



NEAR EAST UNIVERSITY

**FACULTY OF ECONOMICS AND ADMINISTRATIVE SCIENCES
DEPARTMENT OF BUSINESS ADMINISTRATION**

**THE ECONOMIC CONTRIBUTION OF EDUCATIONAL
TOURISTS ON THE TURKISH CYPRIOT ECONOMY**

GRADUATION PROJECT (MAN 400)

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ABSTRACT

Northern Cyprus can be categorized as a small island country with a small domestic market and extremely limited industrial production rely it's development on services sector. In the last few years special interest tourism through educational tourism has developed and contributed to the growth of the economy extensively.

In this study using the information gathered from the TRNC's State Planning Organization, the contribution of educational tourists and their relatives or/and visitors on the Northern Cyprus economy is calculated. Their expenditure on goods and services are obtained through a survey. Using the results obtained from the study, the total contribution of the expenditures of the total foreign students studying in all of the universities in North Cyprus is approximate. The finding showed the importance of educational tourism in the development of north Cyprus Economy.

Keywords: "education tourism, edu-tourism, trnc edu-tourism, special interest tourism, foreign student expenditures"

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I. Introduction

1.1 Tourism as a Means of Income Generation

Tourism is often called an invisible export because many nations accumulate large sums in foreign currency by successfully encouraging foreign visitors to travel inside their countries. Catering to the traveler from abroad is so important that some countries depend on it for a substantial amount of national income. Countries go to far lengths to create attractions so that they receive a part of the world's tourism revenue. Some nations possess the natural beauties or landmarks that act as a tourist magnet while some other nations try to create these attractions artificially. The competition between nations in receipt of the foreign tourism revenues has resulted in a variety of ways through which foreigners are offered services they would not otherwise receive domestically.

Tourism is a dynamic and competitive industry that requires the ability to constantly adapt to customers' changing needs and desires, as the customer's satisfaction, safety and enjoyment are particularly the focus of tourism businesses. "more mature travelling public seeking experiences that satisfy a whole spectrum of interests has given rise to one of the fastest growing segments in the tourism industry: special interest tourism." (Douglas et. Al., 2001). People seek foreign experiences based on unavailability of certain services domestically or due to cost saving matters. Whatever the reason, people often travel from one place to another in search of various services they desire and they spend a substantial amount of money in obtaining them. Be it medical, sports, education or adventure oriented, special interest tourism has grown over the years and more people have gained mobility.

1.2 History of Tourism as an Educational Experience

Tourism has often been used as a means of educating people throughout the history. CGS Infotech states that "During the seventeenth century...the sons of the nobility and gentry

were sent upon an extended tour of Europe as an educational experience" (Buhostalcusco, 2006). Perhaps this was viewed as a beneficial experience for those who were engaged in the so-called grand tour of Europe but people often failed to see the positive effects of these potential education tourists for the receiving countries. In due course the resorts of the industrialised world built fair grounds, theatres, museums, galleries, menageries and gardens drawing upon the culture, artefacts, flora and fauna of the world around them. Fairs like the Kursaal at Southend-on-Sea, Dreamland at Margate, and the Paradium at Great Yarmouth (Pearson, 1991) derived excitement from representations, however distorted, of reality. Visiting great houses and museums, and the educational value that related to such excursions, has been a recent subject of analysis (Tinniswood 1989, Ousby 1990). Ousby says that "Travel was a leading instrument of that post-Reformation spirit of enquiry which valued empirical knowledge over abstract speculation or book-learning derived merely from tradition"(Ousby,1990).

Formal education out of doors is little covered in tourism books, yet it is one which by its variety and early encounter by students must underlie so much of their subsequent interest in travel. A very early example of this activity is that of the herbarizing organised by the Society of Apothecaries of London. This was the practical means by which apprentice apothecaries could be taught to recognise plants which would have medicinal values (Allen, 1976). Virtually all forms of tourism began for educational reasons. Holloway (1989, p179) makes a statement about "tourists and locals alike widening their horizons".

1.3 Education Tourism in the World

Educational tourism is an expression used to describe the act of traveling from one country to another for educational reasons. Gaining a diploma, a desired certificate, a degree or even for language acknowledgment. Education tourism is defined as any "program in which participants travel to a location as a group with the primary purpose of engaging in a learning experience" (Rodger, 1998). Educational tourism is a desire for a higher educational level. Higher quality education in advanced nations attract a considerable amount of overseas students, some of whom stay in those advanced nations and join the labor force and some of whom return back to their native countries and often obtain high-ranked positions. Regardless of their future fates, education tourists seek travel due to various reasons. First of all, tuition fees could be relatively lower at an international destination or the quality of education could simply be higher. In addition, some people might prefer to travel abroad for educational purposes simply because they want to have a foreign experience. Educational tourists pay for fees, accommodation, catering, food, clothing, transportation and entertainment. Several students host their families or relatives with them, which indeed means that they will also have extra expenditures in the host country.

II. The Economy of Northern Cyprus

2.1 An Overview

Northern Cyprus can be categorized as a small island country with a small domestic market and extremely limited industrial production. Being exposed to international boycotts and trade embargoes, Northern Cyprus is not able to take advantage of the workings of a liberal economy and globalization. This leaves Turkish Cypriots Turkey as the only outlet to the outside world. Turkey as the only country to formally recognize Northern Cyprus as an independent entity has been the main trading partner of Northern Cyprus as well as a major aid donor. Although Turkish aid and acknowledgement has helped Turkish Cypriots in terms of communication with the outside world, this situation has made Northern Cyprus dependent on Turkey for economic and political decisions. The following table summarizes economic activity of Northern Cyprus between 1977 and 2005.

Table 1: Trading Activity of Northern Cyprus between 1977-2005

Year	GNP/capita (million \$)	Exports (million \$)	Exports to Turkey (million \$)	Imports (million \$)	Imports from Turkey (million \$)	Foreign Aid from Turkey (million \$)
1978	1463	30.8	6.3	84.2	33	23.1
1979	1556	35.8	7.5	90.8	39.1	23.4
1980	1561	44.5	6.1	94.4	41.5	25.6
1981	1435	36.9	7.1	104.1	44.2	30.7
1982	1361	39.5	7.3	119.9	49.5	37.7
1983	1305	40.7	6.5	145.3	65.3	405

1984	1274	38.8	8.4	136.3	61.5	38.3
1985	1498	46.3	5.4	143	65.1	36.4
1986	1757	52	7.7	153.2	70.1	43.5
1987	2009	55.1	7.9	221	94.3	35.5
1988	2043	52.4	6.3	218.1	101.9	10.9
1989	2513	55.2	9.2	262.5	112.5	15.6
1990	3447	65.5	7.9	381.5	153.5	22.5
1991	3116	52.5	7.3	301.1	143	49.6
1992	3343	54.6	9.1	371.4	178.7	36.8
1993	3528	54.5	12.5	363.9	150.9	30.1
1994	3093	53.4	10.4	286.6	129.3	22.1
1995	4167	67.3	20.2	366.1	194.8	28.4
1996	4222	70.5	30.4	318.4	176.1	82.8
1997	3763	57.7	27.1	356.6	202	88.4
1998	4361	53.4	27	430.5	251.5	168.7
1999	4666	52.4	27.9	412.7	256.4	95.4
2000	4978	50.4	18.7	424.9	275.1	105.5
2001	4303	34.6	12.8	272	173.5	133.7
2002	4409	45.4	18.3	309.6	195	202.3
2003	5949	50.8	22.9	477.8	399.3	178.7
2004	8095	62	28.7	853.1	512.4	175.3
2005	10567	68.1	34.2	1255.5	817.4	217.2

Source: State Planning Organization of Northern Cyprus, Statistical Yearbook of 2006

There are several points worth mentioning in this table. First of all, as evidenced by the figure above, dependence on Turkish imports has grown over the lifespan of Northern Cyprus. In terms of financing trade outlays, "the Turkish economy extends its

generous economic aid packages to Northern Cyprus every year. In a way, the Turkish economy incentivizes its own producers by helping Northern Cyprus buy Turkish exports. The nature of relationship tends to be good-willed and beneficial; however, the pattern of dependence it creates is somewhat burdensome to the TRNC economy” (Ozdeser, Ozyigit. 2007). This dependence exploits the Turkish Cypriot economy greatly since the value of imports exceeds the value of exports by a far greater amount. This necessitates formulation of an alternative method for income generation since exports do not provide an outlet for economic growth and prosperity.

The next table illustrates the sectoral distribution of Gross National Product of Northern Cyprus:

Table 2: Sectoral distribution of GNP in Northern Cyprus in selected years.

Year	Agriculture %	Industry %	Tourism %	Public Services %
1980	18.6	14.6	18.4	21.3
1985	16	10.2	19.7	22.3
1990	19.2	13.7	38	18.4
1995	10.9	13.6	29	17.9
2000	7.9	12.2	19.1	16.4
2005	9.1	10.5	14.1	13.1

Source: State Planning Organization of Northern Cyprus, Statistical Yearbook of 2006

Although the share of agriculture has declined over the years, the share of industry did not pick up the slack. Tourism’s share of GNP has been somewhat unsteady. Although it followed an increasing pattern between 1980 and 1990, this share substantially declined starting from mid-1990s. This period coincides with the ECJ decision of trade-ban on North Cyprus. However, this finding still looks somewhat odd. First of all, although the volume of foreign students visiting Northern Cyprus for

education has dramatically increased, this has not increased the share of tourism in GNP. This is because education tourists are considered to be regular consumers who demand products just like local people. Secondly, the contribution of foreign students is spread over all the sectors of the economy; therefore, it is somewhat difficult to identify the pure effect of foreign students as tourists.

2.2 Educational tourism in North Cyprus

Higher education is one of the main economic sectors of North Cyprus. The following table (marked as table 3) shows the number of foreign students comparing with the number of students in North Cyprus. The highest ratio was 11.68 in the years 1988-89 the reason for this increase was opening of the second university in North Cyprus Near East University. Of course increase in number of student depends to the number of the universities, in 1980 there wasn't any foreign student because there was just one university that was Eastern Mediterranean University, but by building more university the number of students and foreign students dramatically increased in table 3. In case of Turkish students, who are considered foreign students as well, the highest ratio of Turkish students to the total number of students was 64.05 in the years 1991-92 as observed in table 4.

Table 3: Ratio of foreign students to the general volume of students Northern Cyprus 1979-2006:

Year	Total No. of students	No. of foreign student	Ratio of foreign students to total no. of student
1979-80	105	-	-
1980-81	215	-	-

1981-82	287	-	-
1982-83	207	-	-
1983-84	347	3	0.86
1984-85	747	35	4.69
1985-86	1,437	93	6.47
1986-87	1,879	100	5.32
1987-88	2,803	243	8.67
1988-89	3,748	438	11.69
1989-90	4,966	521	10.49
1990-91	6,515	568	8.72
1991-92	8,146	594	7.29
1992-93	9,128	667	7.31
1993-94	11,683	697	5.97
1994-95	14,883	718	4.82
1995-96	16,651	762	4.58
1996-97	19,262	920	4.78
1997-98	20,844	1,052	5.05
1998-99	21,498	1,331	6.19
1999-00	23,931	1,678	7.01
2000-01	25,765	1,901	7.38
2001-02	26,321	1,952	7.42
2002-03	27,748	2,304	8.30
2003-04	30,605	2,285	7.47

2004-05	35,473	2,476	6.98
2005-06	41,865	2,714	6.48

Source: State Planning Organization of Northern Cyprus, Statistical Yearbook of 2006

Table 4: Ratio of Turkish students to the general volume of students Northern Cyprus 1979-2006:

Year	Total No. of students	No. of Turkish students	Ratio of Turkish students to total no. of students
1979-80	105	-	
1980-81	215	-	
1981-82	287	-	
1982-83	207	6	2.90
1983-84	347	87	25.07
1984-85	747	238	31.86
1985-86	1,437	437	30.41
1986-87	1,879	812	43.21
1987-88	2,803	1,185	42.28
1988-89	3,748	1,490	39.75
1989-90	4,966	2,502	50.38
1990-91	6,515	3,879	59.54
1991-92	8,146	5,218	64.06
1992-93	9,128	5,633	61.71
1993-94	11,683	6,805	58.25

1994-95	14,883	8,717	58.57
1995-96	16,651	10,024	60.20
1996-97	19,262	11,821	61.37
1997-98	20,844	12,365	59.32
1998-99	21,498	12,157	56.55
1999-00	23,931	13,562	56.67
2000-01	25,765	14,632	56.79
2001-02	26,321	14,830	56.34
2002-03	27,748	15,307	55.16
2003-04	30,605	18,398	60.11
2004-05	35,473	22,626	63.78
2005-06	41,865	28,565	68.23

Source: State Planning Organization of Northern Cyprus, Statistical Yearbook of 2006

The above table provides us with information that is of crucial importance for two reasons. First of all, the ratio of education tourists to the overall volume of tourists has increased over time. This is an important fact since it represents the growing importance of edu-tourism in Northern Cyprus. Secondly, as will be suggested in the upcoming section, foreign students studying in Northern Cyprus often have visiting relatives, who are counted in tourist statistics. Therefore, the observed increase in the volume of tourist arrivals also includes relatives visiting students studying in Northern Cyprus.

Incoming foreign students are not only important for the Northern Cyprus economy because they are net consumers of products and services, but also because a large volume of edu-tourists also increase the domestic population temporarily and their

consumption of goods and services necessitates higher levels of production, higher levels of employment and many other positive externalities. For instance, the construction sector enjoys such positive externalities. Existence of a large volume of foreign students in higher education necessitates building of new faculty buildings, dormitories and many other facilities. As a result, more construction workers find employment, more construction related products are sold and architects and designers become employed. The most obvious employment creation perhaps takes place in universities. Higher number of students requires higher number of teaching staff and faculty and a higher number of administrative staff.

It is no secret that the contribution of edu-tourism to the Northern Cyprus economy is far greater than many other income generating sectors. I measure this contribution in the upcoming section.

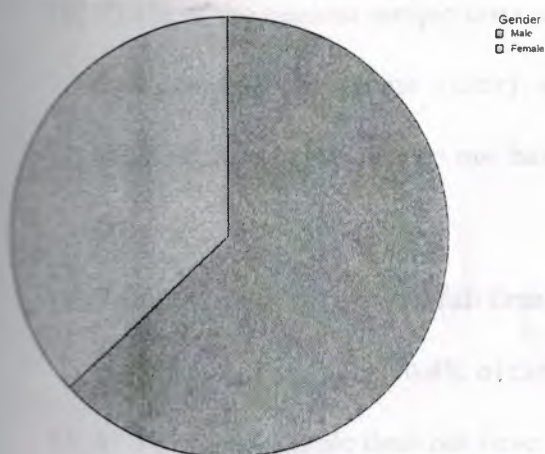
III. Data and Methodology

3.1 The Survey

A questionnaire composed of 42 questions adopted from previous study was used to find out the expenditure patterns of the education tourists and their visitors in North Cyprus. Due to the limited time and resources the survey was limited only to 187 students in Near East University and excluded the international students in the other universities in North Cyprus. The 200 questioners which distributed randomly to the students, only 187 from them had been chosen, the other 13 questioners either had been wasted or discarded because of inaccuracy. The survey includes a board range of questions ranging from personal expenditure to tuition fees and so on. Broadly, the questions were classified under five subgroups. Once the survey results were collected, SPSS data analysis software was used to interpret results. Furthermore, this interpretation was then used in econometric analysis to depict the impact of education tourists on the Northern Cyprus economy.

3.2 Survey Results

1. The sample has included 180 Turkish students 7 from other overseas countries, the students were selected randomly.
2. 118 out of 187 students were males with a percentage of 63.1% the rest represent females participated in the survey. As shown on the pie chart below.



3. Most of the sample size was from Economics and Administrative Sciences faculty with a percentage of 68.6%.
4. 101 Students who participated in this survey stay in apartments shared with friends who represent 54.3% from the whole sample, but 33.9% from only stay on-campus dormitory.
5. 43.5% of students stayed more than 121 days outside North Cyprus during the years, the rest between 0-120 days. 20% only stayed no longer than 90 days in total last year.
6. 40.6% of the sample had no relatives visited North Cyprus within the past 12 months, whereas, 59.4% have got at least 1 visitor during last year.
7. Half of the sample visitors stayed in houses and the other half stayed in hotels, motels...etc.
8. Mostly visitors stay with the students from 1-20 days with a 78.4%, and 21.6% of the sample stay more than 21 days.
9. 33.6% of the visitors had spent more than 1001YTL but 66.4% of them had spent less than this amount during their stay.

10. 90.4% of the random sample does not own a car. Whereas, 3.7% of them brought their cars from their home country, and 5.9% purchased one in North Cyprus.
11. Most of the sample size do not have home phone with 90.3%, other percentage do.
12. 2 out 187 students do have full time jobs. 16 students have part time jobs. But 169 students who represent 90.4% of the sample do not work.
13. 81.8% of the sample does not have internet subscription in their residential areas. The others pay their internet subscription based on monthly or annual terms.
14. 78% of the sample size spends between 0-200YTL monthly on clothing and shoes in North Cyprus. 22% of them spend more. With the mean of 2.51.
15. 22% spent less than 200YTL monthly on kitchen expenditure, and 78% spent more than this amount. With the mean of 3.39.
16. 82.9 spent less than 300YTL monthly on eating out including school cafeterias, the rest spent more than this amount. With the mean of 3.27.
17. 17.2% did not spend anything on entertainment purposes; on the other hand 49.7% spent between 1-300YTL monthly, the rest spent more. (M=2.57).
18. 45.5% of the sample do not consume tobacco products, but 43.6% consume between 1-200YTL monthly, 10.9% consumes more than 200YTL per month. (M=1.85).
19. Almost half of the sample do not consume alcohol beverages at all; on the other hand the other half have a consumption range between 1-400YTL monthly, (M=2.06)

20. Since 90.4% of the sample don't own a car, few people have purchased a car in North Cyprus, 6 students (3.2%) have purchased one for less than 4000YTL. 5 students (2.6%) have purchased a car with a range of 4000-8000YTL. Whereas, 3.2% have purchased cars which cost more than 8000YTL. (M=1.29).

21. 89.8% of the sample did not pay for mechanical expenses last year, the mean here is 1.27.

Ps: here, there is a standard error of 0.6% for students who pay car mechanical expenses when they already noted that they do not own a car in North Cyprus.

$90.4\% - 89.8\% = 0.6\%$ (where 90.4% students who do not own a car, 89.8% students who do not pay for car mechanical expenses, 0.6% students who pay for car mechanical expenses although they do not own a car).

22. 73.3% of the sample spent less than a 100YTL on transportation including petrol, taxis, and buses. The rest pay more. (M=2.26)

23. 56.7% of the sample paid less than 750YTL on air tickets or traveling back home last year. 42.3% paid more than 750YTL for the same purpose. (M=4.25)

24. 53.5% spent less than a 100YTL on gifts, souvenirs, and presents. (M=2.74)

25. 2 students out of the total sample do not have any housing expenditure, while 143 students (76.4%) have had housing expenditure between 1-4000YTL monthly. 22.5% had spent more than 4000YTL for housing expenditure in the given year. (M=3.11).

26. 59.4% of the sample did not spend anything on furniture expenditure, 21.4% have spent between 1-250YTL on light furniture, and others have spent more. (M=1.80).

27. 56.1% of the sample did not spend anything on house repair, 31.6% have spent between 1-250YTL on light repairs, and others have spent more. (M=1.63).
28. 10.2% of the sample had phone expenditure ranged between 1-300YTL; the rest of the sample did not have any. (M=1.13).
29. 62% of the sample has spent less than a 100YTL monthly on cell phone expenditure, while 38% has spent more than this amount up to 400YTL and more. (M=2.56).
30. 77% spent less than a 100YTL monthly on utility expenditure, the rest (33%) paid more than a 100YTL monthly. (M=2.09).
31. 61% of the sample does not have any medical expenses; the rest (39%) paid more than 250YTL. (M=1.53).
32. 88.2% of the sample paid in a range between 0-250YTL on either doctor expenditure or health care; the rest 11.8% paid more. (M=1.63).
33. 71.7% of the sample spent between 0-100YTL monthly on personal expenditure, the rest (28.3%) spent more. (M=2.38).
34. 83.4% of the sample spent between 0-100YTL monthly on book and magazines categories, the rest (16.6%) spent more. (M=2.11).
35. 47% of the sample does not gamble, the rest do and spent up to 400YTL and more, the mean in this case is 1.89 which is almost closer to 100YTL monthly.
36. 24.1% of the sample paid between 0-2000YTL on tuition and educational fees, 18.2% of the sample fees ranged between 2001-4000YTL, 22.5% of the sample fees ranged between 4001-6000YTL, 24.6% of the sample fees ranged between

6001-8000YTL, and 10.7% paid more than 8000YTL annually including summer courses. The Mean is 2.80.

37. Less than 200YTL has been spent by students on books and stationary with percentage of 61.3%, the rest spent more up to 1000YTL. (M=2.46).

38. 171 students from the sample do not spend money on private tutoring with a percentage of 91.4%, the rest spent up to 750YTL. (M=1.14).

39. Less than 100YTL goes on residential permits paid by 79.1% of the sample, 91.4% from them paid up to 300YTL last year. (M=1.89)

40. 90.4% of the sample had not paid for traffic fines, it is reasonable since those exact 90.4% do not own a car in North Cyprus. The rest paid up to 400YTL and more. (M=1.22).

41. 91.4% of the sample did not pay for any notary expenses, the rest did and their payments are ranged between 1-400YTL. (M=1.17).

42. 89.8% of the sample did not pay for car insurance; the rest did and paid up to 1000YTL. (M=1.20).

I was curious to see the relationship between cultural expenditures and expenditures on books, alcohol and cigarettes. It turns out that there is a positive and significant relationship between cultural expenditures and books and supplies. The more a person spends on books, the more he/she spends on cultural activities. However, there is no observable relationship between cultural activities and alcohol or cigarette

consumption either negative or positive. The coefficients for both variables are positive, but highly insignificant. The table below summarizes the relationship:

Table 5: Regression Results, Dependent Variable: Cultural Expenditures

Coefficients													
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	1.269	.180		7.064	.000	.914	1.623					
	Books and Expenditures	.269	.060	.311	4.458	.000	.150	.388	.311	.314	.311	1.000	1.000
	Cigarette Expenditures	.049	.045	.088	1.096	.274	-.039	.138	.121	.081	.076	.752	1.329
	Alcohol Expenditures	.038	.047	.066	.818	.415	-.054	.131	.112	.060	.057	.752	1.329

a. Dependent Variable: Cultural Expenditures

In the case of foreign student who come from other countries rather than Turkey, the survey showed that they pay more for traveling back and forth between North Cyprus and their home countries than Turkish students in general.

Out of 7 students, 6 of them noted that their traveling expenses are more than 1001YTL during last year, in addition the 7th student paid between 750-1000. The calculations below show the difference between the foreigner traveling expenses and the Turkish traveling expenses based on Q23 in the questionnaire:

a) Foreigner traveling expenses:

$$1 (875) + 6 (1125) = 7625$$

$$7625 \div 7 = 1089.29 \text{ per foreign student last year}$$

b) Turkish traveling expenses:

$$11 (125) + 36 (375) + 54 (625) + 33 (875) + 32 (1125) = 121375$$

$$121375 \div 180 = 674.31 \text{ per Turkish student last year}$$

3.3 Student Expenditures

The survey includes a total of 42 questions, of which 28 are consumption related. Consumption expenditures on these 28 items are measured both as per person expenditures and also at the aggregate level to include expenditures of all the foreign students in Northern Cyprus. Once I found the per person expenditures, I used that as an average for all the foreign students studying in North Cyprus. The following table summarizes per person and total expenditures on given items:

Table 6: Average Yearly Student Expenditures

Type of Expenditure	Average Expenditure per person	Total Yearly Expenditures
Clothing	YTL 919.79	YTL 28.77 M
Kitchen	YTL 1514.43	YTL 47.36 M
Eat Out	YTL 1435.29	YTL 44.89 M
Entertainment	YTL 919.79	YTL 28.77 M
Cigarette	YTL 633.16	YTL 19.80 M
Alcohol	YTL 485.56	YTL 15.19 M
Car	YTL 497.33	YTL 15.56 M
Mechanical	YTL 55.48	YTL 1.74 M
Transportation	YTL 701.60	YTL 21.94 M
Foreign Trans.	YTL 689.84	YTL 21.57 M
Gifts	YTL 132.09	YTL 4.13 M
Housing	YTL 3224.60	YTL 100.85 M
Furniture	YTL 148.40	YTL 4.64 M
House Repair	YTL 104.28	YTL 3.26 M
Home Phone	YTL 62.03	YTL 1.94 M
Cell Phone	YTL 896.26	YTL 28.03 M
Utilities	YTL 607.49	YTL 19 M
Medicine	YTL 83.56	YTL 2.61 M
Doctor	YTL 109.63	YTL 3.43 M
Personal	YTL 748.66	YTL 23.41 M
Cultural	YTL 532.62	YTL 16.66 M
Betting & Gambling	YTL 498.40	YTL 15.59 M
Tuition & Fees	YTL 4593.58	YTL 143.66 M
Books & Expenses	YTL 243.98	YTL 7.63 M
Private Tutoring	YTL 25.40	YTL 0.79 M
Residence Permit	YTL 56.42	YTL 1.76 M

Traffic Tickets	YTL 17.11	YTL 0.54 M
Notary	YTL 12.83	YTL 0.40 M
Car Insurance	YTL 36.76	YTL 1.15 M

3.4 Student Expenditures and Economic Growth in Northern Cyprus

One of the most important questions that remain unanswered is regarding the impact of foreign students' expenditures on economic growth. How do student expenditures relate to growth? And is there any observable relationship between these expenditures and economic growth? To be able to precisely measure this effect, we need expenditure data from all the previous data, which, simply is impossible to gather. However, by finding the average consumption of each student on several items, we can aggregate consumption expenditures into a whole and also apply the same average figures to pervious years in current values. By doing so, we will be able to use student expenditures as a regressor in a growth regression.

The Model:

The model used in this analysis is a growth regression with a number of explanatory variables:

$$\Delta \text{GNP} = \beta_1 + \beta_2 (\text{SE}) + \beta_3 (\text{PUI}) + \beta_4 (\text{PRI}) + \beta_5 (\text{BD}) + \varepsilon$$

We would like to explain GNP growth in terms of four explanatory variables. Namely, these are Student Expenditures (SE), Public Investment as a ratio of GNP (PUI), Private Investment as a ratio of GNP (PRI) and the Budget Deficit as a ratio of GNP (BD). The regression output should show us how each of these variables affect growth. Normally, we would expect that SE, PUI, PRI will affect growth positively. The budget deficit

could affect growth positively or negatively depending on how the budget is allocated- whether it is used in efficient projects or wasteful projects.

The data used in this regression is gathered from the TRNC's State Planning Organization and from the results of the survey. Our survey results indicate that on average, each student spends approximately 19,930 YTL in a given year. Converted into dollars, this figure turns out to be around \$15,330 per person.

Regression Results:

The results of the regression are observed in the table below. The following table provides information on the descriptive statistics:

Table 7: Descriptive Statistics

Descriptive Statistics			
	Mean	Std. Deviation	N
GNPgro	.1318	.16621	20
PUI	5.3461	1.26661	20
PRI	10.4341	1.71128	20
BD	4.3150	2.58666	20
SE	17.8900	9.11548	20

Table 8: Regression Output

Coefficients												
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	% Confidence Interval for		Correlations			Collinearity Stati	
	B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1 (Constant)	.467	.306		1.525	.148	-.186	1.119					
PUI	-.053	.025	-.407	-2.117	.051	-.107	.000	-.240	-.480	-.393	.934	1.0
PRI	.009	.021	.093	.423	.678	-.036	.054	.231	.109	.079	.722	1.3
BD	-.041	.013	-.633	-3.080	.008	-.069	-.013	-.569	-.622	-.572	.818	1.2
SE	.002	.004	.098	.485	.635	-.006	.010	.030	.124	.090	.837	1.1

a. Dependent Variable: GNPgro

One problem that might arise in a time-series regression analysis is the problem of multi-collinearity. This is measured by using the Variance Inflation Factor. If this measure is less than 10 for majority of the variables, then we do not have multi-collinearity. As observed, our regression is free of this problem.

The only variables that reach statistical significance in our growth regression are public investment and budget deficit, which both seem to affect economic growth negatively. This makes sense, when considering the nature of the Northern Cyprus economy, and the excessive government involvement. Student Expenditures affect economic growth positively, but statistically insignificantly. Perhaps, a further in-depth study should reveal further results.

IV. Conclusion

As our study suggests, the potential already exists in Northern Cyprus for marketing education tourism as a new export sector. This will not only diversify the economy into a more human-capital orientation but will also create more employment opportunities, generate more national income and attract a higher amount of public and private investment in the Northern Cyprus economy. There are thousands of overseas students in North Cyprus. This necessarily lays the foundation for growth in the area of education tourism.

The contribution of education tourism to economic growth is highly important due to several reasons. Education tourists not only contribute to domestic consumption, but also to employment creation and cheap labor force formation. Therefore, the Ministry of Tourism and Economy should be involved in more activities with the support of government of Northern Cyprus. Since the potential showed highly positive contribution, promoting it would be highly recommended.

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EXPENDITURE SURVEY FOR FOREIGN STUDENTS STUDYING IN TRNC

Please fill out the following survey as accurately as you can. Thank you for your participation.

PERSONAL INFORMATION

1. Nationality:

- 1) Turkish 2) Turkish Cypriot 3) Other (Please Specify)

2. Gender:

- 1) Male 2) Female

University:

3. Faculty:

- 1) Economics and Administrative Sciences
2) Engineering
3) Maritime Management
4) Education
5) Communications
6) Law
7) Sports management

4. Where do you stay in Northern Cyprus?

- 1) Private Dormitory
2) On-Campus Dormitory
3) Apartment By Myself
4) Apartment Shared By Friends
5) Other

5. How many days, in a year, do you spend outside of Cyprus?

- 1) 0-30 2) 31-60 3) 61-90 4) 91-120 5) 120+

6. How many of your relatives visited you in Cyprus within the past 12 months?

- 1) 0 2) 1 3) 2 4) 3 5) 4 6) 4+

7. Where did they stay?

- 1) Hotel 2) House 3) Motel 4) Other

8. How many days in total did your visitors stay in Cyprus altogether?

- 1) 1-10 days 2) 11-20 days 3) 21-30 days 4) 31-40 days 5) 41+ days

9. How much did your visitors spend for various expenditures for the duration of their visit?

- 1) 0-250 YTL 2) 251-500 YTL 3) 501-750 YTL 4) 751-1000 YTL 5) 1001 YTL +

10. Do you own a car?

- 1) No
2) Yes, I brought my own car.
3) Yes, I bought it here.

11. Do you have a home phone?

- 1) Yes 2) No

12. Do You Work?

- 1) Yes, Part-time 2) Yes, Full-time 3) No

13. Do you have internet subscription?

- 1) Monthly 2) Quarterly 3) Semi-annually 4) Annually 5) No, I don't have internet connection

FOOD AND GENERAL EXPENDITURES

14. How much do you spend for clothing and shoes in Northern Cyprus? (In Turkish Lira)

1) 0 2) 1-100 3) 101-200 4) 201-300 5) 301-400 6) 401 and more

15. How much kitchen expenditure do you personally have per month?

1) 0 2) 1-100 3) 101-200 4) 201-300 5) 301-400 6) 401 and more

16. How much do you spend for eating out (including school cafeteria) per month?

1) 0 2) 1-100 3) 101-200 4) 201-300 5) 301-400 6) 401 and more

17. Outside of food, how much do you spend for entertainment purposes per month?

1) 0 2) 1-100 3) 101-200 4) 201-300 5) 301-400 6) 401 and more

18. How much do you spend on tobacco per month?

1) 0 2) 1-100 3) 101-200 4) 201-300 5) 301-400 6) 401 and more

19. What is your monthly alcohol consumption?

1) 0 2) 1-100 3) 101-200 4) 201-300 5) 301-400 6) 401 and more

TRANSPORTATION

20. IF YOU BOUGHT A CAR. How much did you pay for your car purchase in Cyprus?

1) 0 2) 1-2000 3) 2001-4000 4) 4001-6000 5) 6001-8000 6) 8000 and more

21. IF YOU BOUGHT A CAR, how much did you pay for mechanical expenses this past year?

1) 0 2) 1-250 3) 251-500 4) 501-750 5) 751-1000 6) 1001 and more

22. How much do you pay in a month for transportation? (petrol, taxi, bus)

1) 0 2) 1-100 3) 101-200 4) 201-300 5) 301-400 6) 401 and more

23. How much did you pay for traveling back and forth between North Cyprus and your country last year?

1) 0 2) 1-250 3) 251-500 4) 501-750 5) 751-1000 6) 1001 and more

24. How much did you pay within the last year for purchasing gifts for relatives and friends back home?

1) 0 2) 1-100 3) 101-200 4) 201-300 5) 301-400 6) 401 and more

HOUSING EXPENDITURES

25. How much do you pay for housing in a given YEAR?

1) 0 2) 1-2000 3) 2001-4000 4) 4001-6000 5) 6001-8000 6) 8000 and more

26. How much did you pay for furniture and white goods within the past year?

1) 0 2) 1-250 3) 251-500 4) 501-750 5) 751-1000 6) 1001 and more

27. How much did you pay to fix your house within the last year?

1) 0 2) 1-250 3) 251-500 4) 501-750 5) 751-1000 6) 1001 and more

28. How much do you pay personally for home phone?

1) 0 2) 1-100 3) 101-200 4) 201-300 5) 301-400 6) 401 and more

29. How much do you pay personally for cell phone per month?

1) 0 2) 1-100 3) 101-200 4) 201-300 5) 301-400 6) 401 and more

30. How much do you pay personally for utility bills?

1) 0 2) 1-100 3) 101-200 4) 201-300 5) 301-400 6) 401 and more

HEALTHCARE EXPENDITURES

31. How much do you pay for medicine in a given year?

1) 0 2) 1-250 3) 251-500 4) 501-750 5) 751-1000 6) 1001 and more

32. What is your annual doctor/healthcare personnel expenditure?

1) 0 2) 1-250 3) 251-500 4) 501-750 5) 751-1000 6) 1001 and more

33. How much do you pay for your personal expenses such as hairdresser, make up, cosmetics...

1) 0 2) 1-100 3) 101-200 4) 201-300 5) 301-400 6) 401 and more

SPORTS, INTERESTS AND HOBBIES

34. How much do you pay monthly for DVDs, CDs, magazines or books of your interest?

1) 0 2) 1-100 3) 101-200 4) 201-300 5) 301-400 6) 401 and more

35. How much do you pay in a month for betting, gambling or any other hobbies?

1) 0 2) 1-100 3) 101-200 4) 201-300 5) 301-400 6) 401 and more

EDUCATION EXPENDITURES

36. How much do you pay for tuition in a given year including summer school?

1) 1-2000 2) 2001-4000 3) 4001-6000 4) 6001-8000 5) 8000 and more

37. How much do you pay yearly for textbook, stationary and other similar products?

1) 0 2) 1-250 3) 251-500 4) 501-750 5) 751-1000 6) 1001 and more

38. How much do you pay yearly for private tutoring?

1) 0 2) 1-250 3) 251-500 4) 501-750 5) 751-1000 6) 1001 and more

GOVERNMENT EXPENDITURES

39. How much did you pay for residence permit last year?

1) 0 2) 1-100 3) 101-200 4) 201-300 5) 301-400 6) 401 and more

40. How much did you pay for traffic fines within the past year?

1) 0 2) 1-100 3) 101-200 4) 201-300 5) 301-400 6) 401 and more

41. How much was your notary and/or lawyer expenses within the past year?

1) 0 2) 1-100 3) 101-200 4) 201-300 5) 301-400 6) 401 and more

42. How much do you pay annually for your car insurance?

1) 0 2) 1-250 3) 251-500 4) 501-750 5) 751-1000 6) 1001 and more