

Contribution of Mountaineering Tourism to Nepalese Economy

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ABSTRACT

Snow-capped mountains and Nepal are analogous. The mountains have become synonymous with Nepal. The mountains that run along Nepal's northern border have become not only a symbol of the country but also an important part of its economy. The nation and the Nepalese tourism industries have been branding the snow-capped mountains to attract tourists from around the world. Mountaineers around the world visit Nepal to conquer the mountains. In the process of mountaineering, Nepal has been generating a good amount of revenue. Hence, the paper tries to find out the contribution of mountain tourism to the Nepalese economy. For this purpose, the paper followed a correlation research design. The paper found a perfect connection between the number of mountaineers arriving in Nepal and the royalty collection from them. Hence, the increasing number of mountaineers ultimately determined the royalty collection from mountaineering. Nevertheless, the paper also disclosed that the number of expedition teams and mountaineers arriving in Nepal for mountaineering has a positive connection with the real gross domestic product (GDP) of Nepal.

INTRODUCTION

An endeavour to mountain peaks began in the 1760s among Swiss scientists. Before the Swiss, the two Englishmen, William Windham and Richard Pococke climbed Mount Montenvers near Chamonix to observe glaciers for leisure activity in June 1741 (Smith, 1853). A Genevese scientist who first saw Mount Blanc offered prize money to the mountaineer who ascended Europe's highest peak. Then a French doctor from Chamonix, Michael-Gabriel Paccard, with his porter, Jacques Balmat, summited Mount Blanc on August 8, 1786. Hence, this was a landmark date in modern mountaineering history (Milner, 1955). Mount Everest was unknown to the world until the Great Trigonometric Survey of India under the British Empire identified it as the world's highest mountain in 1852 (Brunner, 2014). An official expedition to Mount Everest was set off in 1921 from

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the North Col of the Tibetan side as Nepal was not open to foreigners during the period. On June 8, 1924, an expedition team led by George Mallory and Andrew Irvine reached just 800 m short of the summit of Mount Everest.

The tourism industry has a very short history in the context of Nepal, which began after the political change of 1950 AD. When Nepal was opened to international tourists, Tenzing Norgay and Edmund Hillary first conquered Mount Everest on May 28, 1953. Although the French mountaineers, Maurice Herzog and Louis Lachenal summited Mount Annapurna-I on June 3, 1950, three years before, Mount Everest was conquered by humans (Herzog, 1953).

Since the 1950s, the tourism industry has been one of the major components of the Nepalese economy. The tourism industry comprises economic activities by providing facilities for tourists like hotel management, travel agencies, trekking agents, rafting, ticketing, and many other services to tourists. Hence, the history of the tourism industry and mountaineering are extremely interconnected in Nepal.

Experiences from Europe, North America, and Japan show a close connection between tourism and economic development (Harrison, 2001). Tourism contributes to the growth of the national economy by contributing to Gross Domestic Product, as earlier stated, contributing to foreign exchange earnings, employment generation, the balance of payments, and poverty alleviation of the nation.

Earlier, mountain tourism was not seriously considered an important product by Nepalese tourism-sector entrepreneurs as well as by the government. Nevertheless, with the need of a large number of porters, the local people of the Khumbu region were getting benefits from the arrivals of teams of mountaineers. The high-altitude porters during that time also earned NPR 7.5 per day, i.e., around USD 1 as per the then exchange rate alongside some gifts of clothing and equipment during the 1950s (Furer-Haimendorf, 1975). But later, dramatic increment in tourists for mountain tourism and trekking in Nepal saw the importance of mountaineering in Nepal (Upadhyay, 2019).

Since the sector of mountaineering is a labour-intensive tourism-based activity, labour-intensive jobs are created in the economy, especially in rural areas of the nation. This helps to boost the economy from the ground level. Mountaineering and trekking around the Khumbu region have brought employment and income opportunities to the communities along the trekking routes and to the Khumbu Valley (Nyaupane, 2015). Historically also, the local-level economy around the Khumbu region was completely attached with mountaineering tourism. A decision of banning a mountaineering expedition from 1965 to 1969 around the Khumbu region hit the local economy hard (Rowell, 1980).

In the context of Nepal, the tourism industry is one of the important sources of foreign exchange earnings. As per the data of the central bank of Nepal, Nepal Rastra Bank, the country has collected more than NPR 11 billion from the tourism sector during the period 2021-22. Out of the above amount, NPR 10.48 million royalties was collected

from mountaineers, as per the Nepal Mountaineering Association. A hefty decline in the royalty amount was seen during the period, due to the impact of COVID-19 restrictions. Nevertheless, the mountaineering sector plays a vital role in foreign exchange earnings. Other than the above-mentioned amount, the mountaineers pay expenses on travelling, trekking, lodging, and other activities, which also help to vitalize the economy at the grassroots level.

Tourism receipts linked to the international inbound mountaineers play a vital role in managing the balance of payment of the nation. The foreign exchange earnings from the tourism sector used to be around 5 percent to 6 percent of the total foreign exchange earnings of Nepal, but the amount heavily declined during the period of 2012-22, touching 0.05 percent of total foreign exchange earnings (MoF/GoN, 2022). Tourism receipts could play a vital role in managing the deficit balance of payment for the nation, whose economy depends on tourism as well. But the mountainous trade deficit of Nepal could not be manageable with the foreign exchange earnings from the tourism industry only. Every year during the mountaineering season a large number of mountaineering teams alongside mountaineers come to Nepal for the mountain expedition. The government charges a good amount of royalty from each mountaineer. The foreign currency is taken into the account of the government and the expenditures made by the mountaineers during the expedition also goes into the national economy. Hence, mountaineering tourism has been contributing to the economy of Nepal formally or informally. In this context, the paper tries to see a connection between foreign currencies earning as a royalty from the mountaineering sector with the economy of Nepal.

REVIEW OF LITERATURE

Stevens (1993) stated that mountaineering in the Everest region had enhanced the economy of the Khumbu region. The paper stated that mountaineering activities around Mount Everest not only boosted the local economy but also connected the local economy with the global economy.

Miller (1997) found that the young Sherpa porters from the Khumbu region made a secondary source of earnings for their families at home and less need to borrow money for a few rich families. Family climbers became an economic mainstay. Similarly, Law and Rodway (2008) saw that an increasing number of mountaineers and mountaineering teams around the Khumbu region had been creating employment opportunities among the young Sherpa of the Khumbu region, and the nation is tapping easy ways of generating revenues.

Paudyal (2012) found that tourism receipts had a bilateral relationship with Gross National Income (GNI), exports, private consumption, and imports. The paper found the existence of a bi-directional impact in the case of tourism receipts and the Gross Domestic Product (GDP) of Nepal. Similarly, Gautam (2019) revealed that foreign exchange earnings from

the tourism sector cause economic growth in Nepal in both the short run and the long run. The result also indicated a bi-directional causality between foreign exchange earnings from tourism and the Gross Domestic Product (GDP) of Nepal.

Rai (2017) stated that the participation of women directly in mountaineering is not seen but were only employed as cooks, camp crew, and drivers. Nevertheless, the royalty of the mountaineers is seen as an excellent source of foreign exchange earnings for the nation. The paper also found diversification in income sources, entrepreneurial development, and infrastructure development around the Khumbu region.

At the same time, K.C. (2017) noted that mountaineering has been an excellent source of foreign exchange earnings for Nepal. The foreign exchange earned by Sherpa working at high altitudes, porters, cooking helpers, camp crews, and drivers has been significantly contributing to the economy of Nepal. Pallathadka (2020) showed the two sides of mountaineering tourism where the paper discussed both the positive and negative impacts of excessive tourism on Mount Everest. One of the most beneficial aspects of mountaineering was foreign exchange for the nation, while the negative aspect was pointed out to be the issue of garbage left over on Mount Everest. Other than the garbage issue, the problem of deforestation, inequality in job opportunities among Sherpa, and opportunities for land use in the Khumbu region.

Bacoş and Gabor (2021) disclosed that the development of infrastructure around the mountain area of Romania brought economic prosperity alongside the development of mountain tourism. The snow-capped mountains of Romania brought potential diversion towards a tourism-based economy with development activities around the mountain region.

Zeng et al. (2022) conducted a bibliometric analysis and science mapping on research related to mountain tourism and economic development, where the study concluded that government agencies and destination managers need to maintain the balance between sustainable mountain tourism development and the environment and the natural landscape. In the context of Nepal, Bennike and Nielsen (2023) revealed the existence of inequality in participation and benefits from tourism around the Manaslu Conservation Area among the people living at trekking trails.

RESEARCH METHODS

The paper followed a correlation research design to fulfil the objective of the study. The design has been adopted in the paper to ascertain the extent to which two variables are related.

The study used secondary data published in the Economic Survey from the Ministry of Finance. Kharel and Kharel (2020) pointed out the economic impact of tourism is measured in terms of foreign exchange earnings, employment generation, government royalty and contribution to GDP account. Similarly, Law and Rodway (2008) saw a

connection of employment generation among the local Sherpa in due course of an increasing number of expedition teams and mountaineers around the Khumbu region. At the same time, K.C. (2017) saw a significant positive connection between the increasing number of mountaineers and expedition teams around Khumbu region and impact on the national economy. Thus, in context to see the connection of mountaineering in the Nepalese economy, royalty collection from mountaineering was taken as a proxy for the dependent variable. The total number of teams arrived; number of mountaineers, foreign exchange (FOREX) earning from tourism and Real Gross Domestic Product (GDP) in Nepalese Rupee (NPR) were used as independent variables in the paper. The data from the year 1981 to 2021 have been analysed in the paper.

DATA ANALYSIS AND DISCUSSION

This section of the paper presents the analysis of data to fulfil the objective of the paper.

Descriptive Statistics

Table 1 illustrates the descriptive statistics of the selected variables for the paper:

Table 1

Descriptive Statistics of the Selected Variables

Variables	Mean	Min.	Max.	Coeff. of Range	Standard. Deviation	Skewness	Kurtosis
Royalty from Mountaineering*	145.52	0.35	686.01	+0.99	190.86	+1.47	+1.34
Foreign Exchange Earning from Tourism*	5863.48	561	18147	+0.94	4118.83	+0.72	+0.29
Real Gross Domestic Product*	240,106.00	58,861	514,490	+0.79	117,454.66	+0.65	-0.06
No. of Expedition Team	297.15	79	1921	+0.92	465.13	+3.08	+8.47
No. of Mountaineers	1783.27	447	8641	+0.90	2022.51	+2.71	+6.70

*Value in million NPR

Table 1 shows that the royalty from mountaineering, number of mountaineering teams, and number of mountaineers have a high degree of coefficient of range. The values are at a higher level showing the extreme dispersion of values for the selected variables from 1981 to 2021.

Similarly, Table 1 reveals that all the variables are positively skewed, reflecting the curve of the frequency distribution has a longer tail on the right. Similarly, the value of kurtosis shows the peakedness of the distribution. Going by the kurtosis value, except

for real gross domestic product, it exhibits that the remaining variables have followed a leptokurtic distribution reflecting more 'peaked' than the normal curve. Hence, the frequency distribution for the real gross domestic product is platykurtic having a flat-topped curve than the normal curve.

Correlation Coefficient Matrix

Table 2 shows the relationship between the dependent and independent variables in context to the connection of mountaineering in Nepalese economy:

Table 2

Correlation Matrix: Interrelationships of Mountaineering Royalty with other variables

Variables	Royalty from Mountaineering	Foreign Exchange Earning from Tourism	Real Gross Domestic Product	Number of Expedition Team	Number of Mountaineers
Royalty from Mountaineering	+1.000				
Foreign Exchange Earning from Tourism	+0.100 (0.533)	+1.000			
Real Gross Domestic Product	+0.355* (0.023)	+0.376* (0.015)	+1.000		
Number of Expedition Team	+0.810** (0.000)	+0.067 (0.678)	+0.344* (0.028)	+1.000	
Number of Mountaineers	+0.847** (0.000)	+0.016 (0.921)	+0.312* (0.047)	+0.980** (0.000)	+1.000

*Correlation is significant at 0.05 level (2-tailed).

**Correlation is significant at 0.01 level (2-tailed).

Table 2 shows the correlation coefficient values for the variables. The royalty from mountaineering is positively (+0.355) correlated with real gross domestic product. The result is seen as significant at a 5 percent level as well. The seasonal contribution from mountaineering tourism to the national economy is seen through the respective relationship.

At the same time, a positive correlation (+0.344) is seen between real gross domestic product and the number of expedition teams. Similarly, a positive correlation (+0.312) is observed between the real gross domestic product and a number of mountaineers who arrived in Nepal. Both results are seen as significant at 5 percent. The relationship shows that the inflow of an increasing number of the expedition team and mountaineers have

a positive impact on the national economy. Expenditures made by the mountaineers directly benefit the local community around the mountain region and indirectly benefit the economy of the nation.

Similarly, the royalty amount collected from mountaineering is with a high degree of positive correlation with a number of expedition teams (+0.810) and a number of mountaineers (+0.847). The results are significant at one percent level.

Nevertheless, the royalty from mountaineering has a low degree of positive correlation with the foreign exchange earnings from tourism. Similarly, the number of the expedition team and the number of mountaineers have a low degree of positive correlation. Although the variables have a positive correlation, the relationships are statistically insignificant.

As the number of expedition teams increases, the number of mountaineers also increases. Ultimately, the royalty collection from each expedition team and mountaineers also increases. Hence, there is an interconnection between the number of mountaineers arriving, the number of expedition teams, and royalty from mountaineering tourism.

Discussion: Stevens (1993) saw an increasing number of mountaineers on the trail of the Khumbu region boosted the lodging business at a local level. The livelihood of the local community changed due to the increasing number of mountaineers around the region. The economic activities in the Khumbu region increased due to the increasing number of the establishment of lodges. The current paper also shows the positive connection between a real gross domestic product with the number of mountaineers and expedition teams visiting Nepal.

In context to Chile, Brida et al. (2009) found a positive relationship between tourism expenditure and foreign exchange earnings from the tourism sector, while in Nepal, also there is a positive relationship between foreign exchange earnings with the number of mountaineers who arrived and a number of mountaineering teams arrived at Nepal.

In the paper, Sacareau (2009) stated that the arrival of an abundant number of mountaineers and mountaineering teams has been creating employment opportunities and replacing the traditional economy with alternative employment opportunities for the youth of the Himalayan region. As the number of tourists in mountain tourism increased it brought a positive vibe to the local economy, hence, the paper also found a positive relationship between the gross domestic product (GDP) of Nepal with the number of mountaineers and number of expedition teams arriving in Nepal.

CONCLUSION AND IMPLICATIONS

Mountains have long been associated with Nepal. Eight of the fourteen 8-thousander mountains¹ are situated in Nepal. Every year, a large number of tourists visit Nepal with different purposes. Although the major reason to visit Nepal is for mountaineering, the tourism industries of Nepal rely on the White Mountains that lie on the northern border.

¹ The mountains above 8,000 metres are also known as 8-thousander mountains.

Mountaineers who trek the area for mountaineering provide a living for the people who live in Nepal's mountain region. An informal economy in the rural areas of the mountainous region of Nepal also depends on mountaineering tourism. The authority has been collecting royalties from mountaineers who obtain permits to climb the peaks at the government level.

The royalty collection from mountaineering is closely connected to the number of expedition teams and mountaineers. Hence, as the number of expedition teams and mountaineers increases, the royalty collection ultimately increases, and vice versa.

Nevertheless, royalty from mountaineering, the number of expedition teams arrived, alongside the number of mountaineers had a low degree of positive correlation with a real gross domestic product, mountaineering tourism could not be ignored in the context of the Nepalese tourism industry, as the brand and image of Nepal lies on the snow-capped mountain range lying at the northern part of the nation. The results reflect that as the number of mountaineers and expedition teams increases, there is a positive vibe in the Nepalese economy.

Hence, attracting large numbers of mountaineers helps boost the royalty from mountaineering. Ultimately, the national economy of Nepal benefits from an increase in royalties. At the same time, for the sustainable return from mountaineering tourism, the government needs to concentrate on using the earned royalty on developing infrastructures, and trails and produce trained human resources for the mountaineering sector. Similarly, better use of technology in the promotion of mountain tourism and facilitating mountaineers should be adopted to ease taking government facilities by the mountaineers. The government of Nepal should not limit to making a ministerial-level decision of permitting more snow-capped mountains for mountaineering to generate higher revenue, but also need to improve infrastructure to facilitate mountaineering.

Finally, if mountains remain snow-capped and unpolluted, the mountaineers are attracted, but if environmental degradation occurs around the Himalayan region, a negative impact on mountain tourism ultimately takes place. Hence, to generate revenue from the mountain and get benefits, the mountain should be an ecological fit.

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REFERENCES

- Bacoş, I.B., & Gabor, M.R. (2021). Tourism economy. Mountain tourism: Quantitative analysis of winter destination in Romania. *Economics*, 9(1), 143-159. <https://doi.org/10.2478/eoik-2021-0005>
- Bennike, R.B., & Nielsen, M.R. (2023). Frontier tourism development and inequality in Nepal Himalaya, *Journal of Sustainable Tourism*. <https://doi.org/10.1080/09669582.2023.2174129>

- Brida J.G., Risso W.A., & Bonapace A. (2009). The contribution of tourism to economic growth: An empirical analysis for the case of Chile. *European Journal of Tourism Research*, 2(2), 178-185.
- Brunner, B. (2014). *Mortals of Mount Olympus: A history of climbing Mount Everest*. <https://www.factmonster.com/spot/everest2.html>
- Furer-Haimendorf, C. (1975). *Himalayan traders: Life in highland Nepal*. John Murray.
- Gautam, B.P. (2019). Tourism and economic growth. *NRB Economic Review*, 23(2), 18-30.
- Harrison, D. (2001). *Tourism and the less developed world: issues and case studies*. CABI Publishing Ltd. <https://doi.org/10.1079/9780851994338.0023>
- Herzog, M. (1953). *Annapurna*. E.P. Dutton.
- K.C., A. (2017). Climate change and its impact on tourism in Nepal. *Journal of Tourism and Hospitality*, 7, 25-43. <https://doi.org/10.3126/jthe.v7i0.17688>
- Kharel, K.R., & Kharel, S. (2020). Contribution of tourism industry in Nepal: Measuring its economic impact. *Patan Pragya*, 7(1), 110-122. <https://doi.org/10.3126/pragya.v7i1.35112>
- Law, A., & Rodway, G.W. (2008). Trekking and climbing in the Solukhumbu district of Nepal: Impact on socioeconomic status and health of lowland porters. *Wilderness and Environmental Medicine*, 19, 210-217. <https://doi.org/10.1580/07-WEME-WE-174.1>
- Miller, R. (1997). High altitude mountaineering, cash economy, and the Sherpa. *Himalayan Research Bulletin*, 17(2), 17-22.
- Milner, C.D. (1955). *Mont Blanc and the Aiguilles*. R. Hale Ltd.
- Ministry of Finance/Government of Nepal. (2022). *Economy survey, 2021-22*. Ministry of Finance/Government of Nepal.
- Nyaupane, G. P. (2015). *Mountaineering on Mount Everest: Evolution, economy, ecology, and ethics*. In G. Musa, J. Higham & A. Thompson-Carr (Eds.), *Mountaineering Tourism*. pp. 265- 271. Routledge.
- Pallathadka, H. (2020). The impact of excessive tourism in Mount Everest. *European Journal of Molecular & Clinical Medicine*, 7(11), 8980-8983.
- Paudyal, S. (2012). Does tourism really matter for economic growth? Evidence from Nepal. *NRB Economic Review*, 24(1), 48-66.
- Rai, D.B. (2017). Tourism development and economic and socio-cultural consequences in Everest Region. *Geographical Journal of Nepal*, 10, 89-104. <https://doi.org/10.3126/gjn.v10i0.17392>

- Rowell, G. (1980). *Many people come, looking, looking*. The Mountaineers.
- Sacareau, I. (2009). Changes in environmental policy and mountain tourism in Nepal. *Revue de Géographie Alpine [Journal of Alpine Research]*, 97(3), 1-11. <https://doi.org/10.4000/rga.1031>
- Smith, A. (1853). *The story of Mont Blanc*. G.P. Putnam & Co.
- Stevens, S. F. (1993). Tourism, change, and continuity in the Mount Everest region, Nepal. *Geographical Review*, 83(4), 410-427. <https://doi.org/10.2307/215823>
- Upadhyay, P. (2019). Tourism policy of Nepal and sustainable mountain tourism development in retrospect. *The Gaze: Journal of Tourism and Hospitality*, 10 (1), 37-50. <https://doi.org/10.3126/gaze.v10i1.22776>
- Zeng L, Li, R.Y.M, Nuttapong J., Sun J., & Mao, Y. (2022). Economic development and mountain tourism research from 2010 to 2020: Bibliometric analysis and science mapping approach. *Sustainability*, 14(1),562. <https://doi.org/10.3390/su14010562>