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Assessing the Impact of Homestay Tourism on Achieving SDG in Chitwan and Nawalparasi Districts, Nepal

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Abstract

Community homestays in Chitwan and Nawalparasi district, Nepal, are important for boosting tourism and improving the economic conditions of local families. A homestay business enables tourists to stay with local families and learn about their culture, thereby helping hosts earn additional income. The homestay industry in Chitwan has significant potential to benefit both the local economy and tourism. However, differences in income across homestays and their effects on household income remain unexplored. This study examines the income generated by homestays and compares their economic conditions. The study is critical because it demonstrates how tourism can help individuals achieve greater financial stability and enhance their quality of life, particularly in rural Nepal.

The goals are to compare the economic benefits of homestays and to examine their effects on SGDs (gender, proverty, economic growth, decent work). We used a quantitative survey to collect one hundred and fifty data from owners and employees of fifty homestays by administering survey instrument. Descriptive statistics were used to analyse the collected data. The results indicate that Community Homestay yields the most significant economic benefits, primarily due to improved marketing and visitor engagement. Households participating in homestays experienced annual income increases of 25%-40%, thereby improving their standard of living. The results also indicate a positive association between the homestay business and community economic development. The results are supportive to inform decisions on tourism policies and economic strategies. At the same time, tourism stakeholders (including NGOs and the Nepal Tourism Board) will receive guidance to plan the expansion of rural tourism programs nationwide.

Keywords: *community homestay, economic impact, household economy, madi municipality, Nepal, tourism*

Introduction

Homestay tourism is a type of hospitality in which travellers stay with local families in their homes and learn about their culture, traditions, and daily life. Unlike hotels or resorts, homestays offer an immersive and authentic experience that encourages cultural exchange between hosts and guests. This type of tourism is popular among travellers looking for meaningful, sustainable, and budget-friendly places to stay (Kafle, 2023). Entrepreneurship has become the primary vehicle for driving economic growth through innovation, and employment has been discussed in extant work (Naudé, 2010). A matter of considerable interest regarding entrepreneurship in poorer or emerging countries is its role in achieving economic growth and social development (Sautet, 2013). In this brief, we examine the interconnections among entrepreneurship, development, and economic growth, thereby expanding our understanding of Homestay Business (entrepreneurship) in the context of emerging economies, including Nepal (Adhikari, 2024).

The normative emphasis on economic growth among academic researchers and policymakers has incited significant debate. Nevertheless, a consensus has yet to be reached regarding the optimal form of growth or its significance for human and broader economic development (Mitra, 2020). Escalating disparities in wealth and income among individuals have further intensified economic divides and inequalities across nations and populations. The World Bank reports that more than seven hundred million individuals worldwide lived in extreme poverty in 2022. This situation contrasts starkly with the decline in global poverty, which has declined markedly since the 1960s, falling from approximately 80% of the world's population living in extreme poverty to nearly 10% before the pandemic (Beaumont, 2021). A significant portion of this asymmetry can be attributed to public policies aimed at growth, as evidenced by the ineffectiveness of external aid, investments in machinery, efforts to enhance educational attainment, and population-control measures, all considered essential for elevating living standards in impoverished nations (Mitra,

2020). Numerous instruments are considered vital for fostering a conducive entrepreneurial environment globally. Have growth theories contributed to these conflicting or ambiguous messages? A critical examination of these theories may clarify the matter.

Homestays have shown a range of effects—positive, negative, and cascading—on specific Sustainable Development Goals (SDGs), as shown in studies by Pasanchay and Schott (2021) and Bhakuni and Kumar (2020). They directly help SDG_1 (No Poverty) and indirectly help SDG_2 (Zero Hunger), SDG_3 (Good Health and Well-being), and SDG_4 (Quality Education). Homestays also have a direct positive effect on SDG_5 (Gender Equality), which, in turn, supports SDG_8 (Decent Work and Economic Growth). SDG_8 itself is positively affected by homestay development and has a ripple effect, improving SDG_{11} (Sustainable Cities and Communities). Homestays also directly support SDG_{11}, although documented adverse effects in this area show that trade-offs are necessary. Lastly, homestays make a positive contribution to SDG_{13} (Climate Action) while also having adverse effects on SDG_{11}, underscoring the need for a balanced and well-managed implementation.

Problem statement

Nepal's economic growth is very low and complex. Various financial institutions are struggling to improve their financial performance due to limited economic activity, diverse business activities, and inefficient economic cycles. Despite the growing popularity of homestay tourism as a community-based economic initiative, its actual contribution to achieving the United Nations Sustainable Development Goals (SDGs) remains underexplored. Specifically, there is limited empirical evidence on how homestay tourism influences SDGs; 1 (No Poverty), 5 (Gender Equality), 8 (Decent Work and Economic Growth), and 11 (Sustainable Cities and Communities) in rural and semi-urban areas. Understanding this impact is crucial to designing policies that ensure inclusive, equitable, and sustainable benefits for host communities. Therefore, this study aims to assess the multidimensional impact of homestay

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tourism on local livelihoods, gender empowerment, employment quality, and urban sustainability, and to evaluate whether and how it catalyses progress toward SDGs. Homestays have increasingly gained recognition as a sustainable form of tourism that supports long-term development goals. Globally, homestays emerged as a resilient segment within the tourism industry during the COVID-19 pandemic, offering a ray of hope amid widespread disruption. Demand for homestay accommodations has not only recovered but has exceeded pre-pandemic figures. This growth trend is expected to persist in the post-pandemic era, driven in part by a surge in travel enthusiasm, often referred to as "revenge travel" (Wang & Xia, 2021). Market analysts forecast that the homestay sector will grow into a multi-million-dollar industry, with an estimated annual growth rate of 11.2%. Notably, North America and Asia-Pacific countries, including India, Nepal, Indonesia, and Thailand, are projected to dominate the global homestay market, collectively accounting for roughly 60% of its total value (Prime PRWire, 2023), but not at achieved.

Aims and objectives

This study aims to examine the impact of homestay businesses on the support of the SDGs across different locations in Nepal. The primary objectives are to examine the relationships between poverty reduction, gender equity, decent work, economic growth, sustainable cities and communities, and homestay businesses. The analysis focuses on four specific goals—SDG_1 (No Poverty), SDG5 (Gender Equality), SDG_8 (Decent Work and Economic Growth), and SDG_{11} (Sustainable Cities and Communities)—which are believed to be significantly influenced by homestay initiatives, as highlighted by previous studies (e.g., Bhakuni & Kumar, 2020; Pasanchay & Schott, 2021; Rahmah, 2021). Prior research (e.g., Saini & Singh, 2022; Roy, 2022; Thakur et al., 2023) offers globally applicable insights that transcend the limitations of localised studies. Consequently, it serves as a pivotal reference for harnessing community-based homestay tourism to promote sustainable development.

Research questions

What is the relationship between the Homestay business and lowering poverty?

What is the relationship between gender equality and the Homestay business?

What is the relationship between homestay businesses, decent work, and economic growth?

What is the relationship between the homestay industry and environmentally sustainable cities and communities?
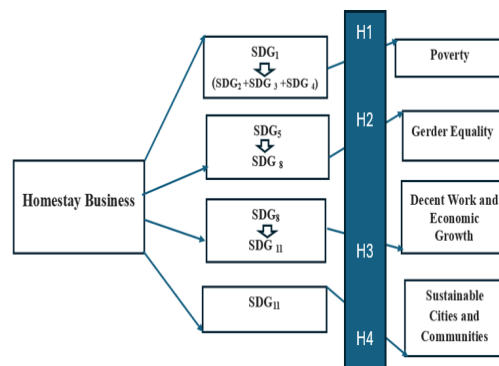
Conceptual framework of this study

Fig. 1 Impact on fulfilling Sustainable Development Goals

Hypothesis

H_1: There is a positive association between the Homestay business and poverty reduction at Chitwan and Nawalparasi, Nepal.

H_2: There is a positive association between the Homestay business and gender equity at Chitwan and Nawalparasi, Nepal.

H_3: There is a positive association between homestay businesses and decent work and economic growth in Chitwan and Nawalparasi, Nepal.

H_4: There is a positive association between homestay businesses and sustainable cities and communities at Chitwan and Nawalparasi, Nepal.

Homestays and Sustainable Development in Nepal

The tourism industry has grown rapidly over the past few decades, leading to the development of sustainable tourism. This idea began to gain

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attention worldwide in the 1970s. In Nepal, it has become more important, especially with the rise of community-based homestay tourism. These types of tourism activties emphasize environmental responsibility and involve multiple stakeholders, including local villagers, homestay operators, and all levels of government. Homestays have become a key component of ecotourism and village tourism in Nepal's rural and remote areas. These programs help the economic growth in ways that are beneficial to the environment and cultural values. The Government of Nepal has also supported homestay programs, especially in rural municipalities and hilly areas, by offering subsidies, training, and flexible policy frameworks to encourage participation. Nepal has begun offering skill-development training for homestay hosts to enhance service quality and professionalism, which are essential in regions such as the Himalayan belt, where tourism can be a significant source of income but remains underdeveloped due to limited capacity and awareness. By equipping young people and residents with the skills needed to operate businesses, Nepal aims to build a sustainable and inclusive tourism workforce. South India has the highest number of homestays, whereas Nepal has significant untapped potential, mainly due to its strong cultural and hospitality traditions. The saying "अतिथि देवो भवः" (the guest is God) is deeply ingrained in Nepali society and aligns well with the homestay culture. For tourists, this model offers a rich experience of local traditions, food, and lifestyle that is often not available in regular hotels.

Homestays in Nepal allow guests to get to know their host families better, try regional foods such as Dal and Bhat, take part in local festivals, and enjoy the peace of nature. Some homestays go beyond providing accommodation and offer experiences such as living with ethnic groups, Indigenous tribes, or even in traditional aristocratic homes, which provide visitors with an accurate portrayal of Nepal's rich culture. Compared with expensive hotels, homestays are not only cheaper but also suitable for large groups and families, offering guests greater freedom and personalised care,

which is not often found in mainstream tourism (Bhakuni & Kumar, 2020).

Homestays and SDG_1 (No Poverty)

Community-based tourism and homestay programs have become important in Nepal for achieving SDG_1: No Poverty by creating income-generating opportunities at the grassroots level. Homestays, which are less expensive than luxury hotels, enable local families, particularly in rural and mountainous areas, to host tourists and to use their homes, land, and cultural resources for tourism purpose (Semwal & Singh, 2023). These low-cost, high-impact models ensure that economic benefits are shared more equitably among community members, particularly in areas where traditional income sources are scarce (Roy, 2022). Homestays have become a lifeline for families in many parts of Nepal, such as Kaski, Ilam, Gorkha, and Dolakha, who are struggling financially. They offer an alternative to subsistence farming or seasonal labour migration. The money made from homestays is often used to meet household needs, such as children's education, healthcare, and community development projects. This has a positive effect on SDG_2 (Zero Hunger), SDG_3 (Good Health and Well-being), and SDG_4 (Quality Education). These results not only benefit individual families but also strengthen the community and increase its self-sufficiency (Thakur et al., 2023).

Homestays and SDG_5 (Gender Equality)

Homestays in Nepal have also made a big difference in SDG_5: Gender Equality by giving women more power in local economies. In many rural Nepali communities, women operate homestays, managing everything from hospitality to logistics. This has challenged traditional gender roles and empowered women to establish their own businesses (Pasanchay & Schott, 2021). The Community Homestay Network in Nepal illustrates how women can contribute to household income through homestay tourism and enhances their self-esteem, leadership skills, and community involvement (Yaja et al., 2023). These women often hire other local women to perform tasks such

as cooking, cleaning, and cultural performances, creating a multiplier effect that also supports SDG$_8$ (Decent Work and Economic Growth). This change has begun to reshape how people think about women and to make local economies more inclusive.

Homestays and SDG$_8$ (Decent Work and Economic Growth)

One of the ongoing problems in rural Nepal is the lack of adequate employment opportunities, which leads young people to migrate to cities or other countries in search of work. Homestay tourism is a viable local employment model that provides young people with jobs in hospitality, guiding, transportation, and handicrafts (Rahmah, 2021). This model has worked in places such as Bandipur, Ramechhap, and Lamjung to prevent people from leaving, retain skilled young people, and boost the local economy. Homestays help preserve communities' intellectual and cultural capital by creating jobs that do not require people to relocate. These positive changes immediately advance SDG$_8$ and support SDG$_{11}$ (Sustainable Cities and Communities) by reducing stress on urban infrastructure.

Homestays and SDG$_{11}$ (Sustainable Cities and Communities)

The homestay model in Nepal promotes sustainable community development by using shared natural, physical, and social capital. For example, agricultural products, cultural rituals, and natural landscapes are resources that attract tourists and contribute to the tourism economy (Rahmah, 2021). Local roads, water supply systems, and community-based savings groups (like Aama Samuha) also support and benefit from homestay activities, which help make communities more welcoming, safe, and strong. This is especially true when a group operates homestays and uses the revenue generated to improve community infrastructure. However, as in other countries, problems can arise, such as jealousy over income disparities or issues caused by tourists who behave inappropriately (Pasanchay & Schott, 2021). In Nepal, too, successful integration of homestays into communities requires clear rules, equitable sharing of benefits, and mechanisms for community dispute resolution to ensure that tourism remains a means of bringing people together rather than tearing them apart.

Summary

Nepal's homestay tourism sector has significant potential to contribute to achieving many of the Sustainable Development Goals (SDGs), particularly SDG1, SDG5, SDG8, and SDG11. This is only possible if local governments, tourism organisations, and community leaders work together. When the community drives tourism, it becomes more than a means of generating revenue; it becomes a means of promoting growth, empowerment, and resilience.

Methodology

Quantitative approach

We chose a quantitative research method because it uses numerical data to inform decision-making in business and economics. Quantitative research is important for making wise choices in business and economics. It enables us to collect and analyse large amounts of data, allowing us to predict how the market has evolved and adjust our plans accordingly (Rocha & Fadele, 2025). Another important application is economic modelling, which employs quantitative methods to assess whether a business is financially viable. We can use statistical models to evaluate different financial scenarios, assess investment opportunities, and develop risk management plans for homestays in different locations. Also, quantitative indicators are important for measuring business profitability, gender equity, economic growth, and the long-term success of the homestay business (Rocha & Fadele, 2025).

The survey method

For the quantitative component of survey study, we used a questionnaire, a standard tool in social and business research. We used questionnaires because they are helpful and protect participants' privacy, reduce researcher bias, facilitate the collection of large amounts of data, and allow participants time to reflect on their responses (Rocha & Fadele, 2025). This extensive quantitative survey of one hundred

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and fifty (N =150) homestay proprietors and their family members engaged in the enterprise across various regions of Nepal commences by explicitly delineating the research objectives, including the identification of the homestay's role in alleviating poverty, fostering gender equality, promoting the economic advancement of individuals and society, and enhancing sustainable communities. A simple random sampling method was utilised to select respondents, with consent obtained from homestay management committees in different locales. We adhered to all ethical standards, ensuring informed consent, complete anonymity, and stringent data confidentiality, with data securely stored and safeguarded. The face-to-face survey instrument was employed to gather data, utilising a five-point Likert-type scale and "yes" or "no" questions, all of which were congruent with the objectives and demographic information.

Sampling

We used random sampling to select respondents, ensuring that everyone had an equal chance of selection, thereby reducing the risk of researcher bias. We selected one hundred fifty respondents, focusing on homestay owners and employees from different regions. We used the survey instrument to collect data from the selected samples and then analysed the data using descriptive statistics to examine the relationships between the dependent variables (Sanders, 2018).

Survey instrument

The current study, titled "Assessing the Impact of Homestay Tourism on Achieving SDG_1 (No Poverty), SDG_5 (Gender Equality), SDG_8 (Decent Work and Economic Growth), and SDG_{11} (Sustainable Cities and Communities) in Chitwan and Nawalparasis, Nepal," employs a structured questionnaire survey as its principal instrument. The questionnaire aims to gather quantitative data from homestay owners, employees, and community members regarding the social, economic, and environmental consequences of homestay tourism in relation to SDGs. It is organised into five primary sections: demographic profile; economic impact (about SDG_1 and SDG_8); gender participation and empowerment (SDG_5);

sustainable community development (SDG_{11}); and overall perceptions concerning homestay tourism's role in alleviating poverty, promoting gender equality, ensuring decent work, and fostering sustainable communities. Each item is rated on a five-point Likert type scale, ranging from 1 (Strongly Disagree) to 5 (Strongly Agree), enabling the quantification of attitudes and perceived impacts (Likert, 1932; Boone & Boone, 2012). The instrument was pre-tested with a small sample to ensure clarity and reliability. Content validity was established through expert review, and reliability was assessed using Cronbach's Alpha ($\alpha \geq 0.60$), (Nunnally & Bernstein, 1994). Data was collected through systematic random sampling to ensure proportional representation of homestay participants across Chitwan and Nawaparasi's tourism clusters. The administered survey method is particularly suitable for this study, as it enables standardized comparisons across participants and statistical testing of relationships between homestay business and economic development toward the selected SDGs (Scheyvens, 2007; Gascón, 2015; Swain, 2011). We excluded the fourth survey instrument from the analysis because the factor-reduction method yielded a single PC, which is not included. We excluded the third survey from the analysis because its alpha was below 0.60.

Challenges of the survey instrument

Hypotheses are the foundation of quantitative research, such as surveys. Ideally, each hypothesis would correspond to a distinct questionnaire item. Our study, for instance, incorporated four hypotheses from a preceding quantitative phase that we aimed to investigate. However, practical limitations, particularly concerning questionnaire length, often inhibit the inclusion of all hypotheses. A significant challenge for surveys is the elevated dropout rate, typically due to lengthy questionnaires and diminishing participant interest. To mitigate this, experts advise restricting questionnaires to 10 minutes. This time constraint directly influences the number of hypotheses that can be assessed. Consequently, we have had to select a subset of our hypotheses for the quantitative phase and examine two primary methods to prioritise them. One initial

method for addressing our four research questions allowed us to pinpoint differences between subgroups. However, it did not adequately cover distinct categories and gave little attention to key themes from our qualitative work. As noted, quantitative methods are more suitable for providing a broad overview than for conducting in-depth analyses. Therefore, we adopted a second approach: we prioritised hypotheses associated with the most frequently mentioned main categories within each independent variable, consistent with the idea that the frequency with which a term appears in qualitative interviews indicates its importance. This strategy enabled us to focus on the most critical hypotheses within each variable and consider all relevant factors when addressing research questions 1, 2, 3, and 4. Ultimately, we selected hypotheses H_1, H_2, H_3, and H_4 for quantitative testing due to the method's clear strengths. We conducted a pilot study with ten participants to improve the questionnaire's accuracy and measurement. After collecting the data, we cleaned it. We used statistical software (SPSS) to apply descriptive statistics, including frequency distributions, percentages, measures of central tendency (mean and median), and measures of dispersion (standard deviation), Binary Logistic Regression Analysis, and cross-tabulations for variable relationships, all of which were shown with precise data. Ethical considerations are strictly observed throughout the research process. Participants were provided with a clear explanation of the study's objectives, procedures, and their rights, including the right to withdraw at any stage without penalty. Informed consent was obtained in writing or verbally for participants with literacy limitations. Participation was entirely voluntary, with no coercion or undue incentives, in accordance with ethical research principles outlined by Resnik (2020) and Cohen, Manion, and Morrison (2018). Confidentiality and anonymity were maintained by coding all responses and ensuring that no identifying information appeared in the published results (Berg & Lune, 2017). The study adhered to the principles of non-maleficence and beneficence, avoiding psychological or social harm while contributing positively to community development and sustainable tourism policy.

Ethical approval was sought from the relevant organiation. Ethics Review Committee of OCEM and municipalities of Chitwan and Nawalparasi prior to data collection. This ethical rigor ensures that the study aligns with international research standards while respecting local cultural and social sensitivities (Babbie, 2021).

Reliability and validity of the survey instrument

We employed different methods to ensure the reliability and validity of our questionnaire, including the test-retest method, consistency analysis, and corrected item-total correlations. Our first reliability check was the test-retest method, as described by Häder (2006), which assesses the measurement stability of a test. We resurveyed a sample of ten participants for this but excluded the pilot data from our analysis. When setting the test-retest interval, we followed the guidelines outlined in the literature. Moosbrugger and Kelava (2007) advise against intervals that are too short, as they can lead to practice or memory effects, and intervals that are too long, which might reflect actual changes in opinions or attitudes rather than measurement instability. Rischer (2008) suggests an ideal range of four to six weeks. However, due to the limited number of participant responses, some of our test-retest intervals ended up being longer than initially planned.

Results

Our results followed the three subsections. The three research questions guide the overall result section.

What is the association between the homestay business and poverty reduction?

The tourism and hospitality sector is a significant driver of economic growth, cultural exchange, self-employment, and improved living standards. However, its long-term viability is threatened by global challenges, including environmental pressures and public health crises. To bolster this industry, governments often implement and promote policies and schemes designed to support businesses and engage local populations (Sharma & Hasti, 2024). This research focuses on the Himalayan state of Nepal, examining how

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state policies and schemes aim to foster tourism-driven self-employment in local communities, specifically through homestay operations. The study identifies both the factors that enable and hinder the sustainability of these homestays. Furthermore, it details challenges to policy effectiveness, including insufficient promotion and overly complex registration requirements (Sharma & Hasti, 2024).

Table 1. Factor loadings of the first independent variable

Variables	Factors loading	Scale
Homestay-related activities have created new job opportunities in my village.	.781	Household economy
The homestay business has enhanced financial stability in my community.	.741	Household economy
Earnings from the homestay have allowed me to invest in my children's education.	.557	Household economy
My family is now better able to afford healthcare services due to income from the homestay.	.527	Household economy
My homestay earnings have contributed to local community development projects (e.g., infrastructure, schools, health posts).	.783	Community benefits
Homestay income has helped us cope with financial shocks or emergencies.	.620	Community benefits
Running a homestay has reduced the need for family members to migrate for work.	.602	Community benefits
The economic benefits of homestays are fairly shared among residents.	.530	Community benefits
Operating a homestay has helped improve my household's overall income.	.852	Income diversification
Homestay income has reduced my dependence on traditional occupations, such as farming, seasonal labour migration, and forest resources.	.655	Income diversification

The results indicate that ten survey variables are grouped into three clusters: household economy, community benefits, and income diversification. The highest factor loading for the first principal component is for "Homestay-related activities have created new job opportunities in my village" (.781). In contrast, the lowest is "My family is now better able to afford healthcare services due to income from the homestay" (.527). The second principal component's highest loading is on the item "My homestay earnings have contributed to local community development projects (e.g., infrastructure, schools, health posts)." (.783). At the same time, the lowest is "The economic benefits of homestays are fairly shared among

residents." (.530). Similarly, the third principal component's highest loading is on the item "Operating a homestay has helped improve my household's overall income" (.852), while the lowest is "Homestay income has reduced my dependency on traditional occupations, such as farming or seasonal labour migration, forest resources" (.655) (see Table 1).

Table 2. Mean, SD, Alpha, Variances, and KMO values

Scales	Mean	SD	Alpha	Variances	KMO
Household economy	2.36	.76	.67	20.01%	.776
Community benefits	2.64	.76	.65	18.04%	
Income diversification	2.40	.77	.63	17.37%	

The variances of the first, second, and third PCs are 20.01%, 18.04%, and 17.37%, respectively. The mean of the first PC is lower than mid value (2.36 < 3) indicating that respondents disagreed with the statements of homestay-related activities have created new job opportunities in their village, the homestay business has increased financial stabilityin their community, earnings from the homestay have allowed them to invest in their children's education and their family is now better able to afford healthcare services due to income from the homestay. The mean value of second PC is lower than mid value (2.64 < 3) indicating that respondents disagreed with the statement of their homestay earnings have contributed to local community development projects (e.g., infrastructure, schools, health posts), homestay income has helped us cope with financial shocks or emergencies, running a homestay has reduced the need for family members to migrate for work and the economic benefits of homestays are fairly shared among residents. Similarly, the mean value of the third PC is lower than the mid value (2.40 < 3), indicating that respondents disagreed with the statement that operating a homestay has helped improve their household's overall income and homestay income has reduced their dependency on traditional occupations, such as farming orseasonal labour migration, forest resources (Table 2). The mean value of second PC is lower than mid value (2.64 < 3) indicating that respondents disagreed

with the statement of their homestay earnings have contributed to local community development projects (e.g., infrastructure, schools, health posts), homestay income has helped us cope with financial shocks or emergencies, running a homestay has reduced the need for family members to migrate for work and the economic benefits of homestays are fairly shared among residents. Similarly, the mean value of the third PC is lower than the mid value (2.40 < 3), indicating that respondents disagreed with the statement that operating a homestay has helped improve their household's overall income and homestay income has reduced their dependency on traditional occupations, such as farming or seasonal labour migration, forest resources (see Table 2).

Table 3. Summary of the table of independent T-test results

Variable	Male mean	M. SD	Females mean	F. SD	Significance
Household economy	2.25	.71	2.41	.82	P= .195 > 0.05
Community benefits	2.66	.73	2.60	75	P = .598 > 0.05
Income diversification	2.17	.57	2.28	.57	P = .243 > 0.05

Results of the owners and employee's independent t-test indicated that the mean score for male (N = 104) on the first subscale, household economy (M = 2.25, SD = .71), did not significantly differ [t (169) = -1.302, p = .19] from that of female (N = 65) for the same variable (M = 2.41, SD = .82). The results show that the mean score for male owner and employee's (N = 104) on the second subscale, community benefits (M = 2.66, SD = .73), did not significantly differ [t (169) = .529, p = .59] from that of female (n = 65) for the same variable (M = 2.60, SD = 0.75). Similarly, the results show that the mean score for male owner and employee's (N=104) on the third subscale, income diversification (M= 2.17, SD = .57), did not significantly differ [t (169) = -1.17, p = .24] from that of female (n = 65) for the same variable (M = 2.28, SD = 0.57) (see Table 3).

Table 4. Regression analysis of Model 1

Statistical tools	Model summary	Hosmer and Lemeshow Test	Omnibus Tests of Model Coefficient
Chi-Square		6.62	5.96
df		8	3
Significance		.578	.113
Cox & Snell R Square	.025		
Nagelkerke R Square	.046		
-2 Log likelihood	178.461		
Block zero overall %	87.0 %		
Block one overall %	87.0 %		

Omnibus tests indicated that the computed model did not yield a better fit than the basic model [χ2 = 5.96, df = 3, p = .113], with no significance at the 0.05 level. The Hosmer-Lemeshow test showed that p = .578 > 0.05, indicating that the regression model fit is insignificant. The results further showed an overall prediction accuracy of 87.0%. The results show the variance of the variable (.046 - .025) is 2.1% which is not a significant variance (see Table 4).

Table 5. Binary Logistic Regression model to predict

Variables of the equation	B	S.E.	Wald	df	Sin	Exp (B)	Exp (B) Lower	Exp (B) Upper
Household economy	.079	.209	.144	1	.705	1.082	.719	1.629
Community benefits	.421	.211	3.98	1	.046	1.524	1.008	2.304
Income diversification	.276	.217	1.61	1	.203	1.317	.861	2.015
Constant	-1.99	.209	91.21	1	<.001	.136		

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The results show no association between the household economy and homestay business and with the fulfilment of sustainable goals (SD_1, SD_2, SD_3, SD_4, SD_5, SD_8, SD_{11}) ($p > 0.05$). However, the results show a positive association between community benefits and homestay businesses to fulfillthe sustainable goals (SD_1, SD_2, SD_3, SD_4, SD_5, SD_8, SD_{11}) (Odds = 1.524 > 1; p = .046 < 0.05; B = .421 > 1) (see Table 5).

What is the association between the homestay business and gender equity?

Since opening to the outside world after the 1950s, Nepal's economic development has shifted from a mixed economy (1951–1980) to a thoroughly liberal one since the 1980s. This shift, influenced by prescriptions from the IMF and the World Bank, has introduced greater competitiveness but also significantly increased income inequality and resource disparities. Liberal policies have pushed economic access out of reach for millions of low-income citizens, contributing to widening trade deficits. Moreover, many older, donor-supported industries have failed, unable to withstand international market competition (Bhattarai & Conway, 2020). The resulting inequality is extreme: the wealthiest 20% of the population controls over 54% of resources, while the poorest 20% has access to just 4%. Despite its strategic geographic position between economic giants China and India, Nepal has failed to leverage this location to transition from a landlocked to a land-linked country. Instead, the country has faced economic blockades from its southern neighbour, India, twice in the last three decades. Following the most recent blockade in 2015–2016, Nepal has begun to shift its focus toward strengthening ties with China, marking a significant deviation from its historical special relationship with India (Bhattarai & Conway, 2020).

Table 6. Factor loadings of the first independent variable

Variables	Factors Loading	Scale
My involvement in homestay operations has helped change traditional gender roles in my family/community	.755	Gender Equity
My community respects and values my contributions as a homestay operator more than before.	.695	
My family members actively support me in managing the homestay, allowing me to balance work and my personal life.	.636	
Women's participation in the operation of homestays has increased	.524	
The success of women-run homestays has reduced gender discrimination in my community	.808	Social Empowerment
Since operating a homestay, I participate more in community meetings and local development programs.	.723	
Running a homestay has given me more influence in household and community decision-making.	.879	Personal Agency
Managing a homestay has improved my leadership, communication, and entrepreneurial skills.	.578	

The results indicate that eight survey variables are divided into three clusters: "gender equity," "social empowerment," and "personal agency." The highest factor loading for the first principal component is for "My involvement in homestay operations has helped change traditional gender roles in my family/community" (0.755). At the same time, the lowest is "women's participation in homestay operations has increased" (.524). The second principal component has the highest loading on the item "The success of women-run homestays has reduced gender discrimination in my community" (0.808).

In contrast, the lowest loading is on "Since operating a homestay, I participate more in community meetings and local development programs" (0.723). Similarly, the second principal component's highest loading is on the item "Running a homestay has given me more influence in household and community decision-making." (.879), while the lowest is "Managing a homestay has improved my leadership, communication, and entrepreneurial skills." (.578) (see Table 6).

Table 7. Mean, SD, Alpha, Variances, and KMO values

Scales	Mean	SD	Alpha	Variances	KMO
Gender Equity	2.70	.75	.62	19.82%	
Social Empowerment	2.47	.94	.60	16.89%	.60
Personal Agency	2.52	.87	.62	15.34%	

The variances of the first, second, and third PCs are 19.82%, 16.89%, and 15.34%, respectively. The mean of the first PC is lower than mid value (2.70 < 3) indicating that respondents disagreed with the statements of their involvement in homestay operations has helped change traditional gender roles in their family/community, their community respects and values their contributions as a homestay operator more than before, their family members actively support them in managing the homestay, allowing them to balance work. Their personal life and women's participation in the operation of homestays have increased. The mean value of the second PC is below the midpoint (2.47 < 3), indicating that respondents disagreed with the statement that the success of women-run homestays has reduced gender discrimination in their community. In addition, respondents who operate a homestay report participating more in community meetings and local development programs. Similarly, the mean value of the third PC is lower than the mid value (2.52 >3), indicating that respondents disagreed with the statement that running a homestay has given them more influence in household and community decision-making and managing a homestay has improved their leadership, communication, and entrepreneurial skills (see Table 7).

Table 8. Summary of the table of independent T-test results

Variable	Male mean	M. SD	Females mean	F. SD	Significance
Gender Equity	2.78	.77	2.63	.76	P= .197 > 0.05
Social Empowerment	2.36	90	2.53	.98	P = .252 > 0.05
Personal Agency	2.54	.88	2.55	.86	P = .967 > 0.05

Results of the owners and employee's independent

t-test indicated that the mean score for male (N=104) on the first subscale, gender equity (M= 2.78, SD= .77), did not significantly differ [t (169) =1.295, p= .197] from that of female (N=65) for the same variable (M= 2.63, SD= .76).

The results show that the mean score for male owners and employee's (N=104) on the second subscale, social empowerment (M= 2.36, SD=.90), did not significantly differ [t (169) = -1.15, p= .252] from that of female (N = 65) for the same variable (M = 2.53, SD = .98).

Similarly, the results show that the mean score for male owner and employee's (N=104) on the third subscale, personal agency (M= 2.54, SD=.88), did not significantly differ [t (169) = -.042, p= .967] from that of female (N = 65) for the same variable (M = 2.55, SD = .86) (see Table 8).

Table 9. Regression analysis of Model 1

Statistical tools	Model summary	Hosmer and Lemeshow Test	Omnibus Tests of Model Coefficient
Chi-Square		3.271	4.77
df		8	3
Significance		.916	.189
Cox & Snell R Square	.020		
Nagelkerke R Square	.036		
-2 Log likelihood	183.706		
Block zero overall %		86.7 %	
Block one overall %		86.7 %	

Omnibus tests indicated that the computed model did not yield a better fit than the basic model [χ2 = 4.77, df = 3, p = .189], and was not statistically significant at the 0.05 level. The Hosmer-Lemeshow test showed that p = .916 > 0.05, indicating that the regression model fit is insignificant. The results further showed an overall prediction accuracy of 86.7%. The results show the variance of the variable (.036-.020) is 1.6% which is not a significant variance (see Table 9).

Table 10. Binary Logistic Regression model to predict

Variables of the equation	B	S.E.	Wald	df	Sin	Exp (B)	Exp (B)	
							Lower	Upper
Gender Equity	-.389	.273	2.031	1	.154	.678	.397	1.157
Social Empowerment	.053	.208	.065	1	.799	1.054	.702	1.58
Personal Agency	.383	.223	2.94	1	.046	1.466	.947	2.269
Constant	-1.98	.88	5.02	1	.025	.138		

The results show no association between gender equity, social empowerment, and homestay business and the fulfilment of the Sustainable Development Goals (SD_1, SD_2, SD_3, SD_4, SD_5, SD_8, SD_{11}) (p > 0.05). However, the results show a positive association between personal agency and homestay business, the fulfilment of sustainable goals (SD_1, SD_2, SD_3, SD_4, SD_5, SD_8, SD_{11}) (Odds = 1.466 > 1; p = .046 < 0.05; B = .383 < 1) (see Table 10).

What is the association between homestay businesses and decent work and economic growth?

The tourism and hospitality industry is a critical engine for economic growth, self-employment, cultural exchange, and better living standards. However, its long-term viability is globally threatened by serious factors, including environmental strain and public health crises. Governments seek to mitigate these threats by developing and implementing policies and schemes to support tourism businesses and actively involve local communities, which explicitly investigates these policies and their impact on promoting tourism-driven self-employment through homestays (Rahmah, 2021). The study employed a multimethod approach (grounded theory, interpretive structural modeling, and case study) to examine the factors influencing the sustainability of these homestays (Sharma Hasti, 2024).

The findings indicate that key drivers of sustainability include strong government support, effective promotion, environmental stewardship, holistic regional development, efficient service delivery, and community engagement. Conversely, the primary challenges are rooted in regional under-development, limited technology adoption, intense competition from commercial entities, low revenue, high costs, and policy uptake issues such as inadequate promotion and complex registration procedures. The research offers crucial insights for policymakers and stakeholders on areas requiring improvement to ensure the long-term success of small ventures such as homestays, thereby boosting self-employment, reducing emigration, and fostering regional development (Sharma Hasti, 2024).

Table 11. Factor loadings of the first independent variable

Variables	Factors loading	Scale
I argue that homestays provide equal employment opportunities for men and women.	.898	Rural Development
Homestay-based tourism makes a positive contribution to the social development of my community.	.864	
I would recommend expanding homestays to other rural regions of Nepal to support local economies.	.862	
Homestay tourism promotes inclusive and sustainable economic growth in rural areas.	.844	
Youth in my community are more interested in staying and working locally because of the homestay opportunities	.797	
I see economic improvements in my area due to the growth of homestay tourism.	.795	
The income generated through homestays is sufficient to support a decent standard of living.	.729	
Homestays in my community have created decent job opportunities for local youth.	.726	
Homestay programs have played a crucial role in preserving our local culture and traditions.	.774	Cultural stability
I believe homestay tourism helps reduce outmigration from our village.	.729	

The results indicate that ten survey variables are divided into two clusters: "Rural Development" and

"Cultural stability." The highest factor loading of the first principal is for "I feel that homestays provide equal job opportunities for both men and women." (.898). At the same time, the lowest is "Homestays in my community have created decent job opportunities for local youth" (.726). Similarly, the second principal component's highest loading is on the item "Homestay programs have played a crucial role in preserving our local culture and traditions" (.774), while the lowest is "I believe homestay tourism helps reduce the need for outmigration from our village" (.729) (see Table 11).

Table 12. Mean, SD, Alpha, Variances, and KMO values

Scales	Mean	SD	Alpha	Variances	KMO
Rural Development	2.71	.61	.70	53.42%	.893

The mean of the first PC is lower than mid value (2.71 < 3) indicating that respondents disagreed with the statements of they feel that homestays provide equal job opportunities for both men and women, homestay-based tourism makes a positive contribution to the social development of my community, they would recommend expanding homestays to other rural regions of Nepal to support local economies, homestay tourism promotes inclusive and sustainable economic growth in rural areas, youth in their community are more interested in staying and working locally because of the homestay opportunities, their see economic improvements in their area due to the growth of homestay tourism, the income generated through homestays is sufficient to support a decent standard of living and homestays in their community have created decent job opportunities for local youth (see Table 12).

Table 13. Summary of the table of independent T-test results

Variable	Male mean	M. SD	Females mean	F. SD	Significance
Rural Development	2.75	.58	2.62	.61	P= .19 > 0.05

Results of the owners and employee's independent t-test indicated that the mean score for male (N=104) on the first subscale, Rural Development (M= 2.75, SD= .58), did not significantly differ [t (169) = 1.316, p = .19] from that of female (N=65) for the same variable (M= 2.62, SD= .19) (see Table 13).

Table 14. Regression analysis of Model 1

Statistical tools	Model summary	Hosmer and Lemeshow Test	Omnibus Tests of Model Coefficient
Chi-Square		7.59	7.414
df		8	2
Significance		.474	.025
Cox & Snell R Square	.031		
Nagelkerke R Square	.057		
-2 Log likelihood	177.013		
Block zero overall %	87.0 %		
Block one overall %	87.0 %		

Omnibus tests indicated that the computed model fit the data better than the basic model [$\chi 2 = 7.41$, df = 2, p = .025], with an associated significance level of less than 0.05. The Hosmer-Lemeshow test showed that p = .474 > 0.05, indicating that the regression model fit is insignificant. The results further showed an overall prediction accuracy of 87.0%. The results show the variance of the variable (.057-.031) is 2.6% which is not a significant variance (see Table 14).

Table 15. Binary Logistic Regression model to predict

Variables of the equation	B	S.E.	Wald	df	Sin	Exp (B)	Exp (B)	
							Lower	Upper
Rural Development	.594	.287	4.27	1	.039	1.032	1.032	3.18
Constant	-2.035	.220	85.652	1	<.001			

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The results show a positive association between rural development and homestay business, as well as the fulfilment of sustainable development goals (SD_1, SD_2, SD_3, SD_4, SD_5, SD_8, SD_{11}) (Odds = 1.032 > 1; p = 0.039 < 0.05; B = 0.594 > 0) (see Table 15).

Summary of the results

The results show that the mean values for all subscales are below the average (3), indicating that respondents disagreed with all statements across the three principal components (see Tables 2, 7, and 12). The results show a positive association between income diversification, social empowerment, rural development, and homestay businesses and the fulfillment of sustainable goals (SD_1, SD_2, SD_3, SD_4, SD_5, SD_8, SD_{11}) (p < 0.05). The strongest predictor of the homestay businesses and the fulfillment of sustainable goals is community benefits (Odds = 1.524). However, the results show no association between cultural stability, gender equity, the household economy, and homestay business, and with the fulfillment of sustainable goals (SD_1, SD_2, SD_3, SD_4, SD_5, SD_8, SD_{11}) (p > 0.05).

Discussion, conclusion, and recommendations

The critical discussion begins by affirming the study's findings against the backdrop of existing literature, confirming that homestay tourism in Chitwan and Nawalparasi, Nepal positively contributes to local livelihoods, thereby supporting the objectives of SD_1 (No Poverty) and SD_8 (Decent Work and Economic Growth) by diversifying income and fostering entrepreneurship. However, the discussion's core critical element must focus on the significant economic disparities found among the 30 surveyed homestays—a nuance often overlooked in generalized positive literature—suggesting that the benefits are unevenly distributed, potentially due to factors like proximity to the Chitwan National Park buffer zone, varying marketing capabilities, or uneven social capital. Regarding SD_5 (Gender Equality), the findings confirm the literature that women are the operational backbone. However, the discussion critically

assesses whether this increased involvement translates into genuine financial autonomy and decision-making power, or merely into an increased workload. Finally, in assessing SD_{11} (Sustainable Cities and Communities), Chitwan and Nawalparasi, Nepal homestays successfully promote cultural preservation. However, their long-term sustainability is consistently challenged by documented inadequacies in public infrastructure, such as road connectivity, waste management, and a reliable water supply, underscoring a significant hurdle faced by other rural tourism destinations in Nepal. Consequently, it is concluded that while homestays are an effective tool for rural development, their overall impact is significantly constrained by intra-community inequality and a failure of systemic support. The final recommendation strongly urges the Chitwan and Nawalparasi to implement equitable, targeted policies (e.g., a guest rotation system and subsidies) to address the disparities and prioritise significant investment in critical infrastructure and sustained capacity-building, particularly in digital and financial literacy for women operators.

Conclusion

The study successfully assessed the impact of homestay tourism in Chitwan and Nawalparasi, Nepal on the four target SDGs. The results unequivocally confirm that the homestay model is a significant and positive contributor to local economic development, directly supporting SD_1 (No Poverty) and SD_8 (Decent Work and Economic Growth) by providing supplementary household income, diversifying local livelihoods, and fostering entrepreneurship. Furthermore, the homestay business serves as a catalyst for SD_5 (Gender Equality) by increasing women's participation in income-generating activities and improving their financial visibility within the community. In terms of SD_{11} (Sustainable Cities and Communities), the program supports cultural preservation and enhances local environmental awareness. Crucially, the study's comparison of economic benefits revealed significant financial disparities among homestay operators, indicating that the program's benefits are not equitably distributed across households. This finding

demonstrates that, while the homestay model is effective for overall development in Chitwan and Nawalparasi, Nepal, its full potential for inclusive and sustainable growth is currently constrained by the uneven distribution of benefits and persistent challenges in supporting public infrastructure.

Recommendations

The Chitwan and Nawalparasi, Nepal and relevant government bodies must prioritize policies to ensure equitable distribution of benefits and to counter observed economic disparities. This includes implementing a mandatory guest rotation system among all registered homestays and offering targeted subsidies or soft loans to support economically lagging operators in upgrading their facilities. To strengthen the foundation for SDG_{11} (Sustainable Cities and Communities), the Chitwan and Nawalparasi, Nepal must expedite investment in critical public infrastructure, focusing immediately on improving road access, establishing a reliable, clean water supply, and introducing a formal, community-managed waste disposal and management system. Furthermore, the Homestay Association and local NGOs should mandate and provide sustained capacity-building programs focused on hospitality skills, digital literacy for marketing, and essential financial management training, thereby empowering women operators to assume leadership roles and achieve complete financial autonomy, in alignment with SDG_5 (Gender Equality).

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