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TOURISM AND ITS CONTRIBUTION TO HOUSEHOLDS' INCOME IN KONSO ZONE, SNNP REGION, ETHIOPIA

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Abstract

Tourism is becoming an increasingly important source of revenue and employment for both emerging and wealthy countries. It has long been considered one of the key components of the strategy for economic development. Despite extensive research in the field of tourism, studies on the contribution of tourism to households' income have been limited. Hence, this study investigated tourism and its contribution to households' income and examined the factors affecting the tourism income of households using the descriptive and Tobit regression models, respectively. A cross-sectional data set was collected from 192 randomly selected households using interviews and focused group discussions. The study revealed that the contribution of tourism to household income is low—only 3.87 percent. The study also pinpointed cultural landscapes, arts, and cultural music as the main tourist destinations. The Tobit model estimation result revealed that the age of the household head, family size of the household, and access to credit have a strong positive effect on household tourism income, whereas land size is negatively correlated with household tourism income. Finally, the study revealed that limited access to financing, lack of preservation and protection of heritage, lack of museums, lack of service and facilities, lack of effective marketing, internal conflict, and inadequate development and implementation of strategies were the major challenging factors that affect the tourism industry. Hence, promotion, expanding employment opportunities, access to formal credit, preserving potential heritages, and adequate development and implementation of strategies were recommended to improve the tourism industry in the study area.

***Keywords*:** *Tourism; Tourism income; Konso; Standard Tobit*

1. INTRODUCTION

Tourism is the practice of people visiting and staying in locations other than their typical environment for up to one year in a row for leisure, business, or any other reason (Sanjeev & Birdie, 2019). According to the United Nations World Tourism Organization (2008), tourism is a social, cultural, and economic phenomenon that involves individuals traveling to locations outside of their normal surroundings for leisure, business, or professional reasons. These people are known as "visitors," and tourism is related to their activities, some of which involve spending on travel.

Tourism is becoming an increasingly important source of revenue and employment for both emerging and wealthy countries. According to the UNWTO (2017), tourism is one of the fastest-growing economic sectors in the world and is acknowledged as a key contributor to economic growth, the creation of jobs and income, environmental protection, and the reduction of poverty. In the World Travel and Tourism Council's 2022 report on travel and tourism impact, travel and tourism contributed around 10.4%, 5.3%, and 6.1% of global GDP in 2019, 2020, and 2021, respectively. Also in 2021, travel and tourism supported 289 million jobs worldwide, accounting for 1 in 11 of all jobs worldwide. Similarly, according to the UNE (2022), the contribution of travel and tourism to Ethiopia's GDP growth has fluctuated significantly in recent years, tending to decrease from 2000 to 2019, ending at 2.9% in 2019. However, the rapid growth of tourism and how to manage it sustainably are challenges for many destinations (Weber et al., 2017).

Due to its outstanding natural beauty and stunning physical features, Ethiopia has an enormous opportunity for the growth of the tourism industry (Belete, 2020). Ethiopia now has nine World Heritage Sites: the *Simien* Mountains National Park, the *Rock-Hewn* Churches of *Lalibela*, the *Fasil Ghebbi* of *Gondar*, *Aksum*, the Lower Valley of the *Awash*, the Lower Valley of the *Omo*, *Tiya*, the Fortified Historic Town of *Harar* Jugol, and the *Konso* Cultural Landscape (UNESCO, 2023). Furthermore, the government is attempting to capitalize on the latent potential of its tourism sector in order to create jobs, boost growth, increase food security, and improve livelihoods (Demissie &Teshome, 2018). However, despite these abundant tourism resources, its economic contribution to the country is unmatched (Belete, 2020; Wondirad et al., 2021).

The tourism sector of Ethiopia faces many challenges, some of which include the shortage of tourist facilities, a lack of skilled human resources, a lack of physical infrastructure, weak promotion, and a

lack of integration and political will, which are the major negatively contributing forces (Belete, 2020; Teshome et al., 2018; and Sintayehu, 2016). Another significant issue is the limited availability of financing (Belete, 2020). Ethiopia has the capacity to sustain a developing tourism industry, but little will be accomplished if funds are not made available to invest in enhancing both tangible and intangible assets. Hence, it is fair to say that Ethiopia's tourism business is still in its infancy (Kidane, 2015).

Konso is one of the best-known tourist sites in Ethiopia (Urmale, 2012). The area is well positioned to reap economic benefits from the tourism industry, boasting, as it does, a fascinating culture and a world-renowned agricultural system, set amid the splendor of the Great Rift Valley. Konso already has a substantial flow of travelers passing through since it is strategically located at a crossroads connecting routes to Arba Minch, the Omo Valley, and the road to Moyalle via Yabello. Konso has huge natural and cultural tourism resources with great potential to develop community-based ecotourism. These potentials include Moras, Wakaas, beautiful natural landscapes (New York), terracing practices, traditional villages or towns, arts, and different cultural ceremonies that are held at major tourist sites. Despite its enormous potential, the sector has not experienced significant growth (Haileslassie, 2017).

A survey of the literature on tourism suggests a scarcity of research on the contribution of tourism to household income. Molla (2020) investigated the contribution of tourism to the Ethiopian economy and its impact on GDP, but the study is very aggregate and overlooks the contribution of tourism at the micro level. A collaborative approach including many stakeholders, including academics, is required for tourism to be an effective tool for accomplishing the SDGs (Kaitano, 2020). Moreover, few studies have been conducted on the tourism industry in the study area with a focus on identifying the key challenges and prospective prospects (Haileslassie, 2017; Giorgis, 2013; and Urmale, 2012), but none addressed the contribution of tourism to household income or household-level covariates that affect tourism income. Hence, this microeconomic investigation played its part in assessing tourism and its contribution to household income, examining household-level factors that affect tourism income, and exploring the challenges of the tourism industry in the Konso Zone.

1.2. OBJECTIVES OF STUDY

1.2.1. General objective of the study

The general objective of this study is to analyze tourism and its contribution to households' income in Konso zone.

1.2.2. Specific objectives of the study

The specific objectives of this study are

- To assess the share of tourism to household's income in the study area.
- To examine the factors affecting the tourism income of households in the study area.
- To explore the challenges of the tourism industry in the study area

2. METHODOLOGY

2.1. Description of the study area

Konso is one of the zones of the Southern Nations, Nationalities, and Peoples' Regional State (SNNPRS) in the Great Rift Valley, at latitudes of 5° 20' north and 37° 20' east longitude, an elevation of 1540 meters (5,052 feet), 310°C winds at 6 km/h, and 27% humidity. The Oromia area borders Konso on the south, South Omo and Alie on the west, Derashe on the north, Amaro on the northeast, and Buriji on the east (Haileslassie, 2017). Karat, the center and capital of Konso, is located about 595 and 365 km southwest of Addis Ababa and Awassa, respectively. The total land area of Konso is about 2355 km2, characterized by hilly, mountainous terrain intersected by gullies and valleys, most of which have been under cultivation over a period of hundreds of years. Currently, there are roughly 300,000 people residing in this area (52% women and 48% men), with a 2.6% annual growth rate (KDA, 2020).

Konso people are known for their physical hard work. They are indigenous people because terracing (a soil conservation method) makes them known around the world. Due to their innovative, noble work ethic, the Konso people were awarded a UN prize in 1995, and UNSCO recognized and registered the Konso landscape as a cultural heritage site in 2010. Konso is well known for its cultural landscape and range of natural and cultural attractions for tourists from a number of major domestic and international markets.

Administrative Map of Konso Zone

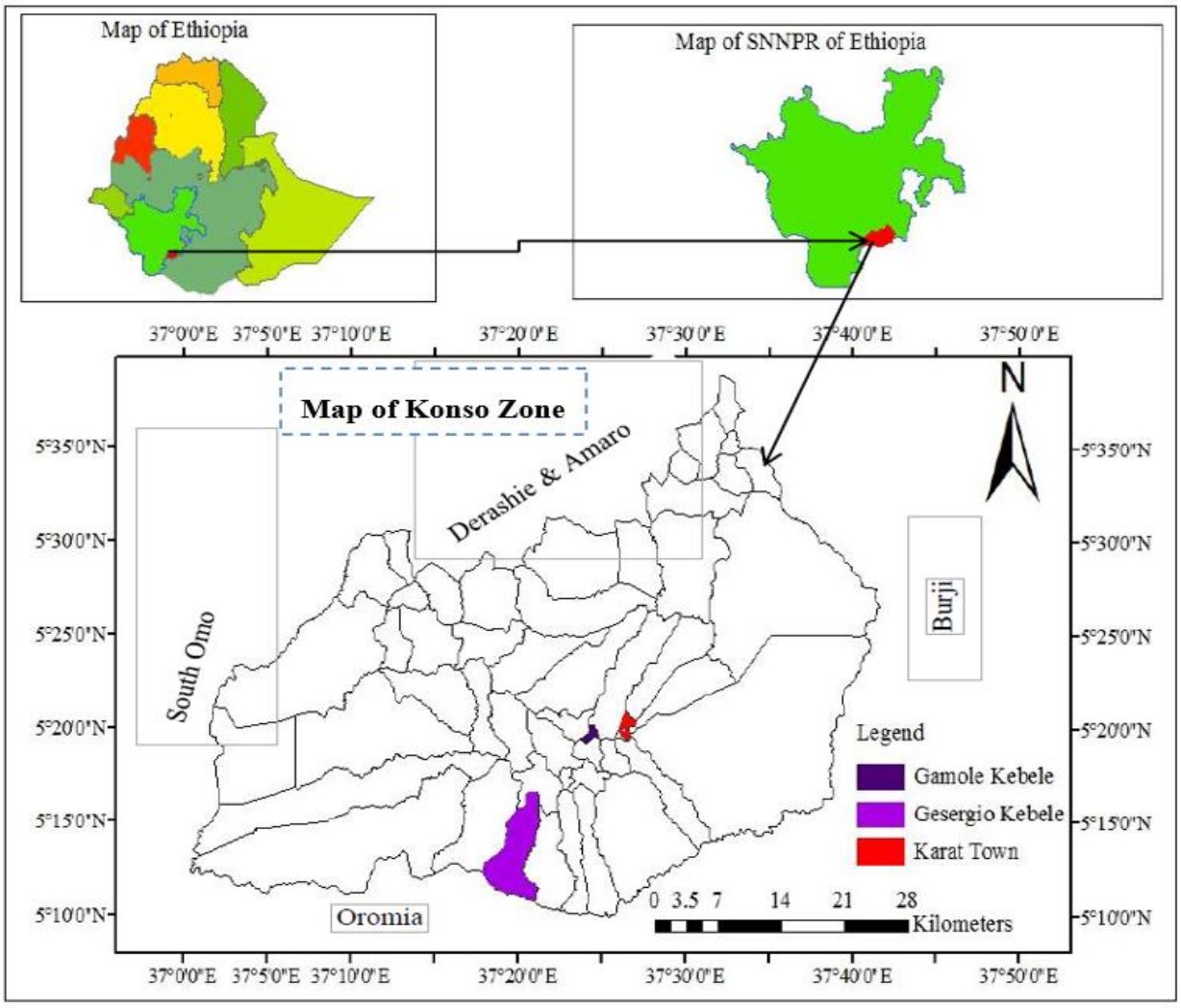

Figure 1.Map of Konso

Source: Adopted from Haileslassie (2017)

2.2. Data source and collection method

In order to carry out the study on the contribution of tourism to household income, it used both primary and secondary data sources. Primary data were obtained from local households and from respected local elders, leaders, local tour guides, *woredas*, and other stakeholders in the Zonal Government who had direct contact with the issue as well as households through interview-administered structured questionnaires and focus group discussions. In addition to primary sources, the study also used

secondary data sources, which were primarily obtained from the Konso Culture and Tourism Office as well as other related documentaries.

2.3. Sampling technique and sample size determination

Konso is well known for its cultural landscape and range of natural and cultural attractions for tourists from a number of major domestic and international markets. This initiated the study to be conducted in the Konso Zone. The study generated the necessary primary data using two-stage sampling techniques. Out of 12 UNESCO-recognized tourist destinations in the Konso zone, three representative Kebeles were chosen for the study's initial phase based on their geographic setting, level of service quality, visitor traffic, transportation accessibility, and closeness to one another. Specifically, Karat Town, Gamole, and Gesergio are the chosen Kebeles.

The total households in three sample Kebeles were 3420. From the 3420 total population, a sample is determined by the formula in Yamane (Yamane, 1967) which is

$$n = \frac{N}{1+N(e)2} = \frac{3420}{1+3420(0.07)2} = 192$$

Where; N = the total population that will be studied, n = the required sample size, e =the precision level (0.07). Because of resource and time constraint the study was used 7 percent precision level.

In order to generate the relevant data, the sample households were proportionally selected with respect to the number of total households in each kebele. Finally, a systematic random sampling technique was employed to select sample households.

Table 1 Sample Size Distribution

S/no	Kebeles	Population	Proportion	Sample proportion
1	Karat town	1495	$\frac{1495*100}{3420}$=43.7%	n=192*43.7%=84
2	Gamole	530	$\frac{530*100}{3420}$=15.5%	n=192*15.5%=30
4	Gesergio	1395	$\frac{1395*100}{3420}$=40.8%	n=192*40.8%=78
5	Total	3420	100%	n=192

Source: Own computation, based on household survey data, 2021

2.4. Method of data analysis

For this particular study of tourism and its contribution to household income in Konso Zone, both descriptive and econometric analyses were used to achieve the objectives of the study. Descriptive analysis was used to show the contribution and share of tourism to household income in the study area. To analyze the determinants of tourism income in the study area, the Tobit model was used.

2.4.1. Econometrics Model on the Determinant of Household Tourism Income

In analyzing the determinants of tourism income for households in the study area, the Tobit model was adopted. Tobin (1958) devised what became known as the Tobit or censored regression model for situations in which y is observed for values greater than 0 but not observed (that is, is censored) for values of zero or less. We prefer Tobit models over other models because they have the advantage of overcoming the problem of the dependent variable taking a value of zero most of the time.

The standard Tobit model is defined as

$$y*_i = x_i\beta + \mathcal{E}_i$$

$$y_i = y*_i \quad if\ y*_i > 0$$

$$y_i = 0 \quad if\ y*_i \leq 0$$

Where $y*_i$ is latent dependent variable, y_i is observed dependent variable, x_i is a vector of independent variable, β is a vector of coefficient and $\mathcal{E}_i$ are assumed to be independently normally distributed:$\mathcal{E}_i \sim N(0, \delta)\big(\ and\ therfore\ y_i \sim N(x_i\beta, \delta)\big)$.

In order to examine the determinants of Tourism income of household while accounting for many zero values, we set up the following latent regression model.

$\text{TURINCOM} = \beta_0 + \beta_1\text{AGE} + \beta_2\text{SEX} + \beta_3\text{EDUC} + \beta_4$ FAMSIZE $+\beta_5$ DR $+\beta_6$ EMPLOY $+\beta_7$LAND SIZE $+ \beta_8$TLU $+\beta_9$ ACCESSCRED $+\beta_{10}$ I NF $+\mathcal{E}_i$

Where, TURINCOM is the tourism income of households, which is a latent (i.e., unobservable) variable. This variable, which depends linearly on a set of exogenous variables (age, sex, education, family size, dependency ratio, employment, land size, livestock, access to credit, infrastructure, etc.), determines the relationship between exogenous variables and the latent variable. In addition, there is

a normally distributed error term $\mathcal{E}_i \sim$ N (0, σ) to capture random influences on this relationship. Note that standard error σ is a parameter to be estimated in *Tobit*.

2.5. Variable definition and hypothesis

Tourism income (TURINCOM): Tourism income is the dependent variable of the study, which is partially continuous. Some households have tourism income, but some of them have zero tourism income. This source of income is collected from tourism activities, which include the provision of accommodation (hotels, restaurants, and lodging houses), the production and sale of souvenirs, the production and sale of pottery and earthenware, and the operation of restaurants and amusement facilities.

Independent variables: The explanatory variables expected to influence the dependent variable summarized as follow;

Table 2 Summary of Variables definition, Measurement, and Hypothesized sign

Variable Code	Definition and measurement	Hypothesized sign
Age (years)	Continuous	-
Sex	1 if male and 0 otherwise	+
Education (years).	Continuous	+
Family size	Continuous	-
Dependency ratio	Continuous	-
Land size (hectares)	Continuous	-
Livestock (TLU)	Continuous	-
Employment	1 if employed in tourism sector and 0 otherwise	+
Access to credit	1 if access to credit and 0 otherwise	+
Infrastructure (hrs.)	Continuous	-

Source: Own computation, based on hypothetical assumption, 2021

3. RESULT AND DISCUSSION

3.1. Scio-demographic and economic characteristics of household

In the beginning, the mean statistics of the socio-economic attributes of sample households were computed and presented in Table 3. The mean age among the sampled households was 41 years. The mean age among households with tourism income was 41 years, and 40.74 years among households without tourism income. The T-test showed that there is no mean difference in terms of age between households having tourism income and households not having tourism income.

The study revealed that the mean educational attendance, or years of schooling, was 5 years in the study area. The possible implication is that the overall education level of the sampled household is low. Therefore, work is needed to improve the educational status of the households in the study area. The T-test showed that there is no mean difference between households having tourism income and households not having tourism income in terms of years of education in the study area.

The study results also revealed that the mean family size of the sampled households is 6.5, which is greater than the national average family size of 4.6 (CSA, 2016). This could be explained by early marriage in the study area, where fertility is higher. The mean family size among households with tourism income was 6.89, and among households without tourism income, it was 6.5. The T-test showed that there is no significant mean difference between households with tourism income and households without tourism income in terms of family size in the study area.

Table 3 Distribution of continuous Scio-Demographic and Economic Characteristics of Household

Scio-Demographic and Economic Characteristics of Household Distribution in Konso							
Continuous Variables	**Households having tourism income**		**Households doesn't have tourism income**		**Total**		**T-value**
	N	Percent	N	Percent	N	Percent	
	46	24%	146	76%	192	100%	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	
Age of HH	41	10.2	40.74	11.83	41	11.44	-0.5455
Education level of household head	5.369	5.37	5.287	5.723	5	5.6	-0.0858
Household family size	6.89	2.79	6.417	2.54	6.5	2.6	-1.0764
Dependency ratio	1.0125	1.0153	0.984	0.689	0.99	0.77	-0.2166
Agricultural land size	0.684	0.786	0.9	0.851	0.84	0.83	-1.5421*****
Livestock ownership	2.1	1.852	2.133	1.7662	2.12	1.718	0.0804
Distance to near road	19.54	16.869	26.32	19.82	24.69	19.33	2.0921******

Source: Own computation, based on household survey data, 2021

**** Significant at 1% probability ** Significant at 5% probability * Significant at 7% probability*

The mean dependency ratio of sampled households was 0.99 in the study area. This implies that households in the study area, on average, support one dependent. The average dependency ratio among households having tourism income was 1, and 0.98 among households not having tourism income. The T-test showed that there is no significant mean difference between households having tourism income and households not having tourism income in terms of dependency ratio in the study area.

According to the results obtained, the land holdings of sample households vary from marginal holdings to large holdings, with an overall average holding of 0.84 hectares, which is less than the national

average household's land holding (1.59 hectares) (Leta et al., 2021). The result implies that households in the study area, on average, work on less than 1 ha of farmland. The mean land holding among households with tourism income was 0.68 hectares, and among households without tourism income, it was 0.9 hectares. The T-test revealed a mean difference in agricultural land size between households with and without tourism income in the study area, which was significant at a less than 10% probability level.

A household's total number of livestock owned is measured in TLU. The result showed that the mean tropical livestock unit among households having tourism income was 2.1 TLU, and among households that did not have tourism income, it was 2.13 TLU. The mean number of livestock owned among sampled households was 2 TLU. The T-test showed that there is no significant mean difference between households having tourism income and households not having tourism income in terms of livestock ownership in the study area.

The average distance traveled by sampled households to the nearest road was about 24.7 minutes in the study area. This implies that households in the study area traveled to the nearest road on average in less than half an hour. Table 3's result showed that the average distance traveled to the nearest road among households with tourism income was 19.54 minutes, and the average distance traveled to the nearest road among households without tourism income was 26.32 minutes. The T-test showed that there is a significant mean difference between households having tourism income and households not having tourism income in terms of distance traveled to the nearest road in the study area that is significant at a less than 5% level of probability.

3.2.The contribution of tourism to household income

Tourism is an instrument for transferring a vast sum of money from income-generating countries to income-receiving countries. That is true; if there is some tourism potential in such an area, the community of that area should benefit from and gain from such income. According to the study, households in the study area earned only 3.87% of their income from the tourism sector. The average total yearly tourism income of sampled households was ETB 409.73, which means that in the study area, the average total monthly tourism income was ETB 34.14. This demonstrates that tourism income has a low contribution to the community in the study area. The result of the study is in line with the finding of Haileslassie (2017), which articulated that the economic significance of tourism to the

community is low compared to the tourism wealth in the study area. The low contribution of tourism to household income is because the majority of tourism income is captured by the government. This was evident in the Konso Zone Tourism and Communication Department Report: the total annual income from visitors increased from 450,525 in 2017 to 1,487,858 in 2018 and then to 2,331,860 in 2019, but the majority of the income obtained is taken by the government rather than local people. Hence, strategies and policies that can boost household-level tourism income were of paramount importance in the study area.

Table 4 Contribution of tourism to household income

Source of income	ET Birr per year	Percent	Mean
Total tourism income of the sampled household	78669	3.87	409.73
Sampled households' income from other source	1953958	96.23	3971
Total income of sampled households	2032627	100	10586.6

Source: Own computation, based on household survey data, 2021

3.3. Cultural tourism potentials

As illustrated in Table 5, the *cultural landscape* is one of the most attractive tourist sites in Konso. These *cultural landscapes* were registered with UNESCO, including the traditional stone wall towns (*Paletea*), ward system (*Kanta*), *Mora* (cultural space), the generation pole (*Olayta*), the dry-stone terracing practices (Kawata), the burial marker (Waka), and other living cultural practices. These sites are the first priority for most visitors to Konso, as respondents answered that 82.3% of the cultural landscape is material most wanted by tourists in the study area. In line with our finding, it was reported that Konso has great cultural, historical, and natural beauty for tourism (Shakayto, 2014; Haileslassie, 2017).

The second and third most popular materials wanted by tourists in the study area were arts (50.52%) and cultural music (43.75%), respectively. Many tourism activities are taking place in the study area,

including the sale of cultural goods and services, souvenirs, paintings, festival music, local tour guides, and so on.

Table 5 Material most wanted by tourist

Material most wanted by tourist	Respondents	Percent
Cultural Music	84	43.75
Arts	97	50.52
Games	78	40.62
Cultural land scape	158	82.3

Source: Own computation, based on household survey data, 2021

3.4. Challenges of Tourism Industry in Konso

Despite having tremendous potential, the tourism industry is constrained by a number of problems. Table 6 showed that lack of preservation and protection of heritage, lack of effective marketing, limited access to financing, lack of museums, and inadequate development and implementation of strategies were the major challenges facing the tourism industry in the study area. Other challenges facing the tourism industry in the study area included internal conflict and a lack of service and facilities. In line with our findings, underdeveloped infrastructure and facilities, safety and security, a lack of implementation of national policies, and a lack of marketing and promotion are challenges to tourism in the study area (Haileslassie, 2017).

Table 6 Major challenges of tourism industry in the study areas

Challenges	Frequency	Percentage (%)
Limited access to financing	103	53.64%
Lack of preservation and protection of heritage	143	74.48%
Lack of museums	99	51.56%
Lack of service and facilities	74	38.54%
Lack of effective marketing	112	58.33%
Internal conflict	82	42.7%
Inadequate development and implementation of strategies	97	50.52

Source: Own computation, based on household survey data, 2021

3.5. Tobit Regression Result on The Determinant 0f Household Tourism Income

In the preceding section, data obtained mainly from primary sources is explained using descriptive methods of data analysis. That means the relationship between tourism income and some household characteristics is examined descriptively using measures of central tendency and variation. But this section deals with an empirical measure of the magnitude of the relationship and the relative statistical relevance and importance of the relationship between tourism income and its determinants.

To examine the relationship between tourism income and its determinants, this study employed the Tobit regression model. That means the status of tourism income is not fully continuous; it is a partially observed response variable or limited dependent variable. For some households, tourism income is unobserved, so a censored Tobit regression model was employed to examine the factors affecting tourism income.

So, since the dependent variable is limited or partially observed, our preferred model to examine the determinants of tourism income in this study is the censored Tobit regression, where the estimation results are presented in Table 7. The Walde test, or likelihood ratio test, is used to assess the overall significance of all variables in maximum likelihood estimation. As indicated in table 7, the likelihood ratio statistics are large, or the probability of observing likelihood ratio statistics greater than or equal to 26.14 (0.0036) is less likely if the null hypothesis of no relationship between all independent variables and the outcome variable is true. The alternative hypothesis of a relationship between at least one independent variable and the outcome variable is accepted, though it is not dependable in maximum likelihood estimation. One of the series problems in cross-sectional data was heteroskedasticity, and the model also accounted for this problem. The result of the Breusch-Pagan/Cook-Weisberg test for heteroskedasticity revealed the acceptance of the null hypothesis of constant variance.

The variance inflating factor (VIF = 1.61) is below 10, which implies the non-existence of a high correlation between explanatory variables. In other words, there is no perfect linear relationship among the explanatory variables. So, it is not demanding to remove any disturbing predicator.

Table 7 Marginal effect after Tobit Regression Result

LR chi-square (10) =26.14 Pseudo R2=0.0277 Probability>chi-square=0.0036				
Variable	**dy/dx**	**Std. err**	**Z**	**P>|Z|**
Age of hh head	102.94	41.96	2.45**	0.014
Sex of hh head	1477.12	1752.13	0.84	0.399
Family size	309.894	178.6	1.73*	0.083
Dependency ratio	-241.7	513.85	-0.47	0.638
Education level	118.8	98.5	1.21	0.228
Land size	-1558.7	732.32	-2.13**	0.033
Livestock ownership	-48.96	289.96	-0.17	0.866
Employment level	-542.41	1184.43	-0.46	0.647
Access to credit	1727.75	909.57	1.9*	0.057
Infrastructure	-36.15	27	-1.34	0.181

Source: Own computation, based on household survey data, 2021

**** Significant at 1% probability ** Significant at 5% probability * Significant at 10% probability*

Table 7 shows that out of ten independent variables, four were found to be significant at the 5% and 10% levels of significance. The age of the household head, family size, and access to credit are significantly and positively correlated with tourism income, while land size is negatively correlated with tourism income for households. Based on the above summarized model result, explanations for each significant independent variable are given as follows:

Age of Household Head: The coefficient of the age of household heads is positively correlated with tourism income and significant at the 5% level of significance. That is, for every additional year of households, tourism income increased by 102.94 percent while the other variable remained constant. The study revealed that, as household head age increases, more households will participate in tourism activities, which include the provision of accommodation (hotels, restaurants, and lodging houses), the production and sale of souvenirs, the production and sale of pottery and earthenware, restaurants, and amusement facilities, and earn more income from them.

Family size of household: Among the important demographic variables, family size of household is positively affected by tourism income and significant at the 10% level of significance. This positive relationship indicates that, if all variables remain constant, increasing family size by one increases the intensity of tourism income by 309.89 birr per year among households with tourism income. Hence, all working-age (even underage) rural household members engage in family income-generating activities in one way or another. Therefore, households with more family members who are actively involved in family income-generating activities can engage in tourism income-generating activities and earn more income. According to findings from earlier empirical studies, family size encourages non-agricultural income diversification activities (Neglo et al., 2021). It is implied by this that adding an adult to the home adds to the labor force. It presents an opportunity to divide labor between agricultural and non-agricultural tasks (Demie & Zeray, 2016).

Land size of households: Farm land size, which is significant at the 5% probability level, has a negative influence on the tourism income of households in the study area. It implies that, if land size increases by one hectare, household tourism income decreases by birr 1558.7 per year among households with tourism income, ceteris paribus. The study revealed that the tourism income of households decreases as the size of cultivated farms increases. This means that households with a lot of cultivated land have a lower chance of making money from tourism. The likelihood of utilizing other forms of living reduces as household land holding size rises since farmers with larger farms are encouraged to devote more time to farming (Gecho, 2017; Tamerat, 2016; Aababbo & Sawore, 2016). Also, farm households with larger plots of land were compelled to pursue agricultural expansion rather than diversification (Anshiso & Shiferaw, 2016; Yizengaw et al., 2015).

Access to credit services: Credit is an important source of investment in activities that generate income for households. Banks' credit support plays an important role in the development of tourism, which can promote the structural reform of the supply side of tourism and has great significance for economic development (Wang et al., 2017). The coefficient of credit is positive and statistically significant at a 10% level of significance. That means the household uses the level of credit for investments in tourism activities and generates more tourism income.

4. CONCLUSIONS AND RECOMENDATION

The study was conducted in the Konso zone of SNNP's regional state. The main objective of this study was to investigate tourism and its contribution to household income, specifically to examine the factors affecting the tourism income of households, assess the contribution of tourism to household income, and explore the challenges of tourism in the study area. The study concludes that this cross-sectional analysis demonstrated that the contribution of tourism income to the community in the study area was low. This was evident based on the finding that only 3.87 percent of household income in the study area was obtained from the tourism sector. Also from the findings, Konso is evidently blessed with a lot of tourist sites with the potential to raise revenue for the nation. Cultural landscape is the first most-wanted tourist destination in the study area. The other materials most wanted by tourists in the study area were arts and cultural music.

The Tobit regression results provide a significant identification of the factors that contribute to household tourism income in the studied area. However, being older, the family size of the household and access to credit were statistically significant and had a strong positive correlation with tourism income, while land size was significantly and negatively correlated with the tourism income of households in the study area. Finally, the study found that limited access to financing, lack of preservation and protection of heritage, lack of museums, lack of service and facilities, lack of effective marketing, internal conflict, and inadequate development and implementation of strategies were the major challenging factors that affect the tourism industry in the study area. Hence, promotion and advertising of potential tourist sites, creating employment in the tourism sector, improving access to credit, preserving potential heritages, and adequate development and implementation of strategies were recommended to improve the tourism industry in the study area.

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Conflict of Interest

We declared that we have no conflict of interest.

REFERENCES

Aababbo, Y. E., & Sawore, A. M. (2016). Assessing determinant factors of income diversification among rural farm households in Ethiopia: The case of Leemo and Anileemo districts, Hadiya Zone, South Nation Nationalities People Region. *International Journal of Science and Research*, *5*(12), 100-110.

Ababu, D. G., Belachew, T. A., & Zeleke, A. T. (2021). Determinants of Household Income In case of Dera District, Oromia Regional State, Ethiopia. *Bhartiya Krishi Anusandhan Patrika*, *36*(3), 247-251.

Anshiso, D., & Shiferaw, M. (2016). Determinants of rural livelihood diversification: The case of rural households in Lemmo district, Hadiyya Zone of Southern Ethiopia. *Journal of economics and Sustainable Development*, *7*(5), 32-39.

Belete, J. (2020). Challenges and Prospects of Ethiopian Tourism Industry. *Global Journal of Management and Business Research*, *20*(F2), 45-48.

Csa, I. (2016). Central Statistical Agency (CSA)[Ethiopia] and ICF. Ethiopia Demographic and Health Survey, Addis Ababa. *Central Statistical Agency*.

Demie, A., & Zeray, N. (2016). Determinants of participation and earnings in the rural nonfarm economy in Eastern Ethiopia. *African Journal of Rural Development (AFJRD)*, *1*(1978-2017-2063), 61-74.

Demissie, E., & Officer, S. T. (2018). Assessment of Tourist Satisfaction in the Simien Mountains National Park, Ethiopia.

Dessie, M. (2020). The contribution of tourism to the Ethiopian economy and its impact on the GDP. Grin Verlag (November 18, 2020), 64, 3346264513.

Gecho, Y. (2017). Rural Farm Households‟ Income Diversification: The Case of Wolaita Zone, Southern Ethiopia. Social Sciences 6(2):45- 56. doi: 10.11648/j.ss.20170602.12.

Giorgis, G. (2013). Challenges and opportunities of small towns to be competitive tourist destinations (the case of Karat town) Addis Ababa- Ethiopia. (Unpublished)

Haileslassie, B. G. (2017). Status, challenges and prospects of tourism industry in Konso woreda, Segen Zone, Southern Ethiopia.

Kaitano, D. U. B. E. (2020). Tourism and sustainable development goals in the African context. *International Journal of Economics and Finance Studies*, *12*(1), 88-102.

Kidane-Mariam, T. (2015). Ethiopia: opportunities and challenges of tourism development in the Addis Ababa-upper Rift Valley corridor. *Journal of Tourism and Hospitality*, *4*(4).

Leta, T. B., Berlie, A. B., & Ferede, M. B. (2021). Effects of the current land tenure on augmenting household farmland access in South East Ethiopia. *Humanities and Social Sciences Communications*, *8*(1), 1-11.

Neglo, K. A. W., Gebrekidan, T., & Lyu, K. (2021). Determinants of participation in non-farm activities and its effect on household income: An empirical study in Ethiopia. *Journal of Development and Agricultural Economics*, *13*(1), 72-92.

Sintayehu, T. (2016). Challenges and prospectus of Ethiopian tourism industry. *Global Journal of Management and Business Research*, *16*(F1), 1-12.

Sanjeev, G. M., & Birdie, A. K. (2019). The tourism and hospitality industry in India: emerging issues for the next decade. *Worldwide Hospitality and Tourism Themes*, *11*(4), 355-361.

Tamerat, T. (2016). Livelihood resources and determinants in Tigray Region of Ethiopia. *International Journal of Lean Thinking*, *7*(2), 57-66.

Teshome, E., Woreta, L. S., & Meskele, T. A. (2018). Challenges of tourism destination development in the Amhara National Regional State, Ethiopia. African Journal of Hospitality, Tourism and Leisure, 7(3), 1–16

United Nations World Tourism Organization. (2008). Understanding tourism: Basic glossary. Retrieved from http://media.unwto.org/en/content/understanding-tourism-basic-glossary

UNE. (2020). One UN assessment-socio-economic impact of Covid-19 in Ethiopia. United Nation Ethiopia, 1–182.

UNESCO. (2023). Ethiopia-UNESCO World Heritage Convention.

https://whc.unesco.org/en/statesparties/et

Urmale, C. (2012). Opportunities and challenges of culture related tourism development. MA thesis. Addis -Ababa University. Ethiopia. (Unpublished)

Wang, Z., Xiao, S., & Lang, H. (2017). A study on credit support for the development of tourism industry in Ya'an City. In *2nd International Conference on Humanities Science, Management and Education Technology*.

Weber, F., Stettler, J., Priskin, J., Rosenberg-Taufer, B., Ponnapureddy, S., Fux, S., ... & Barth, M. (2017). Tourism destinations under pressure: Challenges and innovative solutions. *Lucerne University of Applied Sciences and Arts Institute of Tourism ITW, Roesslimatte*, *48*, 6002.

Wondirad, A., Kebete, Y., & Li, Y. (2021). Culinary tourism as a driver of regional economic development and socio-cultural revitalization: Evidence from Amhara National Regional State, Ethiopia. *Journal of Destination Marketing & Management*, *19*, 100482.

World Toursim Organization and United Nations Developmen Programme (2017), *Tourism and the Sustainable Developmengt Goals-Journy to 2030*, UNWTO, Madrid, DOI: https://doi.org/10.1811/9789284419401

WTTC. (2022). Travel and Tourism Economic Impact: 2020 Global Trends. (N. Jus, C. Tsering and J. Mitcham, Eds.) Julia Simpson, President & CEO World Travel & Tourism Council.

Yamane, T. (1967) Statistics: An Introductory Analysis 2nd Edition. New York:

Yizengaw, Y. S., Okoyo, E. N., & Beyene, F. (2015). Determinants of livelihood diversification strategies: The case of smallholder rural farm households in Debre Elias Woreda, East Gojjam Zone, Ethiopia. *African journal of agricultural research*, *10*(19), 1998-2013.