

**AN ANALYSIS OF EMPLOYMENT AND INVESTMENT  
IN TOURISM INDUSTRY  
A CASE STUDY OF POKHARA**

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of the M.Phil. in Economics**

**Submitted By  
Laxmi Kanta Sharma  
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## **LETTER OF RECOMMENDATION**

The thesis entitled " **AN ANALYSIS OF EMPLOYMENT AND INVESTMENT IN TOURISM INDUSTRY: A CASE STUDY OF POKHARA**" has been prepared by Laxmi Kanta Sharma under my supervision. I hereby recommend this thesis for approval by the thesis committee as partial fulfillment of the requirements for the M.Phil. Degree in Economics.

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## **Abstract**

Pokhara is the second popular tourist destination of Nepal. In 2010 2,30,799 tourist have visited Pokhara. It is a gateway to Annapurna Round Trekking Route which is one out of ten world's best ecotourism destination of the world. Pokhara is also famous for its unique geographical feature and natural beauty. It is also known as the city of lakes and caves. The other attractions of Pokhara are International Mountain Museum, Paragliding and Peace Stupa. There has been a tremendous increase in tourist number and businesses and very big size of investments have been made in the industry. At present 43 types of tourism businesses are operating in 25 different locations of Pokhara.

Without considering the economic impact, there has been a massive investment in the industry. Therefore, this research work primarily investigates the relationship between employment and investment. For this purpose, the businesses are categorized into four main categories to test whether business types and locations have any impacts on employment. Linear regression analysis with dummy variables was used for the estimation.

The analysis reveals that the overall mean employment level of tourism industry in Pokhara is 5.33. The range of employment in overall industry is 1 to 150. The total investment in the industry is Rs.15079.12 million. Out of total, 86.44 percent amount is invested in Fooding and Lodging business, and similarly, 1.86 percent investment is made in Travel Related business. In a similar way, 8.72 and 2.89 percent of investment has been made on Retail Trade and Tourist Product business respectively. The total annual income generation from Tourism Related business is Rs. 2699.75 million.

On the basis of regression estimation, Hotel and Lodge, Guest House, Bank and Finance, Restaurant, Tours and Travels and Handicraft shops are most revenue generating businesses respectively. In average, with every million Rupees of investment on Hotel and Lodge, the employment of 13.66 persons can be generated. Likewise, Bank and Finance can also create employment of 13.34 persons with the same level of investment. Similarly, the paragliding business can generate employment of 10.71 persons. Similarly, Guest House and Departmental store can

generate employment for 9.36 and 6.44 persons respectively with every million Rupees of investment.

On the basis of econometric estimation, the most employment generating locations are Nagadhunga, Prithwichowk, Sabagrihachowk, Mahendrapool and Srijanachowk. In Nagadhunga and Prithwichowk area, there is high possibility of creating employment of 47 persons with every one Million of investment. Chhorepatan is the worst location in terms of employment generation, which can create only 2.30 persons employment (least) with one Million Rupees of investment.

The total direct employment generated by the industry in Pokhara is 12343. But if we look into the broad picture of employment in different business category, Fooding and Lodging business occupies 54.64 percentage share of total employment. In a similar way, out of total employment, Institutional sources occupy 17.52 percent, Retail Trade businesses occupies 14.53 percent, Tourist Product business occupy 7.38 percent and Travel Related business occupies only 5.37 percent share.

The model reveals that the overall employment generating capacity of the tourism industry in Pokhara is 5.40 persons in average. The value of employment differs widely from business types to business locations. The mean employment in Travel Related business without introducing investment is 5.41. Similarly the mean value of employment for Retail trade, Tourist Product and Fooding and Lodging business are 2.87, 2.86 and 8.19 respectively. But when investment is introduced in the model, the value changed to 3.89, 4.02 and 6.96 respectively. The result shows that the additional investment in Retail Trade business and Tourist Product business can generate more employment.

The annual revenue generation from the whole industry is Rs. 2699.75 million, of which Fooding and Lodging business comprises 75.81 percent, Travel Related business occupies 3.21 percent, and Retail Trade business occupies 9.33 percent whereas Tourist Product occupies only 5.48 percent of the total income generated in a year.

Among the top five businesses which can create highest revenue are Hotel and Lodge, Guest House, Bank and Finance, Restaurant and Tours and Travels. Fruits and



Vegetable shop is the least income generating business which can hardly generate Rs. 0.98 million of income annually. Pokhara has the high potentiality of growth in tourism industry because of its high capacity of generating income and employment.

Hotel, Lodge, Guest House, Bank and Finance, Restaurant, Tours and Travels and Handicraft Shops are the major sources of income and employment in the industry. To increase employment, the industry demands high doses of investment particularly in Retail Trade business and Tourist Product business. The investment in Fooding and Lodging business and Travel Related business can generate good income but there will not be a proportional growth in employment. The industry is dominated by Fooding and Lodging business and it demands a policy shift for business diversification. Nagdhunga, Prithwichowk, Sabhagrihachowk, Mahendrapul and Barahipath to Hallanchowk are the area which have more potentiality of generating employment and income.

The findings of this study may be more prescriptive for new investors in the field and also it may contribute to develop wider tourism data base of the industry for Pokhara. Similarly Nepal Government, Ministry of Tourism and Civil Aviation (MOTCA), Nepal Tourism Board, Tourism Council and other related institutions and stake holders may use this result for proper policy designing and planning.

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# **CHAPTER I**

## **INTRODUCTION**

### **1.1 Background**

Tourism is travel for recreational, leisure or business purposes. The World Tourism Organization defines tourists as people “traveling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business and other purposes” (UNWTO, 1995). Tourism has become a popular global leisure activity. In 2010, there were over 940 million international tourist's arrivals worldwide, representing a growth of 6.6 percent when compared to 2009 International tourism receipts grew to US\$ 919 billion in 2010, corresponding to an increase in real terms of 4.7% (UNWTO, 2011).

Tourism is a luxury, with most people in the developed world and increasing numbers of people living in developing countries engaging in tourism at some time in their lives. Tourism is accepted and accustomed, and has become a distinct indicator of one's economic status, considerably a necessity for sound health and wellbeing. Tourism is a productive activity that encompasses human behavior, use of resources, and interaction with other people, economies and environments. It involves physical movement of tourists to locations other than their normal place of living. It involves consumption of goods and services provided by organizations in the process, and generate a mass employment and income.

Tourism is a highly complex productive activity. It involves the activities and interests not only of large transport undertakings, owners of tourist sites and attractions but also of all levels of government. Each of these serves the resident population and visitors. For countries delivering the Tourist Product it makes a significant contribution to GDP, employment, investment and foreign exchange earnings. It is a major catalyst for economic growth and structural change. It also diversifies employment prospects. Tourism is dependent on a large number of economic activities supplying inputs to the industries that directly cater for tourists and producing consumer durables used for tourist activity.

Travel and tourism is the world's largest industry. It operates throughout the year with slight seasonal fluctuations. Tourism is a free entry industry based on labor-intensive technology where small business predominates. It is an important medium for educational and cultural exchange. The impacts of tourism are broad ranging. Western Europe and North America dominate global tourist flows. The range of destinations now encompasses virtually all countries in the developed world and many of those in the developing world. There has been a spectacular growth in the Asia-Pacific region.

Tourism emerged as a global phenomenon in the 1960s. In these early years, the potential for tourism to achieve economic development was largely accepted as axiomatic. National governments looked to tourism as a generator of income, as a means of earning foreign exchange, as a source of employment, and as a means of bringing wider economic benefits to regions otherwise limited economic potential. Consequently world tourism expanded largely unrestrained during the 1960s and 1970s. National tourism authorities were established to promote tourism and to ensure that the flow of economic benefits from tourism was maximized. As world tourism continued to expand, however, a disturbing array of social and environmental impacts began to present themselves. These impacts included the modification of indigenous cultures, increases in prostitution and crime, the pollution of sensitive natural areas, and the excessive use of energy and water resources. By the early 1990s, national tourism authorities had generally come to realize that the economic benefits of tourism would not be achievable in the long run unless tourism was properly planned and managed to include an explicit concern for the social and environmental assets upon which its future prosperity depends.

The established policy objective of tourism, to stimulate economic development, was therefore widened to include the condition that any such development must also be sustainable. Tourism an important economic activity and one of the strategies for economic development, contributes to national income, foreign exchange earnings and to state revenues. It also creates employment opportunities. Many governments, both national and local, invest tremendous amount of human and financial resources in the development, organization and promotion of the tourism industry. Efforts can be improved by a clearer understanding of employment characteristics and pattern in

this sector as well as the potential roles played by economic, social and political forces in the industry in which they are employed. It is in this context that the present study has been carried out. The central message is that tourism's role in economic development is important. Therefore the social, environmental and economic implications of tourism development must be integrated into any such analysis.

### **1.1.1 World Tourism Trend**

World tourism is recovering strongly in 2010 from the recession and is firmly back on the growth path. Growth is being driven by emerging markets such as Asia and South America while mature markets are seeing low growth. Looking ahead to 2011, good prospects for the world economy next year and beyond will be a major driver of growth for tourism. The world economy will grow 4.8% this year followed by 4.2 percent in 2011 and 4.7 percent in 2012. The 2011 outlook for Asian outbound travel is positive. The current prediction is a further 6 to 8 percent increase next year on top of this year's expected 14 percent growth. In particular, India appears set for strong growth, with 43 percent planning more outbound travel next year. Travel Confidence Index for India in 2011 is at a very high 113 points. China will play a decisive role in the world tourism industry in future (UNWTO, 2009).

By 2030, China would become the world's largest economy, roughly the size of the USA and Europe combined. From a destination perspective, it is forecasted that China will grow from 130 million international arrivals in 2009 to nearly 188 million in 2015. This would give the country a 50 percent share of the inbound market to Asia Pacific. China will become the largest tourist destination in the world after 2015 (Haiyan Song, 2009).

As a source market, the number of Chinese taking foreign trips could grow to 79 million by 2015. China's tourism administration reported 8.77 million tourists from outside the mainland China in May 2011, up 61.42 percent year- on- year and 11.37 percent over the same period of 2002 ( UNWTO,2011)

Tourism in 2010 will be remembered as the year of recovery for the global economy- following one of the most testing periods of recent history-but also the year of persistent uncertainties and challenges. International tourism recovered strongly in



2010. The recovery of international has confirmed the sector's extraordinary capacity to bounce back time and again from external shocks. Tourism is an extremely resilient sector and given its contribution to global economic growth by creating sufficient jobs and multi-sectoral development opportunities. Emerging economies proved to be the primary drivers of the international tourism rebound, posting an average growth of 8 percent in 2010 whereas advanced economies recovered at a much slower pace of around 5 percent. A similar trend can be seen in tourism receipts and expenditures (UNWTO,2010).

In recent years, tourism has been increasingly recognized for its economic potential to contribute to the reduction of poverty in developing countries. Its geographical expansion and labor intensive nature support a spread of employment and can be particularly relevant in remote and rural areas, where live three quarters of the two billion people under extreme poverty conditions. Statistics show that tourism in LDCs is still limited: 2.6 percent of the world market share in terms of international tourist arrivals (ITAs) and of international tourism receipts (ITRs). However, the growth in ITAs has been faster in LDCs than in the developing countries as a whole (UNWTO,2011).

### **1.1.2 The Economic Dimension of Tourism**

There are several reasons that make tourism an especially suitable economic development sector for LDCs. Tourism services are consumed at the point of production; the tourist has to go to the destination and spend his/her money there, opening an opportunity for local businesses of all sorts, and allowing local communities to benefit through the informal economy, by selling goods and services directly to visitors. Most LDCs have a comparative advantage in tourism over developed countries. They have assets of enormous value to the tourism industry - culture, art, music, natural landscapes, wildlife and climate, including World Heritage Sites. Visits by tourists to such sites can generate employment and income for communities as well as helping in the conservation of cultural and natural assets.

Tourism is a more diverse industry than many others. It has the potential to support other economic activities, both through providing flexible, part time jobs that can complement other livelihood options, and through creating income throughout a

complex supply chain of goods and services. Tourism is labor intensive, which is particularly important in tackling poverty. It also provides a wide range of different employment opportunities especially for women and young people - from the highly skilled to the unskilled and generally it requires relatively little training. It creates opportunities for many small and micro entrepreneurs, either in the formal or informal economy; it is an industry in which start-up costs and barriers to entry are generally low or can easily be lowered. Tourism provides not only material benefits for the poor but also cultural pride. It creates greater awareness of the natural environment and its economic value, a sense of ownership and reduced vulnerability through diversification of income sources. The infrastructure required by tourism, such as transport and communications, water supply and sanitation, public security, and health services, can also benefit poor communities.

One way of measuring the importance of tourism in economic development is to examine the share of tourism in national income, employment, export earnings, and tax revenues. The difficulty with these broad measures of the economic importance of tourism is that they do not, in themselves, provide a particularly good measure of tourism's economic impact. Firstly they measure the gross impact of tourism while it is usually the incremental impact of tourism development that is important. Secondly, national tourism statistics are subject to a number of measurement defects which can seriously limit their value in making international comparisons of the economic role of tourism. It is usually considered preferable, therefore, to supplement these broad measures of the economic importance of tourism with information on a range of tourism multipliers. The capacity of tourism to generate economic development is best seen by examining the impacts of additional tourist spending in a destination area, which in turn serves to generate incomes, employment, and a range of other benefits for the host economy. Tourism multipliers attempt to summarize these incremental impacts in the form of a simple coefficient. The two most common formulations are the tourism income multiplier and the tourism employment multiplier.

### **1.1.3 Employment, Income and Tax Generation**

One of the principal mechanisms through which the development of tourism is expected to bring economic benefits to a destination country is through the incomes

that are generated in the tourism sector. It should be noted, however, that the incomes that are generated through tourism are rarely spread evenly among the host population. While tourism may generate substantial incomes for the destination economy as a whole, those incomes might be enjoyed only by a limited number of people. Another perceived advantage of tourism is that it is particularly good at generating employment, creating more jobs per unit of sector income than most other economic activities. This is particularly the case when the tourism sector has strong backward linkages into the rest of the economy.

On the other hand, tourism has often been criticized because the kinds of jobs it tends to create are not 'real' jobs. Indeed, many commentators have noted that tourism employment tends to be concentrated in low-skilled occupations. Related to the low-skilled nature of jobs in tourism, tourism employment also tends to pay relatively low wages and provide only part-time or seasonal job opportunities.

Tourism industry is also increasingly being viewed by national governments as a lucrative source of tax revenues. Tax income is generated by tourism activity in a number of ways. Firstly, tourism business and individuals earning income in the tourism sector are subject to direct taxation like any other economic activity. Secondly tourists pay indirect taxes on the goods and services they consume while on holiday, as well as being subject to customs duties. Thirdly, an increasing number of countries are introducing taxes aimed specifically at the tourism sector. The driving force behind the introduction of tourism taxes has usually been to raise general tax revenue. In some countries, however, tourism taxes have been earmarked for helping to finance measures aimed at protecting the environmental assets employed by the tourism sector.

#### **1.1.4 Reduction of Regional Disparities in Income and Employment**

Tourism industry can reduce regional income and employment disparities. Firstly, tourism activity tends to take place alongside existing commercial, transport and leisure activities, sharing their infrastructures and resources. It is often argued that the development of tourism is ideal as a means of soaking up unemployment in lagging regions where traditional industries are in decline and few other employment opportunities exist.

### **1.1.5 Creation of Small and Medium Enterprises (SMEs)**

Tourism is especially well-suited to fostering entrepreneurship and the creation of SMEs in the destination economy. The development of the tourism sector can also play an important role in the creation of SMEs in the wider economy. The expansion of tourism is usually accompanied by agriculture, transportation, retailing and producer services. The development of local supply networks may in turn help to moderate the tendency for the economic benefits of tourism to leak away from the destination economy in the form of imports. Furthermore, tourism development can generate 'external economies' for the rest of the destination economy.

### **1.1.6 Tourism Trend in Nepal**

Tourism is one of the largest industry in Nepal and one of the largest sources of foreign exchange and revenue. Possessing 8 of the 10 highest mountains in the world, Nepal is a hotspot destination for mountaineers, rock climbers and people seeking adventures. The Hindu and Buddhist Heritage of Nepal, and its cold weather are also strong attractions. There are lots of places to visit in Nepal. That is why people often term Nepal as "a place where there are more temples than houses". Nepal is rich in terms of its natural beauty and cultural heritage. It is a unique country inhabited by multi-lingual, multi-cultural and multi-ethnic people. It has got beautiful flora and fauna as natural gifts. It is ecologically divided into three main regions: Mountain, Hilly and Terai. The country consists of the eight world's highest peaks over 8000 meters. Nepal's beautiful high landscapes, lakes, green valleys, waterfalls, streams and hill sides scattered in the form of an endless series of terraces have been the source of great attraction and admiration. As a result, Nepal is one of the most preferred tourist destinations in the world.

In the year 2010 there has been a 12.5% decrement in total earning from the industry. The average income per visitor per day has been declined to US\$ 43.2 by 12.5 percentage (NTS,2010).

**Table 1 Change in Tourist Arrival and Revenue From Tourism (2009-2010)**

<b>Tourist Arrival by:</b>	2009	2010	% Change
Air	379,322	448,800	18.3
Land	130,634	154,067	17.9
Total	509,956	602,867	18.2
<b>Revenue from Tourism</b> Total Earning (US\$'000)	377,172	329,982	-12.5
Average income per visitor per day (US \$)	65.3	43.2	-33.8

*Source: Nepal Tourism Statistics, Kathmandu, 2010.*

Recently, of the total tourist arrival in Nepal in April 2011, 13408 were from SAARC Countries, showing 32.5 percent increment in number as compared to the data of same period in 2010. In a similar way, in the month of April 2011, 45.4 percent increment was recorded from Europe, 47.2 percent from Oceania, 30.15 percent from America. In total, the growth rate of tourist arrival for the month of April 2011 was recorded as 34.3%. Until April 2011 the total number of tourist arrival is 168,958. The number is 18.4% higher in comparison to the same period for 2010. The trend shows that there will be significant increment in tourist number for this year (NTB,2011).

### **1.1.7 Tourism Trend in Pokhara**

If Kathmandu is the cultural hub of Nepal, Pokhara is its centre of adventure. An enchanting city nestled in a tranquil valley; it is the starting point for many of Nepal's most popular trekking and rafting destination. Pokhara is a place of remarkable natural beauty and it is quite a modern city. The serenity of Phewa Lake and the magnificence of the fishtailed summit of Machhapuchre rising behind it create an ambience of peace and magic. Indeed, the valley surrounding Pokhara is home to thick forests, gushing rivers, emerald lakes, and of course, the world famous views of the Himalaya.

Pokhara can be developed as a rural tourism hub of the country, as it is the centre point from where one can see Himalayas, enjoy lake view and visit beautiful rural villages enriched with unique cultures. The pleasures of paragliding and tandem flight are newly developed adventure in tourism business of Pokhara. Not only foreign tourists but also middleclass family of the country can enjoy one to two nights stay in

local villages around the valley. Basic tourism infrastructures are being set up in such places and these rural spots can contribute significantly to promote rural tourism.

Toni Hagen, a Swiss geologist, who travelled extensively in Nepal had written: "Pokhara area shows the greatest contrast in landscape. Nowhere in the world can the highest mountains reaching 8000 meters level can be admired from such small distance and from the tropical low land without any intermediate mountain ranges. Pokhara is certainly one of the most extraordinary and beautiful places in the world" (Thapa,1955).Tourism business in Pokhara began only after 1960 in a systematic way; however the literature shows that it was popular among the visitors since before the century. In this context, travelogues published by Kawaguchi(1899) and Herzog(1952) etc. are noteworthy.

Therefore , in recent years there is a sharp increment in the number of tourists visiting Nepal and Pokhara. Out of total tourists, the visitor’s number to Pokhara is also growing rapidly. The number of tourists visiting Nepal from different countries for a period of 20 years is given in Table 2. The total number of tourists visiting Nepal has been remarkably increased to almost three fold during last 20 years.

**Table 2 Tourists Arrival Trend in Pokhara and Nepal (1990-2010)**

Year	USA	UK	German	France	Japan	Australia	China	Others	Total
1991	4,923	7,778	5,146	3,281	7,634	4,112	-	29,264	62,138
1995	5,307	7,812	5,657	3,617	6,027	4,606	-	30,756	63,782
1999	9,251	14,850	9,500	5,810	11,304	8,070	-	46,761	105,546
2003	3,387	5,111	2,885	3,231	12,987	1,742	-	30,092	59,435
2006	2,748	4,596	3,790	NA	13,063	NA	4,825	41,578	70,600
2009	9,201	14,900	14,037	7,819	15,223	5,003	9,501	81,335	157,019
2010	10433	17880	15917	8991	16745	5703	10926	91464	230,779

*Source: Tourism Statistics 2010 (Excluding Indian Tourists)*

Table 2 reveals that the average number of tourists visiting to Pokhara is gradually increasing .The trend of tourists visiting to Pokhara (1991-2010) shows that about 21.46 percent of total number of tourists visiting to Nepal also visit Pokhara. Moreover, about 43 percent of trekkers visiting Annapurna Conservation Area enter through Pokhara and rest of the trekkers enter from other points (ACAP,2008). This

shows that Pokhara plays crucial role in the development of tourism industry of Nepal. The data available from ACAP shows almost all the trekkers to the area visit Pokhara once either as an entry point or as an exit point. Therefore, Pokhara is a central tourism point.

In tourism industry of Nepal, there is a common proverb “You have not visited Nepal if you have not visited Pokhara”. Therefore, the number of tourists visiting to Pokhara is growing year by year. Table 3 reflects the comparative number of tourists visiting Nepal and Pokhara in a period between 1990 and 2010. There is an increasing trend of visiting Pokhara once the tourists arrive in Nepal. The percentage of tourists visiting Pokhara has been continuously increasing from 23.3 percentage in 1990 to 38.2 percentage in 2010. Moreover, the number of Indian Tourists visiting Pokhara is very high, which is being excluded in table 3.

**Table 3 Comparison of Tourists Number in Nepal and Pokhara (1990-2010)**

Total tourist Arrival	1990	1993	1996	1999	2002	2005	2009	2010
In Nepal	254,885	293,567	393,613	491,504	275,468	375,398	509,956	602,867
In Pokhara	59,488	56,499	86,504	105,546	50,533	57,125	157,019	230,779
Share of Pokhara (%)	23.3%	19.2%	21.97%	21.47%	18.3%	15.21%	30.79%	38.2%

*Source: Tourism Statistics 2010 (Excluding Indian Tourists)*

Nepal has three major resources to build up her economy they are agriculture, hydropower and tourism. Among them, tourism is the key industry which can effortlessly be established, promoted and developed with minimum investment and can be made an important foundation of national income. So it is one of the leading sector of economy which can generate a number of economic and social benefits. It is not only earning foreign currency but also creating employment opportunities through backward and forward linkages with other sectors such as agriculture, industry and other service sectors. It can create multiplier effect in the economy. The significance of tourism in Nepal is not confined to the economic aspect only but also to the environmental and cultural aspects.

Although foreigners have started visiting the country only after 1970 that Nepal virtually open its door to the outside world. The panoramic natural beauty of the country and its rich cultural heritage has attracted many people in the world ever since it opened its door to the foreign visitors. Tourism sector has also remained one of the major sources of foreign exchange earnings in the country (Annex 1).

Pokhara has become a major tourist hub of Nepal, the city offers a combination of nature and culture and is mostly known as the gateway to the trekking route Round Annapurana, which is usually a trek of 15 days. Pokhara is quite a modern city with many tourist attractions in the town itself. Most interesting is the lakeside which is also called Baidam. It is situated at the side of the Fewalake so it is named as Lakeside. The old centre in the north of the city (Bagar, Purano Bazar) where many old shops and warehouses in the Newari style can still be found. Although more seldom, mule caravans still arrive there from Mustang.

Temples worth visiting in city are Bindhyabasini, Bhadrakali, Sitaldevi, Gita mandir temple and Bhimsen temple. Another temple, Barahi temple, is located on an island in the Phewa lake, which is accessible only by boats. The modern commercial city centres are at Chiple Dhunga (slippery stone, which is still there) and Mahendrapul (now called Bhimsen Chowk, named after a Shahid). Apart from this there are several subcentres in other parts of town: Bagar in the north, Newroad, Prithvi Chowk and Srijana Chowk at the centre of the western part, Gagangaunda, Lekhnath Chowk, the road between Tal Chowk, Sisuwa and Begnas Lake in the east, Amarsinghchowk, Rambazar and Hospital chowk in the middle part and Birauta and Devi's fall in the southern part.

On a hill overlooking Phewa Tal from the south is the World Peace Stupa built in 1996 with a view of the lake, across the city and of the snow peaked mountain ranges of Manaslu, Annapurna, Machhapuchchhre (Fishtail, which is named from its shape) and Dhaulagiri Himal. The best viewpoint of Pokhara is Sarangkot and Thulakot (in Lekhnath, a part of famous Royal Trek) from where four lakes Phewa, Begnas, Khaste, Dipang out of more than half dozen and whole Annapurna range can be seen along with enchanting and clean city. People can go there by bus, car or motorbike which can also be hired. Paths and a road lead almost to the top of Sarangkot and most of the hill stations with an excellent view of the mountains, lakes and the city.



Sarangkot being the highest viewpoint attracts many tourists. The International Mountain Museum ,Gorkha Museum , Mahendra cave and Gupteswor cave are some other attractions of Pokhara.

The major tourist attractions of Pokhara are its scenic views. The Seti Gandaki (White Gandaki) and its tributaries have created spectacular gorges in and around the whole city. The Seti gorge runs through the whole city from north to south and then west to east. At places it is only a few metres wide and the river is so far down below that, at some places it is not visible or audible. In the middle of the city, the gorge widens to a canyon looking like a crater. In the north and south, just outside town, the rivers created canyons, in some places 100 m deep. These canyons extend through the whole Pokhara Valley. One place is the Prithvi Narayan Campus and the other side at the foot of Kahu Danda, where several rivers and canyons join. Behind the Tundikhel , one can see that the Seti River disappear into a small slit of a wall about 30 metres high which is especially impressive in monsoon. Batulechaur in the far north of Pokhara is known for the musicians caste of the Gaaine(Musician Tribe).

The Tourism Year 2011, as declared by the government of Nepal is hoping to have about hundred thousand tourist visiting Nepal. Pokhara is one of the first choices of tourists. Lakes, Mountains and the scene that can be viewed from Pokhara is awesome, so Pokhara is the best tourism hub of Nepal and the country is economically benefited from it. But due to the lack of suitable government policy for the development of tourism in Pokhara, the private sector are taking positive initiatives and making investments to develop Pokhara by hook or crook. Actually Pokhara has got most of the facilities and infrastructure mostly developed by the people . But unplanned investment is increasing, so the situation is demanding a planned development approach with proper research and analysis.

The number of tourists visiting Pokhara has been continuously increasing since 1991, in 1991 the number of tourists visiting Pokhara was 62,138 but in 2010, the number increased to 2,30,799. The majority of tourists for Pokhara are from USA, UK, Germany, France, Australia, China and India. 52,740 (22.85 percent of total) Indian tourists have visited Pokhara in 2010 (Nepal Tourism Statistics,2010 ).

Pokhara, is one of the major tourism destinations for Indian tourists because of its natural environment and suitable climate and also it is the entry point for Muktinath either for air route or for ground route. Moreover, Pokhara is either the entry point or the exit point for Round Annapurna Trek. The Paragliding Service from Sarangkot and Glider Plane service of Avia Club are the newly made adventurous tourist attractions of Pokhara.

Pokhara is also a domestic tourist destination of Nepal. In recent years, the number of tourists visiting Devi's Falls, Gupteswor Cave and International Museum are growing in a very rapid rate, as a result the significant amount of income has been generated. Similarly, with the addition of new airlines services, the tourist flow at Pokhara airport has also been considerably increased (Annex 13 C).

## **1.2 Statement of the Problem**

Pokhara is not simply a gate way for trekking but also an extraordinary destination for all sorts of tourists. Pokhara offers a wide varieties of accommodation facilities suited for almost all types of travellers. It is full of entertainment facilities and an excellent centre of relaxation with closest views of lakes, rivers, gorges and Himalayas. Tourism infrastructures are well developed there and investment is rapidly increasing these days. In the year 2006, the 70,600 tourists had visited Pokhara and in 2007 the number grew to 1,23,944 which is about 75.55 percent more. Also this number is 23.53 percent of total no. of tourists arrival in Nepal in 2007. Over a period of one year, there is 75.55 percent increment in the tourist number in Pokhara. In 2009 the number grew to 157019 and in 2010 the number is raised to 230,779. (Nepal Tourism Statistics, 2010)

This implies that in near future the tourists concentration and flow will be focused in Pokhara. Government of Nepal is also planning to link Pokhara through Railways and international Airways. Private investment in hotels, travel agencies, trekking agency and other travel and tourism related business is growing rapidly. So, in one hand, public and private investment is increasing and on the other, the economic impact assessment of tourism is not done yet in Pokhara. The expectation of returns through investment in terms of income and employment seems very high. So, the investors and policy makers are facing problems to fix the size of investment and to

select the business and locations which can generate good level of employment and income. The present study is focused to answer the following questions: What is the level of employment and size of income generation annually from the industry ? Is there a significant impact of investment on employment ? Is there a significant difference between mean level of employment in four different business categories ? The present study is carried out to find the answers of these questions.

### **1.3 Objectives of the Study**

The general objective of the study is to analyze the relationship between investment and employment for the tourism related business in Pokhara.

#### **Specific Objectives:**

- i. To examine the relationship between investment and employment in different business types, categories and locations.
- ii. To explore the most employment generating business types, categories and locations.
- iii. To compare and contrast the difference in mean level of employment generated by Travel Related business, Retail Trade business, Tourist Product business and Fooding and Lodging business.
- iv. To estimate annual income and existing level of employment and investment in tourism business.

### **1.4 Significance of the Study**

Tourism plays an important role in creating employment and generating income. Multiplier effect is created through tourist expenditure in various sectors of the economy. Tourism creates forward and backward linkages with high value addition in the economy besides significant volume of net foreign exchange earnings. With a relatively low level of investment, tourism can induce direct and indirect employment opportunities. At present in the absence of comprehensive economic analysis, the formulation of relevant policies for development and expansion of tourism has been constrained and virtually impaired. Therefore, there is an urgent need to study, analyze and explore the earnings and employment from tourism in different business and location of Pokhara. The findings of this study will be beneficial for the policy makers, investors, planners and academicians as well. Moreover, the current study

will give more concrete idea in the development of tourism industry in Pokhara . The study will make special contribution in policy and plan formulation for the industry of Pokhara and also it will contribute significantly to develop database of the industry. for Pokhara.

## **1.5 Limitations of the Study**

Though the present study is focused on the relationship between employment and investment in tourism related business in Pokhara, the study has the following limitations:

- i. Out of 18 wards of Pokhara Metropolis, the study is based on the household survey data of 2009 in three wards only (ward numbers 6, 7 and 17) and ward number 6 and 7 of Sarangkot VDC, Kaski.
- ii. The indirect impact of tourism on employment and income generation is not covered by the study.
- iii. In some cases secondary data published by various institutions like Nepal Tourism Board, Ministry of Tourism and Civil Aviation, District Development Committee Kaski, Annapurna Conservation Area Project, International Mountain Museum Pokhara etc. are used. However, the reliability of secondary data is not tested.
- iv. The both way relationship between employment and income is not covered by the study.

## **1.6 Organization of the Thesis**

This thesis is organized as follows. The First Chapter begins with introduction. The Second Chapter is about the Review of Literature. Third Chapter deals with research methodology and theoretical framework. Chapter Four is concerned with data analysis and Chapter Five contains findings, conclusions, recommendations and policy implications.

## **CHAPTER II**

### **LITERATURE REVIEW**

Travel and tourism have had a fascination throughout the history. The concept of tourism emerged in and around the second half of the 19<sup>th</sup> century with per capita incomes in the developed countries increasing significantly and the development of efficient mass airport (ICIMOD, 1995). It had only been in the late 1960s that a significant and substantial body of literature on tourism started to emerge (Pearce, 1993). However, up to the end of the 1980s, research on tourism remained almost methodically simple and could not patronize strong theoretical base (Dann, Nash, and Pearce, 1988). A number of research have been carried out about tourism industry in Nepal and abroad which constituted a heterogeneous assemblage of different information during 1970s to 1980s. Therefore, the output of these research works cannot be overlooked. These all are to be examined critically in the review process.

Multiplier is frequently used to measure economic impact of tourism industry. There is a wide range of literature on (tourism) multipliers, therefore, a short discussion will be made to identify those factors that influence the values of multipliers and that might be relevant to our discussion. Multipliers have been widely used in research and policy support. The multipliers are frequently misused and misinterpreted in tourism studies, and are therefore a considerable source of confusion for non-economists. However, their use has been often characterized by confusion and misunderstanding concerning the typologies of the used multipliers (Archer, 1982). A first distinction refers to the range of effects taken into account by the multiplier. In Singapore, income and output multiplier increase by 30 percent when induced effects are included (Heng and Low, 1990).

The increase in the income multiplier, when induced effects are considered, it vary from 20 percent in Sicily to 65 percent in Spain ( Del Corpo *et al.* 2008). Feedback effects from surrounding regions can also be considered. The feedback effects from surrounding economies were taken into account and shown that the size of multiplier increased by 2-7 percent (Sinclair and Sutcliffe 1988). The second distinction refers to the affected variable (sales, output, and income or employment multiplier). This is a simple and clear issue, but it is very relevant when comparing different values of

multipliers. It is important to note that different definitions of multipliers are relevant for different policy objectives. The relevant multipliers should be therefore chosen when comparing different policy options with respect to a specific objective (either the maximization of the employment, income or government revenues effect). Sales and output multipliers tend to be around the double of income multipliers. The economists distinguish direct, indirect and induced economic effects of any change in a specific sector, such as tourism. In this context, a multiplier is the total effects (direct, indirect and/or induced) divided by, or expressed as a ratio of, the direct effects of tourism (Miller and Blair, 1985).

This concept is based on the recirculation of income: recipients use some of their income for consumption spending, which then results in further income and employment. Multipliers capture the “secondary economic effects”, those are the summation of indirect and induced effects of tourism activity. The larger the multiplier, the greater the impact a dollar of visitor spending will have on the region’s economy. Direct effects are changes in the sectors associated directly with visitor spending with immediate effects of those changes. For example, an increase in the number of tourists staying overnight in hotels would directly increase room sales in the hotel sector. The additional hotel sales and associated changes in hotel payments for wages, salaries, taxes, supplies and services are direct effects of the tourist spending. Indirect and induced effects are the secondary effects resulting from the initial visitor spending. Indirect effects are sales, income, or jobs resulting from various rounds of the purchases the hotel made to other “backward-linked” industries in the region. Changes in sales, jobs and income in the linen supply industry, for example, represent indirect effects of changes in hotel sales. Induced effects are the sales, income, or jobs resulting from household spending of income earned as a result of visitor spending - either directly or indirectly. For example, hotel and linen supply employees supported directly or indirectly by tourism, spend their income in the local region for housing, food, transportation, and the usual array of household product and service needs. There are many different kinds of multipliers depending on which secondary effects are included and which measure of economic activity is used (sales, income, or employment). The size of a multiplier for a given region depends on how the study region is defined and its economic characteristics.

The value of the multipliers crucially depends on leakages, and therefore on the share of imports to total output. In turn, the share of import is heavily dependent on the size of the region (small economies are relatively less self-contained than larger economies). In the specific case of tourism multipliers, the interrelationships of tourism industries with the rest of the local economy (and specifically the extent to which demand from tourism industries is satisfied with imports), is also a crucial factor. Income multipliers reach a maximum for large countries such as Turkey and the UK (Fletcher, 1989) and in self-contained small island economies (Jamaica, Mauritius), where they vary in the range 0.50-1.20. They are just smaller for US states (Archer, 1988), but sensibly lower in very open regional and urban economies such as US and UK counties' range 0.20-0.50 (Fletcher, 1989).

## **2.1 Economic Evaluation of the Tourism**

As every sector, the tourism aims to increase the expense of the tourists/ visitors in a specific socioeconomic situation. Thus, the analysis of tourist expenses in the framework of a regional or local economy it is of vital importance. For this analysis to be possible, it is necessary to know better the habits of tourist consumption of a destination in matter to study the economic impact of tourist activity in the area. A variety of economic analyses are carried out to support tourism decisions and to quantify the derived economic consequences of tourism activities. These analyses may be applied to any policy or action, but are defined here in the context of tourism. Where markets do not exist, values held by 'customers' must be elicited. An array of methods for eliciting both market and non-market values from people for environmental goods and services have been developed over the last few decades. Though it is still a developing field, some of the more common and widely used methods include: economic impact assessment, fiscal impact analysis, financial analysis, demand analysis, benefit/cost analysis, feasibility study, environmental impact assessment, contingent valuation, hedonic pricing, travel cost method, change in productivity, loss (or gain) of earnings, opportunity cost, and replacement cost (Stynes, 1997).

The economic impact analysis traces the flows of spending associated with tourism activity in a region to identify changes in sales, tax revenues, income and jobs due to

tourism activity. The methods used to gather this information include: visitor spending surveys; analyses of secondary data from government economic statistics; economic base models; input-output models; and multipliers (Frechtling, 1994).

Economic Impact Assessment (EIA) traces changes in economic activity and will identify which economic sectors benefit from tourism and its impacts. An economic impact assessment (EIA) traces changes in economic activity resulting from some action, identifies the economic sectors that benefit from tourism, and estimates resulting changes in income and employment in the region. However, EIAs usually do not assess economic efficiency, or potential environmental, social and fiscal impacts. These are important concerns if one is to be capable of making a balanced assessment, so an EIA should be one part of a broader analysis (Stynes, 1999). An economic impact assessment determines the contribution of tourism activity to a region's economy. An economic impact assessment also reveals the interrelationships among economic sectors, and provides estimates of the changes that take place in an economy due to some existing or proposed action: Finding out how much tourists spend; determining how tourism impacts local businesses' sales; finding out how much income tourism generates for area households and businesses; measuring the number of jobs supported by the tourism industry; calculating the amount of tax revenue generated by tourism.

According to Rabahy (2003) there are three systems for measuring the impact of the tourism known globally:

- a. The World Organization of Tourism's valuation system seeks to standardize, in the whole world, the national accounts, being focused in the value of the tourism production and of their components: the estimate of the gross value added and of the tourist incomes; the cost/benefit of investments; the impact in the domestic economic growth in countries or regions that developed the tourism; the fixed gross capital formation in the sector and the average balance of the transactions with the exterior.
- b. The Tourism Satellite Account (TSA) is a high specialized system of the national account for capturing in a better way the impacts of the tourism, through a complex system of information. The Structure of TSA is composed by 10 tables:



inbound tourism; domestic tourism; international tourism; tourist consumption; production and productive structure of the tourist activities; calculation of the added value and of tourist GDP; generation of employment; gross capital formation; public services of tourism; number of indicators that demonstrate the characteristics of the sector. However, the unavailability of data on the structure of expenses in the country, about the gross capital formation and on the average composition of the packages of tourism hinders implantation of the Tourism Satellite Account in the district of Ouro Preto.

- c. The Input-output model is a measurement system that seeks to find the value of what tourism generates in an indirect and induced form and in their successive reproductions. This model exposes the internal flows among the productive sectors of an economy, relating production of each of them, the intermediate consumption and the final consumption. So, an input-output (I-O) model is a mathematical model that describes the flows of money between sectors within a region's economy. Flows are predicted based on the inputs that each industry must buy from every other industry to produce a dollar's worth of output. I-O models also determine the proportions of sales that go to wage and salary income, proprietor's income, and taxes. Multipliers can be estimated from input-output models based on the estimated re-circulation of spending within the region. Exports and imports are determined based on estimates of the propensity of households and firms to purchase goods and services from local sources. The more self-sufficient a region is, the fewer the leakages, so that the multipliers are correspondingly higher (Stynes, 1997).

Though, the theories that define the tourism and the economy of the tourism and consequently what is output, input, consumption and another variable that serve as base for these measurements don't broach the totality of elements that compose the capital generated by the tourism, excluding many times the trips on business, and including, most of times, only the components of the trilogy "transport-lodging-food services". This is a consequence of the fact that the theory of tourism, mainly in the economic sphere, is still in construction and leaving some gaps. Bowman and Eagles (2004) suggested the Provincial Economic Impact Model (PEIM). This is a computer application for estimating the economic impacts of expenditures at a provincial level

on heritage activities such as the development and operation of natural areas, protected areas, parks and historic sites and the tourism spending associated with these events.

Chang (2001) and Stynes (1997) suggested three additional models. The Bureau of Economic Analysis's RIMS II Multipliers: This approach starts with visitor spending (from a survey or secondary sources) divided into a number of spending categories, and applies sector-specific multipliers to estimate direct and total sales, income and employment effects.

The MI-REC/IMPLAN System have been developed a fairly complete micro-computer-based system for estimating economic impacts of recreation and tourism. The system combines spreadsheets for estimating spending with the IMPLAN input-output modeling system. IMPLAN uses county level data to estimate input-output models for regions down to a county level (Stynes and Propst, 1992).

## **2.2 The Money Generation Model (MGM)**

This method captures the essential elements of an economic impact analysis, though the approach it takes is extremely simple (National Park Service, 1990). The average spending, number of visits and aggregate multipliers are entered on a simple worksheet: total estimates of the sales, income, employment, and tax effects of visitor spending are generated as a result. Provided the parameters are carefully chosen, the MGM model can yield good ballpark estimates of economic impacts at minimal cost. The MGM estimates total sales effects first, and then converts total sales to total tax and job effects (Chang, 2001). The MGM is an example of a simple approach that relies largely on judgment and available secondary data in a highly aggregate form. While an extremely simple approach, it captures the essential elements of an economic impact analysis. The number of visits, average spending per visitor and an aggregate sales multiplier are entered on a simple worksheet to generate estimates of the direct and total sales effects of visitor spending. Sales effects are converted to income and jobs using ratios of income to sales and jobs to sales. Tax effects of visitor spending can also be estimated by applying local tax rates to sales estimates. With sound judgment in choosing the parameters, the MGM model can yield reasonable ballpark estimates of economic impacts at minimal cost. This approach,

however, provides little detail on spending categories or which sectors of the economy benefit from either direct or secondary effects. The aggregate nature of the approach also makes it difficult to adjust recommended spending rates or multipliers to different applications (Stynes and Rutz, 1995). MGM requires three aggregated multipliers: the direct sales are multiplied by the multiplier of secondary effects, the relationship of sales to be considered income and the multiplier of jobs originated in the tourist activity. In most cases these multipliers are adapted to a specific place. In Brazil, this model was already applied in the city of Lencois, Maranhao State, to evaluate the impact of the tourism in the local economy (Rabahy, 2003).

Another study, in the village of Tatopani in Myagdi district within the Annapurna Area, Nepal, attempts to describe the various impacts resulting from tourism. The local barter economy has been replaced by dependence on tourism and monetization over there. Along with the increase in the demand for natural resources through the increase in trekkers, other impacts such as land use changes, changes in cropping pattern, and a reduction in the use of traditional species and cultivators in favor of grain and fruits crops, have also occurred. However, the village consists of different ethnic groups only Thakali community has been found controlling the trekking industry (Friend J., 1983).

There are interesting connections between income distribution and other elements important to tourism. For instance, the work by Fernández-Morales, seasonality was shown to be an important element in explaining the distribution of income. Similarly Johnson and Thomas outlined two methods of tracking tourism employment. The first of these is the expenditure method that identifies ratios used to derive employment figures from expenditure (Friend j., 1983). This method provides the closest approximation of employment directly attributable to tourists since base data are tourist expenditures. Limitations of this method include the assumptions used in identifying ratios and the inability to support an estimate with standard employment data sources. Much of the tourism analysis using regional input-output tables rely on this ratio approach as a basis for employment estimates (Bergstrom et al. 1990; Johnson and Moore 1993; Marcouiller et al. 2002).

The second employment tracking technique is the employment count method that identifies employment in tourism-related industries as identified by defined categories

and relies upon count data from firms. The benefits of this method are that counts agree with standard reporting sources and the ability to identify employment in industries that may be enabling to tourism, but not reliant on tourism.

Brown and Connelly (1986) studied employment in tourism using this employment count method and identified other benefits from using data that is regularly published by stable sources. Combinations and hybrid approaches rely on regional science technique to alleviate empirical caveats of the two approaches.

It is also important to realize that an assessment of labor used in tourism is incomplete without a full assessment of the self-employed component including both business owners and their families. Proprietor's income can be used as a proxy to show the benefits to business owners where wages may be insufficient to account for all earnings derived from tourism supply.

Brau et al. (2003) compared the growth performance of 14 'tourism countries' within a sample of 143 countries, observed during the period 1980-1995. They show that tourism-specialized countries grow significantly faster than other countries. Besides, they show that this positive differential is not explained by other variables used traditionally in the growth literature, such as the initial level of income per capita, the rate of investment or the openness of the economy. The specialization in tourism seems to provide an additional independent explanation of growth with respect to the types of endogenous growth models such as in Mankiw *et al* (1992). Martin (2004) analyses growth performance of Latin American countries over the period 1985-1998 and provides additional evidence that tourism-specialized countries tend to grow faster. However, their result holds true only for low and medium-income countries implying that tourism expansion is a suitable option for growth only before a certain threshold of income per capita is reached.

Baaijens et al. (1998) analyzed statistically (regression models) income multipliers extracted from 11 studies. A positive relationship was found with the logarithm of the population (several alternative regional characteristics – as area size, number of tourist arrivals – were also tested). A similar result was found by Chang (2001), analyzing more than 100 regional I-O models varying in size and economic development (covering five US-states: California, Colorado, Florida, Michigan and

Massachusetts), generated by means of the IMPLAN I-O modeling system. A 'tourism multiplier' was defined as a weighted sum of multipliers derived from four tourism-related sectors (lodging, eating and drinking, recreation and retail). For all the four analyzed Type II 'tourism multipliers' (sales, income, value added and job) the most significant predictor, in a stepwise regression analysis, was found to be the logarithm of population. While sales, income and value added multipliers increased almost linearly with the logarithm of population, the employment multiplier showed a negative correlation (interpreted on the basis that, in the contest of the analyzed dataset, regions characterized by a smaller number of inhabitants tend to correspond to less economically developed rural areas).

### **2.3 The Impacts on Employment**

The ability of tourism to create jobs is of high relevance for policy-makers. The employment multipliers are easily calculated in multiplier exercises. Heng and Low (1990) find that tourism in Singapore creates over 30 jobs per million dollar of expenditure when induced effects are included and just above 25 jobs when only direct and indirect effects are calculated. Fletcher (1989) finds a similar value for Jamaica. He shows that values might be even higher for smaller economies such as Gibraltar, where he also finds that the employment multiplier of tourism expenditure is nearly the double than Ministry of Defense and other Government departments' expenditure. Sinclair (1998) discusses few additional features concerning employment effects of tourism (based both on case studies and multiplier analysis): one leading study on the impact of tourism and economic development is by Proença (2005). In his investigation, the correlation between the bed capacity of Portuguese regions and the regional economic growth measured by GDP per capita growth. They find that 1 percent increase in accommodation capacity in tourism sector induces 0.01percent increase in per capita income. Tourism also increases the convergence rate of per capita income in Portuguese regions. Using a different methodology, Lanza and Pigliaru (1999) examine the tourist specialization of the country and its effect of the economic growth based on Lucas's two-sector endogenous growth model. The authors state that countries with endowments of suitable natural resources large relative to the size of their labor force are likely to develop a comparative advantage in tourism and will grow faster than those who specialize in the manufacturing sector.

In a similar fashion, Brau *et al.* (2003) further discuss the problem observing the correlation between the tourism specialization of the country (the ratio between international tourism receipts and GDP at market prices) and the real per capita GDP growth rate. They find that small tourism countries grew faster during the period 1980-1995 than countries from OECD, oil producers, least developed countries or other small economies, and conclude that albeit smallness of a country is detrimental to growth, the opposite is true if it is combined with tourist specialization.

In addition, Balaguer and Cantavella-Jordá (2002) construct a model, which includes the real gross domestic product, international tourism receipts in real terms, and the real effective exchange rate. They find that earnings from international tourism affect positively the Spanish economic growth and a long-run stable relationship between economic growth and tourism expansion exists. Vietze and Freytag (2005) investigate the influence of biodiversity on economic growth. They show that the relationship is not direct but through the positive effect biodiversity has on inbound tourism receipts per capita. The common characteristic of *all* above-mentioned empirical studies is that they examine the relationship between tourism and economic growth with the help of econometric models – cross-country or cross-regional data. They all find that tourism stimulates positively the economic growth. However, their common disadvantage is that they do not say how much of the economic growth is, in practice, attributable to tourism.

Job creation in tourism sector is relatively cheaper and high value adding at the same time. Following this logic, we have sufficient evidences to argue that investment in tourism can be one of the employment generating and growth promoting activity, especially capital deficient economy like Nepal. In this regards, Seth (1997) argues that establishment of a tobacco industry by investing 300 million Indian rupees can generate 300 jobs whereas same amount of investment in hotel can create jobs to 600 people in India. This argument is further supported by Aditya (1998) in case of Indian tourist market analysis in Nepal. He concludes that Nepalese tourism industry is not capital intensive having relatively high capital output ratio than other sectors.

## **2.4 Review of Nepalese Literature**

A number of studies are available on tourism in Nepal, each devoted to some aspects of Nepalese tourism. These studies ranged from macro level studies to more specific micro level studies. This section is intended to review the major literature on Nepalese tourism under the two broad headings: macro and micro levels. There are a number of macro level studies on tourism in Nepal dealing with problems and prospects of Nepalese tourism at aggregate level. This section is devoted to the review of such important macro level studies.

The study of Burger (1978) focused on various economic benefits of tourism. The main objective of the study was to analyze the impact of tourism on Nepalese economy. The major findings of the study were tourist flow to Nepal and have direct and indirect impact on the economy, tourism in effective and promising instrument for earning foreign exchange, it requires heavy investment from public and private sector, seasonality factor in tourism industry have crucial role in the determination of income.

The study has worked out on tourist arrival and tourist expenditure pattern of the total tourists nearly 80-87 percent were found visiting Nepal for pleasure purposes followed by trekking and mountaineering purpose. Both Indian and non-Indian tourists have a seasonal bias, with a relatively lower preference for visiting Nepal during rainy season.

Karan and Mather (1985) analyzed tourism and environment in the Mount Everest region and came up with the concern for the more tensed environment in the Khumbu region. They observed that processes of change have brought a plethora of environmental disruption to this formerly remote, unspoiled region, a major factor being tourism and the hordes of overseas tourists and trekkers. They indicated that tourists usually arrive between May and October and have become a scourge of deforestation because of their demand for firewood. They pointed out that waste water and refuse from the hotels have caused local pollution, although the smell of pine trees is still stronger than the stench of waste water.

## **2.5 Investment in Tourism**

The demand for tourism depends upon the size of investment made in the tourism sector. Rajbhandari (1990) analyzed investment opportunities in tourism in Nepal and opined that there exist immense potentialities for the promotion and development of tourism industry with apparently unlimited scope of expansion. Due to this, the study recommended that adequate investment should be made in hotels, resorts, and other tourism infrastructure.

## **2.6 Income and Employment from Tourism**

The investment in tourism is usually considered productive if it is able to increase income and employment from tourism. Hence, the income and employment from tourism is one of the important areas of tourism studies. The Nepal Rastra Bank, Kathmandu, Nepal carried out a study on 'Income and Employment Generation from Tourism in Nepal' (1989). It estimated average per capita per day tourist expenditure at US\$ 15 (excluding international airfares) and the average length of tourists stay at 9.3 nights per visit. Tourism and related industries were estimated to have earned in total US\$ 56 million in 1986/87 of which tourism sector alone shared 92.7 percent (US\$ 52 million). Of the amount, earned by tourism sector, earnings of hotels constituted 24.6 percent (US\$ 13 million), travel agencies 17.3 percent (US\$ 9 million), trekking agencies 2.8 percent (US\$ 1 million) and airlines 55.4 percent (US\$ 29 million). Altogether, 11176 persons were found directly employed in the tourism sectors. Of the persons directly employed in hotels shared 52.9 percent, airlines 24.5 percent, travel agencies 13.8 percent, and trekker agencies 8.8 percent. The study also made several recommendations to promote tourism industry in Nepal.

Upadhyaya, (2003), in his Ph.D. dissertation entitled “Tourism as a Leading Sector in Economic Development of Nepal” has highlighted the importance of tourism in economic development for the promotion and development of tourism sector in Nepal. Dr. Upadhyaya’s suggestions were as follows:

- a. Various dimensions of tourism need to be highlighted from time to time.
- b. For rapid and sustainable expansion of tourism sector quantity of tourism infrastructure need to be constantly monitored.



- c. Nepal should be able to attract tourists from diverse income groups by catering their respective needs and presenting Nepal as the destination for all types of tourists.
- d. Governments must define and develop strategy to promote rural tourism to enhance employments and to reduce widespread poverty and regional inequality.
- e. Film shooting must be encouraged as it is in practice on Switzerland, Thailand and Maldives, which will be helpful in promoting Nepal's tourism globally.
- f. We have to open and develop new trekking routes that can contribute to the employment of rural economy, help to increase living standard of the people in remote area and the income obtained remain in the local community.
- g. Legal framework must be made to facilitate the growth of tourism sector of the economy.

This study concluded that if tourism sector is given proper attention, it has the potential to promote overall economic development of Nepal. This sector has an edge over commodity producing sector like agriculture and industry.

Upadhyay and Agrawal,(2006), in their book titled “Tourism and Economic Development of Nepal” have dealt with different aspects of tourism such as the concepts on tourism, features of Nepalese Economy, pattern of tourism development, impacts of tourism on the economy and globalization. They also reviewed tourism policies and recommended appropriate constitutional and legal framework for tourism development.

Upadhyay (2008) in his article entitled “A case study of rural tourism in Sirubari, Bandipur and Ghalegaon” has rendered the profound findings of rural tourism regarding case studies of Sirubari, Bandipur and Ghalegaon. Rural tourism has been recognized as an important tool for poverty alleviation. Although it has been encouraged by incorporating rural tourism in governments plan as policy its progress is rather moving at a glacial pace. Since the Ninth Plan (1997-2002) till the Interim Plan (2008-2010) can be promoted. Sirubari, Ghalegaon and Bandipur are at the forefront of rural tourism model.

People from mountain areas are benefitted by tourism but there is great leakage in their income. Estimates from the ADB and the MOTCA in Nepal suggest that on average only 6 percent of tourist expenditure actually goes to rural areas (Touch Toss 1990). Studies by SNV shows an even less rosy picture for the remote country side, estimating that of the 57 million USD per year spent by trekking tourist visiting rural areas in the hills and mountain of Nepal less than 10 percent is spent locally with remote district receiving less than 1 percent of the total tourism revenue (SNV 2003) A review of 24 case studies in Asia indicated economic gains for all sections of the community, but with those better off gaining the most (Shah, 2000). Some main reasons why the poor seem to have been unable to benefit much from tourism are that the linkage between tourism and the local production system are weak and supply-side planning and management have been poor and in some cases, even completely ignored (Baral, 2010).

In Nepal, tourism generates about 122,745 direct employments and until recently, tourism was the highest foreign exchange earning industry. Tourism's share in total foreign exchange earning peaked at 21.4 percent in 1996 and then declined to 11.1 percent in 2004. Today, the government has identified tourism as a strong sector, contributing significantly to socio-economic development (Sherpa, 2009).

Upadhyaya (2003) studied about tourism as the leading sectors of development in Nepal. He found that Nepalese economy is moving gradually on the path of economic development with tourism sector as a leading role player in the economy. The analysis has revealed that the tourism sector has been playing its significant role in the economy. It has been estimated that the activities related to tourism sector has strong inducement effect on other activities of the economy. The foreign exchange earnings from tourism sector has been found to be an important determinants of governments developmental expenditure and regular expenditure. And he has prescribed twenty one policies to develop tourism in Nepal.

Similarly, Upadhyay (2009) conducted a study about the status of women in Nepalese tourism and highlighted the gender tourism linkage.

Tuladhar (1993) aimed to study the development of international tourism in Nepal from the view of resources, the level of its exploitation, utilization and possibilities of

its improvements. The main objectives of the study were to achieve quality products and quality sources, to achieve significant position amongst the total invisible income from visible export of the country, to enhance products and services with international standard and to transfer international tourism into highly effective branches amidst the running Nepalese economic activities phenomenon are equally valid in resource management. Visitor continuously seek to see the combination of unusual events from more and more exotic land. He expressed his findings as that the tourism is a dream industry, in this business one sells fantasy, sky is the only limit. For better survivals the tourism products are to be differentiated. He declared that, it is mandatory to enhance tourism products and services with international standard and continue with the efforts for transferring the international tourism into highly effective branches amidst the running Nepalese economic stamina.

His main findings were that, in spite of tremendous diversities and opportunities principal tourism products could not be sold due to the dearth of support infrastructure and proper marketing, Nepal has not been able to earn as per the growth of visitors or compared to market potential. His major contribution in the study was about the policy instrument needed for the improvements and standardization of tourism industry.

Khadka (1993) studied the performance and efficiency of hotel investment in generating foreign exchange earnings. Khadka shed some light on the linkage between tourism and the domestic economy. The study has examined the impact of tourism under the conditions of both the constrained and unconstrained supplying capacities of domestic economy using an economy wide input output model. Import leakages estimated under the limited supplying capacity of the domestic economy were found to be much higher than in an unconstrained situation. The study also shows that hotel bed occupancy rate, double bed rooms, price and marketing activities are found to be important factors for the performance of hotel industry.

Pradhanaga (1993) aimed to study the changing pattern of tourist consumption and its economic impact on employment, export and national revenue. It analyzed the direct, indirect and induced effects of the tourist expenditure on Nepalese economy. The study examines both forward and backward linkages of tourism, imports of goods and services and employment generation. He further concludes that leakage of foreign exchange

earnings, high import contents, seasonal fluctuation in demand for tourism and overdependence on seasonality factors have been the major weakness of the tourism industry.

The Environmental Protection Study of Phewa Lake (1993) is another important study on tourism in Pokhara. It dealt with various issues of tourism in Pokhara and specially how to protect environment and control pollution in Pokhara. It indicated that just over ten percent of income to Pokhara comes from tourist-related commerce, which was apparently increasing. Tourist usage of Pokhara was high, but the majority of tourists were low paying tourists who were more interested in trekking. The average length of stay of tourists in Pokhara and the watershed was between 6 and seven days. Many tourists did not find in Pokhara what they are seeking: a quite small village in a beautiful setting where they can walk, bicycle, fish swim, enjoy nature, shop, tour, see magnificent sights, and 'primitive' but pleasant surroundings. Pokhara was becoming less attractive to tourists because of increased density of population and buildings, poor sanitation practices in hotels and restaurants, greater congestion, more noise, and more aggressive shop and stall owners.

Likewise, the Second Tourism Infrastructure Project 1995 reviewed the progress of the different past activities and proposed various activities for implementation. The activities included Pokhara environmental improvements such as public environmental education, sanitation improvements, septage collection and disposal, solid waste management, Pardi Khahare road improvement and drainage improvements; development of Eco-tourism in Manaslu Area; domestic airport improvements in Bharatpur, Biratnagar, Jomson, Jumla, Lukla, Nepalgunj, and Pokhara; and establishing a Cultural Display Centre in Kathmandu.

Baskota and Sharma (1995) analyzed and assessed the macro trends in the tourism sector, the types of mountain tourism activities and the areas where such activities are conducted. It assessed the impact of tourism in mountain areas, tourism's policy and public and private institutions in Nepal.

Similarly, Baskota and Sharma (1998) conducted a case study of Phewa Lake, Pokhara and discussed about the linkage of the Mountain Tourism and local community development from the perspective of sustainable tourism development.

Rogers (1997) analyzed tourism development and change in the Sagarmatha. The study concluded that a complexity of issues is likely to contribute towards an increase in tourism activity in the Sagarmatha National Park. But, it is unlikely that this development will be sustainable unless a rigorous ecotourism strategy is developed and complied with.

Robinson (1997) conducted a case study of tourism of Sagarmatha (Everest) National Park in an effort to examine strategies for alternative tourism. It concluded that the longevity and prosperity of tourism in culturally and economically fragile areas depends not only on the tourism industry's ability to identify and develop tourism opportunities, but also on the industry's ability to conserve a region's natural and cultural assets. Although the region is not without outstanding environmental and socio-cultural the region is not without outstanding environmental and socio-cultural issues, the new approaches, which are at present being implemented in the park, offer optimism for its long-term prospects as a viable adventure tourism destination. Alternative tourism brings with it the potential to inflict both beneficial and detrimental impacts, and for other remote tourism destinations in the Third World, which offer exciting opportunities for the development of alternative forms of tourism, Sagarmatha National Park offers encouragement that alternative tourism designs can exist that effectively balance local economic development with ecological and cultural conservation.

The analysis of sustainable tourism in the Everest region of Nepal argued that tourism as it has developed in Solu-Khumbu could not be described as a model form of ecotourism (Rogers and Aitchison, 1998). The environmental problems associated with woodcutting and the disposal of human and consumer waste, for example, are inconsistent with the ideals of ecotourism. While there are problems and issues, the evidence would suggest that a worthy form of ecotourism has slowly evolved in the region. The establishment of agencies and bodies in the region, with a remit to balance conservation and development objectives (e.g. forestry user groups) is also a positive sign. Moreover, there are many organizations concerned with tourism conservation and development. With such an intricate web of stakeholders it is likely to be difficult for the parties, to share a common vision, and to jointly agree on the desirable pace and direction of change; not least because they each have their own se

of economic, social or environmental priorities. Many organizations are subject to problems of overlap and confusion in regard to areas of responsibility.

Like these studies, there are also a number of studies available on tourism in and around Pokhara region. The major ones have been reviewed in the following section.

Pokhara is an important tourist destination of Nepal and hence efforts have been made to promote tourism in and around Pokhara. The emphasis has been placed from time to time for the development of tourism in Pokhara nearby destinations. The Nepal Tourism Development Program conducted by Touche Ross (1990) recommended several programs for tourism development with an estimated project cost of US\$ 14.6 million.

These programs included upgrading of conservation area, Pokhara airport, lakeside tourist trail and garden, Sarangkot access road, eco-tourism development and circuit trekking, and conservation area road, eco-tourism development and circuit trekking, and conservation area improvement in Gorkha. The project was designed and implemented specifically to improve the environmental conditions in the project areas. Significant improvements in the physical health and living conditions of the low income group households such as sanitation and drainage were expected from the individual components.

Shrestha (1998) in his Ph.D. thesis aimed to study contribution of tourism in the Nepalese economy, assess and evaluate the existing tourism marketing and promotional efforts and its impacts on tourism development in Nepal.

Arya (1999) is another important study in planning models of tourism development with reference to Nepal. The study reflected the fact that by increasing tourist numbers, the income size cannot be enlarged rather the day spent in tour and expenses per day plays important role in tourist earning.

Shrestha (1999) has studied about the problems and prospects of tourism in Nepal. The main aim of her study to assess the trend of tourism development in the economy, to review tourism policies and plans, to enquire into the existing problems. She has concluded that despite various problems, the prospects of tourism are bright in generating employment.

Sharma (2008) examined the relationship between investment and employment in Pokhara city and found that 10412 people are directly employed by the tourism sector in Pokhara as a result of 18.6 billion rupees private and 13 billion rupees public investment. He found that 97 percent investment is in Hotel and Restaurant business alone.

Similarly, Empowering Women of Nepal (2009), a local NGO of Pokhara studied various socio-economic status of women employment in Pokhara focused on tourism sector and found that only 85 tourism enterprises were directly run by women entrepreneur fully engaging 170 women. Out of that female employee, about 60 percent were in 20-30 years of age groups and 41.2 percent were unmarried. Moreover, about 79 percent of them were employed in Hotels reaping minimum wage of only less than 100 rupees a day.

## **2.7 Research Gap**

Most of the studies were done at national and international level in aggregate form for a certain region only. No research on income, employment and investment in tourism sector of Pokhara is found. Not a single research is carried out on businesswise and location wise data from the household survey for Pokhara. None of the research done so far could capture such variables regarding tourism industry of Pokhara.

Therefore the businesswise data collection and headcount measurement of each business household for income, employment, investment, saving and expenditure in Pokhara is a unique and newest research in context of tourism industry in Nepal. The measurement of income and employment generation by the investment in tourism sector of Pokhara is of crucial importance to the investors and policy makers for the fast growing tourism industry of Pokhara. The calculation of businesswise economic performance and returns on investment analysis will give important outcome for the planning and policy implementation in the tourism development process. Moreover, the present study will yield important benchmark value for the future research as it comprises the detail survey of tourism related business households in Pokhara. Therefore, this study will add some values on the economic impact measurement of tourism industry and fulfill the existing research gap.

## **CHAPTER III**

### **RESEARCH METHODOLOGY**

#### **3.1 Description of Study Area**

The major objective of this study is to analyze the relationship between employment and investment in tourism industry in Pokhara. It is a beautiful place in Nepal, so people call it Paradise Pokhara and is not only a tourism hub of western Nepal but is also a significant tourism destination in Nepal and South Asia. It lies 200 km west from Kathmandu and situated between the Great Himalayas and Mahabharat Range. Pokhara is the gateway to world famous Annapurna circuit trekking trail. Out of total trekkers in Annapurna Conservation Area about 43 percent directly come to Pokhara and rest from other entry points. It is an important place for trekking, hiking, paragliding, rafting, mountain biking, mountain flight, pony trek, and ultra-light flight. Moreover, International Mountain Museum and Gorkha Museum are another special attractions for tourists. About 30 percent of total tourists visiting Nepal, also visit Pokhara either for trekking or for sight seeing ( Nepal Tourism Statistics, 2010). Major 43 types of businesses are there in 25 different locations where 1908 tourism related business households are scattered.

#### **3.2 Population and Sample Size**

The study area is solely a tourist business area in Pokhara as defined by Sarangkot Village Development Committee and Pokhara Sub-metropolis. Many studies on the subject conducted by Tourism Council Pokhara and Nepal Tourism Board are focused there as tourist business spot. These businesses are scattered in the Ward Number 6, 7 and 17 of Pokhara Sub-metropolis and Ward Number 6 and 7 of Sarangkot VDC. Due to the dearth of authentic information on the number of household engaged in these areas regarding the business activities under consideration, a comprehensive baseline survey was made before administering the structured questionnaire for primary information collection.

According to that baseline survey conducted by the researcher himself in above identified area, it was found that there are 1908 households directly involved in



tourism related business. These businesses are categorized in 43 different businesses in 25 major business locations of Pokhara. Therefore, the study is focused only in these wards and locations. The survey includes complete enumeration of all 1908 households involved in the tourism industry for data collection. The data from 28 tourism related services and institutions were also collected.

The population of the study is 1908 households which comprises 43 business categories. These 43 general business categories were further grouped into four main categories as Travel Related business, Retail Trade business, Tourist Product business and Fooding and Lodging business. To find out income, employment and investment in each business, a comprehensive head count survey for all 1908 households was carried out. To develop comprehensive data base of tourism business in Pokhara, a little amount of financial support was taken from Nepal Tourism Board, Kathmandu, Nepal.

### **3.3 Survey Method**

The survey was carried out through person to person interviews in respondent's homes and offices in all business households. The type of business, frequency of tourists visit, time and size of employment, investment in building and business and location information were included in the structured questionnaire.

### **3.4 Survey Period**

The survey period of the study was from January 2009 to June 2009.

### **3.5 Secondary Data**

The main sources of the secondary data used in this research are various issues of Nepal Tourism Statistics and Economic Survey published by the Government of Nepal. Apart from these, publications of Pokhara Tourism Council, Journals and articles related to tourism industry published by various institutions, ACAP publication, International Mountain Museum publications are also used to analyze the study.

## **3.6 Data Analysis Tools and Variables**

### **3.6.1 Regression Analysis with Dummy Variables (ANOVA MODEL)**

Our assumption in the analysis is that the employment in tourism industry is mainly influenced by investment. But there are many other qualitative factors which can influence employment. The impact of investment on employment in different business may be different, so it is necessary to estimate the effect of other factors like business category by using regression equation with dummy variables. To find out the differences in mean employment in different business category and to test their statistical significance, regression analysis with STATA 11 has been carried out.

In this analysis the dependent variable is employment and independent variable is investment. The qualitative factor that may have some influences on employment is business category and this may further be subdivided into four main categories: Travel Related business, Retail Trade business, Tourist Product business and Fooding and Lodging business. We can quantify such attributes by constructing artificial variables that take on values of 1 or 0, 1 indicating the presence of that attribute and 0 indicating the absence of that attribute.

The dummy variables used here are  $D_1$ ,  $D_2$ ,  $D_3$  and  $D_4$ , and these are the four categories of business. To overcome possible Dummy Variable Trap,  $D_1$  was used as the reference category and  $D_2$ ,  $D_3$  and  $D_4$  are introduced in the model. In the equation the intercept value represents the mean value of the reference category ( $D_1$ ) and the coefficients attached to the dummy variables tell us by how much the value of the intercept that receives the value of 1 differs from the intercept coefficient of the benchmark category.

For this purpose, first, regression of employment on investment was estimated, In Second stage, regression of employment with dummy variables was estimated and in third stage regression of employment on investment and dummy variables was carried out.

### 3.6.2 Empirical ANOVA Model with Investment

$$\text{Emp} = f(\text{InvttlMLN})$$

Where ,

Emp =No. of people employed in tourism sector in Pokhara .

InvttlMLN = Total business investment in Millions Rupees.

### 3.6.3 Empirical ANOVA Model with Dummy Variables

$$\text{Emp} = f ( D_1, D_2, D_3, D_4 ) \text{ where } D_1, D_2, D_3, D_4 \text{ are dummy variables.}$$

Here  $D_1, D_2, D_3, D_4$  are the four categories of a business type dummy variables.

Then the regression equation becomes,

$$\text{Emp} = B_0 + B_1 D_1 + B_2 D_2 + B_3 D_3 + B_4 D_4 + u_i$$

Where  $D_1 = 1$ , if the business is Travel Related business and  $D_1 = 0$  otherwise

$D_2 = 1$ , if the business is General retail business and  $D_2 = 0$  otherwise

$D_3 = 1$ , if the business is related to Tourist Product and  $D_3 = 0$  otherwise

$D_4 = 1$  , if the business is related to Fooding and Lodging business and  $D_4 = 0$

Otherwise and  $u_i$  = disturbance term

### 3.6.4 ANCOVA Model ( With Combined Effect of Investment and Dummy Variables)

In order to estimate the combined effect of investment and qualitative factors, regression equation with employment as the dependent variable and investment and dummy variables as the independent variables were used.

For this purpose the model becomes,

$$\text{Emp} = B_0 + B_1 D_1 + B_2 D_2 + B_3 D_3 + B_4 D_4 + B_5 \text{ InvttlMLN} + U_i$$

Where  $B_0$  is intercept and  $B_2, B_3, B_4$  and  $B_5$  are the coefficients. Here  $B_0$  gives the rate of change of employment with respect to investment.

### 3.7 Variables and Model Specification

The dependent variable of the model is level of employment due to tourism industry. The independent variables are the investment. To analyze the qualitative aspect of the tourism and its dimension, different dummies are also used. These dummies consist of different business types and business locations. By using these variables the following models are specified:

#### Model I

$$Emp_i = B_0 + B_1 InvttlMLN_i + U_i \text{ (for whole business type)}$$

Where

$InvttlMLN_i$  = total investment in million rupees and  $U_i$  = disturbance term and  $i = 1$  to 1908

#### Model II

$$Emp_i = B_0 + B_1 InvttlMLN_i + U_i \text{ (individually for 33 types of business)}$$

#### Model III

$$Emp_i = B_0 + B_1 InvttlMLN_i + U_i \text{ (individually for 20 business locations)}$$

#### Model IV

ANOVA Model

$$Emp = B_0 + B_2 D_2 + B_3 D_3 + B_4 D_4 + U_i$$

Where  $B_2, B_3, B_4$  are the coefficients of dummies and  $B_0$  is the intercept term.

$D_1 = 1$ , if the business is Travel Related business and  $D_1 = 0$  otherwise

$D_2 = 1$ , if the business is Retail Trade business and  $D_2 = 0$  otherwise

$D_3 = 1$ , if the business is related to Tourist Product and  $D_3 = 0$  otherwise

$D_4=1$ , if the business is related to Fooding and Lodging business and  $D_4=0$  otherwise and  $u_i$  = disturbance term

Here  $D_1$  is taken as the reference variable .

### **Model V**

#### ANCOVA MODEL

$$\text{Emp} = B_0 + B_2D_2 + B_3D_3 + B_4D_4 + B_5 \text{ InvttlMLN}_i + U_i$$

Where  $B_2$ ,  $B_3$  and  $B_4$  are the coefficients of dummies and  $B_0$  is the intercept term.

$D_1= 1$ , if the business is Travel Related business and  $D_1=0$  otherwise

$D_2= 1$ , if the business is Retail Trade business and  $D_2=0$  otherwise

$D_3=1$ , if the business is related to Tourist Product and  $D_3=0$  otherwise

$D_4=1$ , if the business is related to Fooding and Lodging business and  $D_4=0$  otherwise and  $U_i$  = disturbance term

### **Model VI**

Direct employment is one of the potential of tourism enterprises in any location where it is developed. Tourism Enterprises are defined business units which provide direct services to tourist in a given tourist destination. This includes such services as hotel services, souvenir shops, tour guide, special transport services (such as boat, horse riding, cycling, motor cycle etc.). In Pokhara region, four major tourism enterprises were identified to provide direct employment opportunities in the region. These are Travel Related business, Retail trade business, Tourist Product business and Fooding and Lodging business services. In four categories there were forty three business types in twenty five locations. Apart from these some other miscellaneous businesses creating direct employments were also recorded from the field survey.

The Total Direct Employment generated by these four Tourism enterprises and miscellaneous business was derived by the simple formula-

TDE= Sum of Employment in Travel Related business, Retail Trade business , Tourist Product business, Fooding and Lodging business and miscellaneous businesses.

Where TDE is the Total Direct Employment in Tourism related business in Pokhara.

In a similar way, the total investment, total income, total expenditure and total saving were calculated by simple addition of individual data of 43 businesses in 25 locations. Similarly, data from 28 institutions and various other sources were also collected. The surveyed data were tabulated, presented and analyzed by using STATA 11.

In order to establish and estimate the functional relationship among the dependent and independent variable using simple regression analysis, various regression diagnostics test are performed. Probable drawbacks of outliers in the variables are detected by plotting them and found very few such outlier. Whatever found are replaced by the average value which may not deteriorate the degrees of freedom. To check the normality, Skewness-Kurtosis (SK) test is performed as provided built-in in STATA 11 software. The missing values and omitted variables are treated using Ramsey RESET test using STATA 11. The variance inflation factor (VIF) is used to detect whether there is the presence of multicollinearity. Moreover, to check the multicollinearity problem if any, measurement and scaling of the variable used and the functional forms are adjusted accordingly without distorting the theoretical considerations (Appendix 8).

### **3.9 Hypotheses**

In present study our assumption is that the employment in tourism industry is mainly influenced by investment. But there may be some other qualitative factors which can influence employment. The impact of investment on employment in different business may be different, so it is necessary to estimate the effect of other factors like business category and business locations by using regression equation with dummy variables to assess the impact of qualitative variables. To find out the differences in mean employment in different business category and to test their statistical significance, linear regression analysis will be applied. Under hypothesis testing procedure both the null and alternative hypothesis has been built as under:

### 3.9.1 For Empirical ANOVA Model with Investment

The model is,

$$\text{Emp} = B_0 + B_1 \text{Inv} + u_i$$

#### Hypothesis about regression constant

**a. Null Hypothesis:**  $H_0: B_0 = 0$

It means that there exist no significant relationship between the employment and investment.

**b. Alternative hypothesis:**  $H_A: B_0 \neq 0$

It means that there exists significant relationship between the employment and investment.

#### Hypothesis about regression coefficient

**a. Null Hypothesis:**  $H_0: B_1 = 0$

It means that there is no significant effect of investment on employment.

**Alternative hypothesis:**  $H_A: B_1 \neq 0$

It means that there is significant effect of investment on employment. Accordingly, same types of null and alternative hypothesis are set in 20 different business locations and for 33 business categories.

### 3.9.2 For Empirical ANOVA Model with Dummy Variables Only

The model is,

$$\text{Emp} = B_0 + B_2 D_2 + B_3 D_3 + B_4 D_4 + u_i$$

**Null Hypothesis:**  $H_0: B_2 = B_3 = B_4 = 0$

It means that there is no significant effect in mean employment level due to the difference in business category.

**Alternative hypothesis:  $H_A: B_2, B_3, B_4 \neq 0$**

It means that there is significant effect in mean employment level due to the difference in business category.

### **3.9.3 For ANCOVA Model (With Combined Effect of Investment and Dummy Variables)**

In order to estimate the combined effect of investment and qualitative factors, regression equation with employment as the dependent variable and investment and dummy variables as the independent variables ( ANCOVA model) was used.

The model is,

$$\text{Emp} = B_0 + B_2 D_2 + B_3 D_3 + B_4 D_4 + B_5 \text{InvttlMLN} + U_i$$

**Null Hypothesis:  $H_0: B_2 = B_3 = B_4 = 0$**

It means that there is no significant effect in mean employment level due to the difference in business category and investment.

**Alternative hypothesis:  $H_A: B_2, B_3, B_4 \neq 0$**

It means that there is significant effect in mean employment level due to the difference in business category and investment.



## CHAPTER IV

### DATA ANALYSIS

#### 4.1 Income Employment and Investment

The income, employment and investment are the key variables in this study. Altogether there are 43 types of tourism business operating in Pokhara. These businesses were further categorized into four groups: Travel Related business, Retail Trade business, Tourist Product business and Fooding and Lodging business. The details of these are given in Table 4, 5, 6 and 7 respectively. Also the information about investment, income and employment from various institutional sources are given in Table 8 below. Out of 43 businesses 10 types of businesses were discarded for regression analysis because the numbers of observations were less than 10. Similarly 5 business locations were also discarded for regression analysis.

##### 4.1.1 Travel Related Business

There are 123 households based on Travel Related business and the totals of 663 persons are employed. The annual turnover from these businesses is Rs. 86.8975 million. The total investment is Rs. 280.78 million. Tours and Travel business occupies the highest position in employment, investment and revenue. Details are in Table 4.

**Table 4 Income, Employment and Investment in Travel Related business**

(Amount in Million Rs.)

S.N	Business type	No. of Business	Total Employment	Total Investment	Annual Revenue
1	Airlines Office	7	35	17.5	2.45
2	Tours and travels	63	336	148	43.56
3	Trekking and rafting	29	167	71.1	22.35
4	Cycle/motorbike	17	50	4.28	1.43
5	Paragliding	7	75	39.9	17.08
	<b>Total</b>	<b>123</b>	<b>663</b>	<b>280.78</b>	<b>86.90</b>

*Source: Calculation from the field survey data , 2009.*

#### 4.1.2 Retail Trade Business

There are 624 households of Retail Trade business. Among 15 types of Retail Trade business, grocery alone occupies 398 households. Grocery business has created employment for 962 people. The annual income generated by grocery is Rs. 25.64 million. Altogether the investment made on the Retail Trade business is Rs.1316.28 million. The details are given in Table 5.

**Table 5 Income, Employment and Investment in Retail Trade business**

(Amount in Million Rs.)

S.N.	Business type	No. of Business	Total Employment	Total Investment	Annual Revenue
1	Books/stationery	32	130	76.6	21.07
2	Cold store	19	38	11.96	1.5732
3	Bank and Finance	10	134	854	145.4
4	Barber	32	77	4.315	4.1755
5	Departmental store	11	71	101	20.2
6	Electronics Shop	11	26	5.745	1.3305
7	Photo /Accessories	10	34	17.855	4.3025
8	Fancy shop	7	27	5.9	1.1975
9	Flower nursery	5	16	1.1	0.37
10	Fresh House	34	88	8.82	1.86
11	Grocery	398	962	123.855	25.6412
12	Hardware supply	7	42	53.5	7.925
13	Medical shop	27	86	23.125	7.125
14	Music shop	14	35	17.05	7.4812
15	Beauty Parlour	7	28	11.46	2.855
	<b>Total</b>	<b>624</b>	<b>1794</b>	<b>1316.285</b>	<b>252.50675</b>

Source: Calculation from the field survey data, 2009.

### 4.1.3 Tourist Product Business

There are 320 households of Tourist Product business. Among 14 types of Tourist Product business Trekking equipment shop alone occupies 45 households. Trekking equipment business has created employment for 158 people. The annual income generated by Trekking equipment is Rs. 28.74 million. Altogether the investment made on the Tourist Product business is Rs. 436.74million. The details are given in Table 6.

**Table 6 Income, Employment and Investment in Tourist Product business**

(Amount in Million Rs.)

S.N.	Business type	No. of Business	Total Employment	Total Investment	Annual Revenue
1	Art craft and gift shop	36	98	68.725	13.741
2	Embroidery	15	45	10.4	4.5875
3	Garment shop	44	117	51.43	20.4385
4	Handicraft shop	31	90	69.725	26.4325
5	Kashmiri product shop	16	52	13.1	4.53
6	Jewelery shop	21	75	27.2	8.3675
7	Thanka Shop	16	38	12.725	4.1975
8	Tibettan good shop	19	40	24.996	10.1412
9	Pasmina Shop	7	21	12.5	5.65
10	Dress shop	29	71	16.29	5.73525
11	Curio shop	19	56	26.3	12.332
12	Fruits and vegetable shop	16	32	3.025	0.98
13	Womens' product shop	6	18	5.925	2.415
14	Trek. Equipment shop	45	158	94.4	28.74
	<b>Total</b>	<b>320</b>	<b>911</b>	<b>436.741</b>	<b>148.28795</b>

Source: Calculation from the field survey data, 2009.

#### 4.1.4 Fooding and Lodging Business

There are 823 households of Fooding and Lodging business. Among 10 types of Fooding and Lodging businesses, Restaurant alone occupies 310 households. Restaurant business has created employment for 1541 people. Similarly Hotel and Lodge has created employment for 3881 people and it is the highest employment generating business. The annual income generated by Hotel and Lodge is Rs. 1,614.15 million. Altogether the investment made on the Fooding and Lodging business is Rs 13045.31 million. The details are given in Table 7.

**Table 7 Income, Employment and Investment in Fooding and Lodging business**

(Amount in Million Rs.)

S.N.	Business type	No. of Business	Total Employment	Total Investment	Annual Revenue
1	Hotel and lodge	284	3881	11,030.8	1,614.15
2	Guest House	93	873	1,479.70	294.03
3	Restaurant	310	1541	448.45	120.55
4	Tea and coffee shop	14	39	4.91	0.82
5	Laundry	19	65	6.65	2.43
6	Massage centre	9	38	2.8	1.32
7	Money changer	38	95	24.32	5.03
8	Bakery	10	58	12.20	2.24
9	Yoga and meditation	8	31	7.40	2.8
10	Communication Service	38	124	28.085	6.7505
	<b>Total</b>	<b>823</b>	<b>6745</b>	<b>13045.32</b>	<b>2050.12</b>

*Source: Calculation from the field survey data, 2009.*

#### 4.1.5 Various Institution and Sources

There are other various sources of income and employment like museums, temples, boating association and institutions like Annapurna Conservation Area Project(ACAP) and International Mountain Museum which can play significant role in income generation. The royalty collected by the ACAP alone in the year 2008 is

Rs. 130.80 million. The total employment created by various institutions and services are 2163 and the annual income generation is Rs.161.93 million. The details are given in Table 8 below.

**Table 8 Income and Employment from Various Institutions and Services**

(Amount in Million Rs.)

S.N.	Name of Institutions	No. of business firms	Employment	Annual Income
1	ACAP Royalty	1	178	130.80
2	Int. Mountain Museum	1	31	3.64
3	Fewa boat association	1	1500	8.76
4	Devi's fall	1	20	1.40
5	Mahendra Cave	1	12	1.95
6	Pony Trekking	1	10	0.40
7	Talbarahi temple	1	22	0.92
8	Bus, Van and Car service	19	373	5.0
9	Gupteswor Cave	1	29	8.90
10	Regional Museum	1	10	0.19
	<b>Total</b>	<b>28</b>	<b>2163</b>	<b>161.94</b>

*Source: Calculation from the field survey data, 2009.*

#### **4.1.6 Overall Analysis of Employment, Investment and Revenue**

The annual revenue generation from all the business related with tourism is Rs. 2699.75 million. Of which Fooding and Lodging business comprises 75.81 percent, Travel Related business occupies 3.21 percent, and Retail Trade business occupies 9.33 percent whereas, Tourist Product occupies 5.48 percent of the total income generated in a year. Lodging and fooding business is creating employment for 823 persons with 86 percent of total investment whereas Retail Trade business is creating employment for 624 people with only 8.72 percent of investment, meaning there is significant difference in employment creation capacity.

Therefore, it is clear that tourism has played a significant role in the creation of employment and income in Pokhara. The private investment of Rs.15079.12 million in tourism sector has created employment for 12,343 people. The details are given in Table 9.

**Table 9 Overall Analysis of Employment, Investment and Revenue**

(Amount in Million Rs.)

S.N.	Business Category	No. of Business	Total Employment	Total Investment	Annual Revenue
1	Travel Related business	123	663 (5.37%)	280.78 (1.86%)	86.90 (3.21%)
2	Fooding and Lodging business	823	6745 (54.64%)	13,045.32 (86.44%)	2,050.12 (75.81%)
3	Retail Trade Business	624	1,794 (14.53%)	1,316.29 (8.72%)	252.50 (9.33%)
4	Tourist Product business	320	911 (7.38%)	436.75 (2.89%)	148.29 (5.48%)
5	Miscellaneous Business	18	67 (0.54%)	12.0 (0.07%)	4.5 (0.16%)
6.	Various Institutional sources	28	2,163 (17.52%)	Na	161.94 (5.98%)
	<b>Total</b>	<b>1,936</b>	<b>12,343</b>	<b>15079.12</b>	<b>2699.75</b>

*Source: Calculation from the field survey data, 2009.*

#### **4.2 Relationship between Employment and Investment**

The Level of employment in the society is determined by various socio-economic factors. It is evidently found that the specific locations of the society are characterized by specific economic activities, so is the tourism sector also. As already described in previous chapters, Pokhara and the peripheral VDCs are endowed with high tourism potential. Even experiences reveal that most of the economic activities in that area are

related to tourism. Likewise, the employment levels of those areas are also directly and indirectly related to tourism investment besides others less influential factor.

#### 4.2.1 Model I

It was hypothesized that the investment in tourism sector is one of the most influential factor of employment generation in tourism sectors are positively related, other things remaining the same. To establish this fact numerically, investment made in tourism sector measured in million rupees is regressed with the number of employment recorded in the sampled zone for all business types as a whole and the results are reported as below.

$$\text{Emp}_i = 3.99 + 0.17 \text{ InvttlMLN}_i$$

$$\text{SE} \quad : (0.0951) \quad (0.0024)$$

$$\text{t-value:} \quad (41.92) \quad (70.31)$$

$$\text{p-value:} \quad (0.000) \quad (0.000)$$

$$\text{SK- value= N= 1908, F( 1, 1906 ) = 4943.59(0.0000) ; R}^2=0.7217$$

The regression result above reveals that there seems significantly positive relationship between the investment in tourism sector and the number of employment..

The regression output shows that the Probability>F= 0.0000, i.e.the model fits very well and is significant at less than 1% level of significance. The Adjusted R- Square = 0.7216 showing that the 72.16% of total variation in employment is explained by investment. And the proportion of the variations of employment explained by investment is also 72.16% which is justified by the value of R –Square = 72.16%.The closer association between Adjusted R-Square and R-Square shows the honest association between employment and investment. The two–tail p- value for investment is 0, it is less than 0.05, and therefore it shows that investment has a significant effect on employment at less than 15 % level of significance. The t-value for total investment is 70.31 and is significant at less than 1% level of significance.(Annex 9)

From the model it is found that when investment increases by one million Rupees, the total employment increases by 0.17 units on an average.

To estimate the overall employment generation capacity of every one million Rupees of investment in tourism industry.

Therefore the employment (Emp) =  $3.98 + 0.17(8.353715)$

[Because the estimated mean of total investment in millions Rupees is 8.353715]

=5.40

Therefore, from above analysis it is estimated that the average investment of one million Rupees in tourism industry of Pokhara generates employment for 5.40 persons.

#### **4.2.2 Model II**

There are forty three types of tourism business in Pokhara but only thirty three business are more than 10 in numbers. The model is applied individually to estimate employment in thirty three different business types operating in tourism industry of Pokhara. It was hypothesized that the investment in a business is one of the most influential factor of employment generation in tourism sectors and are positively related, other things remaining the same.

To establish this fact numerically, investment made in business types measured in million rupees is regressed with the number of employment recorded in that particular business for thirty three different business types individually, so regression were run for 33 business types and the model applied for 33 business types is

$$Emp_i = B_0 + B_1 \text{InvttlMLN}_i$$

The regression output for 33 business types are summarized in Table 10 below.



**Table 10 Regression Output of Employment on Investment in 33 Business Categories.**

S.N	Type of Business	Reg Coeff.	Reg. const	Std err.	t-value	P value %	R Square	Ad. R.SQ	F value	Prob> F	No of obs.
1	Art craft and gift shop	0.165	2.383	0.056	2.92	0.6	0.2	0.181	8.52	.0063	35
2	Bakery	2.432	2.83	0.874	2.78	2.4	0.49	0.42	7.73	.0239	10
3	Bank and Finance	0.082	6.34	0.026	3.07	1.5	0.54	0.48	9.42	.0154	10
4	Barber	9.3	1.18	5.6	1.66	10.8	0.086	0.055	2.76	.1076	31
5	Books/ Stationery Shop	0.51	2.81	0.106	4.87	0	0.44	0.42	23.74	.0000	32
6	Cold store	0.155	1.9	0.072	2.15	4.6	0.21	0.16	4.63	.04	19
7	Communication service	0.57	2.84	0.205	2.77	0.9	0.17	0.15	7.67	.0088	38
8	Curio Shop	-0.43	3.54	0.167	-2.58	1.9	0.28	0.23	6.67	.0194	19
9	Cycle/Motorbike business	-0.65	3.1	0.785	-0.83	41.8	0.044	-0.019	0.69	.4185	17
10	Departmental store	0.108	5.45	0.06	1.8	10.5	0.264	0.183	3.24	.1052	11
11	Dress Shop	0.06	2.41	0.314	0.19	84.9	0.0014	-0.035	0.04	.8492	29
12	Electronics Shop	0.615	2.04	0.175	3.5	0.7	0.57	0.52	12.24	.0067	11
13	Embroidery	-0.35	3.24	0.454	-0.77	45.4	0.04	-0.02	0.6	.4537	15
14	Fresh House	3.82	1.66	1.11	3.42	0.2	0.274	0.25	11.72	.0018	33
15	Fruits and Vegetable Shop	0.532	1.89	0.767	0.69	49.9	0.033	-0.035	0.48	.4987	16
16	Garment shop	0.724	2.57	0.147	0.49	62.5	0.0057	-0.017	0.24	.0057	44
17	Grocery	0.1905	2.35	0.062	3.06	0.2	0.023	0.0206	9.34	.0024	398
18	Guest House	0.091	7.92	0.0184	4.97	5.5	0.2138	0.205	24.75	.0000	93
19	Handicraft Shop	0.3039	2.21	0.0313	9.7	0	0.7645	0.756	94.13	.0000	31
20	Hotel and Lodge	0.1604	7.43	0.0049	32.51	0	0.7894	0.788	1056.87	.0000	284
21	Jewelery Shop	0.7783	2.56	0.6761	1.15	26.4	0.0652	0.016	1.33	.2640	21
22	Kashmiri product shop	0.0686	3.193	0.648	0.11	91.7	0.0008	-0.070	0.01	.9171	16
23	Laundry	-0.234	3.5	0.4272	-0.55	59	0.0175	-0.0403	0.3	.5895	19
24	Medical shop	0.918	2.39	0.1512	6.07	0	0.596	0.579	36.88	.0000	27
25	Money Changer	-0.062	2.54	0.2456	-0.25	80.1	0.0018	-0.025	0.06	.8006	38
26	Music Shop	0.249	2.195	0.149	1.67	12	0.189	0.122	2.81	.1198	14
27	Restaurant	0.52	4.389	0.067	7.67	0	0.174	0.171	58.8	.0000	280
28	Tea and Coffee Shop	-0.23	2.866	1.427	-0.16	87.4	0.002	-0.081	0.03	.8743	14
29	Thanka Shop	0.686	1.828	0.29	2.36	3.3	0.285	0.234	5.58	.0331	16
30	Tibettan good shop	-1.281	3.791	0.209	-6.11	0	0.687	0.668	37.3	.0000	19
31	Tours and Travels	0.336	4.615	0.133	2.51	1.5	0.098	0.082	6.3	.01	60
32	Trek. and Raft. Agency	0.944	3.442	0.492	1.92	6.6	0.12	0.087	3.68	.0656	29
33	Trekking equip. shop	0.282	2.919	0.114	2.45	1.8	0.122	0.102	6.03	.0182	45

Source: Calculation from the field survey data, 2009.

From above analysis it is found that out of 33 models, 11 models are found significant at less than 1% level of significance, 8 models are found significant at less than 10 % level of significance and remaining 14 models are found significant at more than 10% level of significance. However, the value of R square and adjusted R square are very

low in all models indicating poor explanation power of the model. The estimated employment level of each model are attached in the Appendix 4 and Appendix 6 .

### **4.2.3 Model III**

There are twenty five business locations in Pokhara .There are only twenty business locations where the number of business are more than 10 per location. The model is applied individually to estimate employment in twenty different business locations in Pokhara.

It was hypothesized that the investment of a particular business location is one of the most influential factor of employment generation in tourism sectors and are positively related, other things remaining the same.

To establish this fact numerically, investment made in particular business location measured in million rupees is regressed with the number of employment recorded in that particular business location for twenty different business locations individually, so regression were run for 20 business locations and the model applied here for 20 business location types is

$$\text{Emp}_i = B_0 + B_1 \text{InvttlMLN}_i$$

Regression result of employment on investment with business location is summarized in Table 11.

**Table 11 Regression Output of Employment on Investment in Twenty Business Locations**

S.N.	Business location	Reg Coeff.	Reg. const.	Std err.	t-value	P value %	R Square	Ad. R.SQ	F value	Prob> F	No of obs.
1	Baglung Buspark	0.927	3.04	0.0719	12.88	0	0.653	0.649	165.9	0.00	90
2	Barahi chowk to shantipatan	0.153	3.193	0.01	14.53	0	0.894	0.889	211.2	.000	27
3	Barahipath	0.205	3.624	0.01	17.26	0	0.955	0.951	298.0	.000	16
4	Barahipath to Hallanchowk	0.043	5.366	0.01	2.24	2.8	0.070	0.056	5.02	.000	68
5	Srijanachowk	-.8521	37.93	.150	-5.68	0	.7457	.7225	32.25	.000	13
6	Buspark Prithwichowk	1.232	2.902	0.04	27.45	0	0.830	0.829	753.6	.000	156
7	Chhorepatan	0.286	1.988	0.029	9.72	0	0.611	0.605	94.43	.0000	62
8	Damside	0.445	2.457	0.27	16.47	0	0.772	0.769	271.11	.0000	82
9	Fishtail gate to Hallanchok	0.3629	3.347	0.021	16.53	0	0.5029	0.5011	273.16	.0000	272
10	Hallanchowk - khahare –jarebar	0.429	2.842	0.0166	25.74	0	0.655	0.654	662.59	.0000	350
11	Jarebar to sahidchowk	0.5213	2.9104	0.041	12.51	0	0.596	0.592	156.47	.0000	108
12	Kaskikot-6 Bhakunde	0.011	3.15	0.196	0.06	95.4	0.0002	-0.0623	0	.9538	18
13	Kaskikot-6 pame	0.708	2.277	0.2011	3.52	0.2	0.3827	0.351	12.4	.0021	22
14	Lakeside(Proper)	0.244	3.686	0.0056	43.11	0	0.8153	0.814	1858.27	.0000	423
15	Mahendrapul	-0.015	14.465	0.008	-1.88	7.5	0.1436	0.102	3.52	.0746	23
16	Prithwichowk	-0.004	11.435	0.024	-0.18	85.5	0.0013	-0.037	0.03	.8551	28
17	Rastrabank - Mustang chok	0.156	3.751	0.006	23.19	0	0.921	0.9195	537.79	.0000	48
18	Sarangkot	0.657	3.767	0.121	5.41	0	0.493	0.476	29.23	.0000	32
19	Sedibagar	0.589	1.93	0.198	2.97	0.9	0.355	0.315	8.83	.0090	18
20	Srijanachowk	-0.852	37.93	0.15	-5.68	0	0.745	0.722	32.25	.0001	13

Source: Calculation from the field survey data, 2009.

From above analysis it is found that out of 20 models 15 models are found significant at less than 1% level of significance. Three models are found significant at less than 10 % level of significance and the remaining two models are found significant at above 85% level which is almost insignificant. The values of R square and adjusted R square are above 60 % except in few models. It indicates strong explanation power of the model. The employment generated by each location are estimated.(Appendix 5 and 7)

#### 4.2.4 Model IV

In this analysis the dependent variable is employment and independent variables is investment. The qualitative factor that may have some influences on employment is business category and this may further be subdivided into four main categories : Travel Related business, General retail business ,Tourist Product business and Fooding and Lodging business. The dummy variables used here are D<sub>1</sub>, D<sub>2</sub>, D<sub>3</sub> and D<sub>4</sub>, and these are the four categories of business. To overcome possible Dummy Variable Trap, D1 is used as the reference category and D<sub>2</sub>, D<sub>3</sub> and D<sub>4</sub> are introduced in the model. In the equation the intercept value represents the mean value of the reference category (D1) and the coefficients attached to the dummy variables tell us by how much the value of the intercept that receives the value of 1 differs from the intercept coefficient of the benchmark category.

Therefore the model is

$$\text{Emp} = B_0 + B_2 D_2 + B_3 D_3 + B_4 D_4$$

For this, regression of Employment on dummy variables was run and the output is reported as below. (For details see Annex 10)

$$\text{Emp}_i = 5.4198 - 2.5434 D_2 - 2.5548 D_3 + 2.7713 D_4$$

$$\text{Se} = (0.6537) (.7158) (.7623) (.7004)$$

$$T = (8.29) (-3.55) (-3.35) (3.96)$$

$$(0.000) * (0.000) * (0.001) * (0.000) *$$

Where \* indicates p-values at 5% level of significance.

Calculation of mean employment by the coefficients of dummy variables

$$\text{Emp}_i = 5.4198 - 2.5434 D_2 - 2.5548 D_3 + 2.7713 D_4 + U_i$$

Now Mean Emp for  $D_1=5.4198$

Mean Emp for  $D_2=5.4198-2.5434*D_2$  ( $D_2=1,0$  otherwise)

$$=2.8764$$

Mean Emp for  $D_3=5.4198-2.5548*D_3$  ( $D_3=1,0$  otherwise)

$$=2.865$$

Mean Emp for  $D_4=5.4198+2.7713 * D_4$  ( $D_4=1,0$  otherwise)

$$=8.1911$$

The regression output suggests that the Probability > F = 0.0000, i.e. the model fits the best and is significant at about 100% level of confidence. The Adjusted R-Square = 11.06 % showing that the ratio of variance in employment is explained by variations in the total investment by about 11.06%. And the proportion of the variations of employment explained by investment is 10.92% which is justified by the value of R-Square = 10.92 %. The value of Adjusted R-Square and R-Square shows the honest association between employment and investment. The two -tail p-values for  $D_1$ ,  $D_2$  and  $D_3$  are less than 0.05, therefore it shows that these business categories have significant effect on employment at 5% significant level. The root mean square error (RMSE) is the standard deviation of regression is 7.279 which is greater than zero indicating the model fits little away from the best fit position. The t-value for  $D_1$ ,  $D_2$  and  $D_3$  are -0.355, -3.35 and 3.96 are significant as their p-values are less than 0.05 that is they are statistically significant below the 5% level of significance.

Therefore the value of mean employment in Retail Trade business and Tourist Product business is somewhat similar but these values are statistically and significantly different from the Travel Related business and Fooding and Lodging business.

#### 4.2.5 Model V

In a similar way regression of employment on qualitative dummy variables and investment in million (InvttlMLN) is run to find the effect of investment on employment. The regression equation for this is,

$$\text{Emp} = B_0 + B_2D_2 + B_3D_3 + B_4D_4 + B_5 \text{InvttlMLN}_i$$

Here  $D_1$  is taken as the reference variable.

For this, regression of Employment on dummy variables (business category) and investment was run and the output is reported as below. (For details see Annex 11)

Therefore, the estimated regression equation for the employment is

$$\text{Emp}_i = 5.0331 - 2.5025D_2 - 2.3794D_3 + 0.5655D_4 + 0.1636\text{InvttlMLN}$$

$$\text{Se} = (0.3413) (0.3737) (0.3980) (0.3670) (0.0022)$$

$$t = (14.74) (-6.70) (-5.98) (1.54) (71.28)$$

$$(0.000) * (0.000) * (0.000) * (0.001) ** (0.000) *$$

Where \* indicates p-values significant below 5% level of significance and \*\* indicates 10% level of significance.

The Mean Employment for  $D_1$  category:

$$\text{Mean employment for } D_1 (\text{supressed variable}) = \text{Regression constant} = 5.0331$$

For  $D_2$  category

$$\text{Emp} = 5.0331 - 2.5025D_2 + 0.1636 \text{InvttlMLN} (D_2 = 1, 0 \text{ otherwise})$$

$$= 5.0331 - 2.5025 + 0.1636 (\text{mean value of total investment})$$

$$= 5.0331 - 2.5025 + 0.1636 * 8.353715$$

$$= 5.0331 - 2.5025 + 1.3666 = 3.89$$

For D<sub>3</sub> category

$$\text{Emp} = 5.0331 - 2.3794 D_3 + 0.1636 \text{ InvttlMLN} \quad (D_3=1, 0 \text{ otherwise})$$

$$= 5.0331 - 2.3794 + 0.1636 \text{ (mean value of total investment)}$$

$$= 5.0331 - 2.3794 + 0.1636 * 8.353715$$

$$= 5.0331 - 2.3794 + 1.3666 = 4.02$$

For D<sub>4</sub> category

$$\text{Emp} = 5.0331 + 0.5655 D_4 + 0.1636 \text{ InvttlMLN} \quad (D_4=1, 0 \text{ otherwise})$$

$$= 5.0331 + 0.5655 + 0.1636 \text{ (mean value of total investment)}$$

$$= 5.0331 + 0.5655 + 0.1636 * 8.353715$$

$$= 5.0331 + 0.5655 + 1.3666 = 6.9652$$

The regression output shows that the Probability > F = 0.0000, i.e. the model fits the best and is significant at about 100% level of confidence. The Adjusted R-Square = 11.06 % showing that the ratio of variance in employment is explained by variations in the total investment by about 11.06%. The values of Adjusted R-Square = 0.7572 and R-Square = 0.7577 shows the honest association between employment and investment. The two -tail p-values for D<sub>2</sub>, D<sub>3</sub> and D<sub>4</sub> are less than 0.05, therefore it shows that these business categories have significant effect on employment at 5% significance level. The root mean square error (Root MSE) is the standard deviation of regression is 3.8007 which is greater than zero indicating the model fits little away from the best fit position. The t-value for D<sub>2</sub>, D<sub>3</sub> and D<sub>4</sub> are -6.70, -5.98, 1.54 are significant as their p-values are less than 0.05 that is they are statistically significant below the 5% level of significance. Similarly the t-value for total investment is 71.28 significant below 5% level of significance.

The estimated equations of model IV and V are

$$\text{Emp}_i = 5.0331 - 2.5025 D_2 - 2.3794 D_3 + 0.5655 D_4 + 0.1636 \text{ InvttlMLN} \quad \text{and}$$

$$\text{Emp}_i = 5.4198 - 2.5434 D_2 - 2.5548 D_3 + 2.7713 D_4$$

The details of mean employment comparison among different variables are given in Table 12 below.

**Table 12 Cross Comparison Chart of Mean Employment in Different Category**

Regression of Employment	Mean employment in Travel Related business	Mean employment in Retail Trade business	Mean employment in Tourist Product business	Mean employment in Fooding and Lodging business
On investment and business Category	5.0331	3.89	4.02	6.9652
On business Category only	5.4198	2.8764	2.865	8.19
Change in Employment due to investment	-0.3867	1.0136	1.155	-1.2248

*Source: Calculation from the field survey data, 2009.*

The impact of additional investment in Travel Related business and Fooding and Lodging business is negative, the reason behind the result is that both of these categories use labor intensive technology. But other two categories of business use capital as well as labor intensive technology, so there is a significant increase in employment due to investment. So it can be concluded that employment can be increased if we focus investment in those categories where there is a massive use of capital as well as labor like in Retail Trade business and Tourist Product business.

#### **4.2.6 Model VI**

Direct employment is one of the potential of tourism enterprises in any location where it is developed. Tourism Enterprises are defined business units which provide direct services to tourist in a given tourist destination. This includes such services as hotel services, souvenir shops, tour guide, special transport services (such as boat, horse riding, cycling, motor cycle etc.). In Pokhara, four major tourism enterprises were identified to provide direct employment opportunities in the region. These are Travel



Related business, Retail Trade business , Tourist Product business and Fooding and Lodging business services. In four categories there were forty three business types in twenty five locations. Apart from these some other miscellaneous businesses creating direct employments were also recorded from the field survey. The Total Direct Employment (TDE) generated by these four Tourism business categories and miscellaneous businesses was derived by the simple formula-

TDE= Sum of Employment in Travel Related business, Retail Trade business ,Tourist Product business, Fooding and Lodging business , miscellaneous business and from different institutional sources. In a similar way, the total investment and total revenue generated are also calculated.

Therefore, the Total Direct Employment (TDE)  
 $=663+1794+911+6745+67+2163=12343$  persons.

Similarly, total investment = Rs.15091.12 million and

Total revenue (Income) = Rs.2704.25 million.

## **CHAPTER V**

### **FINDINGS, CONCLUSION AND RECOMMENDATION**

#### **5.1 Findings**

This research is conducted based on opinion of people joining in tourism industry (called as tourism entrepreneurs) in Pokhara. As it is the well-known fact that the Pokhara is a tourism hub of Nepal. Due to its natural beauty and geographical feature it is one of the famous tourist destinations in the world. It has a history of a century for tourism business. There is an investment of Billions of Rupees and Thousands of people are involved in the business and the number of entrepreneurs are growing day by day. Therefore, Pokhara is selected for this study. There are 43 types of tourism business in 25 different locations and these 1908 business households are broadly categorized into four main groups: Travel Related business, Fooding and Lodging business, Retail Trade business and Tourist Product business.

The study intends to view the tourism industry from the employment and investment perspective. The general objective of the study is to analyze the relationship between investment and employment for the tourism related business in Pokhara. And the specific objectives are to examine the relationship between investment and employment in different business types, categories and locations and to explore the most employment generating business types, categories and locations. One of the important specific objectives of the study is to compare and contrast the difference in mean level of employment generated by Travel Related business, Retail Trade business, Tourist Product business and Fooding and Lodging business.

Respondents in this research numbering 1936, of which 1908 are tourism business firms and rest 28 are tourism related institutions. The respondents comprise of vast array of tourism business from small groceries to star level hotels. The major categories of the business are Travel Related business, Retail Trade business, Tourist Product business and Fooding and Lodging business. Data gathering was carried out by conducting a survey of 1908 households and secondary data were collected from various offices of the government and different institutions related with tourism business.

Based on description, result of research data in each model can be detailed. The model one is the regression analysis of employment on overall investment in different business. Model two is the regression of employment on different business types individually. In this case, altogether 33 regression equations were estimated. Similarly model three is related with regression of employment on investment in 20 different business locations. Here also 20 regression equations are estimated. Similarly model four is related with regression of employment on qualitative variables i.e. dummy variables of business category only. The fifth model is related with the regression equation of employment on investment and dummy variables, i.e. the independent variables are the mix of qualitative and quantitative variables. The last model is related with the arithmetic addition of income, employment and investment from 1908 business households and 28 institutions.

The overall mean employment level of tourism industry in Pokhara is 5.33. The range of employment in overall industry is 1 to 150. The total investment in the industry is Rs.15091.12 million. Out of total, 86.44 percent amount is invested in Fooding and Lodging business, and only 1.86 percent investment is made in Travel Related business. In a similar way, there is 8.72 percent investment in Retail Trade business and 2.89 percent investment in Tourist Product business. The total annual income generation from the industry is Rs. 2704.25 million.

On the basis of regression estimation, among the 43 business categories, Hotel and Lodge, Guest House, Bank and Finance, Restaurant, Tours and travels and Handicraft shop are most revenue generating businesses respectively. With every Million Rupees of investment on Hotel and Lodge, the employment of 13.66 persons can be created. Likewise, Bank and Finance also can create employment of 13.34 persons with the same level of investment. Similarly, the paragliding business can employ 10.71 persons, Guest house 9.36 persons and Departmental House 6.44 persons with every Million Rupees of investment.

On the basis of econometric estimation, out of 25 locations the most employment generating locations are Nagadhunga, Prithwichowk, Sabagrihachowk, Mahendrapool and Srijanachowk. In Nagadhunga and Prithwichowk area there is high possibility of creating employment of 47 persons with every one million of investment.

The total employment generated by the industry in Pokhara is 12,343. But if we look into the broad picture of employment in different business category, Fooding and Lodging business occupies 54.64 percent share of total employment. In a similar way, out of total employment, Institutional sources occupy 17.52 percent, Retail Trade business occupy 14.53 percent, Tourist Product business occupy 7.38 percent and Travel Related business occupies only 5.37 percent share.

The overall employment generating capacity of the tourism industry in Pokhara is 5.40 persons in average. The value of employment differs widely from business types to different locations. The mean employment in Travel Related business without introducing investment is 5.41. Similarly the mean value of employment for Retail trade, Tourist Product and Fooding and Lodging business are 2.87, 2.86 and 8.19 respectively. But when investment is introduced in the model, the value changed to 3.89, 4.02 and 6.96 respectively. The result shows that the additional investment in Retail Trade business and Tourist Product business can generate more employment.

The annual revenue generation from the whole industry is Rs. 2699.75 million. Of which Fooding and Lodging business comprises 75.81 percent, Travel Related business occupies 3.21 percent, and Retail Trade business occupies 9.33 percent whereas Tourist Product business occupies 5.48 percent of the total income generated in a year.

Among the top five businesses which can create highest revenue are Hotel and Lodge, Guest House, Bank and Finance, Restaurant and Tours and Travels. Fruits and Vegetable shop is the least income generating business which can hardly generate Rs. 0.98 million of income annually.

## **5.2 Conclusion**

1. The total direct employment of the tourism industry in Pokhara is 12,343. The mean employment level of 43 businesses is 5.33 and it ranges from 1 to 150 depending on business type. The total investment of the industry is Rs.1509.12 million of which Fooding and Lodging business occupies 86.44 percent share.

2. Hotel, Lodge, Guest House, Bank and Finance, Restaurant, Tours and Travels and Handicraft Shops are the major sources of income and employment in the industry.
3. The estimation shows that with an additional investment of a million Rupees in the overall industry can generate employment for 5.40 persons. To increase employment, the industry demands high doses of investment, particularly in Retail Trade business and Tourism Product business.
4. The annual revenue generation of the industry is Rs.2704.25 million. The investment in Fooding and Lodging business and Travel Related businesses can generate good income, but there will not be a proportional increase in employment in comparison to income.
5. The industry is dominated by Fooding and Lodging business and there needs a policy shift for business diversification.
6. Nagdhunga, Prithwichowk, Sabhagrihachowk , Mahendrapul and Barahipath to Hallanchowk are the area which have more potentiality of generating employment and income.
7. Pokhara has the high potentiality of growth in the tourism industry because of its high capacity of generating income and employment with little investment.

### **5.3 Recommendations**

To increase the employment, investment in Retail Trade business and Tourist Product business is recommended. The investment in Hotel, Lodge, Bank and Finance ,Guest House ,Tours and Travels, Restaurant and Handicraft Shops could be more fruitful in generating income. Selected locations like Nagdhunga , Prithwichowk,Srijanachowk, Mahendrapul and Barahipath to Hallanchowk are more appropriate locations for investment.

Attention should be focused in full utilization of the existing investment in Travel Related business and Fooding and Lodging business to produce more income and employment. To increase income and employment new investment should be focused in Tourism Product business and Retail Trade business. The formation of Investment Board for tourism industry in Pokhara would be more appropriate step to channelize investment.

Further research on the topic (employment and income) is highly recommended. The present study was limited to the data of one year (2009) only. The analysis on the topic with time series data was carried out, the output could be more realistic and appropriate. The outcome of present research can be utilized as the reference value for future research so that effective comparison can be made based on the data.

The relationship between employment and income in the industry may be another important study in the area. The measurement of induced employment and income due to investment in tourism industry could also be an important study.

Variables and models other than those included in the study could be explored to find further what contributes to increase employment and income. The present findings may be referred and possibly be standardized for wider utility. The findings of this study may be more prescriptive for new investors in the field and also it may contribute to develop wider tourism data base of the industry for Pokhara, Government of Nepal, Nepal Tourism Board and other stakeholders in the field may utilize the findings for suitable policy formulation and implementation.

#### **5.4 Policy Implications**

In recent years, tourism has been increasingly recognized for its economic potential to contribute to the reduction of poverty in under developed countries like Nepal. The unique geographical feature and rare natural beauty of Pokhara are the permanent attractions of tourists. Tourism is labor intensive in nature and can support to spread employment in rural peripheral poverty stricken areas of Pokhara valley. Tourism is consumed at the point of production and tourist has to go to the destination and spend his/her money there. It opens an opportunity for local businesses of all sorts, and allowing local communities to benefit through the informal economy, by selling goods and services directly to visitors. Peripheral rural areas of Pokhara are very rich in culture, art, music, natural landscapes, wildlife and climate, including World Heritage Sites. Visits by tourists to such sites can generate employment and income for communities as well as helping in the conservation of cultural and natural assets. It has the potential to support other economic activities, both through providing flexible, part time jobs that can complement other livelihood options, and through creating income throughout a complex supply chain of goods and services.

Tourism is labor intensive, which is particularly important in tackling poverty. It also provides a wide range of different employment opportunities especially for women and young people - from the highly skilled to the unskilled – and generally it requires relatively little training. It creates opportunities for many small and micro entrepreneurs, either in the formal or informal economy; it is an industry in which start-up costs and barriers to entry are generally low or can easily be lowered. It provides not only material benefits for the poor but also cultural pride. It creates greater awareness of the natural environment and its economic value, a sense of ownership and reduced vulnerability through diversification of income sources. The infrastructure required by tourism, such as transport and communications, water supply and sanitation, public security, and health services, can also benefit poor communities. In order to overcome poverty, sufficient employment opportunities in the area are to be created by substantial amount of investment in tourism sector, both from public and private sector.

The findings of the present study suggests that there exists a considerable number of entrepreneurs who are involved in Retail Trade business and Tourist Product business. About 14.53 percent employment is in Retail trade category where there exist only 8.72 percent of investment. Similarly 7.38 percent of employment is created by Tourist Product business where there is only 2.89 percentage of investment. Most of these businesses are outside the core tourist area of the city. Therefore, in order to increase the employment and encourage investment following policies seems to be more appropriate.

1. **Employment creation and income generation :** The increase in employment opportunities due to tourism business in suburban areas like Sarangkot and Pame may increase income in rural households and the ultimate impact would be on poverty reduction. Therefore, for sustainable tourism development, incentives and subsidies in tourism related businesses can yield double benefits of income and employment. So, state investment in sub-urban tourism infrastructure development should go side by side with poverty elimination programs.
2. **Protection of private investment :** Majority of investments in tourism business has been made by private sector, the government only has to develop

infrastructures and set up suitable policies to encourage and protect private sector investment by developing partnerships between international, national, non-governmental and private sector bodies, with a common aim of poverty alleviation through tourism.

3. **Integration:** Tourism entrepreneurs in Pokhara and peripheral areas are also involved in other part-time job and side business for income, it implies that the integrated approach with other sectors may result into the increment of employment opportunities, therefore the government has to take initiative for this, which can avoid over-dependence on tourism.
4. **Income Retention:** Almost all the items of Tourist Product business are imported from India and the size of local production is very much small, resulting into high rate of income leakages from local economy. Therefore, local production of tourist goods should be encouraged and incentives and training for such works ultimately will reduce leakages from the economy. So, focusing on the supply chain of local production especially on Tourist Product business can reduce leakages and increase economic linkages.
5. **Investment:** Private investment in Retail Trade business and Tourist Product business in selected area of Pokhara should be encouraged with special incentives and priorities by the government to increase income and employment.
6. **Product Differentiation and Tourism Education:** Tourism education and training should be given to all stakeholders and specially to the persons involved in Tourism business at local level so that the products and services can be sold at profitable price by using price discrimination policy and ultimately reducing throat-cut competition.
7. **Preparation of Action plan:** An action plan for the development of Tourism Industry in Pokhara should be prepared with due consultation of stakeholders and government authorities to prioritize and focus investment in different business types and locations. This action may result into the creation of employment and increase in investment.



## Appendix 1

### Foreign Exchange Earnings From Tourism in Nepal (1974/75-2009/10)

(Amount in Rs.)

Year	Total foreign exchange earnings (Rs. in 10 million)	As % of total value of merchandise Exports	As % of total value of exports of goods and non-factor services	As % of total foreign exchange earnings	As a % of GDP
1974/75	17.06	19.2	10.8	30.2	1.0
1975	20.99	17.4	10.7	24.4	1.2
1976	28.80	24.2	13.6	26.3	1.7
1977	36.32	34.1	22.7	24.8	1.9
1978	49.71	38.1	18.1	26.9	2.3
1979	63.68	54.6	22.1	26.9	2.9
1980/81	77.34	47.9	21.0	29.2	3.1
1981/82	84.15	56.2	22.2	36.8	3.0
1982/83	84.42	74.3	23.1	37.3	2.5
1983/84	56.10	32.8	13.1	19.7	1.4
1984/85	73.54	26.8	13.5	19.8	1.6
1985/86	107.10	34.7	16.3	18.5	2.0
1986/87	174.05	58.0	22.7	26.6	2.9
1987/88	167.57	40.6	18.8	18.2	2.3
1988/89	273.53	65.0	28.2	24.5	3.3
1989/90	312.12	59.5	28.5	23.3	3.2
1990/91	358.76	47.1	23.5	21.8	3.2
1991/92	501.69	35.9	19.5	20.0	3.6
1992/93	596.60	34.5	26.7	17.6	3.7
1993/94	825.17	42.7	22.4	18.9	4.1
1994/95	897.32	50.0	21.6	17.3	4.1
1995/96	952.12	47.9	23.3	21.4	3.8
1996/97	852.30	37.6	13.7	17.6	3.0
1997/98	988.16	35.9	17.4	15.2	3.3
1998/99	1216.78	34.1	18.5	15.9	3.6
1999/00	1207.39	24.2	13.0	8.8	3.2
2000/01	1171.70	21.0	12.0	7.4	2.9
2001/02	865.40	14.9	10.6	6.1	2.1
2002/03	1174.77	23.1	15.2	8.2	2.6
2003/04	1814.74	32.9	20.3	11.4	3.7
2004/05	1046.40	17.5	12.2	6.1	1.8
2005/06	955.60	15.5	10.9	4.6	1.5
2006/07	1012.5	16.1	10.7	4.5	1.4
2007/08	1865.30	30.1	17.9	6.7	2.3
2008/09	2796.0	40.0	22.8	6.5	2.9
2009/10	1676.70	40.0	23.1	6.0	2.1

Source: Nepal Rastra Bank, 2010.

## Appendix 2

### Businesswise Annual Employment, Investment, Revenue, Expenses and Saving.

(Amount in Rs.)

S.N.	Business type	No. of business	Emp	Invtd	Annrev	Annexp	Annsav
1	Airlines Office	7	35	17,500,000	2,450,000	980,000	1,470,000
2	Art craft and gift Shop	36	98	68,725,000	13,741,000	5,496,400	8,244,600
3	Bakery	10	58	12,200,000	2,235,000	894,000	1,341,000
4	Barber	32	77	4,315,000	4,175,500	835,100	3,340,400
5	Beauty parlour	7	28	11,460,000	2,855,000	571,000	2,284,000
6	Books/stationery	32	130	76,600,000	21,070,000	8,428,000	12,642,000
7	Cold store	19	38	11,960,000	1,573,250	629,300	943,950
8	Comm. Service	38	124	28,085,000	6,750,500	2,700,200	4,050,300
9	Curio shop	19	56	26,300,000	12,332,000	4,932,800	7,399,200
10	Cycle/motor bike	17	50	4,275,000	1,432,500	573,000	859,500
11	Depart. Store	11	71	101,000,000	20,200,000	8,080,000	12,120,000
12	Dress shop	29	71	16,290,000	5,735,250	2,294,100	3,441,150
13	Electronics Shop	11	26	5,745,000	1,330,500	532,200	798,300
14	Embroidery	15	45	10,400,000	4,587,500	1,835,000	2,752,500
15	Fancy shop	7	27	5,900,000	1,197,500	479,000	718,500
16	Flower nursery	5	16	1,100,000	370,000	148,000	222,000
17	Fresh House	34	88	8,820,000	1,860,000	744,000	1,116,000
18	Fruits and vegetable shop	16	32	3,025,000	980,000	392,000	588,000
19	Garment shop	44	117	51,430,000	20,438,500	8,175,400	12,263,100

20	Grocery	398	962	123,855,000	25,641,250	10,256,500	15,384,750
21	Guest House	93	873	1,479,700,000	294,030,000	117,612,000	176,418,000
22	Handicraft shop	31	90	69,725,000	26,432,500	10,573,000	15,859,500
23	Hardware supply	7	42	53,500,000	7,925,000	3,170,000	4,755,000
24	Hotel and lodge	284	3881	11,030,800,000	1,614,150,000	645,660,000	968,490,000
25	Bank and Finance	10	134	854,000,000	145,400,000	581,600,000	87,240,000
26	Jewelery shop	21	75	27,200,000	8,367,500	3,347,000	5,020,500
27	Kashmiri product shop	16	52	13,100,000	4,530,000	1,812,000	2,718,000
28	Laundry	19	65	6,655,000	2,422,500	969,000	1,453,500
29	Massage centre	9	38	2,800,000	1,320,000	528,000	792,000
30	Medical shop	27	86	23,125,000	7,125,000	2,850,000	4,275,000
31	Money changer	38	95	24,320,000	5,031,000	2,012,400	3,018,600
32	Music shop	14	35	17,050,000	7,481,250	2,992,500	4,488,750
33	Paragliding	7	75	39,900,000	17,080,000	6,832,000	10,248,000
34	Pasmina Shop	7	21	12,500,000	5,650,000	2,260,000	3,390,000
35	Photo and accessories	10	34	17,855,000	4,302,500	1,721,000	2,581,500
36	Restaurant	310	1541	448,445,000	120,552,500	48,221,000	72,331,500
37	Tea and coffee shop	14	39	4,910,000	826,000	330,400	495,600
38	Thanka Shop	16	38	12,725,000	4,197,500	1,679,000	2,518,500
39	Tibettan good shop	19	40	24,996,000	10,141,200	4,056,480	6,084,720
40	Tours and travels	63	336	148,000,000	43,585,000	17,434,000	26,151,000
41	Trekking and rafting	29	167	71,100,000	22,350,000	8,940,000	13,410,000
42	Trekking Equipment shop	45	158	94,400,000	28,740,000	11,496,000	17,244,000
43	Womens' Product Shop	6	18	5,925,000	2,415,000	966,000	1,449,000
	<b>Total</b>	<b>1908</b>	<b>10180</b>	<b>15,098,441,000</b>	<b>2,541,594,700</b>	<b>1,538,671,780</b>	<b>1,526,362,920</b>

Source: Calculation from field survey data, 2009

### Appendix 3

#### Annual Revenue Generation by Different Businesses ( In Descending Order)

(Amount in Rs.)

S.N.	Business type	Number	Emp	Invttl	Annrev
1	Hotel and lodge	284	3881	11,030,800,000	1,614,150,000
2	Guest House	93	873	1,479,700,000	294,030,000
3	Bank and Finance	10	134	854,000,000	145,400,000
4	Restaurant	310	1541	448,445,000	120,552,500
5	Tours and travels	63	336	148,000,000	43,585,000
6	TrekkingEquipment shop	45	158	94,400,000	28,740,000
7	Handicraft shop	31	90	69,725,000	26,432,500
8	Grocery	398	962	123,855,000	25,641,250
9	Trekking and rafting	29	167	71,100,000	22,350,000
10	Books/stationery	32	130	76,600,000	21,070,000
11	Garment shop	44	117	51,430,000	20,438,500
12	Departmental store	11	71	101,000,000	20,200,000
13	Paragliding	7	75	39,900,000	17,080,000
14	Art craft and gift shop	36	98	68,725,000	13,741,000
15	Curio shop	19	56	26,300,000	12,332,000
16	Tibettan good shop	19	40	24,996,000	10,141,200
17	Jewelery shop	21	75	27,200,000	8,367,500
18	Hardware supply	7	42	53,500,000	7,925,000
19	Music shop	14	35	17,050,000	7,481,250
20	Medical shop	27	86	23,125,000	7,125,000
21	Communication service	38	124	28,085,000	6,750,500
22	Dress shop	29	71	16,290,000	5,735,250
23	Pasmina Shop	7	21	12,500,000	5,650,000
24	Money changer	38	95	24,320,000	5,031,000
25	Embroidery	15	45	10,400,000	4,587,500
26	Kashmiri product shop	16	52	13,100,000	4,530,000
27	Photo and accessories	10	34	17,855,000	4,302,500
28	Thanka Shop	16	38	12,725,000	4,197,500

29	Barber	32	77	4,315,000	4,175,500
30	Miscellaneous business	18	67	19,325,000	3,785,000
31	Beauty parlour	7	28	11,460,000	2,855,000
32	Yoga and mediation	8	31	7,400,000	2,800,000
33	Airlines Office	7	35	17,500,000	2,450,000
34	Laundry	19	65	6,655,000	2,422,500
35	Womens product shop	6	18	5,925,000	2,415,000
36	Bakery	10	58	12,200,000	2,235,000
37	Fresh House	34	88	8,820,000	1,860,000
38	Cold store	19	38	11,960,000	1,573,250
39	Cycle/motorbike business	17	50	4,275,000	1,432,500
40	Electronics Shop	11	26	5,745,000	1,330,500
41	Massage centre	9	38	2,800,000	1,320,000
42	Fancy shop	7	27	5,900,000	1,197,500
43	Fruits and vegetable shop	16	32	3,025,000	980,000
	<b>Total</b>	<b>1908</b>	<b>10180</b>	<b>15,098,441,000</b>	<b>2,541,594,700</b>

*Source: Calculation from the field survey data 2009.*

## Appendix 4

### Estimation of Employment Generation by Different Businesses.

S. N.	Business Type	Reg. Const (B0)	Reg. Coeff (B1)	Mean InvttlMN	Estimated Employment Emp = B0 + B1*mean InvttlMLN
1.	Art craft and gift shop	2.383	0.165	1.8207	2.6834
2.	Bakery	2.83	2.432	1.2200	5.7970
3.	Barber	1.18	9.3	0.1327	2.4145
4.	Books/ Stationery Shop	2.81	0.51	2.3938	4.0308
5.	Cold store	1.9	0.155	0.6295	1.9976
6.	Communication service	2.84	0.57	0.7931	3.2921
7.	Curio Shop	3.54	-0.43	1.3842	2.9448
8.	Cycle/Motorbike business	3.1	-0.65	0.2515	2.9365
9.	Dress Shop	2.41	0.06	0.5617	2.4437
10.	Electronics Shop	2.04	0.615	0.5223	2.3612
11.	Embroidery	3.24	-0.35	0.6933	2.9973
12.	Fresh House	1.66	3.82	0.2370	2.5652
13.	Fruits and Vegetable Shop	1.89	0.532	0.1891	1.9906
14.	Garment shop	2.57	0.724	1.1689	3.4163
15.	Grocery	2.35	0.1905	0.3112	2.4093
16.	Guest House	7.92	0.091	15.9100	9.3678
17.	Handicraft Shop	2.21	0.3039	2.2492	2.8935
18.	Hotel and Lodge	7.43	0.1604	38.8409	13.6601
19.	Jewelery Shop	2.56	0.7783	1.2952	3.5681
20.	Kashmiri product shop	3.193	0.0686	0.8188	3.2492
21.	Laundry	3.5	-0.234	0.3503	3.4180
22.	Medical shop	2.39	0.918	0.8565	3.1763
23.	Money Changer	2.54	-0.062	0.6400	2.5003
24.	Music Shop	2.195	0.249	1.2178	2.4982
25.	Photo and Accessories	2.705	0.388	1.7855	3.3978
26.	Restaurant	4.389	0.52	1.4466	5.1412
27.	Tea and Coffee Shop	2.866	-0.23	0.3507	2.7853
28.	Thanka Shop	1.828	0.686	0.7953	2.3736
29.	Tibettan good shop	3.791	-1.281	1.3156	2.1058
30.	Tours and Travels	4.615	0.336	2.3492	5.4043
31.	Trekking and Rafting Agency	3.442	0.944	2.4517	5.7564
32.	Trekking equipment shop	2.919	0.282	2.0978	3.5106
33.	Women's product Shop	3.299	-0.303	0.9875	2.9998

*Source: Calculation from the field survey data, 2009.*

## Appendix 5

### Estimation of Location wise Employment Generation

S.N	Location	Reg. Const. (B0)	Reg. Coeff. (B1)	Mean InvttlMLN	Estimated Employment Emp = B0 + B1*mean InvttlMLN
1.	Baglung Buspark	3.04	0.927	1.38778	4.3265
2.	Barahi chowk to Shantipatan	3.193	0.153	17.33889	5.8459
3.	Barahipath	3.624	0.205	24.3125	8.6081
4.	Barahipath to Hallanchowk	5.366	0.043	10.96765	5.8376
5.	Srijanachowk	37.93	-0.8521	31.6923	10.92
6.	Buspark Prithwichowk	2.902	1.232	.6724359	3.7304
7.	Chhorepatan	1.988	0.286	1.1112	2.3058
8.	Damside	2.457	0.445	4.0402	4.2549
9.	Fishtail gate to Hallanchok	3.347	0.3629	3.742	4.7050
10.	Hallanchowk -Khahare – Jarebar	2.842	0.429	2.84	4.0604
11.	Jarebar to Sahidchowk	2.9104	0.5213	.9177	3.3888
12.	Kaskikot-6, Bhakunde	3.15	0.011	1.43	3.1657
13.	Kaskikot-6, Pame	2.277	0.708	1.5340	3.3631
14.	Lakeside	3.686	0.244	11.0339	6.3783
15.	Mahendrapul	14.465	-0.015	20.9891	14.1502
16.	Prithwichowk	11.435	-0.004	25.55	11.3328
17.	Rastrabank -Mustang Chowk	3.751	0.156	9.0474	5.1624
18.	Sarangkot	3.767	0.657	2.06	5.1204
19.	Sedibagar	1.93	0.589	2.37	3.3259
20.	Srijanachowk	37.93	-0.852	31.69	10.9301

*Source: Calculation from the field survey data, 2009.*

## Appendix 6

### Businesswise Employment Level and its Ranking

S.N.	Business Type	Estimated Employment Emp = B0 + B1*mean InvttlMLN
1.	Hotel and Lodge	13.6601
2.	Guest House	9.3678
3.	Bakery	5.7970
4.	Trekking and Rafting Agency	5.7564
5.	Tours and Travels	5.4043
6.	Restaurant	5.1412
7.	Books/ Stationery Shop	4.0308
8.	Jewelery Shop	3.5681
9.	Trekking equipment shop	3.5106
10.	Laundry	3.4180
11.	Garment shop	3.4163
12.	Photo and Accessories	3.3978
13.	Communication service	3.2921
14.	Kashmiri product shop	3.2492
15.	Medical shop	3.1763
16.	Women's product Shop	2.9998
17.	Embroidery	2.9973
18.	Curio Shop	2.9448
19.	Cycle/Motorbike business	2.9365
20.	Handicraft Shop	2.8935
21.	Tea and Coffee Shop	2.7853
22.	Art craft and gift shop	2.6834
23.	Fresh House	2.5652
24.	Money Changer	2.5003
25.	Music Shop	2.4982
26.	Dress Shop	2.4437
27.	Barber	2.4145
28.	Grocery	2.4093
29.	Thanka Shop	2.3736
30.	Electronics Shop	2.3612
31.	Tibettan good shop	2.1058
32.	Cold store	1.9976
33.	Fruits and Vegetable Shop	1.9906

*Source: Calculation from the field survey data, 2009.*



## Appendix 7

### Locationwise Employment Level and its Ranking

S.N	Location	Estimated Employment Emp = B0 + B1*mean InvttlMLN
1.	Mahendrapul	14.1502
2.	Prithwichowk	11.3328
3.	Srijanachowk	10.9301
4.	Srijanachowk	10.92
5.	Barahipath	8.6081
6.	Lakeside	6.3783
7.	Barahi chowk to Shantipatan	5.8459
8.	Barahipath to Hallanchowk	5.8376
9.	Rastrabank -Mustang Chowk	5.1624
10.	Sarangkot	5.1204
11.	Fishtail gate to Hallanchok	4.7050
12.	Baglung Buspark	4.3265
13.	Damside	4.2549
14.	Hallanchowk -Khahare –Jarebar	4.0604
15.	Buspark Prithwichowk	3.7304
16.	Jarebar to Sahidchowk	3.3888
17.	Kaskikot-6, Pame	3.3631
18.	Sedibagar	3.3259
19.	Kaskikot-6, Bhakunde	3.1657
20.	Chhorepatan	2.3058

*Source: Calculation from the field survey data, 2009.*

## Appendix 8 A

### Model Specification and Diagnostic Testing

Regression Diagnostics: Equation specifications errors and model specification errors. In order to run regression analysis, the diagnostic test is necessary. For this following diagnostic tests were carried out.

#### **Test for omitted Variable:**

Ramsey RESET test using powers of the fitted values of emp

Ho: model has no omitted variables

$$F(3, 1900) = 31.72$$

$$\text{Prob} > F = 0.0000$$

The null hypothesis is that the model does not have omitted-variables bias, the p-value is lower than the usual threshold of 0.05 (95% significance), so the null hypothesis is rejected and conclude that we need more variables . For this purpose, we should incorporate other qualitative variables like business category.

#### **Test for Multicollinearity**

The output for vif(variance inflation factor).

Variable |VIF1/VIF

-----+-----

d4 |4.370.229068

d2 |4.060.246469

d3 |3.060.327072

InvttlMLN |1.030.967743

-----+-----

Mean VIF |3.1

## Appendix 8 B

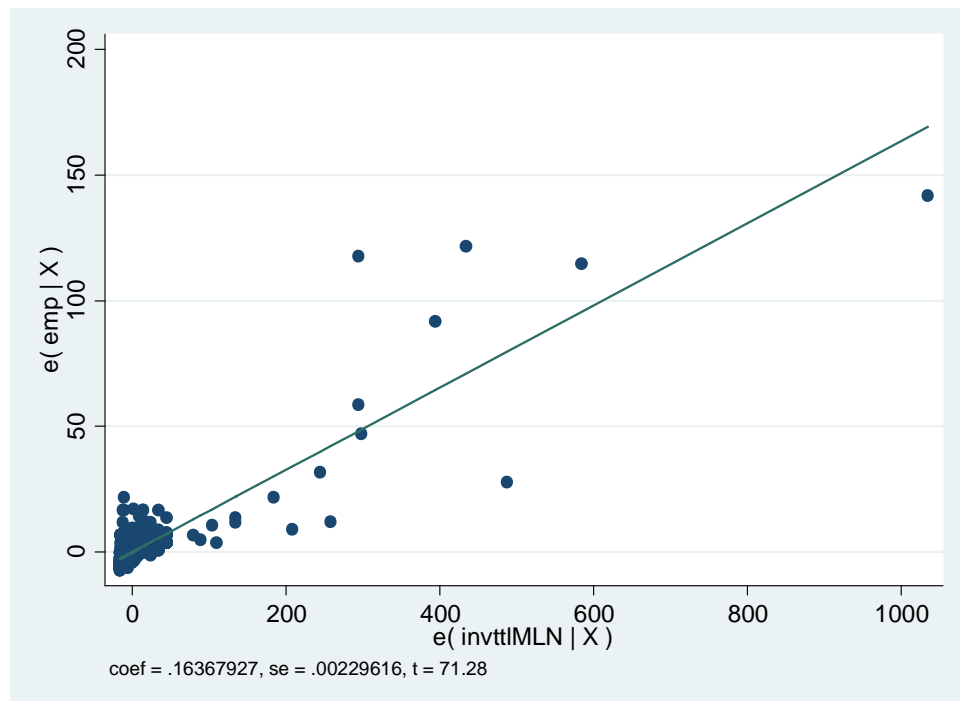
### Test of Multicollinearity

If  $VIF > 10$  or a  $1/VIF < 0.10$  it indicates trouble. But here  $VIF < 10$ , so there is no problem of multicollinearity.

### Test for Outliers

The output of avplots (added-variable plots).

### Added Variable Plots

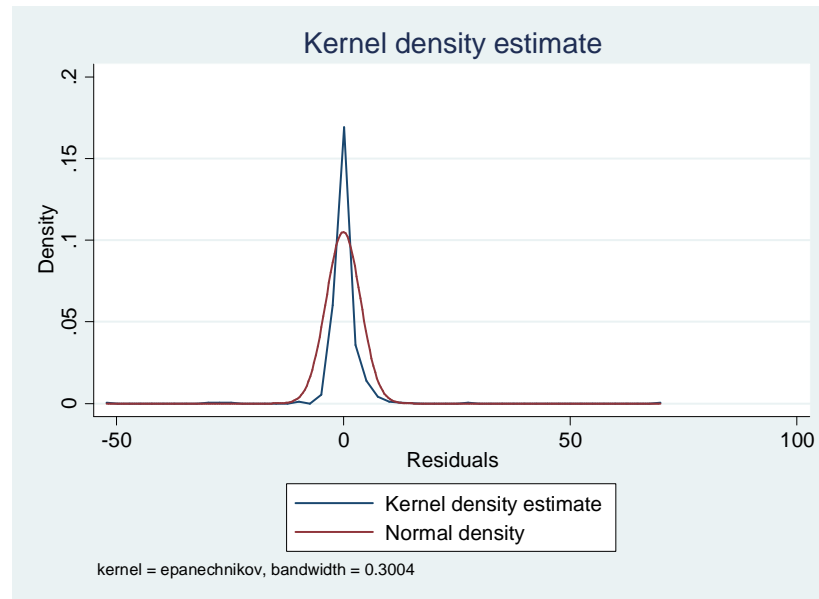


All data points seem to be in range, therefore no outliers observed.

## Appendix 8C

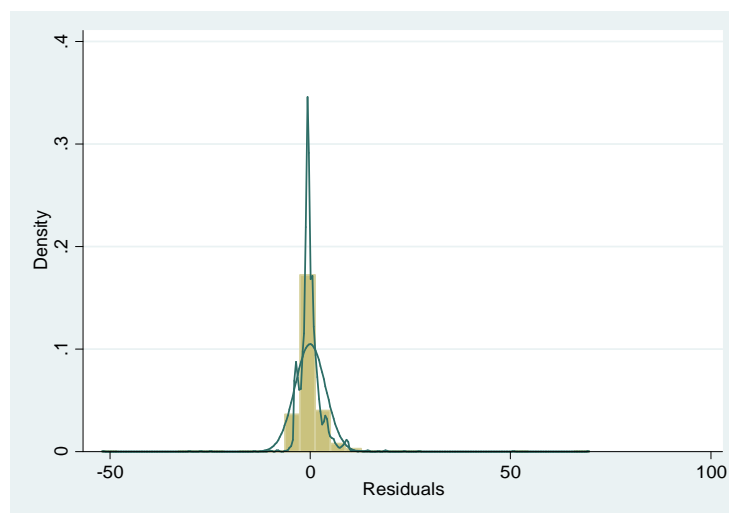
### Test for Normality

For normality test Kernel Density Estimate and Histogram e, k Density Normal is plotted. The graph output is as follows.



## Appendix 8D

### Histogram e, k Density Normal



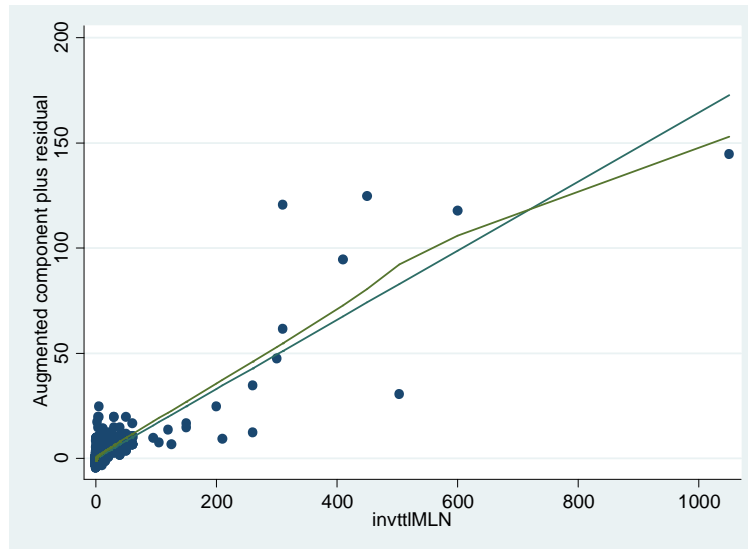
Here residuals seem to follow a normal distribution. In practice normality does not represent much of a problem when dealing with really big samples

## Appendix 8E

### Test of Linearity

Output: The augmented component-plus-residual plot with locally weighted scatterplot smoothing method draw the following pattern.

Augumented component plus residual plot with lowess.



The acprplots shows little deviation in the linear relationship. However, the relationship between the response variable and the predictors is linear.

## Appendix 9

### Regression Output of Employment on Investment.

Source	Sum of Squares	Df	MS	No.of observation: 1908	
Model	81868.819	1	81868.819	F( 1, 1906 ) = 4943.59	
Residual	31564.5122	1906	16.560	Probability>F=0.0000	
Total	113433.331	1907	59.482	R-squared =0.7217	
				Adj R-squared = 0.7216	
				Root MSE =4.0695	
Emp	Coefficient	Std. Err.	t-Value	P>  t	95% Confidence Interval
InvttlMLN	0.1700517	.0024186	70.31	0.000	0.16530840.1747951
Constant	3.98709	.0951084	41.92	0.000	3.800563 4.173618

*Source: Calculation from the field survey data, 2009*

## Appendix 10

### Regression Output of Employment with Business Category

Source	SS	Df	MS	No.of observation: 1908	
Model	12542.90	3	4180.96951	F( 3, 1904 ) =78.90	
Residual	100890.42	1904	52.9886	Probability>F= 0.0000	
Total	113433.331	1907	59.4826	R-squared = 0.1106	
				Adj R-squared =0.1092	
				Root MSE= 7.2793	
Emp	Coefficient	Std. Err.	t-Value	P>  t	95% Confidence Interval
D <sub>2</sub>	-2.5434	.7158	-3.55	0.000	-3.9472-1.1395
D <sub>3</sub>	-2.5548	.7623	-3.35	0.001	-4.0499-1.0597
D <sub>4</sub>	2.7713	.7004	3.96	0.000	1.39764.1451
Constant	5.4198	0.6537	8.29	0.000	4.13776.7018

*Source: Calculation from the field survey data, 2009.*

## Appendix 11

### Regression Output of Employment with Business Category and Investment

Source	SS	Df	MS	No.of observation: 1908	
Model	85944.199	4	21486.0497	F( 3, 1904 ) =1487.42	
Residual	27489.1332	1903	14.4451	Probability>F= 0.0000	
Total	113433.331	1907	59.4826	R-squared = 0.7577	
		Root MSE= 3.8007		Adj R-squared =0.7572	
Emp	Coefficient	Std. Err.	t-Value	P>  t	95% Confidence Interval
D <sub>2</sub>	-2.5025	.3737	-6.70	0.000	-3.2355-1.7695
D <sub>3</sub>	-2.3794	.3980	-5.98	0.000	-3.1600-1.5988
D <sub>4</sub>	0.5655	.3670	1.54	0.124	-.15421.2853
invttlMLN	0.1636	.0022	71.28	0.000	0.15910.1681
Constant	5.0331	.3413	14.74	0.000	4.36365.7026

*Source: Calculation from the field survey data, 2009.*





e. If you have any other side business, please specify:.....

Male employment no. .... Female employment no.

**4. Investment:**

a. If you have single business

Land..... Building..... Vehicle ..... Business ..... Other..... Total....

Loan investment percentage (Bank/other) .....

Self income investment percentage.....

b. If you have more than one business :

Investment in infrastructure:.....

Investment in business:.....

Loan investment percentage (Bank/other) .....

Self income investment percentage.....

Amount of running capital investment : .....

**5. Monthly Expenditure:**

a. Staff salary..... b. House/land rent ..... c. Telephone ..... d. Electricity .....

e. Internet ..... f. Water ..... g. Vat ..... h. Local tax ..... i. Fuel .....

j. Advertisement ..... k. Repair/maintenance ... l. Food items ... m. Fire wood.....

n. Education ..... o. Medicine ..... p. Cloth ..... q. Stationery .....

r. Miscellaneous ..... s. Other special .....

**6. Service Capacity Details:**

a. Average number of tourists served monthly (Peak season)

i. Nepali..... ii. Indian..... iii. Other.....

b. Average number of tourists served monthly (off season)

i. Nepali..... ii. Indian..... iii. Other.....

c. Maximum tourist serving capacity per day:..... per month:..... per year:.....

**7. Tourist Expenses Per Day:**

Nepali tourist expenses: Maximum ..... Minimum .....

Indian tourist expenses: Maximum ..... Minimum .....

Other tourist expenses: Maximum ..... Minimum .....

**8.Valuation of Business Set Up:**

Self valuation ( Acceptable Selling Price if sold or bought)

Land..... Building.....Vehicle ..... Business .....

Goodwill value: ..... Other.....Total .....

**9. Leakages/Retention:**

Monthly expenses in imported goods and services:

Monthly expenses in Nepali goods and services:

Monthly expenses in salary for staff if other than Nepali citizen:

**10.Problems and Remedies:**

Major problems in investment:

- a. b.
- c. d.

Major problems in employment:

- a. b.
- c. d.

Suggestion for remedies:

11.What should be the role of Nepal government and other stakeholders for the promotion of employment and investment in tourism sector of Nepal ?

12.Suggest different measures necessary for tourism development in Pokhara.

**Thanks**

## Appendix 13 A

### Tourist flow and Income from Mahendra Cave, Pokhara

Year 2060	Income Head	Number	Income in Rs.	Year 2061	Income Head	Number	Income in Rs.
	Nepali tourist	45378	226890		Nepali tourist	47911	239555
	Foreign tourist	18110	181100		Foreign tourist	8150	81500
	Student	11112	22224		Student	15676	31352
	Picnic	4173	41730		Picnic	3789	37890
	Guide	300	6000		Guide	210	4200
Year 2062		Total	477944/-	Year 2063		Total	394507/-
Year 2064	Foreign tourist	11378	113780	Year 2065	Foreign tourist	22544	225440
	Student	39103	78206		Student	61300	122600
	Picnic	4541	45410		Picnic	5536	55360
	Guide	214	4280		Guide	200	4000
		Total	532876/-			Total	842630/-
	Nepali tourist	89430	447150		Nepali tourist	92684	901365
	Foreign tourist	24818	248180		Foreign tourist	25326	490160
	Student	57709	115418		Student	89644	445748
	Picnic	5810	58100		Picnic	8608	86080
	Guide	113	2260		Guide	666	19910
	Total	871108/-		Total	1943263		

Source: Mahendra Cave Management Committee, Pokhara

## Appendix 13 B

### Tourists flow at Gupteswor Gupha, Pokhara

Year	59/60	60/61	61/62	62/63	63/64	64/65	65/66	Total
Nepali	76935	58252	60748	76233	128810	152394	193298	746670
SAARC	27638	26664	1389	18711	31211	37066	42328	185007
Third country	7687	13102	10049	11257	16190	20592	22359	101236
Total	112260	98018	72186	106201	176211	210052	257985	1032913

Source: Gupteswor Gupha Management Committee, Pokhara

## Appendix 13 C

### Passenger Movement to and from Pokhara Airport (1998-2010)

Year	Total Air Craft Movement	Nepali passenger		Foreign passenger		Total passenger	
		Pax In	Pax Out	Pax In	Pax Out	Pax In	Pax Out
2010	25585	123508	125905	46247	64950	169755	190855
2009	21513	103604	98160	41243	58084	144847	156244
2008	19708	60001	57628	49067	67534	109068	125162
2007	18796	63381	63237	39609	53489	102990	116726
2006	17672	57012	59460	27063	35950	84075	95410
2005	20016					108273	119288
2004	20425					105883	113956
2003	19887					104209	107462
2002	16216					90707	101667
2001	21511					128334	147049
2000	22775					132437	145267
1999	18512					118068	127507
1998	14671					96968	110906
Total	257287					1495614	1657499

Source: Civil Aviation Office (2010), Pokhara.

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