

EVALUATING THE DRIVERS OF OUTBOUND TOURISM: EVIDENCE FROM CENTRAL ASIA

Abstract

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Purpose – This study analyses the outbound tourism demand of Central Asia to 76 destinations for the twenty-one-year period (1995-2015). The main objective is to investigate the extent to which economic and non-economic determinants impact the volume of outbound tourism flows in Central Asia.

Methodology/Design/Approach – The study formalizes the static panel data, the set of 76 destinations, and five Central Asia countries. The application of the gravity model has been employed using the least squares dummy variables (LSDV) estimation technique.

Findings – The findings reveal that the outbound tourism demand of Central Asia is found to be highly income elastic and price inelastic. Costs of transportation and visa restrictions between bilateral countries cause a substantial decline in the number of overseas travel. Among other factors, a peaceful political environment in a destination is defined as a key element to attract tourists from Central Asia.

Originality of the research – This research represents the first attempt to analyse outbound tourism demand in Central Asia, taking into account factors in both the origin and destination countries, such as visa restrictions, political stability, tourist income, the price of goods and services, and common language.

Keywords Gravity model, outbound tourism, Central Asia, income, relative price, visa

Research note

Received 16 January 2024

Revised 8 July 2024

30 September 2024

Accepted 2 October 2024

<https://doi.org/10.20867/thm.31.1.11>

INTRODUCTION

Tourism is considered one of the world's largest industries and international travel has always been the desire of people for various reasons. It has become a primary source for revenue generation, job creation, private sector growth and infrastructure development (Gee & Fayos-Sola, 1997). In 2019, global outbound tourism accounted for 1.248 billion departures (UNWTO, 2021). In the regional context, Central Asia comprising Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan, is home to 18 UNESCO World heritage sites and known for its rich mixture of Islamic, Turkic and Soviet influences. The region has recorded an increase in the number of outbound travelers from 21 thousand in 1995 to 24 million in 2019 (UNWTO, 2021). The total contribution of travel and tourism to Central Asia's GDP for 2019 is 5.4% (USD 13 billion) while international tourism expenditure at USD 5.1 billion (WTTC, 2021). According to Travel & Tourism Development Index (TTDI) 2024 Report, Central Asia demonstrates an average 3.74 score out of 7, indicating that there has been significant improvement compared with 3.27 score in 2019 (World Economic Forum, 2024).

Tourist flows can be very reactive to many economic and non-economic factors such as tourist's income, travel costs, price of tourism products, political environment, number of world heritage sites, sharing a common border or having a commonly spoken language between countries, and visa restrictions (Crouch, 1992; Khadaroo & Seetanah, 2008; Neumayer, 2010; Saha & Yap, 2014). Previous studies have analysed inbound tourism demand in the case of a particular destination, country or region (Garín-Muñoz, 2006, Habibi, 2017; Tang, 2018; Tang & Tan, 2016). However, the analysis of outbound tourism demand has received a growing interest among scholars. Specifically, Park (2016) has analyzed the Korean outbound tourism demand in 53 countries for over nine years using the gravity model. As a result, Korean tourists were highly concerned about the changes in the price of tourism products in OECD countries. Dogru & Sirakaya-Turk (2018) have investigated Turkish outbound tourism

demand for the top 12 tourist destinations from 2003 to 2013. The study reveals that tourists' income, relative prices of tourism products at the destinations and habit persistence or word-of-mouth are the most significant factors influencing the demand for Turkish outbound tourism. In relation to this, Song et al. (2000) have explored UK outbound tourism demand for 12 overseas holiday destinations for the period 1965-1994, and results show that UK outbound tourism demand is income-elastic but price-inelastic. In the context of BRICS nations (Brazil, Russia, India, China and South Africa), determinants such as income level and air transportation lead to increased outbound tourism demand (Ventura, et al, 2023). Additionally, Balli et al. (2020) have estimated outbound tourism demand from 6 Gulf Cooperation Council (GCC) countries (Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and UAE) to 54 destinations between 1995 and 2013. The findings show that high quality of institutions in a destination plays a significant role in attracting tourists from GCC countries.

The literature reveals a gap in existing knowledge regarding the demand for outbound tourism in Central Asia. Nevertheless, several studies have focused on inbound tourism in the region. Central Asia's tourism potential remains scarcely studied as compared to other regions of the Global South despite of its location in the Silk Road routes (Xu, 2019). Ibragimov et al. (2022) analysed inbound tourism demand in Central Asia from 128 origin countries for the period 2008-2018. Their findings indicate that international tourists traveling to Central Asia tend to be more travel cost-elastic and price-inelastic. Among non-economic factors, shared language and common borders between origin and destination countries encourage inbound tourism. Political instability significantly deters tourism flows to the region, which was also supported by studies of Xu (2019) and Li et al. (2020). Furthermore, qualitative studies have explored the perceptions of South Korean and Turkish tourists visiting Central Asian countries (Kantarci, 2007a, 2007b; Kantarci et al., 2015). The results indicate that cultural sightseeing, hospitality, and cultural similarities in the Central Asian region are identified as the main travel motivations.

To conclude, from a regional scale, none of the studies explores the impact of economic and non-economic factors towards outbound tourism demand in Central Asia based on a dual perspective with reference to tourist-generating countries and tourist-receiving countries. From a global scale, most studies on inbound and outbound tourism have prioritized economic variables such as income, price of goods and services, and transportation costs (Ibragimov et al., 2022) along with primary research data applying involvement theory, using variables such as personal factors, product involvement, and situational factors (Chen, et al., 2024), while neglecting non-economic factors such as political stability, visa regimes and cultural affinity. The research addresses the gap in the literature and offers valuable operational information for policymakers in the region, providing a means to enhance international tourism between countries.

1. DATA AND METHODOLOGY

The study aims to estimate the economic and non-economic determinants of outbound tourism flows to 76 destination countries from 5 Central Asian countries. Therefore, this study applies the gravity model in explaining outbound tourism flows, and this model can be written as:

$$\begin{aligned} \ln OT_{odt} = & \beta_0 + \beta_1 \ln GDP_{pc_{dt}} + \beta_2 \ln GDP_{pc_{ot}} + \beta_3 \ln Dist_{od} + \beta_4 Price_{odt} + \beta_5 PStability_{ot} \\ & + \beta_6 PStability_{dt} + \beta_7 Border_{od} + \beta_8 Language_{od} + \beta_9 VisaRestrict_{od} + \beta_{10} Hsites_d \\ & + \gamma_o + \delta_d + \theta_t + \mu_{ijt} \end{aligned} \quad (1)$$

where $\ln$ refers to natural logarithms. o and d represent sub-indexes related to the country of origin and destination. t indicates year from 1995 to 2015; $\beta_0, \dots, \beta_{10}$ are estimated parameters; γ_o , δ_d , and θ_t show the origin, destination and year-fixed effects. μ_{ijt} is a well-behaved disturbance term. The gravity equation is estimated by least squares dummy variables (LSDV) estimator incorporating origin, destination and year individual fixed effects. Over the last two decades, the number of academic studies that used the gravity model has significantly increased in tourism literature. The gravity model's theoretical concept in tourism demand has been postulated by Morley, et al (2014). Taking into consideration the advantages of the gravity model such as precise estimation efficacy and high goodness of fit, this model has been adopted to analyse international tourism flows between countries (Ibragimov et al., 2022; Lorde et al., 2015; Ulucak et al., 2020).

This study uses static panel data, a set of 76 destinations and 5 Central Asian countries namely: Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan, as the origin for the period 1995-2015. Panel data is strongly balanced across cross-sectional units and years. The definition of each variable and obtained sources are presented in Table 1.

Table 1: **Data description**

Variables	Definition	Expected sign	Source
OT _{odt}	Dependent variable: the number of tourist departures (in thousands) from 5 origin countries of CA (<i>o</i>) to 76 destination countries (<i>d</i>) in period (<i>t</i>) (1995-2015)		UNWTO
GDPpc _{ot} GDPpc _{dt}	Per capita of gross domestic product (current US dollars, 2005=100), used to represent income (Lim, 1997)	+	WDI
Dist _{od}	Great circle distance calculates in kilometres between bilateral countries and adopted as a proxy for transport costs (Conte et al., 2022; Mayer & Zignago, 2011)	-	CEPII
Price _{odt}	Relative price of goods and services is measured by the exchange-rate adjusted consumer price index in destination relative to origin country (Dwyer et al., 2010; Ibragimov et al., 2022)	-	Elaboration of WDI
VisaRestrict _{od}	A dummy variable sets 1 if bilateral countries have mutual visa restrain, 0 otherwise;	-	HPI
Language _{od}	A dummy variable sets 1 if bilateral countries share a common spoken language, 0 otherwise;	+	CEPII
Border _{od}	A dummy variable sets 1 if bilateral countries share a common border, 0 otherwise;	+	CIA
Hsites _d	Represents the number of world heritage sites in destination countries	+	UNESCO
Pstability _{ot} Pstability _{dt}	Political stability in the origin and destination countries, measures in the range between -2.5 (weak) and 2.5 (strong)	-	WGI

Note. Tourist departures data are from Compendium of Tourism Statistics dataset by United Nations World Tourism Organization (UNWTO), 2021 (<https://www.e-unwto.org/toc/unwto/tfb/current>); Gross Domestic Product and relative price of goods and services data are from World Development Indicators (WDI) by World Bank Group, 2023 (<https://databank.worldbank.org/source/world-development-indicators>); Distance and language data are from CEPII Gravity Database Research and Expertise on the World Economy by Conte, Cotterlaz & Mayer, 2022 (https://www.cepii.fr/CEPII/en/bdd_modele/bdd_modele_item.asp?id=8); Visa restrictions data are from The Henley Passport Index (HPI) by Henley & Partners, 2023 (<https://www.henleyglobal.com/passport-index>); Borders data are from The World Factbook by Central Intelligence Agency (CIA), 2023 (<https://www.cia.gov/the-world-factbook/>); Heritage sites data are from World Heritage List Statistics by United Nations Educational, Scientific and Cultural Organization (UNESCO), 2023 (<https://whc.unesco.org/en/list/stat/>); Political Stability and Absence of Violence/Terrorism data are from Worldwide Governance Indicators (WGI) by Kaufmann & Kraay, 2023 (<https://www.worldbank.org/en/publication/worldwide-governance-indicators>).

2. RESULTS

The estimated result of outbound tourism demand for Central Asia is reported in Table 2. Before proceeding to the estimation of the gravity model, panel data has been checked for the fisher-type panel unit-root test.

Table 2: **Outbound tourism determinants' estimation results**

lnOT _{odt}	Coef.	Std. Err.
lnGDPpc _{ot}	0.435**	0.193
lnGDPpc _{dt}	0.472***	0.044
lnDist _{od}	-1.422***	0.074
Price _{odt}	-0.00016**	0.00007
Pstability _{ot}	0.358	0.301
Pstability _{dt}	0.332***	0.054
Language _{od}	1.851***	0.241
Border _{od}	0.867***	0.258
Hsites _d	0.136***	0.006
VisaRestrict _{od}	-1.496***	0.133
Constant	7.576	1.678
Year FEs	Yes	
Origin FEs	Yes	
Destination FEs	Yes	
Observations	2163	
R ²	0.804	

Note: Coef.: Coefficient; Std. Err.: Robust standard error; FEs: Fixed effects.
Significant level at *** p<0.01, ** p<0.05, * p<0.1;

As a result, time-variant variables such as $\ln GDP_{pc_{ot}}$, $\ln GDP_{pc_{dt}}$, $Price_{odt}$, $Pstability_{ot}$ and $Pstability_{dt}$ reject the presence of unit root tests which approves that the model has been estimated consistently by avoiding a spurious regression. The findings show that the outbound tourism demand of Central Asia is very responsive to both economic and non-economic factors. According to economic factors, GDP per capita in the origin ($\ln GDP_{pc_{ot}}$) and destination ($\ln GDP_{pc_{dt}}$) countries are statistically significant at the 5% and 1 % levels, respectively. Suggesting that, a 1% rise in residents' income in Central Asia tends to increase the number of outbound tourists from this region by 0.4%. Similarly, a positive change in destination countries' income level leads to economic prosperity, and consequently, this increases international flows to the destination by 0.47%. High costs of transportation ($\ln Dist_{od}$) between origin and destination cause a sharp drop in outbound tourism demand in Central Asia by 1.4%. The relative price of tourism product in destination ($Price_{odt}$) is statistically significant at the 5% level and has a negative and negligible effect which is very close to zero. This implies that the outbound tourism demand of Central Asia is found to be price inelastic. Moreover, non-economic factors reveal a strong linkage to outbound tourism demand. The political stability in origin countries ($Pstability_{ot}$) is statistically insignificant.

On the other hand, political stability in destination countries ($Pstability_{dt}$) is statistically significant at 1% level and positively associated with outbound tourism demand thus, tourists traveling abroad from Central Asia are highly concerned about safety and security in the destination. A strong political atmosphere in destination countries increases the outbound tourism volume from Central Asia by 0.3%. Cultural affinity factors such as sharing a common language ($Language_{od}$) and sharing a common border ($Border_{od}$) between origin and destination countries increase significantly the number of outbound tourists from Central Asia by 1.8% and 0.8%, respectively. In addition, the high number of world heritage sites ($Hsites_d$) in destination countries has a positive relationship to outbound tourism demand in Central Asia. Apart from transportation costs, outbound tourism demand is strongly affected by visa entry restrictions to the destination. Visa restrictions between origin and destination countries result in a serious drop in outbound tourism flows by 1.4%.

CONCLUSION

This paper is the first empirical study that analysed outbound tourism demand of Central Asia using the gravity model. Results reveal that outbound tourism demand is price-inelastic and income-elastic. Central Asian outbound tourism flows face two barriers. These are high transportation costs and visa entry restrictions that cause a sharp drop in outbound tourism demand by a total of 2.9%. Good political environment in destination countries attracts more tourists from Central Asia. Commonly spoken language between countries of origin and destination greatly favours outbound tourism demand in this region. As such, tourism businesses and destination stakeholders must strategically plan programs with reference to factors such as transportation costs and visa entry restrictions to destinations. This will create better regional tourism marketing policies to increase the number of outbound tourists from Central Asia that propel business opportunities, create jobs and enhance the quality of life.

Besides novel contribution to the literature, the study considers certain limitations. Data range covers a fixed period from 1995 to 2015, that did not include other external factors such as the impact of COVID-19 pandemic and climate catastrophes which have affected the global tourism industry. For future research, based on latest available dataset, it is recommended to apply dynamic panel data with the integration of AI and machine learning estimation techniques to analyse complex relationships between variables and obtain results with high accuracy and predictive rate.

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Please cite this article as:

Ibragimov, K., Marques, J., Flores, R.J. & Ramazanov, M. (2025). Evaluating The Drivers of Outbound Tourism: Evidence from Central Asia. *Tourism and Hospitality Management*, 31(1), 151-155, <https://doi.org/10.20867/thm.31.1.11>



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