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Tourist Flows and Its Determinants in Ethiopia

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ABSTRACT

Ethiopia has immense tourism potential owing to its natural, historical and cultural endowments. The reasons behind the sector's poor performance have not been studied in a comprehensive way, however. This paper, using an array of methodologies including simple historical explanation of tourist flow time series data, panel data analysis of tourist flow determinants and destination competitiveness analysis, attempts to fill this gap. The review of history illuminates the detrimental effects of civil wars, famine and nationalization of private companies on the performance of the Ethiopian tourism sector. The panel data analysis takes into account the positive and significant impact of previous year's tourist arrivals, the Ethiopia's infrastructural development as well as the per capita GDP and the total population of the sending countries. The analysis shows that the price differential between Ethiopia and Kenya and distance negatively affect tourist flows in Ethiopia. In addition, the dummy for Africa is significant and positive. Finally, the destination competitiveness analysis shows that Ethiopia is better rated in inherited endowments than in created and supporting resources (like tourism infrastructure). Yet almost every rating exhibits considerable improvement after tourists visited the country, suggesting that the famine-related bad image of the country still hinders Ethiopia's tourism sector.

1. INTRODUCTION

Tourism is one of the largest and rapidly growing industries in the world. According to the World Tourism Organization (UNWTO, 2007), there were 846 million international tourist arrivals in 2006 only, which showed an increase of 5.4% over the previous year. However, the developed world is taking the lion's share of the market with Europe, North America and East Asia claiming 76.3% the international tourists in the same year.

Though noted for its tourism potential, Africa's underdeveloped tourism sector is attracting only 4.81% (40.7 million) of the total tourist arrivals in the world. What makes the problem severe is the fact that a considerable proportion of this number is taken by South Africa and Northern African countries (ibid).

The situation in Ethiopia is even worse. On the one hand, its tourism potential is diversified: natural attractions that include some of the highest and lowest places in Africa along with immense wild life including some endemic ones; a very old and well preserved historical traditions with fascinating stelae, churches and castles to witness that, an attractive cultural diversity of about 80 nations and nationalities; and various ceremonies and rituals of the Ethiopian Orthodox Church which open a window on the authentic world of the Old Testament (www.tourismethiopia.org). On the other hand, it is one of the poorly performing countries in terms of tourist arrivals. For example, the total number of tourist arrivals in Ethiopia in 2006 is 290,000 which is more than five times smaller than the number in neighboring Kenya, 1,644,000 (WDI,2010). Even then, it is a major source of foreign exchange earnings in the country claiming an average of 23.34% of the total export earnings from 1995 to 2007 (WDI, 2010).

To develop the tourism potential and let it contribute in the effort to reduce poverty and underdevelopment in Ethiopia, finding the main determinants of tourist flows in the country is of great necessity. Yet, except as part of a panel of Sub-Saharan African countries (Naudé and Saayman ,2004), as to my knowledge, organized and methodologically sound studies to identify major determinants of tourist flows in Ethiopia are inexistent. It is now evident that it is difficult to generalize global or regional findings to a single country as the country may have a completely different institutional set up from the rest of the world. Hence, this work fills this gap by using a triangulation of methodologies to sort out the major determinants of tourist flow in Ethiopia.

This paper attempts to identify the major determinants of tourist flows in Ethiopia first by a simple historical explanation of the time series of tourist flows and tourism receipt in Ethiopia for the period 1963-2005. Then, systems Generalized Method of Moments (GMM) estimator of Blundell and Bond (1998) is employed on a panel data of tourist arrivals in Ethiopia originating from 40 counties from 1998 to 2004 to identify main macro economic determinants of tourist flows in Ethiopia. Lastly, the so called destination competitiveness analysis of Omerzel (2006) based on the views of tourists and tour operators is applied to assess the degree of attractiveness of Ethiopia as a tourist destination relative to other African countries.

The remainder of the paper is organized as follows. Section 2 discusses the historical flow of tourists and tourism receipts in Ethiopia. In section 3 the panel data analysis is undertaken with subsections explaining the nature of the data, the econometric method, the empirical model and discussion of results. Section 4 contains the destination competitiveness analysis while section 5 presents the views of tour operators on the current competitiveness of the Ethiopian tourism sector. Section 6 concludes.

2. HISTORICAL EXPLANATION OF THE TIME SERIES OF TOURIST FLOWS AND TOURISM RECEIPT

Ethiopia's great potential for tourism development is mentioned everywhere and I do not go into the details in this study. (see for example World Bank, 2006; www.tourismethiopia.org, www.ethiopia.com, various travel books and websites of tour operators). It suffices to say that it has almost all types of primary tourist products: historical attractions, national parks with endemic wild life and cultural and religious festivals. UNESCO recognizes eight world heritage sites (as many as Morocco, South Africa and Tunisia and more than any other country in Africa): Axum's obelisks, the monolithic churches of Lalibela, Gondar's castles, the Omo Valley, Hadar (where the skeleton of Lucy was discovered), Tia's carved standing stones, the Semien National Park, and the walled city of Harar.

Tourism in Ethiopia dates back to the pre-Axumite period when the first illustrated travel guides to Ethiopia can be found in the friezes of the pyramids and ancient sites of Egypt. These depicted travels to the land of Punt, which the Egyptians knew was the source of the Nile, and where they traded for gold, incense, ivory and slaves. The fourth century Persian historian Mani described the Kingdom of Axum as being one of the four great empires of the world, ranking it alongside China, Persia and Rome (World Bank, 2006).

Modern tourism in Ethiopia can be said to have started with the formation of a government body to develop and control it in 1961: the Ethiopian Tourist Organization. The earliest analysis on the tourist flows and expenditures in Ethiopia was done by UNESCO (1968). From the data covering 1963-1968, the total number of tourists was very low.

Table 2.1 Tourist Arrivals in Ethiopia, 1963-1967

| Origin of Tourists | 1963 | 1964 | 1965 | 1966 | 1967 |
|--------------------|--------|--------|--------|--------|--------|
| Europe | 7,346 | 9,537 | 11,482 | 13,564 | 10,666 |
| America | 4,426 | 4,721 | 8,209 | 8,872 | 5,222 |
| Africa | 3,953 | 2,856 | 2,443 | 4,653 | 1,517 |
| Others | 5,490 | 2,722 | 3,278 | 6,607 | 3,116 |
| Total | 19,215 | 19,836 | 25,412 | 33,696 | 20,521 |

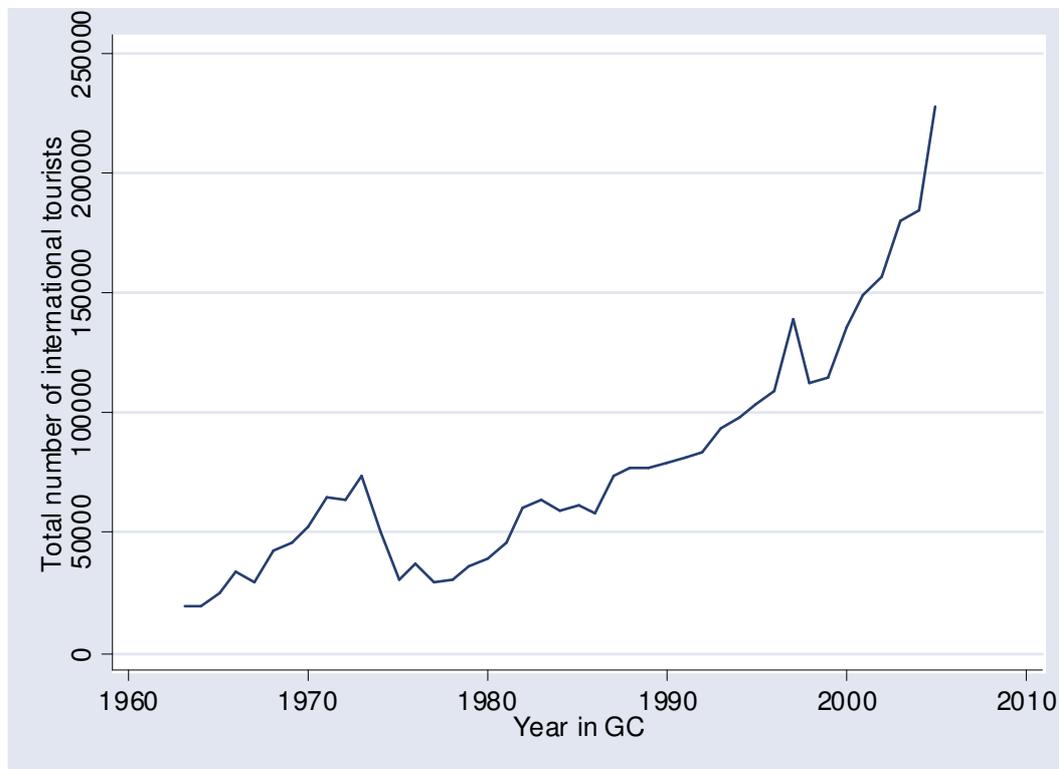
Source: UNESCO, 1968.

These numbers would not be considered small if most of them were vacation tourists, who stay generally longer and spend more. However, it was noted that more than half of them were business tourists and conference tourists that came to participate in international meetings of the United Nations Economic Commission for Africa and Organization for African Unity. In the same study, the daily per capita expenditure of tourists was estimated at about USD 24, which was a relatively big sum. In addition, the average length of stay was about four days, emphasizing the significance of conference and business tourism from the total tourist arrivals data.

Recently, the Ministry of Culture and Tourism has published its number 8 Tourism Statistics Bulletin in 2006 (henceforth MCT, 2006) which gives a fairly detailed analysis of tourists by country of residence, entry port, purpose of visit, age, and gender and amount of receipts

from tourists for the years 2003-2005 and a good compilation of tourist arrivals from 1963-2003. The ensuing discussion is based on the data from this publication.

Figure 2.1: Number of Tourist Arrivals, 1963-2005



Source: MCT, 2006.

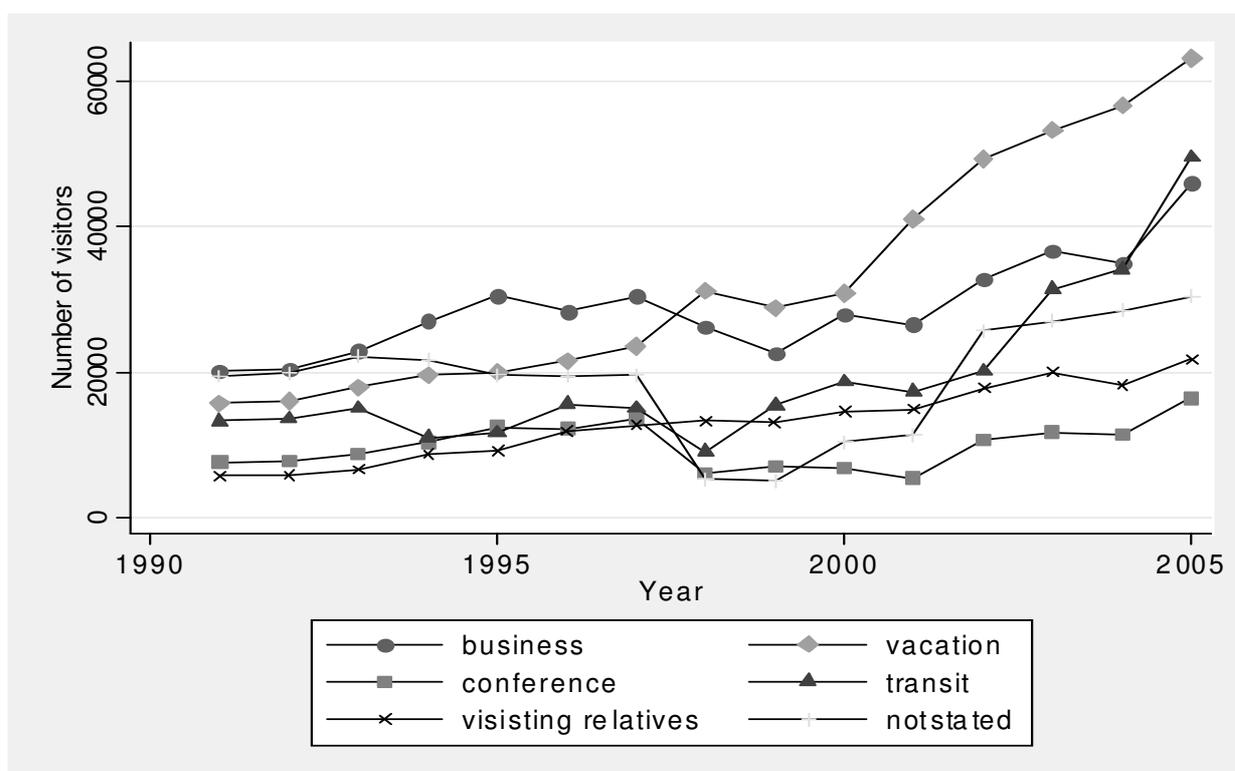
Figure 2.1 is a vivid picture of the tattering Ethiopian tourism sector. The country's socio economic history is pretty well explained in the number of tourist flows to the country. There was a rising trend of tourist flows from 19,215 in 1963 up to 73,662 in 1973, an approximately four folds increase in 10 years. This growth was not sustained, however. Mainly because of the political unrest and the ensuing government change and the contemporary famine (of 1973/74), the number of tourists went down to 50, 220 in 1974 and 30,640 in 1975. Even though the data is crude and do not discriminate between different types of tourists, one can imagine a big fall in the number of business travellers due to the massive nationalization of private industries (including foreign companies); an enormous decline in the number of conference tourists for the political unrest and a complete drop in vacation tourism as it was practically unsafe for a foreigner to move out of Addis.

The failure of the number to increase above 45,000 up to 1981 could fairly be attributed to the continued upheavals in Eritrea, Tigray and Hararghe regions and the 'Red Terror' in major central towns. Though the rate was low, the number started to grow to above 60, 000 in the coming years. It would not be exaggeration if one said Ethiopia is the classic example of how war and famine (bad image) adversely affect tourist flows. Due to the 1984 famine and its related news throughout the world that gave birth to the famine related image of Ethiopia to date, the number of tourists has declined from 64,240 in 1983 to 59,552 in 1984.

In general, tourism development during the Derg period was so sluggish that it took 14 years for the number to come back to its peak of the Imperial regime. One thing that demands care is the fact that the two 70,000 numbers are not equivalent as they mean absolutely different share of the world tourist flow (which showed a steady growth over the decades).

The current government (EPRDF) had inherited the power to attract about 81,581 tourists in 1991 that is only 8,000 more than the 1973 record. This flow increased steadily to 139, 000 in 1997 mainly due to the political stability and the market liberalization that attracted a large number of business, conference and vacation tourists. Unfortunately, the country had another war: this time with Eritrea. This war led to a fall in the number of tourists by 27, 000 into 112,000 and 115,000 in 1998 and 1999 respectively. From 2000 onwards the county is witnessing a massive inflow of tourists that doubled in six years time (2000 to 2005).

Figure 2.2: Summary of international tourists by purpose of visit from 1991 to 2005



Source: MCT, 2006

To decompose the relative increase and decrease in different types of tourism motives, figure 2.2 is very helpful. Unfortunately, this data is available only since 1991; the coming of the EPRDF regime, and our discussion would be restricted to that. In the first seven years of this period, business was the leading motive to visit Ethiopia. Yet, in 1998, during the Ethio-Eritrean war, business travelers to Ethiopia considerably decreased in number and their place was taken over by vacation tourists, whose steady increase was only temporarily halted during the war and showed magnificent increase after the war that led to a total threefold increase in the period under consideration.. In general, business tourism increased slowly to double in 2005 the number it had in 1991. Conference tourism has been the least contributor to tourism with sluggish growth and falling share from the total tourist arrivals.

The number of transit visitors in Ethiopia is directly related to airport efficiency, strong security and growth of the Ethiopian Air Lines. And except during the Ethio- Eritrean war and its aftermath (1998-2001), this number has grown steadily to register a five-fold increase in 2005 from the 1991 record. The recent growth is mainly explained by the growth of the Ethiopian Air Lines as one of the best airlines in Africa (World Bank, 2006). Almost every year, the number of visitors whose purpose was to visit relatives showed a continuous but slower increase in the period under study. Still more than 10% of the tourists' purpose of visiting Ethiopia is not known.

The data on tourism receipts is available only from 1971 onwards. Again the receipts show a stagnant and sometimes a falling trend throughout the Derg period (see Appendix 1). From 12,224,000 USD in 1973 it went down to 1,609,000 USD in 1978 and the maximum annual revenue generated from tourism throughout that period was in 1990 (20, 583,464 USD). Due to the increase in the number of tourists, the tourism revenue has increased significantly after 1991 reaching a maximum of 134, 500, 000 USD in 2005.

Another important factor to see the performance and the significance of the sector is to assess how much an average tourist expended in the country. This depends on a number of factors: purpose of visit, average days spent in the country, prices in the country, the competitiveness in the sector, and variety of tourist supplies that motivate them to expend more. The average expenditure by a tourist in Ethiopia has been oscillating between USD 100 and USD 200 for quite longer time between 1973 and 1988. From 1988 on, that number has never been below USD 200 and it has fluctuated between USD 200 and USD 300 in the period 1988-1999. This increment can reasonably be explained in the general increase in world prices and increase in the number of vacation tourists who stay pretty long in the country. However, a more than 100% growth of this expenditure per tourist from USD 276 in 1999 to USD 517 in 2000 and a more than USD 500 receipt since then is difficult to explain. Though unspecified, the ministry may have changed its measure of tourist receipts. In fact this is still much lower than the World Bank (2006) estimate on tourist expenditures in Ethiopia indicating a good deal of underestimation of tourism receipts in the pre -1999 period.

The World Bank (2006) diagnostic study of the tourism sector shows that in 2005-6—excluding foreign exchange earnings from Ethiopian Airlines—tourism generated approximately USD 132 million in direct in-country expenditure on accommodation, inland transport, food and drink, visitor fees and arts and crafts purchases (making it the third highest foreign exchange earner behind coffee at USD 185million and oil seeds at USD 168million). This was collected from about 150,000 foreign visitors who came to Ethiopia for various purposes such as leisure (63,000), business and conferences (62,000) and to visit friends and relatives (25,000). The average length of stay, according to the study, was 7-8 days and the per capita expenditure averaged USD 850. The length of stay is below the regional averages (Kenya 12.8 days, Tanzania 14.1 days, Uganda 9.7 days) while the per capita/per day expenditure is above average (Kenya USD 62, Tanzania, USD 104, Uganda USD 71, South Africa USD 47, and Ethiopia USD 109). The study considers this as evidence that Ethiopia is at an early stage of development as characterized by relatively short and expensive stays due to poor tourism infrastructure and a weaker supply side (ibid).

3. A PANEL DATA ANALYSIS

3.1 The Data

Our balanced panel data set covers tourist arrivals in Ethiopia originating from 40 countries¹ from 1998 to 2004 (7 years), a total of 280 observations. This is typically important for tourism studies as it helps to incorporate the features of both the receiving country (Ethiopia) and the originating ones. The data source for tourist arrivals is Tourism statistics Bulletin number 8 of Ministry of Culture and Tourism of the Federal Democratic Republic of Ethiopia (MCT, 2006).

The main data source for the explanatory variables is the 2007 edition of the World Development Indicators CD/ROM of the World Bank. The CD/ROM is a source of data for per capita income of the sending countries, the exchange rate between the currencies of Ethiopia and origin countries, the ratio of Consumers' Price Indices (CPIs) of Ethiopia and the origin countries, the ratio of CPIs of Ethiopia and Kenya, the total population of the sending countries, and the urbanization rate, and number of internet users in Ethiopia. The length of road networks in Kilometers of Ethiopia is obtained from an unpublished document of Ethiopian Roads Authority(2008) and the air distance from the capital cities of the origin countries to Addis Ababa is taken from the website <http://www.timeanddate.com/worldclock/distance.html>.

The data for is summarized in Table 3.1. The table shows that the average mean arrival from a country in a year is 2,307 where the minimum is registered in 1999 from New Zealand (70 tourists) and the maximum is 28,112 in 2004 from USA. This relatively high number could be attributed to the large number of Ethio-Americans coming to Ethiopia each year. On average, the tourists covered in this study are from a high-income category as the average per capita GDP of the sending countries is USD 12,798.84. However, there is a significant variation in this variable(a standard deviation of USD 3374.54), with the minimum USD 140.45 (Malawi, 2001) and the maximum USD 39,004.86 (Norway, 2004).

Table 3.1 Summary Statistics*

| Variable | Mean | Std. Deviation | Minimum | Maximum |
|--------------------------------------|-----------|----------------|-----------|----------|
| Tourist arrival | 2307.036 | 3374.54 | 70 | 28112 |
| Consumer Price Index (CPI) ratio | 0.9619261 | 0.1716193 | 0.3724259 | 2.350573 |
| Gross Domestic Product | 12798.84 | 12677.39 | 140.4546 | 39004.86 |
| Exchange rate ratio | 3.461679 | 5.344166 | 5.6806 | 29.30296 |
| Distance | 5485.82 | 3490.947 | 922.91 | 14415.65 |
| Length of road network in Kilometers | 31841.86 | 3199.605 | 26157 | 36496 |
| No. of internet users | 41000 | 37773.14 | 6000 | 113000 |
| No. of mobile users | 54027.71 | 59236.71 | 0 | 178000 |
| Urbanization rate | 15.17429 | .4730092 | 14.51 | 15.91 |

Source: World Bank (2007), MCT (2006), Ethiopian Roads Authority (2008), <http://www.timeanddate.com/worldclock/distance.html>

¹ The sending countries are: Australia, Austria, Belgium, Canada, Chad, China, Denmark, Egypt, Finland, France, Germany, Ghana, Greece, India, Israel, Italy, Japan, Kenya, Korea, Kuwait, Malawi, Mali, Netherlands, New Zealand, Nigeria, Norway, Pakistan, Philippines, Rwanda, Russia, South Africa, Sudan, Sweden, Switzerland, Tanzania, Turkey, Uganda, UK, USA, Yemen.

The average distance from Addis Ababa and the capital cities of the countries of origin is 5485.82 kilometers (a bit smaller than the distance between Addis and Paris, 5571.15 kms) where Yemen is the nearest country included in the study (922.91 kilometers) and New Zealand is the farthest (14415.65kilometers).

3.2 Estimation Methodology

For dynamic panel data sets (where the model includes lagged dependent variable), the lagged dependent variable is by construction correlated to the unobserved country specific error term causing biases in Ordinary Least Squares(OLS) estimators (Casseli et al, 1996). For such models, Generalized Methods of Moments (GMM) estimators of Arellano and Bond (1991) and Blundell and Bond (1998) have great advantage of avoiding endogeneity and omitted variable bias.

The following illustration of how the systems GMM estimators of Blundell and Bond (1998) works for a dynamic panel model like ours is based on Levine et al. (2000) and Beck et al. (2000).

Consider the following equation.

$$y_{it} = \hat{\alpha} y_{it-1} + \beta X_{it} + \eta_i + \varepsilon_{it}, \quad \text{where } \hat{\alpha} = 1 + \alpha \quad (1)$$

where, y_{it} is the logarithm of tourist arrivals; X is the set of explanatory variables (other than lagged tourist arrivals); η is unobserved country specific effect; ε is the error term; and the sub-scripts i and t represent country of origin and time period, respectively²

Casseli et al.(1996), showed the correlation between y_{it} and η makes y_{it} endogenous and thus OLS estimation of equation(1) results in biased estimates. To avoid such biases, let us take the first differences of equation (1).

$$y_{it} - y_{it-1} = \hat{\alpha} (y_{it-1} - y_{it-2}) + \beta' (X_{it} - X_{it-1}) + (\varepsilon_{it} - \varepsilon_{it-1}) \quad (2)$$

Applying OLS on equation (2) gives us the fixed effects estimators. However, fixed effects estimators might be prone to bias for two reasons. First, the explanatory variables in the set X might be endogenous. Second, in the period $t-1$, the lagged dependent variable ($y_{it-1} - y_{it-2}$) is correlated with the new error term, $(\varepsilon_{it} - \varepsilon_{it-1})$.

In lieu of the fact that it is usually difficult to find good instrumental variables and these instrumental variables might be jointly endogenous, Arellano and Bond (1991) suggest the use of internal instruments, defined as instruments based on lagged values of explanatory variables. Under the assumptions that the error term ε is not serially correlated, and the explanatory variables are weakly exogenous (uncorrelated with future realization of the error term), the GMM dynamic panel estimator by Arellano and Bond (1991) uses the following moment conditions.

² Time dummies are also included to allow for time specific effects.

$$E[y_{it-s} \times (\varepsilon_{it} - \varepsilon_{it-1})] = 0 \text{for } s \geq 2; \quad t = 3 \dots T \quad (3)$$

$$E[X_{it-s} \times (\varepsilon_{it} - \varepsilon_{it-1})] = 0 \text{for } s \geq 2; \quad t = 3 \dots T \quad (4)$$

Using these moment conditions, Arellano and Bond (1991) propose a two-step GMM estimator where the error terms are assumed to be both independent and homoskedastic, across countries and over time in the first step and such assumptions are relaxed in the second step where the residuals obtained in the first step are used to construct a consistent estimate of the variance-covariance matrix. This GMM estimator is generally called the difference GMM estimator.

However, Blundell and Bond (1998) show that when the lagged dependent and explanatory variables are nearly a random walk, lagged levels of these variables are weak instruments for the regression equation in differences. Instrument weakness influences the asymptotic and small sample performance of the difference estimator. In addition, Beck et al. (2000) note that differencing may decrease the signal-to-noise ratio, thereby exacerbating measurement errors.

Arellano and Bover (1995) describe how, if the original equation in levels is added to the system, additional instruments can be brought to increase efficiency. In this equation, variables in levels are instrumented with suitable lags of their own first differences. Unfortunately, additional assumptions are required as the country specific effect appears again in the system through the equation in levels. For the differences to be appropriate instruments, we assume that there is no correlation between the differences of these variables and the country specific effect.

The additional moment conditions for the second part of the system (the regression in levels) are:

$$E[(y_{it-s} - y_{it-s-1}) \times (\eta_i + \varepsilon_{it})] = 0 \text{ for } s = 1 \quad (5)$$

$$E[(X_{it-s} - X_{it-s-1}) \times (\eta_i + \varepsilon_{it})] = 0 \text{ for } s = 1 \quad (6)$$

We use the moment conditions in 3, 4, 5 and 6 and employ a two-step GMM procedure to generate consistent and efficient parameter estimates.

It is clear that consistency of the GMM estimator depends on the validity of the instruments. Arellano and Bond (1991), Arellano and Bover (1995) and Blundell and Bond (1998) suggest two specification tests. The first test, Arellano-Bond test of autocorrelation, examines the hypothesis that the error term ε_{it} is not serially correlated. Here, we test whether the differenced error term is second order serially correlated. The second suggested test is the Sargan test of over identifying restrictions, which tests the overall validity of the instruments by analyzing the sample analog of the moment conditions used in the estimation process.

However, the Sargan statistic, which is the minimized value of the one-step GMM criterion function, is not robust to heteroskedasticity or autocorrelation (see Roodman, 2006). Thus, we use another statistic, the Hansen J statistic, which is the minimized value of the two-step GMM criterion function, and is robust. Finally, the software and the package used for our dynamic panel estimation are Stata 9.2 and xtabond2 of Roodman (2006) respectively.

Following the review of the literature on most frequently used determinants of tourist flows by Crouch (1994) and Lim (1997) and applications by Naudé & Saayman (2004), the following empirical model is set forth to be tested.

$$TA_{it} = \beta_1 TA_{it-1} + \beta_2 PCI_{it} + \beta_3 EXR_{it} + \beta_4 DIST_i + \beta_5 CPI_{it} + \beta_6 Kenya + \beta_7 POP_{it} + \beta_8 Urban_t + \beta_9 Road_t + \beta_{10} Internet_t + \beta_{11} Africa + \beta_{12} Year1 + \beta_{13} Year2 + \beta_{14} Year3 + \beta_{15} Year4 + \beta_{15} Year5 + \beta_{16} Year6 + \varepsilon_{it} \quad (7)$$

: Where TA_{it} is the number of tourist arrivals from country i in year t ; TA_{it-1} is the number of tourist arrivals from country i in year $t-1$; PCI_{it} is the per capita income of the sending country i in year t ; EXR_{it} is the exchange rate between the currencies of Ethiopia and origin country i in year t ; $DIST_i$ represents an air distance from the capital of the origin country i to Addis Ababa; CPI_{it} stands for the ratio of Consumers' Price Indices (CPIs) of Ethiopia and the origin country i in year t ; $Kenya_t$ represents the ratio of CPIs of Ethiopia and Kenya in year t ; POP_{it} stands for the total population of the sending country i in year t ; $Urban_t$, $Road_t$, $Internet_t$ respectively represent the urbanization rate, the length of road network in Kilometers and number of internet users in Ethiopia at time t ; $Africa$ and $Year$ denote dummy variables for the sending countries being African and six years respectively and ε_{it} is the error term.

While per capita income and population are supposed to proxy the generating potential of the origin countries, CPI ratio, exchange rate ratio, and distance are meant to capture the degree of costliness of visiting Ethiopia for tourists. Distance from Addis to capital cities of the sending countries is an important variable that proxies cost of travel, importance of nearness for cultural similarities (and willingness to move), business and transit travels. Note that price differential doesn't account for travel costs as the price differential may be the same between Ethiopia and Kenya and between Ethiopia and USA but the travel cost is notably different. Urbanization rate, length of road network and the number of internet users in Ethiopia are thought to account for changes in Ethiopia's power of attraction for international tourists while the lagged value of tourist arrivals is used to capture mouth-to-mouth advertisement and the already existing potential and image of Ethiopia as a tourist attraction to each country. African dummy is included to capture the effect of the presence of African Union and United Nations Economic Commission for Africa in Addis Ababa on tourist arrivals in Ethiopia.

However, three important problems constrain us from employing systems GMM estimators on equation (7) and get the results for all the 16 variables. First, $DIST_i$ and $Africa$ are fixed over time and are considered the same as any unobserved fixed effect η in equation (1) and hence differenced out. That means we are trying to get unbiased estimates of other (time variant) explanatory variables at the cost of missing the role of these time invariant covariates as tourist flow determinants. Accordingly, the so-called random effects model, which assumes η_i is randomly distributed and thus uncorrelated to other explanatory variables, is estimated so that we can have an impression on the effects of the two time invariant variables. However, these results should be seen in caveats because excluding lagged tourist arrivals from the model (which is a must as it is correlated to η_i by construction) might lead to omitted variables bias .

Second, many variables in the model are highly correlated. Exchange rate ratio is highly correlated with per capita GDP (65%) and the four variables, which are meant to capture infrastructure development in Ethiopia (urbanization, mobile, internet and road), exhibit a more than 70% correlation among them. Hence, exchange rate ratio is dropped from the model and only one variable, urbanization rate, is chosen as a proxy for tourism infrastructure development.

Third, urbanization is highly correlated to time dummies and is rejected automatically by the software during estimation. Yet, to have some picture about the effect of infrastructure development on tourist flows in Ethiopia, time dummies are avoided and the model incorporating urbanization rate is estimated. Again, these results should be seen in caveats as time dummies are important to account for global trends in tourist flows..

3.3 Discussion of Results

The following discussion is based on the estimation results reported in Table 3.2. In the table, regression results of 3 models discussed earlier are presented. The Specification 1 is what we have been looking forward to see. Specification 2 is the alternative model to see the impact of urbanization , but at the cost of excluding time dummies while specification 3 is a random effects model that might give us some idea as to the effects of distance and being an African to tourist flows in Ethiopia.

Table 3.2. Panel data regression results♣

| | Specification 1: GMM with time dummies | Specification 2: GMM with out time dummies | Specification 3: Random Effects model |
|--|--|--|---------------------------------------|
| Lagged tourist arrivals | .90469 (0.000)*** | .901053 (0.000)*** | |
| GDP per capita | .013024 (0.00)*** | .012381 (0.000)*** | .491274 (0.000)*** |
| CPI ratio between Ethiopia and Kenya | -.44275*** (0.000)*** | .280861 (0.000)*** | -.04161 (0.889) |
| CPI ratio between Ethiopia and sending countries | .017614 (0.252) | -.046178 (0.000)*** | .57416 (0.000)*** |
| Population of sending countries | .03753 (0.001)*** | .016556 (0.025)** | .46500 (0.000)*** |
| Urbanization | | 2.22482 (0.000)*** | 7.0118 (0.000)*** |
| Distance | | | -.00012 (0.007)*** |
| African Dummy | | | 1.1667 (0.007)*** |
| Constant | 2.012079 (0.000)*** | -6.921598 (0.000)*** | -23.37998 (0.000)*** |
| Arellano-Bond test | Pr > z = 0.965 | Pr>z= 0.856 | |
| Hansen test | Pr > chi2= 0.847 | Pr > chi2 = 0.699 | |
| Observations | 240 | 240 | 280 |
| Countries | 40 | 40 | 40 |

♣ The dependent variable is the number of tourist arrivals. So as to minimize the effect of extreme values in our estimations, all variables (except distance) are in logarithmic form. The null hypothesis of the Arellano-Bond test is that the errors in the first difference regression exhibit no second order serial correlation while the null hypothesis of the Hansen test is that the instruments are jointly valid. Failing to reject both hypotheses supports the model.

P values are in parenthesis and ***, ** and * denote significance levels of 1%, 5% and 10% respectively.

Table 3.2 shows that lagged tourist arrivals is a statistically significant determinant of tourist flows in Ethiopia, reflecting the importance of last year's performance on this year's. This is in line with the theoretical prediction that tourists are risk averse, preferring to spend holidays in places that they are already familiar with or they had heard something positive about the places they plan to visit (Sinclair and Stabler, 1997). The result shows that a 100% increase in tourist flows last year leads to a 90% increment this year, which is a very big amount. This shows the substance of image in the tourism industry: once Ethiopia has entertained 200,000 tourists (which increased from 100,000 of the previous year), our model predicts that it will entertain 380,000 tourists this year, other things constant. Conversely, if the number of tourist arrivals drops by 100%, say from 200,000 to 100,000, this year, the number of tourists next year should drop to 10,000 provided other factors remain constant. Per capita income of the sending countries, which proxies the ability to pay for tourism of tourists, is another positive and statistically significant determinant of tourist flows in Ethiopia. However, the magnitude is very small: a 100% increase (decrease) in per capita income of the sending countries leads to only 1.3% increase (decrease) in tourist arrivals. Though it looks contrary to common sense at first sight, it is in line with the reality in Sub-Saharan Africa where demand for tourism is income inelastic. For example, tourist arrivals in Sub-Saharan Africa in 2009, when the world economy was hit by global depression, grew by 5 % while negative growth rates were registered in all other regions of the world (UNWTO, 2010). From the two CPI ratios used, the ratio of CPIs of Ethiopia and Kenya is found to be a statistically significant determinant of tourist flows in Ethiopia. A 100% increase in the Ethiopia's CPI to Kenya's CPI leads to a 44% decrease in the number of tourist arrivals in

Ethiopia. This is in line with the expectation that as Ethiopia becomes an expensive tourist destination relative to Kenya, many tourists who decided to visit East Africa would prefer Kenya to Ethiopia. The statistical insignificance of the price differential between Ethiopia and the sending countries may be explained in a number of ways. First, the ratios are not exchange rate adjusted ratios. And tourists usually consider in that sense. But, that couldn't be done, since it introduces correlation with per capita GDP. Second, an increase in the price level of the countries, while Ethiopia's price is constant, will have two different effects. On the one hand, it increases tourism's competitiveness with other consumption goods (substitution effect). On the other hand, it reduces the amount of income the individual has to spend for consumption. Since tourism is a luxurious commodity, the expenditure on tourism may be the first that has to be avoided. As a result, an insignificant result may be theoretically expected (even when the exchange rate adjusted prices are taken). On average, a country with higher number of population tends to send more tourists, other things constant. And the result of this study corroborates this argument. A 100% increase in the total population of the sending countries leads to a 3% increase in the number of tourist arrivals in Ethiopia.

Not forgetting the caveats, one could get the following impression on the effects of infrastructural development, distance and being an African from specification 2 and 3. Urbanization is a statistically significant determinant of tourist flows in Ethiopia. One can see from specification 2 that infrastructural development determines tourist flows in Ethiopia: a 100% increment in urbanization rate (for example, from the current 16% to 32%) results in a 220% increment in tourist flows to Ethiopia. Though year dummies are important to capture international trends, tastes and preferences, their exclusion does not seem to induce the result, as the positive and significant effect is also found in the random effects model. This demonstrates that infrastructure development is a major determinant of tourist arrivals in Ethiopia. Distance from Addis to capital cities of the sending countries is found to have statistically significant effect on tourist flows in Ethiopia, though the magnitude is very small: a 1000kms increment in distance results in a 0.12% reduction in tourist arrivals (in other words, a country which is 2000kms far from Addis sends 0.12% less tourists than a country which is 1000kms far). Finally, African dummy is positive and significant indicating that other things constant, more Africans visit Ethiopia, most probably due to the presence of African Union and the United Nations Economic Commission for Africa in Addis Ababa.

4. DESTINATION COMPETITIVENESS ANALYSIS

4.1 What is 'Destination Competitiveness Analysis?'

How competitive is Ethiopia as an African tourist destination? What a place does Ethiopia hold in the minds of tourists who have decided to visit Ethiopia? Does this place change after their visit? These are the main questions that will be dealt in this chapter.

A good example of competitiveness analysis is the model that was developed in a collaborative effort by researchers in Korea and Australia (Dwyer et al, 2003) and applied by Omerzel (2006) on the competitiveness of Slovenia. The model classifies the major tourism determinants under six main headings: inherited resources, created resources, supporting factors and resources, destination management, situational conditions, and demand conditions. Inherited resources are further classified as natural (including physiography, climate, flora and fauna) and cultural (like the destinations' history, customs, architectural features, and traditions). Created resources consist of tourism infrastructure, special events, entertainment, shopping and any available activities while supporting resources provide the foundations for a successful tourism industry. They comprise general infrastructure, quality of services, hospitality, and accessibility of destination.

Destination management takes account of factors that enhance the attractiveness of the inherited and created resources and strengthen the quality of the supporting factors. The factors of situational conditions can moderate, modify or even mitigate destination competitiveness. This can be a positive or unlikely negative influence on the competitiveness. There would seem to be many types of situational conditions that influence destination competitiveness. These are destination location, micro and macro environment, the strategies of destination firms and organizations, security and safety and the political dimension. If demand is to be effective, tourists must be aware of what a destination has to offer. The awareness, perception and preferences are three main elements of the tourism demand.

Omerzel's (2006) study was quite comprehensive and was mainly based on the ratings by tourism officials and professionals of Slovenia and the frame of reference is the current tourism development in the world. So, 'excellent' meant 'excellent in the world'.

As the objective of the study is looking for tourist flow determinants, identifying Ethiopia's major strengths and weaknesses in tourists' minds would tell what factors attract tourists and what deficiencies repel them or send negative signals to future tourists. Accordingly, in this study, Omerzel's (2006) way is slightly modified and tourists are asked to rank Ethiopia as compared to an average African country image they have in mind in each item of comparison. The items of comparison have focused mainly on inherited resources, created resources and situational factors. Other categories are either not applicable to the Ethiopian case or not to be answered by tourists rather by officials. In addition, as a way of assessing the image Ethiopia has in the world, they were asked to give all the rankings before and after their visit.

4.2 Characteristics of the Respondents

More than 300 questionnaires were distributed through 16 tour operators that were selected based on their ability to entertain more tourists. Unfortunately, the response rate was less than 10% (only 17 questionnaires). This forced us to look for individual tourists who have finished visiting at least half of their planned sites. The National Museum of Ethiopia was the final but best resort to get these tourists³. There, it was possible to get additional 124 respondents, raising our total respondents to 141. Obviously, one would not expect the tourists to answer all the questions they are asked, as that depends on their personal willingness and understanding of the question. Yet, missing values could still have their own meanings and hence incomplete responses would not be rejected (in fact, there is virtually no complete response).

To say a little about the characteristics of the respondents, let us start from their nationalities. They are from 22 different countries, which is a good deal of diversity to render our sample the quality of representativeness. What is more interesting is that major tourist sending countries have better representation in the study as Germany (18), USA (18), UK (15), France (11) and Denmark (10) are the top five sending countries involved in the study. With respect to sex, though sampling was random, fortunately, our sample consists of equal number of males and females: 70 males, 70 females and 1 unspecified. In addition, most of the respondents are either single (44.7%) or married (44%). Still, all of the types of marital status are represented in the sample. The biggest category of work status in the sample is that of formally employed tourists (41.1%) while retired (16.3 %) and self-employed (15.6) tourists are the second and third important groups. More important is probably the income level. About 30% of the respondents were not willing to indicate their income level. With the valid data, about 76.5% of the respondents get a monthly disposable income⁴ of more than USD 1000 (i.e., USD 12,000 per year) showing that most of them are from a high income class in the world.

As the motive is basically to see the images of vacation tourists who come to see Ethiopia for its inherited and created resources, survey was not undertaken at airports rather the National Museum of Ethiopia was chosen so that only vacation or at least those who have both the time and interest to visit tourist sites in Ethiopia, including the museum, would be asked to fill the questionnaires. For that reason, vacation is the motive for 71.6% of the respondents for visiting Ethiopia. Business takes the next (11.3%) while there is no one who comes to transit to another country. Note that one expects a better awareness of the respondents about Ethiopia's tourist resources since vacation tourists gather a good deal of information about the place they are going to visit than other forms of tourism movements. Moreover, the average (mean) length of stay for the respondents is 19.14 days. The mode is 14 days (2 weeks). More importantly, over 90% of the respondents have seen at least half of their planned sites. Whereas the remaining have not seen at least half or not stated so, care has been taken to include only those who have seen some major tourist sites outside Addis.

³ The survey was undertaken between November 17 to 23, 2008.

⁴ The income is after all taxes and contributions.

About 10 % of the travellers have changed planned number of days to be spent in Ethiopia. Of the six tourists who elongated their stay, three of them didn't explain why, two of them are interested in tourist sites and needed more time and one of them was a business man who needed to get more friends. Among the seven tourists who decided to shorten their stays, 'bad roads' disappointed two of them and the other two quoted language difficulties as a problem while three of them didn't respond to the question. language difficulties as a problem while three of them didn't respond to the question.

4.3 Competitiveness in Inherited Resources

Inherited resources, be it natural or cultural, are the primary factors that attract tourists. These demonstrate a country's potential for tourism development. An important fact to pay attention here is that it is usually impossible to create these resources making some countries like Ethiopia (even when they are poor) always preferred to others as a tourist destination.

Ethiopia is more attractive than its average African competitors in many of the inherited resources categories (see Appendix 2. As expected, Ethiopia is well above the African average in historical sites, heritage and traditional arts. The increase in the mean rank for historic sites from 3.27 to 4.02 and the narrowing in the disagreement among the respondents (decrease in standard deviation from 1.031 to .848) show how bad image is daunting the Ethiopian tourism sector. The problem becomes even serious when one notices that most of them are vacation tourists who might have tried to read about Ethiopia, heard from a friend or tourism magazines and decided to come to Ethiopia. However, what they saw is significantly higher than what they expected. One can imagine how worse the image would be among the general public in their respective countries. The same is true to heritage and traditional arts. This has a clearer message: Ethiopia has to do a lot to promote its historic sites and heritages so as to get more tourists. Tourists ranked Ethiopia slightly lower than Africa in artistic and architectural features. However they corrected their image over 0.6 points, a significant improvement. In general, it can be concluded that Ethiopia has a very good potential on man made inherited resources.

When we come to the natural inherited resources, Ethiopia still stands above the African average, but lower than its rank in historic and cultural resources. This is also expected as most African countries like Kenya, Tanzania and Morocco have specialized in natural resources tourism like national parks, wild life and beaches. Ethiopia's national parks were rated below African average albeit wider disagreements among the respondents. This image has also improved 0.5 points though it does not significantly place Ethiopia well above the African average. This may imply the following:

- Many tourist come to Ethiopia mainly for the historic route and the Omo valley people. The fact that only 85 respondents are willing to rate Ethiopia on this specific question supports this argument. As a result, Ethiopia is not much known for its national parks, leading to a lower rank in Africa. The one that was repeatedly visited is the Semien Mountains National Park, for it is located in the historic route. But without going to parks like Awash and Nechisar national parks, a significant improvement in the ranking might not be expected.

- Those who have been to Awash and Nechisar have complaints that they didn't see as many wild animals as they envisaged. Instead, some of them have unfortunately seen camels and cattle in the parks. Hence, the ranking may be the right place Ethiopia finds itself.

Flora and fauna, attractiveness of climate to tourism, unspoiled nature are the other natural resources where Ethiopia was ranked slightly above the average African image tourists have in mind and showed good improvements. Attractiveness of climate to tourism is the item that had showed a substantial improvement of about 0.9 points after visit. This may be because of the general thinking that most of Africa is very hot thanks to its location in the tropics, and Ethiopia is unique owing to its high altitude. It can also be argued that the other two, flora and fauna and unspoiled nature might also have improved had most respondents gone to the south. Anyways, the message is clear: Ethiopia is facing formidable competition in natural resources tourism from other African countries that have an established legacy.

One last but important issue of natural attractions is cleanliness. Unfortunately, Ethiopia was rated below African average and found as expected.

4.4 Created Resources

Created resources include tourism infrastructure, special events, range of available activities, entertainment and shopping. These are basic determinants of tourist flows to any country. This is where Ethiopia, according to the tourists, clearly falls below an average African tourist destination. Even then, except for adventure activities (e. g. rafting, skydiving, and bungee jumping), tourists' expectation was significantly lower than their actual experience stressing the tough work awaiting the Ethiopian tourism sector: promotion.

Eleven of the eighteen items of comparison that are thought to constitute created resources tourist attractions i.e. existence of amusement/theme parks, night life (e. g. bars, discos, dancing), water based activities (e. g. swimming, boating, fishing), entertainment (e. g. theatre, galleries, cinemas), special events/festivals, sport facilities (e. g. golf, tennis), recreation facilities (e. g. parks, leisure facilities, horse riding), health resorts (like spa), adventure activities (e. g. rafting, skydiving, bungee jumping), diversity of shopping experience and nature based activities (e. g. bush walking, bird watching) are rated by only less than half⁵ of the participants of the study (see Appendix 3). This may imply a number of things:

- Tourists didn't expect Ethiopia to have such resources and never read or searched about that. And neither are they ready to ask if they exist in Ethiopia.
- They are not interested in those resources (as one tourist explicitly wrote that she is old and do not enjoy those activities).

Even those who tried to rate Ethiopia on those items have concluded that Ethiopia stands well below an average African tourist destination. More over, the improvements in the ratings

⁵ An exception is diversity of shopping experience that is rated by about 60% of the respondents.

after visiting are not strong enough to put Ethiopia at least as good as the average African image they have in mind. Hence, it can be concluded that these factors may be reasons why Ethiopia attracts less number of tourists than Kenya, Tanzania, Zimbabwe and South Africa who have established a legacy on such activities. With the exception of water-based activities that Ethiopia can't organize as efficiently as others for lack of access to the sea⁶, all the rest are possible demanding only the attention of the ministry, and more importantly, private investors.

The remaining eight items are very essential not to attract another category of tourists, but to make visiting those natural and cultural heritages stated in 5.4. simple, healthy and convenient.

Airport and local tourism transportation efficiency/quality are very important factors to any tourism activity. Their image about the airport efficiency affects their decision to use air transport both to Ethiopia and inside Ethiopia. Accordingly their value after experiencing it matters for future customers whose image is highly likely to be influenced by the current tourists. The same is true for local transportation efficiency. The ranks for both items were slightly below and slightly above the African average before and after their visit, respectively. The improvement shows large disagreements among the respondents. This demonstrates the poor transport infrastructures the sector is struggling with.

Another essential factor for current tourism development is the availability of tourist guidance and information and the existence of tourism programs for visitors. Again, Ethiopia takes a slightly lower place in the tourists' imagination and this image improved slightly, though with disagreements among the respondents. However, there is a good reason to expect this rate to be higher if respondents have come through tour operators.

Food and shelter being the basic needs to human beings, tourists want to make sure that they won't miss them during their visit; usually at the same standard they used to get at home. In addition, they do not like to take any health risk by taking lower quality food or sleeping in an unclean room. Therefore, food facilities and the quality of clean and standardized accommodation seriously determine tourist flows in any country. It is obvious that those individuals who thought that the quality of food and accommodation in Ethiopia is very poor are less probable to come. Hence, the analysis is based on this understanding.

Surprisingly, even those who come to Ethiopia have imagined Ethiopia's food and accommodation services to be lower than an average African country service, another aspect of the image problem. The image for food and beverage facilities has improved after visiting while the improvement for accommodation is insignificant. Lack of improvement in the rankings shows that tourists are not satisfied with the services and they are most likely to certify the negative images their friends or countrymen have thereby perpetuating the poor image Ethiopia has in the minds of world.

⁶ Even then, quite a lot can be capitalized on our lakes and links with Djibouti can be considered..

The last issue in this sub topic is the issue of simplicity of visa process at the Ethiopian embassy (or here at the airport for citizens of more than 30 countries). Complicated processes might discourage tourists and lead to change of mind by tourists to some competitive tourist destination. The survey shows that this is the highest rank Ethiopia could achieve from created resources primarily because most of them are from the countries whose citizens could be offered visas at entry point.

4.5 Other Factors

The first three items in Appendix 4 are grouped in 'situational factors' and the last two are classified under 'demand conditions'. Political stability and security/safety of visitors are crucial to tourism as it was seen in the history of Ethiopian tourism development where the number of tourists falls sharply at times when there is a political turmoil and in areas where tourists don not feel safe.

According to the respondents, they had a lower than average image for Ethiopia's political stability but that has improved after their visit. Security/safety of visitors is the first of the entire items that showed improvement after visit, which is a valuable asset to the tourism sector, though promotion is still needed. As demand for any commodity, demand for tourism consumption depends on price. Ethiopia is thought to be almost as costly as average African countries. However, this image has changed to reflect that it is a bit cheaper. Yet, there is a big disagreement among the respondents on this view.

Fit between Ethiopia's tourist products and a tourist preference has also received an African average both before coming to and after visiting Ethiopia. Overall Ethiopia's image was a little better than African image. Interestingly, this rank showed an improvement of about 0.8 points. This improvement must be mainly because of the inherited resources and the safety of tourists.

In general, this competitiveness analysis shows that Ethiopia is poorly known than what it actually is and its existing potential in inherited resources is rated to be pretty much better than the average African image tourists had in mind. However, their ranking after visiting for created resources is still very low indicating that improving infrastructural and service performance should be as important as promotion.

5. VIEWS OF SOME TOUR OPERATORS

In this part we will see the views of eleven tour operation managers on major tourism bottlenecks in Ethiopia, the role of international partners in tourist flows in Ethiopia and their participation⁷.

Image

It is a common thing for them to hear tourists being surprised by the clear difference between their negative image and their actual experience. Most of them recognize that it is still a major obstacle to the tourism development. However, a good deal of them contend that even with the problem, the country could have entertained many more tourists was it not to the poor quality tourism service the country is offering that is costing them many who could come through mouth-to-mouth advertisement and international tour operators.

Hotels

All complain that serious problems are from the hotels side, notwithstanding the current boost in hotel investments. Major problems:

In Addis Ababa

- Hotels are fully booked during peak seasons.
- Lack of legally binding confirmation on bookings that always raises risk of cancellation.
- Higher service as compared to the amount of price they charge (low value for money)

Out of Addis

- Shortage of tourist standard hotels, especially in Gondar, Lalibela and the Southern route.
- Better hotels usually fully booked
- Rationing of rooms at peak seasons.
- Poor quality service at a relatively high price.
- Broken water taps and poor toilets, everywhere.
- Poor hotel management.

Transportation

All of them agree that they usually face cancellation and delay from the Ethiopian Airlines domestic flights. And lack of seats during peak season is not uncommon. Some of them also state that car rent price is very high and the pay for a driver is expensive.

The Role of International Tour Operators

Most of them recognize these tour operators do send them a good deal of tourists in a group that let them enjoy economies of scale. Yet, on average, they receive about half of their customers from them, not as high as 80% as the World Bank (2006) estimated. In any case, it is evident that they have the power to cut tourist flows to Ethiopia, if something unpleasant happens to their customers. This is a very strong channel that a discontented tourist can transmit his bad experience to the world. So, the power a single tourist has on Ethiopia's image as tourist destination is not small and the motion of transmission is not as slow as the mouth-to-mouth channel as many think. Hence, the service given to an individual would be

⁷ The interview was undertaken in October-December 2008.

of higher determinant of tourist flows in the future, given the key role of international tour operators.

Human Resource Development

They complain that neither the ministry nor they themselves have the required skilled manpower. The training institute of the ministry produces good quality graduates. Nevertheless, they are so small in number that it is difficult for them to get as many of them as they need. Besides, the salary and the per diem are expensive. For the private institute graduates, they criticize that most of them are less effective than a 'traditional' tour guide. What is worse, they are not usually willing to accept the hardship in rural Ethiopia as the traditional ones.

Trade fair

Most of them participate in 2 or 3 international trade fairs a year, as it is a major means of advertising their businesses and contacting international agents. Yet, they are of the view that Ethiopian room in such trade fairs is usually less competitive than that of Kenya and Tanzania, mainly because the budget allocated is so small and the attention given is so little. The trade fairs are also the same every year and niche markets are not considered. Hence, some of them are trying to go for their own trade fair participation.

Parks

They are worried that Ethiopian parks are really in danger. Many of their customers are disappointed when they see camels and oxen in parks.

6. CONCLUSIONS AND RECOMMENDATION

More than 70 countries in the world earned above USD 1 billion from tourism in 2006. Tourism is now the largest industry in the world in terms of employment and foreign exchange generation. However, the benefits are unevenly distributed across countries as it depends both on the potential to attract tourists (various natural, historical and cultural attractions) and the capacity to utilize that potential (created resources, tourism and overall infrastructure, and security of tourists etc).

Ethiopia has immense tourism potential: natural, cultural and historical. However, its performance in the sector is one of the lowest in the world. The question is why is this so? This study attempted to answer this critical question with a triangulation of research methodologies. The historical analysis of tourist arrivals and tourism receipts clearly showed the detrimental effect of civil wars, famine and nationalization of private companies on the performance of the Ethiopian tourism sector.

The panel data analysis of tourist arrival determinants for the period 1998-2004 employed the systems GMM estimator of Blundell and Bond (1998), that is famous in avoiding endogeneity and omitted variable bias, and came up with interesting results. Last year's performance was found to be significantly and positively related to this year's implying that already existing image of Ethiopia in the world is a critical determinant of tourist flows to the country. In addition, it reflects the 'vicious circle' in tourism: those famous in tourism remain famous and those forgotten would remain so. The price differential between Ethiopia and Kenya, taken as a ratio of CPIs of Ethiopia and Kenya negatively determines tourist flows to Ethiopia. However, the price differential between Ethiopia and the country of origin is statistically insignificant accounting for the balanced income and substitution effects of price changes in the sending countries. Infrastructural development in the country, as proxied by urbanization rate, is another positive determinant of tourist flows in Ethiopia.

There are also factors that are exogenous to Ethiopia but have direct impact on tourist flows in the country. Per capita income and total population of the sending countries positively affect tourism in Ethiopia and the air distance from Addis to the capital city of the sending country negatively determines tourist flows in Ethiopia. As a host for the head quarters of African Union and the United Nations Economic Commission for Africa, other things constant, more Africans visit Ethiopia than any other region in the world.

The destination competitiveness analysis, where some 141 tourists were asked to rank Ethiopia in comparison to the average African image they have in mind, before visiting and after visiting, brought a number of significant lessons as to the strengths and weaknesses of the tourism sector in Ethiopia. First, their rankings showed substantial improvement after visit in almost all of the 31 items of comparison stressing the bad image of famine, poverty, and wars that is daunting the Ethiopian tourism sector. Besides, it signifies the insufficient promotion undertaken by the government, tour operators and other stakeholders about Ethiopia's tourism potential. Second, Ethiopia is better rated in inherited resources or primary tourist resources than in created and supporting resources (like tourism infrastructure) underlining the tough job waiting the country.

Tour operation managers have underlined the supply side constraints including the lack of trained man power in the sector and the insufficient tourism infrastructure notably the shortage of tourist standard hotels and the unexpected delays and cancellations in domestic flights.

Finally, the research findings presented here suggest several possible measures to improve the performance of the tourism industry in Ethiopia:

1. A big investment on promotion is required to tell the world that Ethiopia has much more than poverty. Obviously, overall economic growth and political stability are the best ways of and avoiding negative images. Yet, it is shown in this paper that more tourists would have been attracted to Ethiopia, had there been a strong and coordinated promotion of the country's tourism attractions. This demands coordinated action by the Ministry of Culture and Tourism, tour operators, hotels, the Ethiopian Air Lines, the Ethiopian Diaspora and Ethiopian embassies, and the Ethiopian media. In addition to the traditional ones like advertising through tourism journals and participating in trade fares, this should include intensive publication of books, brochures, maps, and video shows. Everywhere, using many languages should be stressed.
2. The ministry should be better organized and run by well qualified experts that can strengthen its capacity to regulate the smooth functioning of the whole system and provide reliable and up to date information to tourists.
3. Though a specific project appraisal is needed to show the profitability of the sector, it is evident that more hotels and lodges, especially out of Addis, are badly needed. Existing hotels should also be rehabilitated, as many tourists have noted the poor condition of hotels throughout the country.
4. New training institutions on hotels and tourism should be opened and the existing ones expanded.
5. Problems with domestic flights -- lack of seats, cancellations and delays – should be resolved.
6. Security for tourists should be strengthened and the problem of beggars should be solved to avoid irritating tourists and prolonging a negative image of the country.

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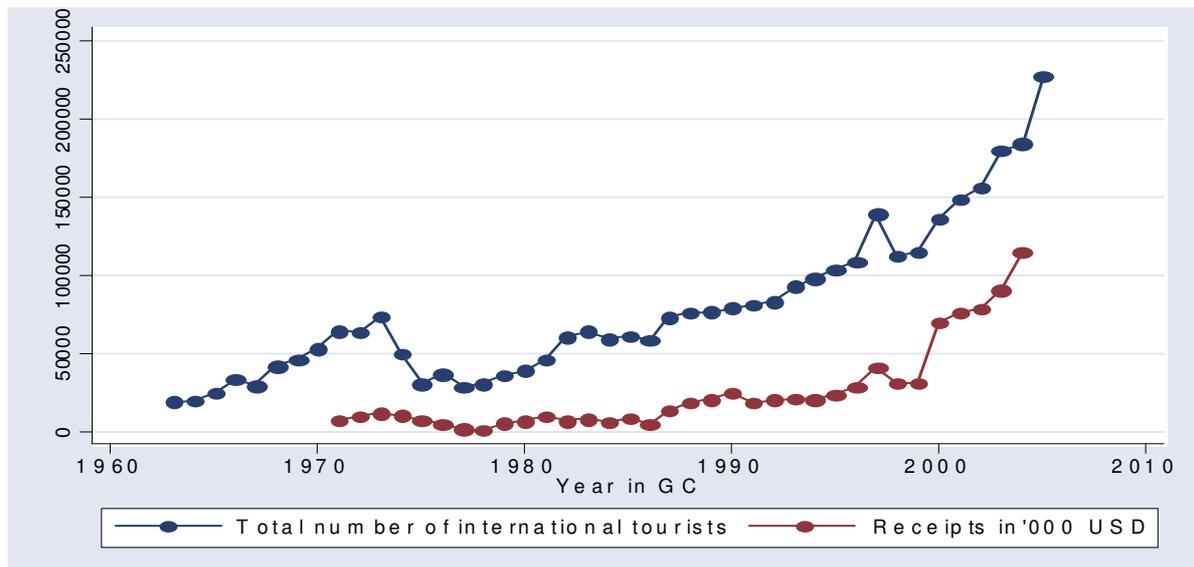
www.ethitoe.com (official website of Ethiopian Tour Operators Association)

<http://www.timeanddate.com/worldclock/distance.html>

www.tourismethiopia.org. (Official website of Ministry of Culture and Tourism of the Federal Democratic Republic of Ethiopia)

APPENDICES

Appendix 1: Tourist arrivals and tourism receipts in Ethiopia, 1963-2005



Source: MCT (2006)

Appendix 2: Ranking on Created Resources

| Items | Before Visiting | | | After Visiting | | |
|---|-----------------|-------|----------------|----------------|------|----------------|
| | N | Mean | Std. Deviation | N | Mean | Std. Deviation |
| Amusement/ Theme parks | 59 | 2.39* | .947 | 56 | 2.41 | .949 |
| Night life (e.g. bars, discos, dancing) | 65 | 2.57 | .847 | 65 | 3.14 | 1.074 |
| Airport efficiency/quality | 122 | 2.88 | .896 | 124 | 3.27 | 1.021 |
| Simplicity of visa process at the Ethiopian embassy | 103 | 3.19 | .940 | 112 | 3.69 | 1.066 |
| Local tourism transportation efficiency/quality | 108 | 2.93 | .893 | 114 | 3.18 | 1.024 |
| Water based activities (e. g. swimming, boating, fishing) | 53 | 2.60 | .968 | 56 | 2.86 | 1.135 |
| Entertainment (e. g. theatre, galleries, cinemas) | 55 | 2.71 | .809 | 59 | 3.07 | .998 |
| Diversity of shopping experience | 84 | 2.76 | .738 | 89 | 2.84 | .999 |
| Special events/festivals | 55 | 3.04 | .838 | 51 | 3.22 | 1.101 |
| Tourist guidance and information | 107 | 2.98 | .835 | 110 | 3.27 | 1.133 |
| Existence of tourism programs for visitors | 88 | 2.83 | .776 | 91 | 3.05 | .935 |
| Adventure activities (e. g. rafting, skydiving, bungee jumping) | 37 | 2.46 | 1.043 | 36 | 2.44 | 1.132 |
| Sport facilities (e. g. golf, tennis) | 35 | 2.49 | 1.269 | 35 | 2.63 | .843 |
| Recreation facilities (e. g. parks, leisure facilities, horse riding) | 44 | 2.68 | .829 | 45 | 2.93 | .915 |
| Food and beverage service facilities | 117 | 2.89 | .763 | 119 | 3.47 | .990 |
| Accommodation (variety/quality) | 119 | 2.91 | .802 | 123 | 3.11 | 1.034 |
| Nature based activities (e. g. bush walking, bird watching) | 76 | 3.20 | .910 | 77 | 3.68 | 1.032 |
| Health resorts, spa | 42 | 2.52 | .943 | 43 | 2.81 | 1.052 |

*The highest rate is 5 and the lowest rate is 1 while 3 means exactly equal to the African standard.
Source: Own Survey, 2008

Appendix 3: Ranking on inherited resources

| Items | Before Visiting | | | After Visiting | | |
|---|-----------------|-------|----------------|----------------|------|----------------|
| | N | Mean | Std. Deviation | N | Mean | Std. Deviation |
| Historic sites | 124 | 3.27* | 1.031 | 122 | 4.02 | .848 |
| Artistic and architectural features | 122 | 2.99 | .867 | 121 | 3.57 | .920 |
| Heritage | 115 | 3.40 | .981 | 115 | 4.09 | .833 |
| National parks | 85 | 2.88 | 1.085 | 85 | 3.38 | 1.154 |
| Cleanliness | 129 | 2.53 | .858 | 129 | 2.78 | 1.139 |
| Traditional arts | 118 | 3.17 | .918 | 120 | 3.58 | .866 |
| Attractiveness of climate for tourism | 127 | 3.18 | .963 | 128 | 3.86 | .954 |
| Flora and fauna (e. g. animals, birds, forests) | 117 | 3.28 | .981y | 121 | 3.69 | 1.117 |
| Unspoiled Nature | 116 | 3.11 | .882 | 117 | 3.52 | 1.088 |

*The highest rate is 5 and the lowest rate is 1 while 3 means exactly equal to the African standard.
Source: Own Survey, 2008

Appendix 4: Ranking on other factors

| | Before Visiting | | | After Visiting | | |
|---|-----------------|------|----------------|----------------|------|----------------|
| | N | Mean | Std. Deviation | N | Mean | Std. Deviation |
| Political stability | 102 | 2.89 | .807 | 103 | 3.43 | .859 |
| Security/safety of visitors | 125 | 3.06 | .864 | 127 | 3.84 | .821 |
| Costliness of tourism in Ethiopia | 116 | 3.27 | .936 | 123 | 3.38 | 1.113 |
| 'Fit' between Ethiopia's tourist products and tourist preferences | 90 | 2.96 | .763 | 92 | 3.07 | .836 |
| Overall Ethiopia's image | 117 | 3.19 | .850 | 119 | 3.96 | .718 |

*The highest rate is 5 and the lowest rate is 1 while 3 means exactly equal to the African standard.
Source: Own Survey, 2008