Outbound Tourism Demand in Central Asia: A Gravity Model Applied Approach

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Abstract

Tourism has become one of the major socio-economic drivers in Central Asia over the past decade. According to the United Nations World Tourism Organization, in 2019 tourism shares 5.4% of the total economy, generating 1.53 million jobs and 5.1 USD billion revenues by tourism receipts in Central Asia (WTTC, 2021). Outbound tourism demand in Central increased significantly from 21 thousand in 1995 to over 24 million in 2019 (UNWTO, 2019). There have been no detailed investigations of outbound tourism demand in Central Asia. The existing studies are limited to survey-based qualitative analysis (Develioglu & Kantraci, 2014; Kantarci, 2007a, 2007b; Kantarci et al., 2015; Koh & Kwok, 2017; Xu, 2019). Few studies have conducted a quantitative analysis of the tourism demand of Central Asia. An author such as Ibragimov et al. (2021) has developed a comprehensive empirical analysis of inbound tourism demand in Central Asia from 2008 to 2018 using the gravity model, but this study has not discussed the question of outbound tourism demand. Thus, this study takes the first step to analyze the determinants of outbound tourism demand in Central Asia to 76 countries for the period of 1995-2015 using the gravity model. Three-dimensional panel data set of 76 countries of destinations and 5 origin countries of Central Asia (e.g., Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan) from 1995 to 2015. The determinants of outbound tourism are classified into five categories such as economic (tourists' income, costs of transport) social (common spoken language, religion, colonial relationship, cultural/natural heritage sites), geographic (sharing a common border, coastline length, country area, landlock), climate

(average temperature and precipitation) and governance (political stability, governance effectiveness, corruption, quality of public services and voice accountability) indicators. Following the recent studies, international tourism flows between countries is significantly explained by the gravity model (Balcilar et al., 2021; Balli et al., 2020; Park, 2016; Santeramo & Morelli, 2016; Ulucak et al., 2020). The gravity model is employed to examine the impact of relevant determinants on outbound tourism demand in Central Asia. The least-square dummy variable (LSDV) technique is applied for estimating the gravity model including origin, destination and year fixed effects. The findings reveal that a 1% increase in tourist's income tends to increase the number of outbound tourists by 0.6% in Central Asia. A surge in costs of transport between origin and destination countries reduce outbound tourism demand in Central Asia by 1.8%. Sharing a common border, having a colonial relationship and language proximity between origin and destination countries are found to be key factors to boost the volume of outbound tourists in Central Asia. The number of natural and cultural heritage sites in the destination countries are positively associated with outbound tourism demand. A peaceful political environment in the destination countries leads to an increase in the number of outbound tourists in Central Asia by 0.2%. Good governance, good quality of public services play an important role to increase the outbound tourism demand in Central Asia by 2.3%. In contrast, a low level of control over corruption causes a severe drop in the volume of outbound tourists in Central Asia by 3.7%. Moreover, regarding the climate determinants, outbound tourists like sunny destinations dislike extreme temperature and rainfall in the destination countries. The outcome of this study urges Central Asia policymakers to upgrade the policy implication in this region. Specifically, policymakers should moderate the costs of transport especially for tourists travelling to long-haul destinations. The outcomes reveal to take quick action over climate change and establish technology with low carbon dioxide consumption. Central Asia should reinforce the control over corruption consequently it encourages outbound tourism demand by 3.7% in the region.

Keywords: Outbound tourism, gravity model, tourism determinants, Central Asia

References

Balcilar, M., Aghazadeh, S., & Ike, G. N. (2021). Modelling the employment, income and price elasticities of outbound tourism demand in OECD countries. Tourism Economics, 27(5), 971–990. https://doi.org/10.1177/1354816620910929

Balli, F., Ghassan, H. B., & Al Jeefri, E. H. (2020). Towards Understanding GCC Outbound International Tourism. Journal of Policy Research in Tourism, Leisure and Events, 12(2), 142–151. https://doi.org/10.1080/19407963.2018.1556671

Develioglu, K., & Kantraci, K. (2014). Clustering Silk Road Countries Based on Competitiveness Factors in Tourism Industry. Tourism in Central Asia: Cultural Potential and Challenges, 201.

Ibragimov, K., Perles-Ribes, J. F., & Ramón-Rodríguez, A. B. (2021). The economic determinants of tourism in Central Asia: A gravity model applied approach. Tourism Economics, 13548166211009984. https://doi.org/10.1177/13548166211009985

Kantarci, K. (2007a). The image of Central Asia countries: Kyrgyzstan, Kazakhstan, Uzbekistan, and Turkmenistan. Tourism Analysis, 12(4), 307–318.

Kantarci, K. (2007b). Perceptions of Central Asia Travel Conditions: Kyrgyzstan, Kazakhstan, Uzbekistan, and Turkmenistan. Journal of Hospitality & Leisure Marketing, 15(2), 55–71. https://doi.org/10.1300/J150v15n02_04

Kantarci, K., Basaran, M., & Ozyurt, M. (2015). Comparative analysis of Central Asian tourism product from point of view of Turkish travelers: A case of Kyrgyzstan, Kazakhstan, Tajikistan, Uzbekistan and Turkmenistan. International Conference on Eurasian Economies, 192.

Kantarci, K., Basaran, M., & Ozyurt, M. (2015). Comparative analysis of Central Asian tourism product from point of view of Turkish travelers: A case of Kyrgyzstan, Kazakhstan, Tajikistan, Uzbekistan and Turkmenistan. International Conference on Eurasian Economies, 192.

Park, Y. S. (2016). Determinants of Korean Outbound Tourism. Journal of Economics, Business and Management, 4(2), 92–98.

Santeramo, F. G., & Morelli, M. (2016). Modelling tourism flows through gravity models: A quantile regression approach. Current Issues in Tourism, 19(11), 1077–1083. https://doi.org/10.1080/13683500.2015.1051518

Ulucak, R., Yücel, A. G., & İlkay, S. Ç. (2020). Dynamics of tourism demand in Turkey: Panel data analysis using gravity model. Tourism Economics, 1354816620901956. https://doi.org/10.1177/1354816620901956

World Travel and Tourism Council (2021). Central Asia 2021 Annual Research: Key Highlights. Retrieved from: https://wttc.org/Research/Economic-Impact

World Tourism Organization (2019), Compendium of Tourism Statistics dataset, UNWTO, Madrid. Retrieved from: https://www.e-unwto.org/toc/unwtotfb/current

Xu, J. (2019). Analysis on the Tourism Competitiveness of Five Central Asian Countries Based on Diamond Model. 566–569. https://doi.org/10.2991/seiem-18.2019.147