalization and security of STT provided by Georgian tourist destinations

Table 1. Regression analysis of the impact of informativeness, accessibility, interactivity, personalization and security on perception of STT

		Sum of Squares	df	Mean Square	F	P
Informativeness	Regression	3451.21	1	3218.12	321.602	0.000
	Residual	4172.44	618	9.92		
	Total	7623.65	619			
Accessibility	Regression	2391.26	1	3217.14	372.503	0.001
	Residual	4282.43	618	9.84		
	Total	6673.69	619			
Interactivity	Regression	2589.21	1	3428.19	321.302	0.000
	Residual	4185.42	618	8.89		
	Total	6774.63	619			
Personalization	Regression	3112.21	1	4113.18	971.401	0.000
	Residual	4267.41	618	6.81		
	Total	7379.62	619			
Security	Regression	3651.69	1	2919.17	573.405	0.000
	Residual	4267.47	618	9.71		
	Total	7919.16	619			

Source: SPSS output based on own data

Regression analysis was used to test how the perception of STT impacts on the consumers' intention to travel (see Table 2). The results suggest that perception of STT plays an important role in the Tourists satisfaction.

Table 2. - Regression analysis of the impact of perception of STT on Tourists satisfaction

		Sum of Squares	df	Mean Square	F	P
Perception of STT	Regression	3031.43	1	3218.71	393.518	0.001
	Residual	4261.45	618	9.95		
	Total	7292.88	619			

Source: SPSS output based on own data

In all cases discussed above $P < 0.05$. This means that the differences between the groups studied are statistically significant. In view of the above, we can say that the H1-H6 hypotheses have been supported.

Conclusions. Our research showed that Georgian consumers positively perceive the characteristics of the STT offered by travel companies. However, they evaluate them at an average level. At the same time, the impact of STT characteristics on the perception of Georgian consumers and the intention to travel is relatively high. Statistical analysis reveals the reliability of the model used in the study. The study results showed that the characteristics of the STT we selected are relevant to the tourism industry. Therefore, research results have a theoretical and managerial implication in terms of using STT in the field of tourism. The study results will help managers employed in the tourism industry to broaden their understanding of the characteristics of STT and actively use them to communicate with their customers.

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References

1. Apil, A. R., Kaynak, E., and Todua, N. (2009). Product Preference Differences of High and Low Ethnocentric Consumers in Georgia. *In Proceedings of the 18th World Business Congress: Management Challenges in an Environment of Increasing Regional and Global Concerns*, International Management Development Association (pp. 531-539).
2. Buhalis, D., Harwood, T., Bogicevic, V., Viglia, G., Beldona, S., and Hofacker, C. (2019). Technological disruptions in services: lessons from tourism and hospitality. *Journal of Service Management*, Vol. 30, No 4, pp. 484–506.
3. Gretzel, U., Fuchs, M., Baggio, R., Hoepken, W., Law, R., Neidhardt, J., and Xiang, Z.(2020). e-Tourism beyond COVID-19: a call for transformative research. *Information Technology & Tourism*. Vol. 22, No. 3, pp. 187-203.
4. Gretzel, U., Werthner, H., Koo, C., and Lamsfus, C. (2015). Conceptual foundations for understanding smart tourism ecosystems. *Computers in Human Behavior*, Vol. 50, pp. 558-563.
5. Huang, C. D., Goo, J., Nam, K., and Yoo, C. W. (2017). Smart tourism technologies in travel planning: The role of exploration and exploitation. *Information & Management*, Vol. 54, No. 6, pp. 757-770.
6. Lee, H., Lee, J., Chung, N., and Koo, C. (2018). Tourists' happiness: are there smart tourism technology effects? *Asia Pacific Journal of Tourism Research*, Vol. 23, No. 5, pp. 486-501.
7. Li, Y., Hu, C., Huang, C., and Duan, L. (2017). The concept of smart tourism in the context of tourism information services. *Tourism Management*, Vol. 58, pp. 293-300.
8. Malhotra, N. (2010). *Marketing research: An applied orientation*. 6th ed., Upper Saddle River, N.J.; London: Pearson Education.

9. Neuhofer, B., Buhalis, D., and Ladkin, A. (2015). Smart technologies for personalized experiences: a case study in the hospitality domain. *Electronic Markets*, Vol. 25, No.3, pp.243-254.
10. Neuhofer, B., Buhalis, D., and Ladkin, A., (2012). Conceptualising technology enhanced destination experiences. *Journal of Destination Marketing & Management*, Vol.1, No.1-2, pp.36-46.
11. No, E., and Kim, J. K. (2015). Comparing the attributes of online tourism information sources. *Computers in human behavior*, Vol. 50, pp. 564-575.
12. Pai, C. K., Liu, Y., Kang, S., and Dai, A. (2020). The role of perceived smart tourism technology experience for tourist satisfaction, happiness and revisit intention. *Sustainability*, Vol. 12, No. 16, 6592.
13. Seturi, M., and Urotadze, E. (2020). Some opinions about sustainable development and tourism (case of Georgia). In *Proceedings of the 5th International Scientific and Practical Conference: Strategic imperatives of modern management*, Kyiv National Economic University named after Vadym Hetman, Kyiv, pp. 286-289.
14. Stankov, U., and Gretzel, U. (2020). Tourism 4.0 technologies and tourist experiences: a human-centered design perspective. *Information Technology & Tourism*, Vol.22, No.3, pp.477-488.
15. Tan, G. W. H., Lee, V. H., Hew, J. J., Ooi, K. B. and Wong, L. W. (2018). The interactive mobile social media advertising: an imminent approach to advertise tourism products and services? *Telematics and Informatics*, Vol. 35, No. 8, pp. 2270-2288.
16. Todua, N. (2018). Impact of Social Media Marketing on Consumer Behavior in the Georgian Tourism Industry. *International Academy Journal Web of Scholar*, Vol. 3, No. 5/23, pp. 11-16.
17. Todua, N., and Jashi, Ch. (2016a). Main Aspects of Service Quality in the Hotel Industry of Georgia. In *Proceedings of the 4th International Conference on Contemporary Marketing Issues*, Heraklion (Greece), pp. 431-435.
18. Todua, N., and Jashi, Ch. (2016b). Conceptual and Practical Aspects of Peace Marketing in Tourism (Georgian Case). In *Peace Marketing* (chapter XXVII), Bucharest: Editura universitara, pp. 346-356.
19. Todua, N. (2000). Service Quality Evaluation provided by Georgian Tourism Destinations. In *Proceedings of the 5th International Scientific Conference: Challenges of Globalization in Economics and Business*, Tbilisi, pp. 196-203.
20. Todua, N. (2017a). The Role of Social Media Marketing in Tourism. In *Proceedings of the 6th International Scientific-Practical Conference : Tourism: Economics and Business*, Batumi, pp. 91-95.
21. Todua, N. (2017b). Social Media Marketing for Promoting Tourism Industry in Georgia. In *Proceedings of the 22nd International Conference on Corporate and Marketing Communications: Challenges of Marketing Communications in a Globalized World*, University of Zaragoza (Spain), pp. 168-171.
22. Todua, N. (2019a). Using social media marketing for attracting foreign tourists to Georgian destinations. *Globalization and Business*, Vol. 7, pp. 39-48.
23. Todua, N. (2019b). The impact of destinations image on tourists buying behavior. In *Proceedings of the 4th International Scientific Conference: Challenges of Globalization in Economics and Business*, Tbilisi, pp. 144-150.
24. Um, T., and Chung, N., (2019). Does smart tourism technology matter? Lessons from three smart tourism cities in South Korea. *Asia Pacific Journal of Tourism Research*, Vol. 26, No. 4, pp. 396-414.

25. Urotadze, E. (2019a). The influence of social media marketing on consumer satisfaction in tourism industry. *In Proceedings of the 4th International Scientific Conference: Challenges of Globalization in Economics and Business*, Tbilisi, pp. 390-396.
26. Urotadze, E. (2019b). The influence of social media marketing on consumer satisfaction in tourism industry. *In Proceedings of the 4th International Scientific Conference: Challenges of Globalization in Economics and Business*, Tbilisi, pp. 390-396.
27. Urotadze, E. (2019c). Impact of social media on buying decision of tourism service consumers. *In Proceedings of the International Scientific Conference: Business Strategy: Futurological Challenges*, Kyiv National Economic University named after Vadym Hetman, Kyiv, pp. 52-58.
28. Urotadze, E. (2020). The role of social media marketing in attitude towards Georgian consumers to travel agencies. *In Proceedings of the 7th Business Systems Laboratory International Symposium „Socio-Economic Ecosystems: Challenges for Sustainable Development in the Digital Era“*, University of Alicante (Spain), pp. 236-241.
29. Wang, D., Li, X. R., and Li, Y. (2013). China's "smart tourism destination" initiative: A taste of the service-dominant logic. *Journal of Destination Marketing & Management*, Vol. 2, No. 2, pp. 59-61.
30. Yoo, C. W., Goo, J., Huang, C. D., Nam, K., and Woo, M. (2017). Improving travel decision support satisfaction with smart tourism technologies: A framework of tourist elaboration likelihood and self-efficacy. *Technological Forecasting and Social Change*, Vol. 123, pp. 330-341.

Tsetskhladze Leila, PhD

PhD in Business Administration, Assistant Professor,
Department of Business Administration, Management and Marketing,
Batumi Shota Rustaveli State University
Cecxladze.leila@bsu.edu.ge

Sopio Bakuridze,

Doctoral Student,
Department of Business Administration, Management and Marketing,
Batumi Shota Rustaveli State University
sophiabakuridze@gmail.com

OPPORTUNITIES FOR THE DEVELOPMENT OF RECREATIONAL AND MEDICAL TOURISM

Key words: recreational and medical tourism, human capital, medical service.

Abstract. Contemporary tourism is a complex and massive phenomenon; It's a form to organize the vacation, means of getting to know the environment, sphere of services and entrepreneurship, a part of regional and state policy. There's a large industry of using the recreational resources in modern developed countries, which brings significant revenues. The mentioned industry includes recreational enterprises, resorts, sanatoriums, holiday houses and others, the main purpose of which is to maintain