THE CONCEPT OF USING BLOCKCHAIN TECHNOLOGY IN HOTEL SERVICES IN THE CHILD-FREE TOURISM SEGMENT

This doctoral dissertation addresses the developing segment of child-free tourism ("adults only"), which is gaining increasing importance in European Union countries, including Poland. The starting point presents the main trends in contemporary tourism, particularly demographic, social, and technological changes that shape the demand for hospitality services targeted at adult travelers. The subsequent part illustrates how creating an "adults only" offer may contribute to enhancing the competitiveness of hotel establishments and improving the quality of services provided.

The overarching research objective—namely the development of an innovative system model to support the management of the child-free tourism segment using Blockchain technology and artificial intelligence (AI)—has been carried out in several stages. The first chapter reviews theoretical issues related to tourism and characterizes the conditions for developing "child-free" tourism. Next, the second chapter outlines the specific needs and expectations of adult travelers as well as the role of modern market segmentation methods. The third chapter has an empirical dimension, presenting the findings of a survey on Polish tourists' preferences regarding "adults only" services, along with an analysis of the hotel supply. The following chapter focuses on the potential of applying Blockchain technology in this tourism segment, taking into account Web 3.0 tools and smart contracts. The fifth chapter proposes a concept for an IT system model, based on Blockchain and supported by AI solutions, aimed at optimizing transactional processes and personalizing offers.

Expert verification confirms that implementing the proposed model can significantly increase transaction transparency and security, improve guest services, and strengthen the competitive position of hotels dedicated to adult travelers. Consequently, this study demonstrates that combining modern technologies with the practical aspects of managing hospitality services in the "adults only" segment constitutes an important direction for further research and a potential catalyst for development in the tourism industry.

Keywords: child-free tourism, adults only, hospitality services, Blockchain technology, artificial intelligence (AI), offer personalization, IT system model