The Socio-Economic Effects of Karakorum Highway (KKH):

"A Case Study of Gilgit-Baltistan"

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The Socio-Economic Effects of Karakorum Highway (KKH):

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I Muhammad Sakhi S/O Sakhi Ahmed Jan hereby declare that the thesis titled **"The Soci-Economic Effects of Karakorum Highway (KKH):"A Case Study of Gilgit-Baltistan"** submitted at National University of Modern Languages for the award of degree of Master of philosophy (M.Phil) in Economics is the result of research work carried out by me under the supervision of Dr. Malik Saqib Ali, department of Economics, Faculty of management sciences, - National University of Modern Languages, Islamabad, Pakistan. I further declare that the results presented in this thesis have not been submitted for the award of any other degree or fellowship. I am aware of the terms, copyright and plagiarism and I shall be responsible for any copyright violation found in this work.

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"In the Name of Allah the most Beneficent the most Merciful"

Dedicated to

"TO MY PARENTS AND TEACHERS"

I ALSO DEDICATE THIS HUMBLE EFFORT TO MY BELOVED FOUR YEARS DAUGHTER PRINCESS AMINA SAPNA SAKHI AND TWO YEARS SON RAJA MUHAMMAD AYASH KHAN WHO GAVE ME STRENGTH AND COURAGE TO ACHIEVE MY GOALS.

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ABSTRACT

The road infrastructure in all the countries of the world has passed through the quickest advancement inside the closing decade. The impacts of the road infrastructure on sustainable development and improvement of the Socio-Economic conditions of the human being has become a concern for policymakers as well as economists. The objective of the study is to identify the effectiveness of Karakorum Highway on Socio-Economic development in Gilgit-Baltistan. This study is explanatory *research. Before this study, no other studies had been done to measure the socio-economic impact of this highway on the humans of Gilgit-Baltistan. This study will show how much the build of this Highway has improved the socio-economic conditions of the people of Gilgit Baltistan. Primary data have used in the study for analyzing the results. The study has used Descriptive and Frequency Analysis to estimate the results. Data was collected through structural questionnaires from the people of the three selected districts of the Gilgit-Baltistan i.e. Hunza, Nager, Gilgit and 100 questionnaires were filled from each selected district to acquire the data. The findings of the study shows that 87% of the total sample sizes in the three selected districts have agreed that after the build of this highway, the livelihood opportunities have been improved in Gilgit-Baltistan. They think that Karakorum Highway helps to provide employment opportunities in the region. In the education sector, 80% of the total respondents in the three selected districts have agreed that Karakoram Highway helps to improve the enrollment rate and educational facilities in the region. Similarly, in the health sector, 87% of the total respondents in the three selected districts have agreed that since the build of Highway, the health facilities, availability of doctors and medicines have been improved in Gilgit-Baltistan. While in the tourism sector, 90% of the respondents in the three selected districts have agreed that Karakoram Highway is also helping in the influx of tourists in the G-B. Further, the findings show that this road infrastructure is helping the people of the region, by reducing the time of traveling and their transportation costs.*

Keywords: Socio-Economic Development, livelihood, Education, Health, Tourism, Gilgit-Baltistan.

Abbreviations

ASP	**Agriculture Statistics of Pakistan**
BE	**Blue Economy**
BEI	**Blue Economy Index**
COPS	**Codes of Practice and Certification Schemes**
CPEC	**China Pakistan Economic Corridor**
EEZ	**Exclusive Economic Zone**
EIA	**Environmental Impact Assessment**
ELG	**Export Led Growth**
ESs	**Ecosystem Services**
ESP	**Economic Survey of Pakistan**
EU	**European Union**
FAO	**Food and Agriculture Organization**
FDI	**Foreign Direct Investment**
FMPs	**Fisheries Management Plans**
FVCB	**First Value Carried Forward**
FY	**Fiscal Year**
GDP	**Gross Domestic Product**
ILG	**Import Led Growth**
IORA	**Indian Ocean Rim Association**
IOR	**Indian Ocean Region**
LDCs	**Least developed Countries**
LVCF	**Last Value Carried Forward**
MDA	**Maritime Domain Awareness**

MDG	**Millennium Development Goals**
PSYB	**Pakistan Statistical Year Book**
R&D	**Research & Development**
SDGs	**Sustainable Development Goals**
SEA	**Strategic Environmental Assessment**
SEEA	**System of Environmental Economic Accounting**
SIDS	**Small Island Development States**
UNCTAD	**United Nations Conference on Trade and Development**
UNDESA	**United Nations Department of Economic and Social Affairs**
UNDP	**United Nation Development Program**
UNEP	**United Nations Environment Programme**
UN	**United Nation**
VECM	**Vector Error Correction Model**
WDI	**World Development Indicators**

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CHAPTER 1

INTRODUCTION

Road infrastructure in all the nations of the world has experienced the quickest advancement over the most recent four decades. The effect of the road infrastructure and transportation on manageable advancement and improvement of the Socio-Economic conditions of the human being has become a concern for policymakers as well as economists. Road infrastructures have a direct and indirect impact on the economy. Direct effects are helpful to reduce the time of traveling to work, schools, colleges, universities, hospitals, local markets, savings in fuel and other direct transportation costs. The reliable road infrastructure is helping to minimize weather-related or other seasonal road closure in most developing countries. These impacts may be perceived locally, regional, national, or even international. For instance, the construction of rural roads will always help local people, farmers, producers, patient's tourists, and students. While the indirect effects of road infrastructure are the increase in the income of the individuals and generating employment opportunities. The other indirect effects are to get quality of health, education, sanitation, social interactions, and political participation. These indirect effects bring socio-economic development in society. The road infrastructure is helping to enhance job creation and income-earning opportunities. This income will help individuals to improve their standard of living and alleviate poverty. To recognize different impacts of road infrastructure on the social and economic advancement in the economy, the examination has basically centered both around factual outcomes and economic essentials speculations (Wang *et al.*2018).

The impact of road infrastructure improvement in association with financial development has been accepting more consideration and banter and has been exactly examined. There are as yet numerous perspectives that ought to be considered for increasing point by point contemplates. Most of the papers break down the suggestion of road infrastructure on viable financial development, dismissing it the nature of open basic leadership and the dependence on open strategies on economic thinking (Arvin and Pradhan, 2015; Beyzatlar and Karacal, 2014; Pradhan and Bagchi, 2013). The study has shown a connection between the transportation and the economic performances in the European Union

28 nations, over the timeframe 2000-2014. The study was used as a panel data method and found that transportation status (estimated through the list of transportation) significantly affects socio-economic advancement with coefficient estimation. While the open execution markers, for example, the administrative performance of the government, Education, Health and Distribution of income, influence the way to economic growth (Cigu *et al.*2018).

The study is looking at two nations' china and Germany on the arranging modes for significant road infrastructure ventures. These projects are essentially constructed by the open spending plan to expand the social and economic conditions of their citizens. These projects identify that after its formation, the economy achieves proficiency and effectiveness as far as export cost-saving. The techniques for the arrangement of these tasks are to including a lot of open-investment for social amicability with the advancement of natural mindfulness (Zhou *et al.*2018). The social and economic evaluation is essential for the government policymakers with a considerable amount of work now and in the past being done to develop suitable assessment directions in America and Europe. This assessment is helpful for intelligent transport systems (ITS) and road infrastructures (Zhang et al.1996). Road infrastructure has been consistently for leaders a political instrument reflects in government programs and along these lines actualized through open approaches to diminish neediness, and disparities, just as to advance Socio-economic development (Brocker and Rietveld, 2009). World Development Report (WDR), 1994 indicates that road infrastructure is costly, requiring significant capital that takes an extensive offer in open use and weight on open specialists. In any case, as a bit of open capital, particularly the road infrastructure is the most amazing asset in empowering the economies of the world. It is to be considered metaphorically the "wheels" of any economic activity. Another study shows that the reliable quality and thickness of the road infrastructure have constructive outcomes at the subnational level for nearby financial development (Banister, 2012).

In general, the commitment of road infrastructure enrichment to financial exercises may rely upon the degrees of existing framework developments. The findings show a unidirectional connection between the supply of highway and financial advancement in the nation (Deng and Shao, 2014). The examination considered over the 48 US, states by utilizing the panel data for the time span from 1960 to 1985. The study used the OLS technique. The

study used transportation infrastructure as a variable to reflects that the highway positively effect the production sector, improved socio-economic conditions and output elasticity is 0.25 (Moomaw and William, 1991). By using highways, streets, and road infrastructure as a variable in the VAR model, the investigation utilized used time-series data for the period from 1956 to 1997 of America. The findings reflect that investment in road infrastructures significantly affects the social and financial development of the economy (Perira, 2000). A study is using a variable the cumulative infrastructure of 17 Spanish regions between 1965 and 1995. The study was used by fixed-effects regressions. The results of the study show separate results attained by diverse kinds of transport foundation and by various economic divisions however all the sectors have positive relationships among them (Cantos *et al*.2005). The study used road infrastructure the main variable, the highways for forty-eight states, eighteen counties, and three hundred & ninety municipalities in England for the timeframe 1990-2000, The study finds that the interest in transport infrastructure can create a syndrome impact on the existence (Berechman *et al.*2006). Transport infrastructure variable shows the thickness of highways for 48 American states over the timeframe 1984-2005. The GMM model found that the long-run yield versatility for all roads is 0.35 to 0.39, for interstate highways is 0.037. Further, the study shows that for the non-interstate significant roads is 0.038, and for the neighborhood, the local roads are 0.36 (Jiwattanakulpaisarn *et al*. 2012).

The association between road infrastructure and social and economic development has been debated broadly for many decades and continues to be a subject of curiosity within research and policymaking communities. The impact of transport infrastructure on development in a created economy is likely declining because of unavoidable losses to proceed with infrastructure ventures (Fox and Murrey, 1993: Hulten and Schwab, 1991). Further arrangement of transport infrastructure supply in the presence of very much gave and far-reaching transport network is thought to have slight or no impact. It is contended that further ventures have just a restricted impact on transport cost (Rietveld, 1994), and firms become increasingly uninterested and the significance of transport infrastructure as an allotment factor is limited (Chapman and walker, 1991; Banister and Lichfield, 2003 and Forkenbrock and Foster, 1996).

1.1 Statement of Problem

In the modern world, road infrastructure and transportation systems have been assuming a basic job in the social and economic enlargement of the countries. Therefore, inadequate transportation systems and lack of road infrastructure are making it difficult for countries to adjust to different sectors of the economy. Some socio-economic services such as education, health, employment opportunities, market prices, and poverty are improving through the provision of road infrastructure and improved transportation systems. Reliable road infrastructure and proper transport system is giving a boost to the production sector and also providing the socio-economic facilities in the economy.

This study is done based on whether the construction of the Karakoram Highway (KKH) improved the social and economic conditions of the people of Gilgit-Baltistan. This road was constructed 50 years ago. But, so far no one has done any single research on this topic. Has the formation of the Karakoram highway improved the social and economic circumstances of the people of Gilgit-Baltistan? This study will fill the gap by examining the effects of Karakorum Highway (KKH) on the social and economic development of the Gilgit Baltistan.

1.2 Significance of the Study

The investment in road infrastructure projects has contributed to social and economic growth and the improvement of living standards. Road infrastructure is helping to boost economic growth by reducing the manufacturing cost, by up-grading the economy, and by making other factors of production more effective. The findings show that there is a significant relationship existing between road infrastructures and GDP per capita. Similarly, the quality of living standards has been improved by creating basic infrastructure stocks in the country. (Kessides, 1993; Gannon and Liu, 1997). Before this study, no other studies had been done to measure the social and economic effects of the Karakoram highway on the population of Gilgit-Baltistan. This study will show how much the formation of Karakoram Highway (KKH) has improved the social and economic circumstances of the people of Gilgit-Baltistan.

Now, the China Pakistan Economic Corridor project (CPEC), is an extension of the old Karakoram Highway (KKH). Therefore, it is important to know whether due to the construction of Karakoram Highway (KKH), the socio-economic conditions of the people of

Gilgit Baltistan have improved or not. This study will show whether the social and economic circumstances of the people of Gilgit-Baltistan have improved.

1.3 Objective of the Study

The objectives/aims of the study are as follows:

- To identify the effects of Karakoram Highway (KKH) on the Social circumstances of the individuals of Gilgit-Baltistan.
- To identify the effects of Karakoram Highway (KKH) on the Economic circumstances of the individuals of Gilgit-Baltistan.

1.4 Hypothesis of the Study

The following hypotheses are proposed to check the impact of Karakorum Highway on the Social and Economic Development of Gilgit-Baltistan.

H_O: There are no significant effects of Karakorum Highway on the Socio development of Gilgit Baltistan.

H_1: There are significant effects of Karakorum Highway on the Socio development of Gilgit Baltistan.

H_O: There are no significant effects of Karakorum Highway on the Economic Development of Gilgit Baltistan.

H_1: There are significant effects of Karakorum Highway on the Economic Development of Gilgit Baltistan.

H_O: There are no significant effects of Karakorum Highway on the Socio-Economic Development of Gilgit Baltistan.

H_1: There are significant effects of Karakorum Highway on the Socio-Economic Development of Gilgit Baltistan.

1.5 Research Questions

1- How much Social conditions have been improved in Gilgit-Baltistan, after the formation of Karakoram Highway (KKH)?

2- How much Economic conditions have been improved in Gilgit-Baltistan, after the formation of Karakorum Highway (KKH).

1.6 Organization of the Study

The study is organized as the introduction of the study described in Chapter 1. Chapter 2 is about the literature review, and chapter 3 highlights the historical background of the study. chapter 4 is about the Methodology and Theoretical Framework of the study. While results and discussions of the study are in chapter 5, chapter 6 is about conclusion and recommendations and at the end of this thesis references are given.

CHAPTER 2

LITERATURE REVIEW

The economic literature provides several studies on road infrastructure and its effects on social and economic development. However, some studies have focused on how road infrastructure affects the country's social and economic conditions.

Zhou and Tan (2018) discuss the effects of road infrastructure on the financial development by looking at two nations, for example, China and Germany on the arranging modes for significant street foundation extends essentially by open spending plan distinguish as qualities positioning viability regarding trade cost-sparing the procedures including broad open association for social agreement with the improvement of biological mindfulness. The transportation infrastructure index in the study has used for measuring social and economic development in the economy. The paper has used transportation facilities, health, education, political stability and employment as the main variables. The study shows that Major Transportation Infrastructure Projects (MTIPs) have large impacts on socio-economic development while the planning methods used for these transportation projects have been a prominent topic for policy-makers and researchers. In general, comprehensive studies and appraisals of planning methods are still difficult for different countries. Therefore, this study initially gives a detailed systematic framework based on the prerequisites of planning goals, its process, its result, and the assessment specifications used in previous studies. This paper contrast the distinction between Germany and China in the principality of planning, assessments, final consent coordination, and planning recital. The results of the study found that the systematic procedure showed in this paper provides a suitable caliber for designating and contrast planning methods for major transportation infrastructure projects MTIPs. The planning methods between two have their own merits and demerits, showing transactions between the present and future expenses. While the distinction between Germany and China perhaps instructive for them and will helpful for other developing countries in terms of beef up their planning recital in the future.

Gherghina et al. (2018) identified in their study for the EU-28 countries, over 26 years period from 1990 to 2016. The study was based on approximation methods for the panel data models. The examination finds a bidirectional causal relationship over the long haul between exact parts of transportation that all gatherings of transport framework, aside from railroad transport, impact emphatically the financial development. Further, the paper highlights the connection between the major types of transportation, road infrastructure-related financing, social, and economic advancement. The paper shows the importance of road infrastructure that may helpful for environmental, social, and economic advancement. The paper has used the data from the Organization for Economic Co-operation and Development (OECD) countries, and the World Bank. The paper had used the output of the fixed-effects regressions econometric technique for European Union 28 countries for the period of 1990–2016. The results of the study show that the road, air transport, maritime, and inland waterways infrastructure have significant effects on total national output per capita. While there is a negative connection between Gross domestic product per capita and railway transportation. The econometric tests of the study show that in the short-run, Granger causality test expands on the panel Vector Error Correction Model (VECM), which has been signalized as a unidirectional causal connection running from economic development to oceanic vehicle for products and inland conduits infrastructures. The empirical results of the study show that single direction short-run joins running from Total national output per capita to interests in street and inland conduit transportation infrastructure. The investigation shows that over the long haul, a bidirectional causal connection was seen between the interests in railroad transport infrastructure, length of the rail line's lines, and total national output per capita.

Sun and Luo (2018) used 83 Chinese cities into account for overall periods of time from 2000 to 2012. The study was on regression models. The results of the study found that urban and rural road infrastructure investment can reduce poverty and also helping to improve facilities like education, health, employment, and small-medium enterprises. Jebli and Belloumi (2017) highlight the results that help the writing in regards to the repercussion of the street foundation venture with the financial development and the earth, as follows:(a) two-ways causality between carbon dioxide discharges and marine part transportation in the short run; (b) a unidirectional causality from the monetary development (genuine Gross domestic product). (c) The financial development (genuine Gross domestic product) makes a lessening

in carbon (CO2) discharges over the long haul. Some scholars examined in their investigation that the contribution of road infrastructure outfits to monetary movement may depend on the degree of winning infrastructure stock. The study findings show that a non-monotonic association between reliable highway availability and the long-run social and economic advancement in the country (Deng and Shao, 2014).

The sound quality and conservativeness of the vehicle arrange to have a critical impact at the subnational level for local financial development. The study had used road infrastructure as a variable to identify its impact on socio-economic growth (Banister, 2012). Crafts (2009) discuss the development of road infrastructure requires a large number of developmental expenditures from the central authorities and local spending plans and these expenses are unavoidably reflected and overseen through monetary strategy instruments, for example, taxes and fees which in turn improving the socio-economics level of the country. The study findings show that road infrastructure has a significant effect on social and economic advancement in the economy. The economic hypothesis indicates there is a concentrated degree of foundation upgrading the social and economic development over the ideal level. It also showed that the effect the overall growth is increasing in society. The study used the road infrastructure as the main variable to determine its effects on socio-economic facilities like health, literacy rate, sanitation, and livelihood (Canning and Pedroni, 2008).

A more prominent yield loaded up with progressively private venture and greater work development is created. This study also used road infrastructure as a key variable to explain its effects on the social and economic advancement of the country. The study shows that those states that created approaches and put more in road infrastructure have a monotonic association with social and economic advancement in the nation (Munnel, 1990). Eakin and Schwartsz (1995) explained the equal impacts and assessed the backhanded impacts of parkway framework financing on neighboring states. The findings of the examination have acknowledged the theory that highway infrastructure positively affects different segments of the economy. How investment in highway creates economic activities by classifying the economic effect of road infrastructure into direct effects and indirect effects. The study found that both the direct and indirect effects were a significant relationship with road infrastructure in the economy (Boarnet's, 1996).

Some studies projected a longitudinal General Equilibrium Model of an economy with domestical produced goods, locally produced public capitals like roads, highways infrastructures. The result shows that capital infrastructure gives substantial manufacturing efficiency and utilization welfares to both producers and the consumer's sector. The elasticity for the public infrastructure investment was projected to be positive (Haughwaout,2002). In another study used econometric models and applied them to available data of longitudinal states, country and municipality observations from 1990 to 2000. The study findings show the positive relationship between road infrastructure investment and socio-economic development. The study used a conventional Production Function Model supplement by a public infrastructure input, railways, highways, subways, and other transport facilities (Brachman and Ozmen, 2006). Aschauer (1990) used transport infrastructure as a variable for the road density centered with panel data of forty-eight American states over the timeframe 1960 to 1985 and used the Ordinary Least Square method. The study finds that the variety and volume of the highways have a significant effect on social and economic advancement and its measured output elasticity is 0.22.

Saidi and Hammami (2017) analyze the effects of infrastructure on social and economic advancement by utilizing the Generalized Method of Moments (GMM) and have secured in excess of 75 nations over the ongoing timeframe from 2000 to 2014. The study finds that environmental degradation is unavoidable for developing countries but it recorded financial growth and the reason is the development of cargo sector transport. Most of the European scholars had conducted a study on the Organization for Economic Corporation and Development (OECD) countries where they used an analysis over a 48 year period started from1960 to 2008. The results of the study found that a bidirectional connection between road infrastructure and economic advancement which is positive and significant in the long-run (Saboori *et al.*, 2014). While Sobrino et al. (2014) conduct a case study on Spain using the panel data for twenty years from 1990 to 2010. The study found that road infrastructure has a significant relationship with the social and economic advancement of the country and it has a spillover effect in the economy.

Neves et al. (2017) discussed the association between physical assets, road infrastructure, energy utilization, economic advancement and carbon dioxide (CO2)

discharges. The study used panel data for fifteen countries of the Organization for Economic Co-operation and Development (OECD), over the period of time from 1995 to 2014. The study found that transports infrastructure boost the economic growth in these countries and also improved social facilities health, education, energy, and sanitation system.

Damania et al. (2018) highlighted that road infrastructure is essential for economic growth but they are often also the precursors to the cutting of trees and wildlife disappearance in the Democratic Republic of Congo (DRC). The DRC is additionally giving protection to natural life and it is the second-biggest rainforest on the planet. The study provides an empirical estimation of the economic welfares of refining market access and minimizing the cost of transportation. But at the same time, the cutting of trees and other ecological impacts occurred on the cost of social and economic advancement. Another study shows the relationship between the Portuguese road infrastructure funding and socio-economic development. The study used a non-linear cointegration methodology. The study takes different types of road infrastructures like highways, subways, streets, link roads, and bikeways as the main variables to determine their effects on social and economic facilities. The study finds that Gross Domestic Product (GDP) and socio-economic variables have a monotonic relation indicates that different types of road infrastructures have a positive association with social and financial development in the nation (Sousa *et al.*, 2015).

Cigu et al. (2018) discuss the relationship between financing in the transportation infrastructure projects and the economic recital in twenty-eight countries of the European Union (EU). The study used panel data methods over a period of time from 2000 to 2014. The study concentrated on the definite take a gander at the components of transport infrastructure, inspecting the repercussion, a factor of the approach creators dependent on a generation work and so as to test the arrangement repercussion. The study also employed factor analysis. The results of the study also approve the elective theory, demonstrating the unidirectional since quite a while ago run connection between monetary development, transport infrastructure, and open execution. While some different factors like debasement, the administrative condition, size shadows economy, salary disparity, newborn child mortality, joblessness, and expansion have contrarily influenced financial development. But there is a significant connection

between the education sector, life expectancy, the quality of the judiciary and economic growth.

Some studies found a long term equilibrium relationship between the production sector and road physical assets for the four South Asian countries also including India. The study shows that capital infrastructure advancement contributes altogether to the creation area in South Asia. The study used the Panel Causality Examination to shows that, there is a joint impact between social offices and foundation advancement. The examination likewise shows the single direction causality from capital infrastructure speculation to per capita income (Sahoo and Dash, 2008).

Binswanger et al. (1993) found the observational outcomes by utilizing local level time-series from India. The results of the study confirm that in India road infrastructure helping the people of rural areas to reduce their poverty, reduction in transportation costs, and enhance the productivity of the agriculture sector in the economy.

Some of the South Asian countries also conduct studies to highlight the relationship between road assets and social and economic advancement. The infrastructure inputs by using quasi-fixed in the short-run. The study was used as a multi-equation econometric model to develop a flexible functional form. The results of the study found that physical and social infrastructures, which have shown that a reduction in manufacturing costs principally results from infrastructure financing in India (Elhance and Lakshamanan, 1988). The unequal distribution of income and inequality in rural living standards in the various provinces of India during 1950 forced the policymakers to study the causes of poverty. The study used pooled state-level information for the time span of 1957-1991. The study found that Indian provinces starting with capital infrastructure speculation and human capital, among different offices, have watched fundamentally higher social and financial development rates and furthermore poverty decrease (Dutt and Ravallion, 1999). Lall (2007) discusses the road infrastructure impacts on economic growth by using pooled information set for Indian provinces. The study was examined by a provincially disaggregated model of economic development to understanding the laws of private capital and public infrastructure. The findings of the study show that transportation and communications infrastructure expenses are important factors of

provincial advancement, and the positive additions expanding from these costs come from funds made by certain regions as well as there are sure externalities.

Sahoo and Saxena (1999) explain the effects of real capital on the whole economy by using the production function method. The study used road infrastructure as a variable to determine its effects on the social and economic development of the country. The study found that transport, power, correspondence, water supply, and gas offices effectively affect social and financial development with increasing return to scale.

Ghosh and De (2000) examine the capital infrastructure facilities overall in the South Asian countries for a period of two decades from 1980 to 2000. The study found that different benefactions in capital infrastructure were liable for the mounting territorial inequality in South Asia. The public expenditure such as investment in capital infrastructure that was commonly witnessed as unproductivity in production. This suggestion was bolstered by information from 43 creating nations over the timespan of 20 years. The results of the study found the negative connection between capital consumption and development per capita and watched a positive relationship between current expenditure and growth. The findings show that the government of developing countries has a tendency to supplementary ventures in public physical assets (Devarajan et al., 1996).

Developing countries have mixed experiences in this paradigm where some countries' social facilities and economic opportunities have improved with the introduction of road infrastructure and some countries do not feel any development in the economy by incorporating road infrastructure. Prichett (1996) discusses the investment in road infrastructure projects in developing countries is often used for non-developmental or unproductivity projects. The result shows that the share of investment in road infrastructure in Gross Domestic Product (GDP) can be an inadequate measure of the genuine rise in economical productivity by public capital. The social and economic effects of the Intelligent Transport System (ITS) in the developing countries are shown in a case to exhibit the data Envelopment Analysis Method. The study used cost-benefit analysis to assessing ITS and other transport projects. The cost-effective analysis and multi-criteria evaluations are mostly used to define the aims by giving useful evidence for the most capable policy resolutions. The

results of the study show that a fixed percentage of the ferry, improved demand and supply side in the economy which has growth effects in the country (Juan and Mike, 2006).

Straub et al, (2011) discuss the condition of infrastructure in creating Asian nations. The investigation applies two separate methodologies for example development relapses and development accounting to investigate the connection between infrastructure, financial development, and efficiency. The aftereffects of the investigation found that foundation stocks in creating Asian nations have been developing at a noteworthy pace. The outcomes likewise show that their levels stay well under the equal world midpoints both as far as quality and amount terms. Their paper shows a constructive outcome on monetary development because of the social affair of foundation stocks like power age, media communications infrastructure, transportation infrastructure, and water supply. These stocks were alluring yet might be outside the monetary reach of many creating nations. The paper also investigates the cross-country appraisals which show that for the vast majority of the development pace of stocks and foundation pointers, it has a positive and noteworthy impact on per capita Gross domestic product normal development rate. The consequences of the investigation found that based on development accounting exercise, there is a positive and critical effect of foundation factors on all-out factor profitability (TFP) development.

Straub (2008) examined the infrastructure asset and economic growth in developing nations in which transportation systems, media transmission, vitality age, water, and sanitation are considered. The examination covers two fundamental arrangements of issues. The principal issue is featured in the investigation is the associations among infrastructure and economic development at the economy-wide, local and sectoral levels. The subsequent issue manages the setup, sequencing, and fitness of substitute infrastructure ventures which incorporate the association among speculations and upkeep costs, and open versus private venture. The investigation presumes that as far as information improvement, the fundamental exertion ought to be centered around the microeconomic part, through a way to deal with social occasion information from both firm-level and family unit overview on highlights including quality, access, and costs on administrations.

Taaffe et al. (1963) focus on road infrastructure investment in developed countries. The paper shows there is a large amount of literature on developing countries. Indeed, much

of the early research carried out in the 1960s by geographers take examples from the developing world, particularly in terms of the development of transport networks from ports into the vicinity. The study includes public facilities like power, media communications, channeled water supply, sanitation and sewerage, strong waste assortment and transfer and funneled gas. The other transport ventures like urban and interurban railroads, urban vehicle, ports and conduits, and air terminals were additionally included. The results of the study reflect that communication infrastructure significantly affects the above mention public facilities in the country.

Bristow et al. (1997) examined various appraised procedures used to assess ITS projects. The study suggested that intelligent transport system (ITS) project assessments required to have the same level of superiority and reliability as assessments of orthodox transport structure investment. They found that investment in infrastructure systems has spillover impacts on the social and economic sectors of the economy. The study has discovered academically, how the combination of incompatible social groups is endogenously molded and changed under different political power or productivity dispersals and dynamics. The results of the study showed that social infrastructure would affect the long-run economic growth rate and utilization inequality (Rustichini, 1996).

Seetanah *et al.* (2009) explore that the impact of infrastructure has to a great extent been neglected in the valuation of poverty in developing nations. The study takes a sample of urban poor for 20 developing countries over the period from 1980-2005. The study used the Static Fixed Effect and dynamic GMM model. Both of the models reveal that communications infrastructures are an important device to reduce rural areas poverty. The results were also authenticated by the Panel Causality Analysis.

Calderon and Serven (2004) discuss the impacts of capital assets' advancement on income distribution and economic advancement/growth. The study used the panel data set for over one hundred countries and inequality measures through the infrastructure estimation list. The study employed the General Method of Moments (GMM) model. The result of the paper found that physical assets have a significant impact on economic advancement and pay disparity decreases with sophisticated capital infrastructure. The conclusion of the study is that capital infrastructure development is highly effective to overcome poverty.

Another study examined public expenditure in the twenty-five (25) provinces of Indonesia for the time period of 1976-1996. The study shows government financing in roads, medical facilities, science, technology, irrigation, agriculture, forestry, and education. The results showed that road physical assets have a significant effect on social and economic advancement and poverty followed by education, irrigation, and agriculture. The study showed some indirect effects on poverty through intervening variables. Thus, road infrastructure may be taken one of the assets of the poor countries which helps to improve the functions of labor and product markets (Asian Development Bank, 1999). Jacoby (2000) conducted a case study on Nepal's. The study found that existing upgraded rural road infrastructure resulted in many benefits, and these benefits helping the poor people to reduce their poverty in the country. The results of the study also show that those villages having poor road infrastructure always fails to reduce income inequality.

Some studies reflect that road infrastructure is helping to improve the income level of individuals in the economy. Kwon (2000) examined the Indonesia information from 1980 to 2000 to evaluate development versatility concerning destitution frequency of 0.33 for good-road territories and 0.09 for awful road infrastructure areas. Further, the results of the study show that the provincial road infrastructure also appears to legitimately upgrade the wages and openings for work of the destitute individuals, with the end goal that a 1% expansion in the street foundation speculation is identified with a 0.3% drop in neediness frequency more than five years. The paper utilized more disaggregation region-level information for the timeframe of twenty years in Indonesia. The results revealed that street foundation positively affected the mean livelihoods of the denied locale of the nation (Balisacan and Pernia, 2002).

Another study shows the relationship between road capital and income variegation by studying agricultural activities in rural Peru. The study used Tobit Model for estimation. The results of the model demonstrated that way to deal with roads, access to other open resources, for example, power supply to country territories and upgrading instruction offices was a critical factor of pay variegation. The investigation found that the way to deal with streets and other open resources builds the profitability of both farming and non-horticultural exercises (Escobal, 2001). Fan et al. (2002) used different provincial data for the time period of twenty-five years. The study examined the impacts of incompatible forms of government expenses on

infrastructure development and reduction in rural poverty in the People's Republic of China (PRC). The results of the study found that road infrastructure significantly decreases poverty incidence by providing non-farming employment opportunities and increasing agricultural productivity.

Warr's (2005) conducted a study on the capital infrastructure and provincial poverty in the Lao Individuals' Fair Republic. The examination demonstrated that solid streets in all seasons had a positive and exceptionally huge impact on poverty decrease.

Bond's (1999) highlighted the importance of infrastructure development on socio-economic conditions in South Africa. This study shows that road infrastructure provides direct economic gains to low-income persons through creating job opportunities, reliable accessibility, enhancing work productivity, and the growth of small enterprises. The study also showed that road infrastructure has also indirect economic benefits like resources and time for the female's developments, environmental benefits, medical facilities, and enhancing educational activities.

Some studies are also carried out in Pakistan to check the significant relationship between road infrastructure and social and economic growth. Mahmand et al. (2017) employed the panel information for Pakistan. The paper used the Unit Root Method, Cointegration, and Granger Causality (GC) Model. The primary goal of this examination was to check the linkages between financial development and transportation framework that happens at the commonplace and national level. The examination clarifies that the immediate and backhanded impacts of road infrastructure positively affect the financial development and progress of a nation. The study explains that transportation infrastructure is improving approachability, infrastructure development carries business activities and financing chances to the previously isolated areas. The transportation system also provides an approach to consumer products, services, and job creation opportunities in less developed regions through the multiplier effect. In another study used both informal and formal causality tests to explain the connection between interest in street transportation and economic development for a gathering of South Asian nations. The investigation found a reciprocal causal connection between them. The consequences of the examination found that for chose South Asian

nations, there is a solid relationship between economic development and interest in capital infrastructure (Bose and Haque, 2005).

Communication infrastructure resources in Pakistan since the most recent twenty years have been ascending at a low speed and this is the primary reason for low financial development since the most recent four years (2006-2009). The paper shows that framework improvement in Pakistan has performed two kinds of examinations. The principal investigation, it assisted with discovering the impact of various markers on Absolute Factor Profitability (TFP), precisely that of the open foundation resource. The subsequent investigation assisted with discovering the impact of the physical framework resources i.e broadcast communications, power age, water assets openness and access to country roads and expressways on genuine per capita Gross domestic product. The study shows that both these analyses clearly establish that infrastructure significantly affects economic development and Total Factor Productivity (TFP). The results of the examination show that interests in broadcast communications, power age, and improving the accessibility of water assets for farming purposes impact affect social and economic development. The examination also appears on account of Pakistani setting, improvement uses on escalating/headway the street foundation arrange don't appear to ponder altogether recognizable advantages (Imran and Niazi, 2011).

Khan and Mari (2019) explained that road infrastructure project has positive socio-economic changes in the view of the area. The significant effects of the projects include enhance in employment opportunities and mobility, increase the real estate prices, a major boost in the construction sector, and a significant enhancement in the demand for raw material. The study shows that the project has also a significant effect on tradable commodities like vegetables, fruits, and cash crops. Further, the study shows that the agriculture sector is required to become further as harvest profitability would increment as leafy foods will be moved to different urban communities through the motorway.

Fogel (1960) examined that the economic gains of road infrastructure financed on the Union Pacific Railroad were practically 30% during the period from 1870 to 1879. The examination shows that the monetary increases from capital venture upgrade the efficiency of work and capital when the road infrastructure utilized for business exercises.

Fann at al. (2002) differentiated among road infrastructure and its estimated impacts of street ventures by rustic and urban zones. The outcomes indicated that road infrastructure improvement, together with cultivating up-degree, created water system frameworks, instruction, and media communications, power, made critical impacts on financial development and destitution decrease in the locales. The finding of this investigation was that road infrastructure is a beneficial outcome on the individuals of rustic zones by giving financial chances and improving social administrations.

Ford and Poret (1991) discuss the effects of capital infrastructure on total factor productivity by using data for eleven countries of the Organization for Economic Co-operation and Development (OCED) in early 1970. The study explains the slowdown in the rate of investment especially in the business sector Total Factor Productivity (TFP) in the United States.

Fernandes and Pacheco (2010) examined the causal connection between economic advancement and local communication infrastructure for the period from 1966 to 2006 in Brazil. The paper used the econometric technique of Granger's causality test. In the paper total domestic passenger-kilometers are used as a substitution for air and road transport demand and gross domestic product (GDP) as a substitution for economic growth. The study found that a one-way causal relationship from economic advancement to local transportation infrastructure in Brazil.

Teles and Mussolini (2012) examined the association between road and transport infrastructure and Total Factor Productivity (TFP) in the four main Latin American Countries: Argentina, Brazil, Chile, and Mexico. The study hypothesis is an enhance in road infrastructure has an indirect impact on long-term economic growth by enhancing productivity. The research uses the traditional Johansen methodology for testing the cointegration between total factor productivity (TFP) and physical assessment of infrastructure assets, such as roads, telephones, and energy. The study applied the Saikkonen, Ltitkepohl, and Trenkler Test. The study results show that not support a vigorous long-run connection between the succession and find strong proof that some Latin American countries were cuts the infrastructure investment is the main cause for the reduction in total factor productivity (TFP) from 1970 to 1980s (Canning and Pedroni, 2004).

Agenor and Blanca (2006) highlighted an outline of the various networks through which public infrastructure improvement may affect economic development. The investigation shows that notwithstanding the customary profitability, complementarity and swarming out impacts that are stressed in the past examinations have the effect of developing infrastructure on the speculation modification cost like the security of private capital, and generation of instruction and wellbeing administrations are likewise underscored in there study.

Srinivasu and Rao (2013) highlighted that infrastructure is the necessity for the improvement of any economy on the planet. The paper shows that Transport, vitality age, media communications, water supply, lodging, wellbeing, and instructive administrations have become a vital part of human nearness. It is difficult to imagine a cutting edge world without these administrations. These administrations are essential to family unit life just as economic growth.

Berechman et al. (2006) discuss the association between infrastructure and social and economic development by using econometric models and applied them to data, which is collected from longitudinal states, counties, and municipalities for the timespan (1990- 2000). The main findings are that transportation funding yields strong spared effects relative to place and time of travel. The study used the Production Function Model with variables like a piece of open capital information, for the most part, interstates, and other transportation facilities. The consequences of the examination show the positive flexibility between interest in transportation and economic improvement in the nation. Over the past twenty years the transport system in British helping the firms to gain benefits, so that their operating costs can be reduced. The study shows that a road network is improved and accessible for the firms, and then the firm is likely to take longer and more frequent journeys, which may reduce their operating costs which have a substantial impression on the economic growth of the country (McKinnon and Woodburn, 1994).

Some studies in the United Kingdom show that road infrastructure and railways were not significant effects on the social and economic growth of the country. But it has a significant effect on the low skilled labor, iron industries and passengers. Mitchell (1964) in his study explained the wide-ranging economic history of the United Kingdom (UK) railway

system. The study concluded that these essential situations stated by Rostow were previously met in the United Kingdom (UK) before the railways were built. The paper shows that the United Kingdom (UK) the railways were successfully completed in 1852 and did not have a great immediate effect on the economy. There were large direct effects in the construction phase through the employment of unskilled laborers and the promotion of the iron and steel industries in England. The study shows a major effect was in the development of the levels of savings and capital investment. The growth in the canal network was extraordinary, with some 658 km constructed from the period of (1632–1839), which linking thirty cities in England so that people and freight could travel around the country. The paper also showed that the passenger services were used for both business and preference, with charges being made to travel or to walk the charging points for walkers were the bridges. Demand increased in the 1670s, but decline followed which was attributed to dishonesty by skippers, poor maintenance, and competition from loose carriers and poor economic conditions. There was a restoration in the 1800s, but the canals were then being replaced by railways and roads. The study concludes that the economic justification for the canal network was uncertain, as it may have only exaggerated the level of economic performance, not the definite rate of economic growth. But the canal system may have added more to net territorial generation (in 1670) than the railroads did 200 years after the fact in 1850 (De Vries. 1981).

Christaller (1933) highlighted that southern Germany was the most important region where the links between the cost of transportation and the distribution of economic activity. The study proposed an urban pyramid of a number of market towns, each with different specializations, transport costs, and differential product values. The paper showed that as the towns went up the pyramid, the range of products enlarged and the quality of transport enhanced. The study found that the larger centers were able to raise their share of the total economic activity and this, in turn, led to the concentration of economic activity with a few centers controlling the region. While the improvements in the transport infrastructure have fortified the approachability and supremacy of the central city and central place theory.

Wilson (1978) explains the importance that better transportation is hypothetical to play are frequent. The paper shows that transport system enhancement has been quoted as having

significant effects on economic growth, skillful, social solidity, and price constancy as well as on attitudinal change.

Hart (1983) showed a resilient belief that transport made an important contribution to economic growth. The paper shows that past analysis hints both public and private involvement in transport infrastructure investment, with expected high rates of return and significant multiplier effects on the economy. The paper also shows some other factors that yet, many of the early companies, in particular, those involved in rail investments, went bankrupt. But this may have been due to other factors such as macroeconomic factors and conditions for competition. The conclusion from much of the economic history has been to reduce the effect of transport innovation on aggregate economic performances. The study Concludes that transport was one feature of productivity enhancement, but that the changes in agriculture and manufacturing sectors inspired growth in incomes and began to generate extensive volumes of traffic: 'enhanced transport was a luxury afforded out of economic growth'.

Botham (1983) assessed the involvement of the road infrastructure development program in Great Britain to regional development. The study developed methodology assumed requires the counterfactual condition to be set up to answer the question as to the nature of the spatial configuration of the British economy in the absence of the roads program for the period of (1957–76). The study used a set of regression equations and estimates the deviations in the 3-D spreading of business achieved by the adjustments in congeniality. The study conclusion reached that the effect is marginal, if in the absence of road investment and it is assumed that transport costs remain fixed over time. The study shows that if congestion is assumed to raise costs, the effect is increased, but it is challenging to put a value on it. The study reflects that restrictions on drivers' working hours and the value of work time, Pricing and taxation policy may all have had a larger effect on approachability. Similarly, spatial specialization, wage rates, labor supply, and migration configurations may all have affected employment configuration more significantly than transport infrastructure investment.

Dodgson (1974) estimated that the largest decrease in the total costs of the manufacturing sector. The reduction in distributional cost in any area brought about by the construction of the M62 motorway was about 0.33 percent. The study shows that 0.33 was

considerably less. It is, therefore, any attempt to measure the impacts on local employment opportunities failed as the scale of the impact was so too small in the economy. The large-scale traffic development may show that the motorway has motivated economic growth. The study also shows that Growth in traffic on the M62 route from Leeds to Manchester was 34.3 percent for the period (1970–77) when this is compared with a national growth rate on rural roads (excluding motorways M62) is 24.8 percent over the same period. The examination shows that interest in street foundation significantly affects the social and economic development of the nation. This motorway provides job opportunities for skilled and lower-skilled laborers (Gwilliam and Judge, 1978).

Mackie and Simon (1986) estimated an individual link to determine whether the road investment benefits industry. The study shows that Humber Bridge forms a major new link across an estuary in Yorkshire (Great Britain), and its direct impact seems to have been in extending the market area of companies rather than their location. The results of the examination found that a few firms felt that the tolls had offset working cost investment funds, yet that time reserve funds could be utilized to build vehicle and driver efficiency. Another study determines that 'the benefit-cost analysis just incorporates development gains to the proportion that it results in consumer gains for existing and fostered traffic'. The study found that the crucial issue of benefits and costs redistribution also needs to be considered in an overall valuation of the economic development impacts of transport ventures. The paper gives five conclusions on the empirical evidence from the USA (i) Road financing appears to have a larger result on economic activity in the low industrialized regions such as the Sunbelt. (ii) most less developed regions are low capable contenders for road development than regions in a middle stage of development which is encountering low growth. (iii) The impacts are positively correlated with urbanization levels and municipal contiguity. (iv) Some other forms of capital (e.g. airports) may bestow the efficiency of highway infrastructure financing. (v) Extra roads may result in diminishing marginal returns (Rephann, 1993).

Hansen (1965) explained that public capital is divided into two head social and economic overhead capital (education, health, nutrition, employment opportunities, income) and overhead capital (roads, sewerage, water, utilities). The study also divides regions into those that are crowded, intermediate and underdeveloped. The finds of the paper are that

economic overhead capital should be concentrated in the intermediate regions and that social overhead capital should go into the underdeveloped regions. The discussion is over whether, through concentration or dispersal, regional development objectives can be attained and whether economic growth at a regional level can be acquiescent with the distribution of that economic growth. The paper shows the spillover effects of economic growth will impact all parts of the region.

Anas et al. (1998) explained that the land development effects of roads have a long history, but recent debates have tried to identify under what conditions measurable development effects can be recognized. The study shows that if particular circumstances can be insulated where rises in land values, rent levels, and house prices can be measured, then there is a strong case to evoke some of that increased value, through taxation or through contributions of developers to the financing of the transport infrastructure.

Some studies are also conducted in the United States top determined the affiliation between road infrastructure and socio-economics growth. Baum-Snow et al, (2017) explained the significance of the nearby transportation system in the U.S. somewhere in the range of 1960 and 2000. The paper shows that not exclusively did the Inter-state Highway System cause sensational suburbanization of populace, yet it likewise drove the best approach to suburbanization of assembling occupations. The examination also mirrors that the Inter-state Highway System hopes to have assumed a fundamental job in the suburbanization of U.S. urban communities. The aftereffects of the examination show that these streets foundation didn't just important to build social and financial development or monetary action, yet rather moved populace and action to various zones. The two arrangements of provincial areas in America (U.S). To begin with, those that got a between state expressway somewhere in the range of 1969 and 1994. Second, are the neighboring areas in the U.S. The investigation analyzes the way that industry profit in these provinces changes during the almost 25 years after interstate development. The investigation finds that country districts that get a between state interstate see a decrease in ranch and rural profit during the years after roadway development, yet additionally, observe ascends in assembling, administrations, retail, and government. The investigation additionally found that the absolute financial movement in these areas improved. While the neighboring regions experienced negative impacts (Chandra

and Thompson, 2000). Duranton, Morrow, and Turner (2014) highlighted the effect of interstate expressways on the exchange between huge U.S. urban communities. The investigation finds no impact on the degree of exchange, however, it affected its creation. The investigation shows that urban communities with more highways infrastructures become similarly increasingly represented considerable authority in the generation of products with a low cost for every pound. This mirrors as a city progress interstates to move trucks around, it turns out to be progressively had practical experience in moving merchandise that rely upon all the more enormously on trucks to find a workable pace.

Duranton and Turner (2018) highlighted that in 2008 a normal U.S. family paid out about $8,500 every year to purchase, keep up, and work a car. The examination shows that for a normal family unit, the previously mentioned figure was around 18 percent of all-out family unit use. The investigation depicts that destitute individuals decide to live in places where they can travel utilizing the open travel framework. The investigation recommends that expansion openness and unwavering quality of open travel frameworks may altogether extend work showcase results for individuals who are poor enough that utilizing a vehicle is too much costly.

Pang (2017) examined the connection between the metro foundation and work results for low-gifted U.S. men. The investigation utilized aboard information system and thinks about changes in labor force support (LFP) to changes in metro administrations. The examination utilized a decent variety of econometric particulars. The results of the examination show that a 10 percent expansion in trams per 1,000 of the working-age populace is identified with about a 0.5 percent expansion in LFP in his example and if a 10 percent improvement of a metro arrange builds the LFP for the low-gifted populace by 0.007, at that point duplicating by the low-talented populace gives ascend in work of around 1,400 individuals for every city. The investigation shows that an expansion in metros and other transportation frameworks expands work openings particularly for the low-talented populace in the nation.

Baum Snow et al, (2017) explained that the formation of the Chinese expressway organizes prompted a convergence of individuals and financial action in few territorial focuses, at the expense of littler urban areas. The investigation explores that the territorial level, parkways assisted with concentrating individuals as opposed to dispersing them.

Duranton and Turner (2012) explain that larger cities with road infrastructures are more powerful than littler urban areas. In the wake of assessing for contrasts in specialist highlights, compensation is around 3 percent higher when occupants are twice as huge. The paper shows that a few actualities give a premise to estimating the expansion in salary those outcomes from parkway development. The investigation shows that if a 10 percent expansion in expressways prompts a 1.5 percent increment in the populace, at that point this, thus, prompts a 0.03 × 1.5 percent expansion in normal wages of the workers working in those areas. The investigation depends on onboard information identifying with a portion of the world's interstates and tram frameworks from 1950 to 2010. The paper finds that adjustments in roadways and subway system degree have precisely zero effect on city populace development. The paper investigates that, to the degree that expressways and trams sway the profitability of urban inhabitants (Gonzalez-Navarro and Turner 2018).

Saho et al, (2010) discuss the significance of street foundation in animating social and economic development in China for the period from 1975 to 2002. The examination shows that framework stock, work power, open and private ventures have assumed a crucial job in social and monetary development in China. The examination mirrors that it is essential to structure a financial approach that builds the physical framework just as a human capital arrangement for social and monetary development in creating nations. The consequences of the examination show that road infrastructure improvement in China has a positive association with social and economic development.

On the other side of the mirror, some studies show that road infrastructure projects have adverse effects like people may face involuntary displacement, loss of land, air, and noise pollution in the area.

Khan and Mari (2019) explained that the road infrastructure project has a positive socio-economic change in view of the area. But at the same time, these projects have some adverse effects like people may have faced involuntary displacements and people are not fully

compensated for their loss of lands. After the completion of these projects, people are faced with environmental issues like air and noise pollutions.

Zaman (1996) explained that tens of thousands of people have been displaced from their homes and land by infrastructural development projects. Indeed, it is nearly impossible to accomplish any development project in Bangladesh without uprooting people, due to the sheer density of pollution such as 2000 per square mile. In another study of the Bangladesh, show that to proceed with a development way Bangladesh should fill an enormous "infrastructure gap" that keeps the nation down. Admittance to land is the pivotal bottleneck to fill that hole. All frameworks (roads, bridges, monetary zones, pipelines) have an impression, and in a land-scant and thickly populated nation like Bangladesh, accessing land for infrastructure ventures is a significant uncertain issue. Simultaneously strategies for resettlement don't exist and remuneration under the law only from time to time arrives at the influenced parties (Pittaluga, 2009).

Litman (2003) explained that throughout the only remaining century, air contamination has expanded as the number of vehicles out and about has climbed even with the improvement in discharges norms. Further, the study shows that areas that are 0.2 to 0.3 miles from a thruway are generally influenced via air and noise pollution. While living close to a significant highway is related to an expanded danger of asthma, cardiovascular diseases, and mortality.

2.1 Concluding Remarks

The above studies show that road infrastructure has a positive impact on the social and economic conditions of the region. The study reflects that road infrastructure has a direct impact on the time of traveling, savings in fuel and other direct transportation costs and indirect effects are to get quality of health, education, sanitation, social interactions, and political participation. These indirect effects bring social and economic development in society. The road infrastructure is helping to enhance job creation and income-earning opportunities. But some studies critically analyze the impact of physical and communication assets of social and economic advancement. Similarly, these road infrastructure projects have also created many environmental and human displacement issues.

CHAPTER 3

HISTORICAL BACKGROUND OF KARAKORAM HIGHWAY (KKH)

Karakoram Highway (KKH) is also known as Silk Route. In ancient times, people of the Subcontinent and especially Arabian traders have used this route to carry out their trade activities

between China and Indo-Pak Subcontinent. The silk route is a generally significant global exchange route among China and the remainder of the world. China is famous for its silk production not only in the present time but was famous in ancient times. China used this route for the silk trade with the rest of the world. This old route starts at Xi'an then by method for the Hexi Passageway, and it comes to Dunhuang, where it separates into three, and the Southern Course, Focal Course, and Northern Course. The three routes spread everywhere throughout the Xinjiang Uygur Self-ruling Area, and afterward, they stretch out similar to Pakistan, India and even Rome. Karakoram Highway is connected with Northern Route. After the independence of Pakistan in 1947, Karakoram Highway (KKH) was built by the Government of Pakistan and China. Karakoram Highway connecting Gilgit-Baltistan region to the ancient Silk Route, run approximately 1300km (810miles) from Kashgar, a city of the Xinjiang region of China, to Haripur of Pakistan. The work of Karakoram Highway was started in 1959, and it was completed in 1979. Gilgit-Baltistan has 10 districts but only 4 districts are directly connected with Karakoram Highway. The other 6 districts are indirectly connected with Karakoram Highway. The following 3 districts have used in our study.

1. Hunza
2. Nager
3. Gilgit

3.1. District Hunza:

Hunza is situated in the North of Gilgit city, bordering China to the north-east and Pamir to its north-west. Until 1974, Hunza remained as an independent State, when Zulfiqar Ali Bhutto finally dissolved it. Hunza had its own flag and administrative system. Hunza was an independent princely state, which was ruled by Ayashoo Dynasty for 900 years and its last ruler was Mir Muhammad Jammal Khan. The state capital was the town of Balti (Now known

as Karimabad) and its old settlement is Ganish Village. The Britisher's forces invade Hunza State many times but failed to gain control until 1892. After the fall of Hunza State Mir (Tham) Safder Ali Khan fled to Kashgar in China and sought political Asylum. Hunza is also known for its beautiful landscapes, Glaciers, and tracks.

Hunza is divide into three regions:

1. **Upper Hunza**
2. **Central Hunza**
3. **Lower Hunza**

3.1.1. Upper Hunza:

The upper Hunza starts from Aianabad village which is affected by the natural disaster at Attabad in 2010. Now there is a huge lake formed named and famous as Attabad Lake. The lake had sunk completely the village of Aianabad and some other villages of upper Hunza. Upper Hunza extends up to Misgher, Shimshal and Chipurson which are border areas with China. The Gulmit village is the capital city of Upper Hunza and the Sost is an important village for business activites due to sost dry port. Upper Hunza is also known as Gojal.

Upper Hunza is subdivided into four regions:

1. Gojal One
2. Gojal Two
3. Gojal Three
4. Gojal Four

3.1.1.1. Gojal One:

Gojal one comprises of the following villages:

Aianabad, Shishkat, Gulmit, Passu, Hussaini.

3.1.1.2. Gojal Two:

It comprises of the following villages:

Khayber, Galapan, Murokhoon, Jamalabad, Gircha, Nazimabad, Hussainabad, Sost, Khudabad, Misgher.

3.1.1.3. Gojal Three:

It comprises of the following villages:

Khairabad, Rashit, Kirming, Kills, Espangi, Shersaabz, Zodokhon.

3.1.2. Central Hunza:

Central Hunza is the capital center of the Hunza. It remained the administrative center during the monarchial rule of the Ayashoo Dynasty, which ruled for 980 years from 996-1974. Central Hunza starts from Murtazabad and ends at Attabad. It comprises of the following villages namely Murtazabad, Hassanabad, Aliabad, Dorkhan, Shiras, Garelth, Hyderabad, Ganish, Karimabad (Baltit), Altit, Mominabad, Ahmedabad, Gama Serath, and Attabad. In central Hunza, 97% of people speak Burashaki and the rest of the 3% speak Domki. Central Hunza is a heavily populated area where 60% of the total population of Hunza lived here. Aliabad is the capital town of Central Hunza where Government offices, colleges, DHQ hospitals, and private colleges are located.

3.1.3. Lower Hunza:

Lower Hunza is a lower part of Hunza, its boundaries are connected with Nager valley on the East and on South. This beautiful lower part of Hunza starts from a village Khizirabad, and ends at Nasirabad. Lower Hunza composed of Khizirabad, Mayoon, Hussainabad, Khanabad, and Nasirabad. People in lower Hunza mostly speakes shina languages. Therefore, it is also know ast as “Shinaki Hunza”.

3.2. District Nager:

Nager was a royal state in the northern piece of Gilgit-Baltistan. Until August 1947, it was in an auxiliary collusion with English India. It flanked the condition of the Gilgit city toward the South and West, and the condition of the Hunza toward the North and East. Nager was a princely State until 1974 when prime of Pakistan Zulfiqar Ali Bhutto dissolved it. Nager

Khaas was the capital of the Nager State. In November 1947, Nager acquiesced to Pakistan, which got answerable for its outside undertakings and guard, while Nager kept up interior self-government. In 1968, Syed Yahya Shah the primarily taught government official of the town requested social liberties from the Mir of Nager. In 1974 Zulfiqar Ali Bhutto's prime of Pakistan constrained the Mir of Nager to surrender. Verifiably, Nager was the most seasoned state in the entire Gilgit-Baltistan and stayed as a free state until 1892. The fight was battled in 1892 against the attacking English Armed force by individuals of Nager and Hunza state at the spot of Nilt, and that fight is as yet eminent as an Angolo-Brushoo War. This fight went for the English Armed force at last when some agent of the state sold out his men by giving data about mystery courses on the mountain to enter the Nager Valley, which was the primary snag before the attacked English armed force. Both the Nager and Hunza state were defeated due to lack of modern weapons but despite that, forces of Nager and Hunza state were for fought 19 days. After the end of war Mir (Tham) of Nager State Azur Khan was sent in exile to Kashmir whiles the Mir (Tham) of Hunza State Safder Khan, took exile in Pir Ali, China. It was historically conquered for the British Empire in the world that on the British side, three soldiers were rewarded with the "Victoria Cross" the highest military award. The British retained Nager's status as a princely state until their departure in 1947. There are two tehsils and two halqas (Seats for G-B Administrative Gathering) in Nager Sub-division. In the town of Nager, two dialects Brushaski and Shina are spoken fundamentally. Nager valley is divided into two major divisions Nager-1 and Nager-2.

3.2.1. Nager-1:

Nager-1 consisted of 6 towns/villages starting from Shayar, Askurdas, Sumayar, Nager Khaas, Hoper and Hisper.

3.2.2. Nager-2:

Nager-2 Consisted of 16 towns/Villages starting from Phaker, Dadimal, Miacher, Minapin, Pissan, Yal, Ghulmat, Masot, Thole, Nilt, Jafferabed, Skanderabad, Chalt, Chaprote, Bar, and Buldass. Nager Valley has many attractive trekking routes like Rakaposhi Base camp trek, Nager Rash Phari trek, Diran Base camp trek, Biafo Hisper & Snow Lake trek.

Likewise, there are many famous glaciers in the Nager Valley, such as Biafo Hisper Glacier, Hoper Glacier, Miar Peak, and Glacier, and Barpu Glacier.

3.3. District Gilgit:

Gilgit is the teeming growth pole of the Gilgit-Baltistan and administrative Headquarter, since the beginning of the British era. It became the trade center, full of colorful markets having local and Chines products brought in via the Khunjarab Pass. It was also is known as the melting pot for various ethnic groups from inside and outside of Gilgit Baltistan. The ancient name of Gilgit is Sargin. But now it is called Gilit. It is the city of beautiful hills and valleys. Gilgit is an important place in the economy of Pakistan on the ground of tourism activities. The beautiful sceneries, natural wonders, and weather conditions are the attraction of this area for domestic and foreign tourists. The city is 4770 KM feet above the sea level and connected with the Karakoram and Himalayan ranges. It has its own airport, whereas it is also connected to other cities with the help of road transportation. The hilly views of the Gilgit are the best photographic location in the world. One of the most important foods of this area is the trout found in the fresh and clean water of Gilgit River. Locally grown apples, cherries, apricots, and a variety of dry fruits are being sold in all cities of the country. Shina is the local language in Gilgit. The historical and tourist attraction areas of district Gilgit such as Karrgah Buddha, Bidluph House, Chinar Bagh, Qasam Hall, British Graveyard, Danyor, China Graveyard, The Shrine of Sayed Shah Sultan Alif, Danyor Suspension Bridge, Nomal, Nalter, Bagrot and Haramosh.

CHAPTER 4

THEORETICAL FRAMEWORK AND METHODOLOGY

4.1. Theoretical Framework:

The establishment and improvement of physical infrastructure have been exposed to an excess of hypothetical investigation and experimental examinations. It is stated as guardianship for various events and it is known as “Social Overhead Capital”, “Overhead Capital”, “Economic Overheads”, “Basic Economic Facilities”, and so on. Nurkse (1966) explained the notion of “overhead capital”. He explains that the aims of “Overhead investment” are giving the facilities to the people to improve their socio-economic life. These facilities are transportation infrastructure, installation, and electricity that area unit the elemental facilities for any production activity. These overheads can't be imported from abroad, which required huge and exorbitant establishments and throughout the entire existence of western financial matters of Europe particularly outside of Britain, have generally called for open help or open endeavor. Normally, overhead speculations set aside an enormous effort to arrive at development in developing". All ventures rely upon certain desires however the time scope of these desires is picked to be especially long in overhead tasks on account of their lopsidedness joined with their high operational capital power. Some other formative financial analysts like Hirschman and Rostow have also utilized the term of “social overhead capital”.

The theory of stages of Growth given by W. Whiteman Rostow in (1960) explains the Social Overhead Capital (SOC) is an underlying necessity for the removal from the economy into self-continued development. This development in the economy has overflow impacts on the financial states of any general public. The financing in Social Overhead Capital (SOC) and the extension of the financial administrations rouse the makers to put resources into the hazard bearing business. This Social Overhead Capital (SOC) readies the base for the expansion of financial exercises by declining the expense of generation and developing the gainfulness of beneficial exercises. It additionally assists with boosting an economic condition which thusly helps in the production of gifted work power, propelled correspondence systems, and gadget instruments to give vitality, fundamental metro enhancements and law, and request.

He explains that “Investment in Social Overhead Capital” (SOC) makes a prospect that raises the producers' ability and capabilities. The theory said that investments in Social Overhead Capital (SOC), particularly in the fields of transportation and force age, one of the underlying conditions for take-off. In the underlying condition to the take-off stage, the interest in social overhead capital (SOC) ought to make gifted staff in the working power. These educated laborers force is an important condition for social and economic development.

Hirschman's view of social overhead Capital incorporates open administrations like transportation, correspondence, power, water supply, wellbeing, water system, and sanitation system without these administrations the essential, optional and tertiary exercises in the economy can't work. In the more extensive intelligence, it incorporates every single open help from training, wellbeing, transportation, correspondence, power age, and accessibility of clean water, to lawfulness. These open administrations additionally incorporate rural overhead capital as a headway of the water system framework, up-reviewed seeds, present-day innovation, and sanitation framework. The principle idea of the hypothesis can be confined to transportation and energy production. Hirschman (1958): As indicated by the hypothesis of uneven development by Hirschman, Less Improvement Nations have the inadequate gift of assets to allow it to put momentarily in all areas of the economy to accomplish adjusted development. He features that interests in profitably chose enterprises or different divisions of the economy will control towards new venture openings and which prepares for economic advancement. He clarifies that social and economic improvement to occur a purposeful system of unbalancing the economy ought to be received. This is possible by putting either in social overhead capital or backhanded generation exercises. Interests in social overhead capital are immediate consequences for the last yield, however, it draws in increasingly outside speculations.

As indicated by development economist Todaro (1981) highlighting capital amassing remembering every single new venture for HR, physical gear, and land, it possibly happens when some measure of present pay is spared and put resources into request to support future yield and salary. The hypothesis clarifies that the amassing of new manufacturing plants, apparatus hardware's and materials rise the unmistakable "capital stock" in a nation that incorporates the complete "net" genuine estimation of every substantial item and with the assistance of these capital stock want levels of yield will be accomplished. The immediate

financing in capital stocks is frequently called social and economic infrastructure which incorporates vitality, streets, clean water for drinking, and waste, revelation, and so forth. These framework offices encourage and coordinate monetary exercises for instance speculation by a craftsman in new wooden cutting apparatuses may raise the general efficiency at the wooden items he can deliver, yet without appropriate transportation, offices to get this additional item to the commercial center, and their financing may not improve anything to national yield. The summarize of perspectives from the whole over financial experts on infrastructure as overhead capital or overhead expenses. This investigation gives a hypothetical base to infrastructure advancement which assists with bringing the social and economic improvement in the economy. The direct effects are helpful to reduce the time of traveling to work, schools, colleges, universities, hospitals, local markets, savings in fuel and other direct transportation costs. While the indirect effects have increased the income generation opportunities and other socio-economic development (health, education, employment opportunities, social affiliation, and political involvement) brought about by the road infrastructure (Grootaert and Calvo,2002). In another study education, health, employment opportunities, and transportation index were used as a variable to determine "the relationship between road infrastructure and long-run social and economic growth. The study is a case study for the Eu-28 Countries" to estimate the relationship between the road infrastructure and the social and economic growth, over the period of time 2000-2014. The study used panel data. The results of the study show that road infrastructure has a significant impact on the social and economic growth of the country. The reliable road infrastructure provides employment opportunities, increase the productivity of the manufacturing sector and also improving the social facilities like education, health, and job securities (Cigu and Agheorghiesei, 2018). Preston, (2001) in his study, the quantity demand, price of goods, income, cost of transportation, taste and time included as variables to check their relationship with transportation infrastructure and it is helpful to bring social and economic services in the economy. The findings of the study show a significant relationship in transportation infrastructure, Gross Domestic Production, and other socio-demographics.

4.2. Description of Variables

4.2.1. Dependent Variables

The nature and importance of the dependent variables of the study are described in detail below;

4.2.1.1. Education Level:

Road infrastructure plays an essential role in the lives of the people of rural areas. It has risen transportation services and traveling has become much faster than before. Road infrastructure has provided more convenience for the people of the rural area especially in the sense that women and men can travel more safely and faster further from home. Thus, the quality of education, health, and other facilities become more reachable to the people of rural areas. Both males and females have a more equal chance to attend their high schools and colleges. All the forms of education are vital for every human society, and they are likely to be fully utilized if there is reliable road infrastructure. If there is a reliable transportation system that helps people to schools, colleges, universities, and businesses (Sechaba consultants, 2002). Due to inaccessibility in the area, the local people have been deprived of high-level school, college, and technical education. There is no higher level of educational institutions in the area and even no center of technology where people get basic IT education. (Rawat and Sharma, 1997).

4.2.1.2. Health Level:

Many modes of road infrastructure have a profound impact on human life. Road infrastructure such as highways, bridges, bikeways, roads, public transport and sideways offers the advantages and disadvantages of each. Road infrastructure has provided helps to access needed goods and services like healthy food, places for physical activity, and health care facilities which are significant for the individual's health and well-being (Farhang and Bhatia, 2005). Public transportation that is more reliable, convenient, fast and easy to travel is associated with high chances of access to health care facilities, health care services, and healthy food. (Litman, 2015).

4.2.1.3. Livelihood:

In the modern world, reliable road infrastructure directly affects financial development, combinations, and monetary improvement. Road infrastructure effectively affects the company's expenses for tasks and business travel and backhanded impacts on access to

business sectors and work closer financial incorporation and more challenge. Road infrastructure ventures effectively affect a network's financial improvement destinations, for example, work creation, efficiency, business exercises, property estimations, speculation, and expense incomes. New road infrastructure has a significant impact on employment generation and labor productivity in Britain (Gibbon's et at., 2019). The road infrastructures have generated both short-term and long-term employment opportunities averaging around 40 thousand annual jobs are creating which has worth of US dollar 1 billion. While in the rural road maintenance projects may employ 200 thousand to 500 thousand annualized direct jobs for every US dollar 1.2 billion spent (Schwartz *et al.,* 2009).

4.2.1.4.Tourism:

The road infrastructure always acts as a vivacious role in the development of local and foreign tourism. The new road infrastructure can significantly decrease the traveling cost and helping to the accessibility of tourism sights which has significant impacts on tourism development. The influx of tourism brings economic opportunities in the area like hoteling, rent a car service, restaurants, huts, and surfing, etc. These economic opportunities are helping local people to improve their living standards. The tourists from Asia, America, and Europe are particularly sensitive towards the transport infrastructure of the tourism destination. The research shows that especially tourists from America and European countries are more concerned about the accessibility of tourism places (Khadaroo and Seetanah, 2007).

4.2.1.5. Cost and Time Saving:

In general, road infrastructure projects that improved overall accessibility in the country. Road infrastructure always improves the business's ability to provide goods and services to its consumers in the country. It also helps people to access education, employment, and health facilities. Road infrastructure has reduced transportation costs including travel time, vehicle operating cost, saving in fuel and parking facility cost. These reductions in transportation costs have tended to increase economic productivity and improve socio-economic growth. For road infrastructure investment, the principle economic advantages comprised of sparing in-vehicle working costs, for example, fuel costs, vehicle costs, time reserve funds, and a diminished danger of mishaps in the nation (Grootaert and Calvo, 2002).

4.2.2. Independent Variable

4.2.2.1. Karakorum Highway (KKH):

Karakorum Highway (KKH) indicating the presence of road infrastructure. Here Karakorum Highway (KKH) is a dummy variable indicating the presence of road infrastructure with binary values where the dependent variable equals one (1) or zero (0). This one (1) means "Yes" the Social and Economic circumstances of the Gilgit-Baltistan have been improved after the construction of Karakorum Highway (KKH) and zero (0) means "No" the Social and Economic situations of the Gilgit-Baltistan does not improve, after the formation of Karakoram Highway (KKH).

4.3. Estimation Techniques

To determine the Social and Economic effects of Karakorum Highway (KKH) on the people of Gilgit-Baltistan, the study has used the Descriptive and Frequency Analysis.

4.3.1. Descriptive Analysis:

Descriptive statistics is the part of statistics which concerned with the description and summarization of data. Descriptive analysis shows the difference between ages and income groups of the people in the selected districts of Gilgit-Baltistan. Descriptive analysis is commonly used for summarizing data frequency or measures of the central tendency. The measurement of central tendency has included average, median, and mode.

4.3.2. Frequency Analysis:

Frequency analysis is a descriptive statistical technique that reflects the number of events of every reaction picked by the respondents. Frequency analysis helping researchers to investigate the outcomes and reach inferences by calculating mean, median, variances, standard deviation, minimum, maximum of variables, and mode of the given data set. While the frequency analysis shows the magnitude of the response from the selected population. This analysis will help to show the response of the individuals of Gilgit-Baltistan to the given statement in the questionnaire.

4.4. Research Design

4.4.1. Purpose of the Study

This study is explanatory research. None of the other studies have been yet carried out to measure the Social and Economic effects of Karakorum Highway (KKH) on Gilgit-Baltistan. Before this study, no other studies had been done to measure the social and economic impacts of the Karakoram highway on the individuals of Gilgit-Baltistan. This study will show how much the construction of Karakoram Highway (KKH) has improved the socio-economic conditions of the people of Gilgit Baltistan.

4.4.2. Researcher Interference with Study

The researcher has a Minimum Interference in the study. The researcher has only reflected the responses of the respondents of the three selected districts of Gilgit-Baltistan and has no interference with the study.

4.4.3. Study Settings

The study is a Non-Contrived Setting. The research is done in the natural environment where work proceeds normally, the research is in non-contrived stings. The study whole work was conducted in the natural environment and the field.

4.4.4. Unit of Analysis

The study has collected the data from the Individuals of the three selected districts of Gilgit-Baltistan whose ages were 45 years plus.

4.4.5. Time Horizon

This study is a Cross-Sectional Study because the data is collected just once, to answer a research question. An examination can be embraced in which information is accumulated just once, maybe over a time of days or weeks or months, to address an exploration question. Such investigations are called one-shot or cross-sectional studies

4.5. Data Collection Method

4.5.1. Primary Data:

Primary data have used in the study for analyzing the results. In the past Gilgit-Baltistan was known as the Northern Area, which was run under the ministry of the Federal Administrated Northern Area (FANA). Therefore most of the government offices and departments were operated from Islamabad. There was no single department or agency to collect the data of socio-economic indicators of the people of Northern Areas. Before 1974, autonomous princely states existed in Gilgit-Baltistan. These princely autonomous states had their laws and rights to collect the taxes, protect their people from external inventions and look after their welfares. Due to the low literacy rate in these princely states, people did not note down their household records, and also socio-economic issues of the state. Therefore, secondary data are not available to carry out this study. This study has used primary data to determine the socio-economic effects of KKH on the people of GB in selected districts.

4.5.2. Techniques of Data Collection:

Data was collected through structural questionnaires from the people of the three districts of the Gilgit-Baltistan i.e. Hunza, Nager, and Gilgit. These questionnaires were directly filled by the respondents of the three selected districts. 100 questionnaires were filled from each selected district to acquire the data.

4.6. Sampling Technique:

The study uses the Probability sampling technique in which samples from a larger population are picked utilizing a technique dependent on the theory of Probability and population has a known and equal chance of getting selected. In the Probability Sampling technique, we can use the Cluster Sampling process because the total population is divided into groups known as Clusters sample of the group is selected.

4.6.1. Sample Size:

The total sample size of the study is 300 people from three selected districts of Gilgit-Baltistan, which means that 100 persons are randomly selected from each district of Hunza, Nager and Gilgit. Khan, (2015) used a Cluster sampling technique for 600 households from two districts of Bahawalpur in the study to avoid the problem of biasedness to identify the elements influencing the provincial family unit poverty in locale Bahawalpur (Pakistan) by utilizing essential information gathered through a rustic family unit review.

CHAPTER 5

RESULTS AND DISCUSSION

The purpose of this study is to explore the effects of the Karakoram Highway (KKH) on the people of Gilgit-Baltistan. To identify these social and economic impacts, the researchers used structural questionnaires in the study. The following results are the responses of the people of three selected districts of Gilgit-Baltistan, which they had mentioned on their questionnaire.

5.1. Livelihood:

Table-5.1:

Descriptive Statistics									
	Hunza			Nager			Gilgit		
	Sample (N)	Age	Monthly Income	Sample (N)	Age	Monthly Income	Sample (N)	Age	Monthly Income
Minimum	100	50	20000	100	50	18000	100	50	22000
Maximum	100	95	100000	100	92	100000	100	86	200000
Mean	100	62.5	30000	100	63	28000	100	60	36000

Table-1 shows the descriptive statistic of Age and Monthly Income for the three selected districts Hunza, Nager, and Gilgit. The above table shows that for the district Hunza minimum age is 45 years and the maximum age is 95 years. The average age of the individuals for the district Hunza is 62.5 years. While for the district Nager minimum age is 45 years and the maximum age is 92 years. The average age of the people for the district Nager is 63 years. Similarly, the above table-1 shows the minimum age in the district Gilgit is 45 and the maximum age is 86 years. The average age of the individuals for the district Gilgit is 60 years. Monthly Income the above table-1 shows that for district Hunza minimum monthly income is 20000 rupees and maximum monthly income is 100000 rupees. The average monthly income of the people of the district Hunza is 30000 rupees. While the minimum monthly income of the people of district Nager is 18000 rupees and the maximum

monthly income is 100000 rupees. The average monthly income of the people of the district Nager is 28000 rupees. Similarly, the minimum monthly income of the people in the district Gilgit is 22000 rupees and the maximum monthly income is 200000 rupees. The average monthly income of the people of the district Gilgit is 36000 rupees.

5.2. Monthly Income:

Figure-5.1

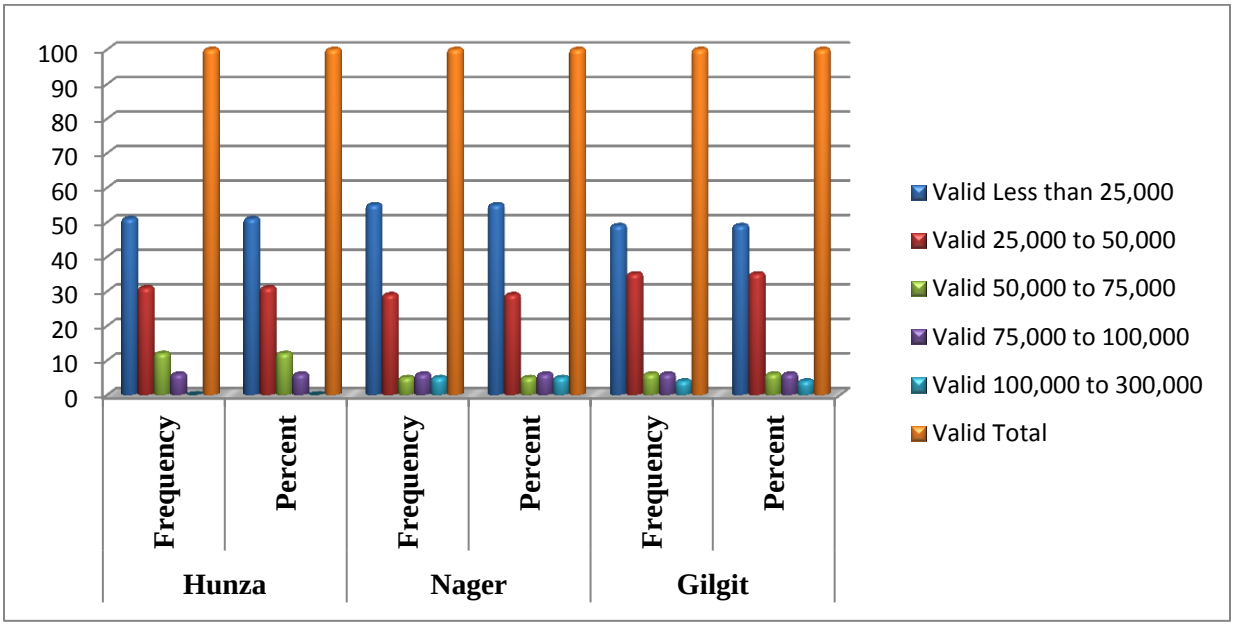


Figure-1 shows the different slabs of monthly income for the three selected districts of Gilgit-Baltistan. For the district Hunza, the above figure-1 shows that 51% of the people from the selected samples are earning less than 25,000 rupees per month and 31% of the people are earning monthly income between 25,000 to 50,000 rupees per month. Only 12% of the people are earning monthly income between 50,000 to 100,000 rupees per month. While 6% of the people in district Hunza are earning monthly income above 100,000 rupees per month. The above chart shows that cumulatively 82% of the people in the district Hunza are earning less than 50000 rupees per month. While the above figure-1 shows the monthly income of the district Gilgit where 49% of the people from the selected samples are earning less than 25,000 rupees per month and 35% of the people are earning monthly income between 25,000 to 50,000 rupees per month. Only 12% of the people are earning monthly income between 50,000 to 100,000 rupees per month. While only 4% of the people in district Gilgit are earning

monthly income above 100,000 rupees per month. The above chart shows that cumulatively 84% of the people in the district Gilgit are earning less than 50,000 rupees per month. The above chart also shows the monthly income of the district Nager, where 55% of the people from the selected sample are earning less the 25,000 rupees per month and 29% of the people are earning monthly income between 25,000 to 50,000 rupees per month. Only 11% of the people are earning monthly income between 50,000 to 100,000 rupees per month. While 5% of the people in district Nager are earning monthly income above 100,000 rupees per month. The above chart shows that cumulatively 84% of the people in the district Nager are earning less than 50,000 rupees per month.

Statement-1: After the construction of Karakoram Highway (KKH), the income-earning opportunities in Gilgit-Baltistan have increased than before.

Figure-5.2:

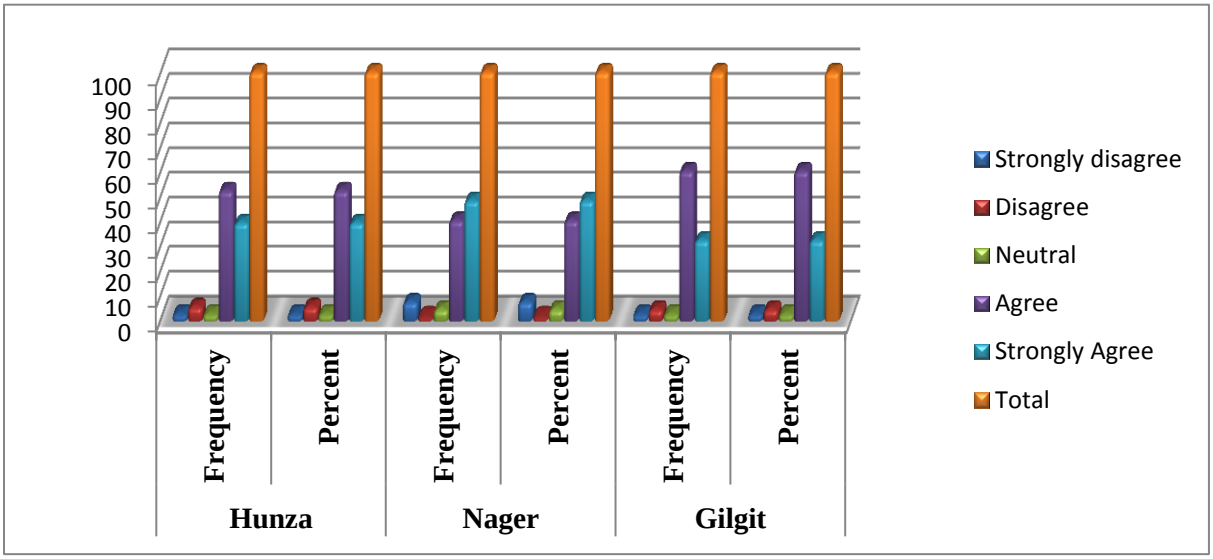


Figure-2 shows the response of the people of district Hunza when asked, whether the income-earing opportunities in Gilgit-Baltistan have increased after the construction of Karakoram Highway (KKH). This is the most important question which shows that the income-generating opportunities in Gilgit-Baltistan have risen after the formation of Karakoram Highway (KKH). The figure-2 shows that 39% of the people from the selected sample size strongly agree with that, while 52% has agreed with that, which means that 91% of the total people in the sample size agree that the income-earing opportunities in Gilgit-

Baltistan have increased after the construction of Karakoram Highway (KKH). Only 7 % of the remaining sample indicates that there were no income-earning opportunities in G-B have increased after the construction of KKH and 2% of the people remain neutral to this question. The above figure-2 shows the response of the district Nager shows that 48% of the people from the selected sample size strongly agree with that, while 40% has agreed with that, which means that 88% of the total people in the sample size agree that the income-earing opportunities in Gilgit-Baltistan have increased after the construction of Karakoram Highway (KKH). Only 8% of the remaining sample indicates that there were no income-earning opportunities in G-B have increased after the construction of Karakoram Highway and 4% of the people remain neutral. Similarly, the above figure-2 also shows the response of district Gilgit that 32% of the people from the selected sample size strongly agree with that, while 60% has agreed with that, which means that 92% of the total people in the sample size agree that the income-earing opportunities in Gilgit-Baltistan have increased after the construction of Karakoram Highway (KKH). While 6% of the remaining sample indicates that there were no income-earning opportunities in G-B have increased after the construction of Karakoram Highway and 2% of the people remain neutral to this question.

Table-5.2:

Statement-2: After the construction of Karakoram Highway (KKH), the sources of income generated from tourism, hoteling and rent a car service have increased than before.						
	Hunza		**Nager**		**Gilgit**	
	Frequency	**Percent**	**Frequency**	**Percent**	**Frequency**	**Percent**
Strongly Disagree	6	6.0	7	7.0	5	5.0
Disagree	0	0.0	2	2.0	1	1.0
Neutral	3	3.0	3	3.0	2	2.0
Agree	33	33.0	43	43.0	44	44.0
Strongly Agree	58	58.0	45	45.0	48	48.0
Total	100	100.0	100	100.0	100	100.0

The above table-2 shows the response of the selected sample when asked about the sources of income generated from tourism; hoteling and rent a car service have increased after

the construction of Karakoram Highway (KKH). The above table-2 shows that about 58% of the selected sample responded in strongly agree and 33% of the people have agreed with that, which means 90% of the selected sample agrees that the sources of income generated from tourism, hoteling and rent a car service have increased after the construction of Karakoram Highway (KKH). Only 6% of the selected sample strongly disagrees with the above mention statement and 3% of the selected sample remains neutral to this statement. The above table-2 shows the response from the people of district Nager that about 45% of the selected sample responded in strongly agree and 43% of the people have agreed with that, which means 88% of the selected sample agree that the sources of income generated from tourism, hoteling and rent a car service have increased after the construction of Karakoram Highway (KKH). Only 9% of the selected sample strongly disagrees with the above mention statement and 3% of the selected sample remains neutral to this statement. Similarly, the above chart also shows the response of district Gilgit that about 48% of the selected sample responded in strongly agree and 44% of the people have agreed with that, which means 92% of the selected sample agree that the sources of income generated from tourism, hoteling and rent a car service have increased after the construction of Karakoram Highway (KKH). While 6% of the selected sample disagrees with the above mention statement and 2% of the selected sample remains neutral to this statement.

Statement-3: Does after the construction of KKH has been increasing employment opportunities in your native district?

Figure-5.3:

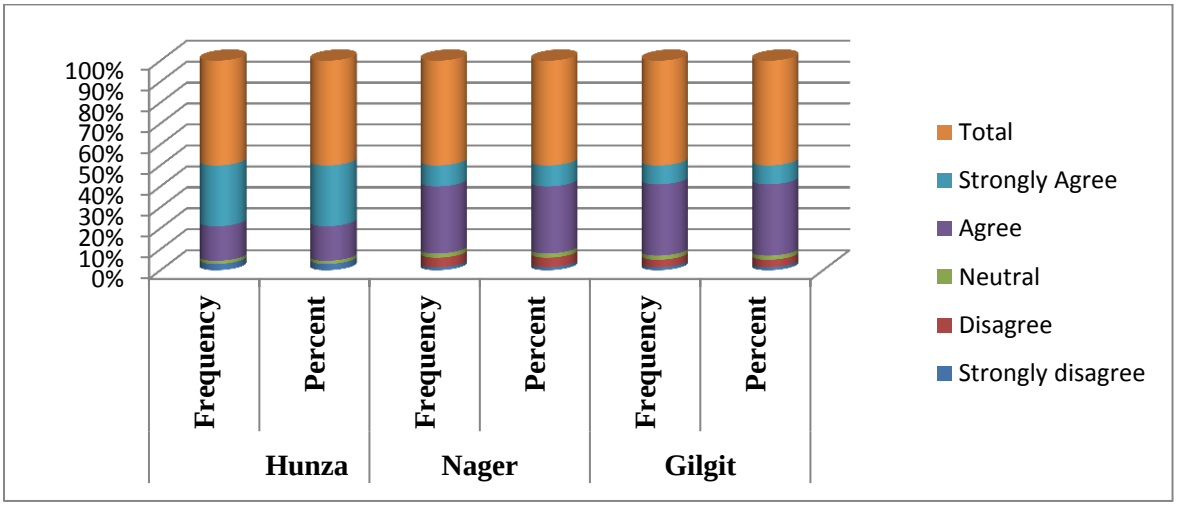


Figure-3 shows the response of the selected sample when the question about employment opportunities in district Hunza has increased after the construction of Karakoram Highway (KKH). The above chart shows that 21% of the selected sample strongly agree with that and 65% of the people have agreed with that, which means 86% of the total sample agrees that after the construction of KKH employment opportunities in district Hunza has been increased. Only 10% of the selected sample disagrees with the above statement and 4% of the people remain neutral to this statement. The above chart shows the response of the people of district Nager that 64% of the selected sample strongly agree with that and 20% of the people have agreed with that, which means 84% of the total sample agrees that, after the construction of Karakoram Highway (KKH), employment opportunities in district Nager has been increased. While 12% of the selected sample disagrees with the above statement and 4% of the people remain neutral to this statement. Similarly, the above figure also shows the response of the people of district Gilgit that 18% of the selected sample strongly agree with that and 68% of the people have agreed with that, which means 86% of the total sample agrees that, after the construction of Karakoram Highway (KKH), employment opportunities in district Gilgit has been increased. While 10% of the selected sample disagrees with the above statement and 4% of the people remain neutral to this statement.

Statement-4: Before the construction of KKH, the income-earning opportunities in Gilgit-Baltistan were lower than after.

Figure-5.4:

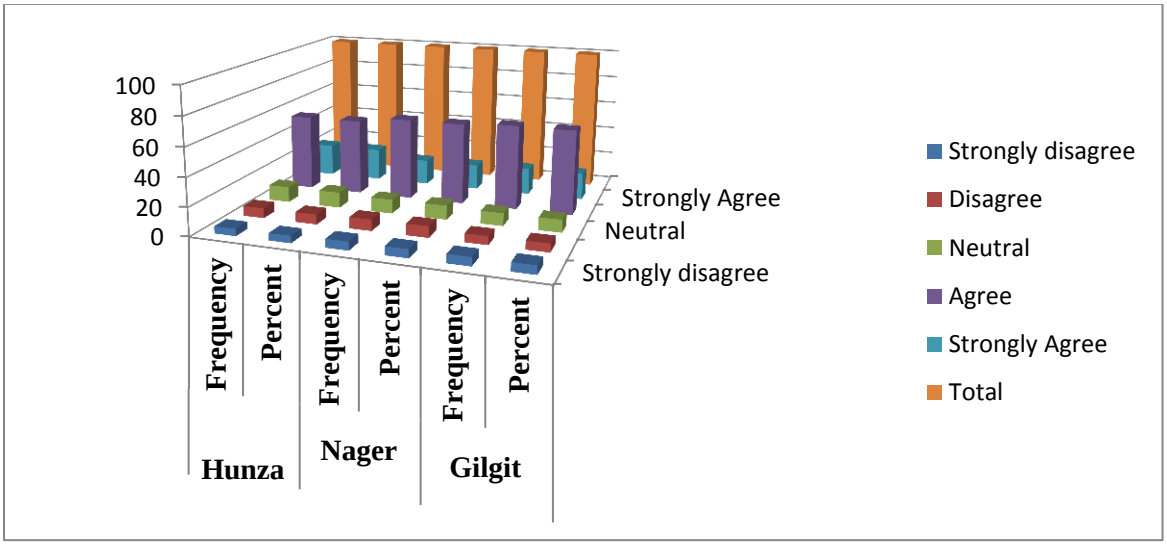


Figure-4 shows the response of the selected sample when they were asked whether, before the construction of KKH, the income-earning opportunities in Gilgit-Baltistan were lower than before. The result shows that 23% of people respond in strongly agree and 54% of people have agreed with that, which means 77% of the total people from the selected sample agree that before the formation of KKH the income-earing opportunities in Gilgit-Baltistan were lower than after. Only 12% of remain respondents disagree with the statement and 11% remain neutral to this statement. The above chart shows the response of the people of district Nager that 58% of people respond in strongly agree and 18% of people have agreed with that, which means 76% of the total people from the selected sample agree that, before the formation of Karakoram Highway (KKH), the income-earing opportunities in Gilgit-Baltistan were lower than after. While 14% of remain respondents disagree with the statement and 10% remain neutral to this statement. Similarly, the above figure also shows the response of the people of district Gilgit that 19% of people respond in strongly agree and 60% of people have agreed with that, which means 79% of the total people from the selected sample agree that, before the formation of Karakoram Highway (KKH), the income-earing opportunities in Gilgit-Baltistan were lower than after. While 12% of remain respondents disagree with the statement and 9% of the people in district Gilgit remain neutral to this statement.

5.3. Cost and Time Saving:

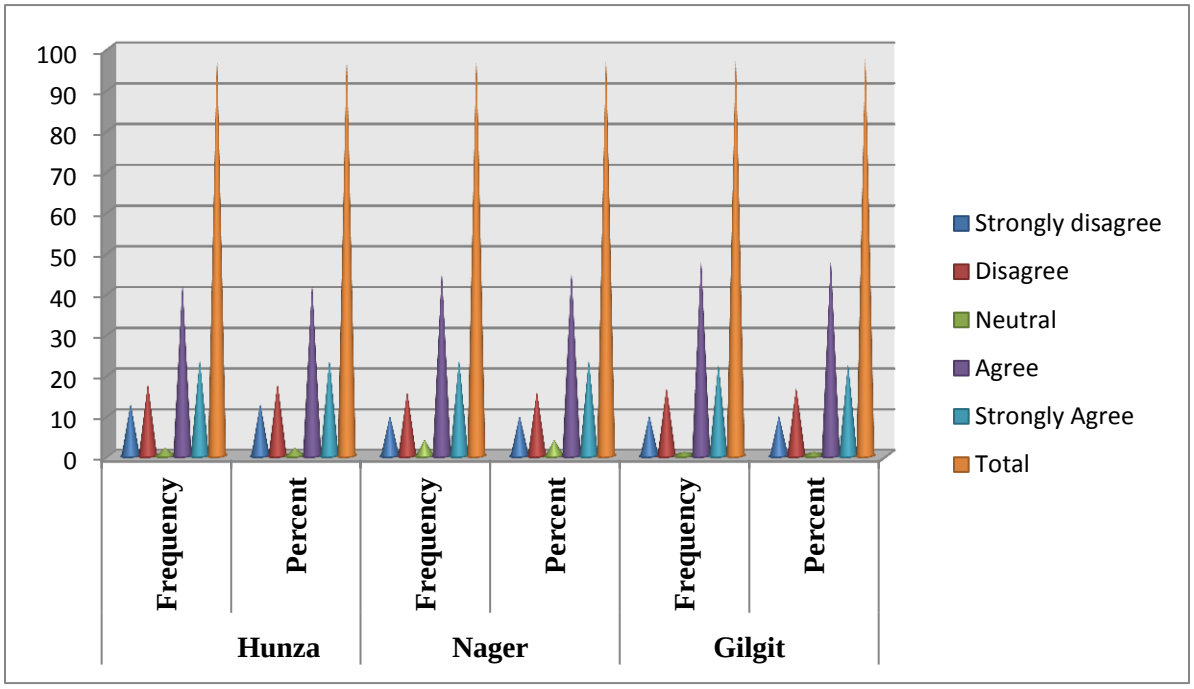
5.3.1. Transportation Cost:

Statement-5: After the construction of Karakorum Highway (KKH), the cost of Transportation has reduced than before.

Figure-5 below shows the response of the people of district Hunza when asked, whether the cost of transportation in Gilgit-Baltistan has reduced after the formation of Karakoram Highway (KKH). The below figure-5 shows that 24% of the people from the selected sample size strongly agree with that, while 43% of the people have agreed with that, which means that 67% of the total population in the sample size agrees that the transportation cost in Gilgit-Baltistan has reduced after the construction of Karakoram Highway (KKH). While 31% of the selected sample indicates that the formation of KKH has no effect on transportation cost in the Gilgit-Baltistan and 2% of the people remain neutral to this question.

The below figure-5 shows the responses of the people of district Nager that 46% of the people from the selected sample size strongly agree with that, while 24% of the people have agreed with that, which means that 70% of the total population in the sample size agrees that the transportation cost in Gilgit-Baltistan has reduced after the construction of Karakoram Highway (KKH). While 26% of the selected sample indicates that the formation of KKH has no effect on transportation cost in the Gilgit-Baltistan and 4% of the people remain neutral. Similarly, the below chart also shows the response of the people of district Gilgit that 23% of the people from the selected sample size strongly agree with that, while 49% of the people have agreed with that, which means that 72% of the total population in the sample size agrees that the transportation cost in Gilgit-Baltistan has reduced after the construction of Karakoram Highway (KKH). While 27% of the selected sample indicates that the formation of Karakoram Highway (KKH), has no effect on transportation cost in the Gilgit-Baltistan and 1% of the people remain neutral to this statement.

Figure-5.5:



Statement-6: Do you think that Karakoram Highway (KKH) helps to reduce the fuel cost of transporters in the region?

Figure-5.6:

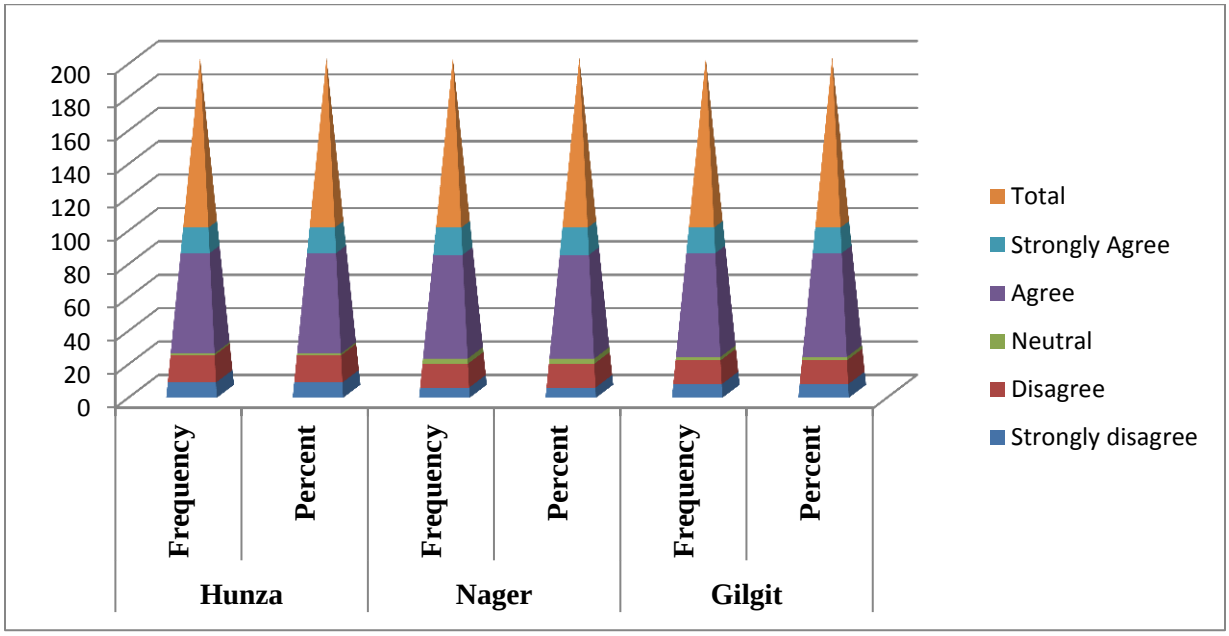


Figure-6 shows the response of the selected sample when asked whether Karakoram Highway (KKH) helps to reduce the fueling cost of local transporter in the Gilgit-Baltistan. The above figure-6 shows that about 15% of the selected sample responded strongly agree and 59% of the people have agreed with that, which means 74% of the selected sample agrees that after the construction of Karakoram Highway (KKH) fueling cost of local transporters have reduced. Before the construction of KKH road was not metaled, so vehicles consumed more fuel then now. While 25% of the selected sample disagrees with the above mention statement and 1% of the selected sample remains neutral to this statement. The above chart shows the response of the people of district Nager that about 61% of the selected sample responded strongly agree and 16% of the people have agreed with that, which means 77% of the selected sample agrees that, after the construction of Karakoram Highway (KKH), fueling cost of local transporters have reduced. Before the construction of Karakoram Highway (KKH), the road was not metaled and proper aligned, so vehicles consumed more fuel then now. While 20% of the selected sample disagrees with the above mention statement and 3% of the selected sample remains neutral. Similarly, the above chart also shows the response of the people of

district Gilgit that about 15% of the selected sample responded strongly agree and 61% of the people have agreed with that, which means 76% of the selected sample agrees that, after the construction of Karakoram Highway (KKH), fueling cost of local transporters have reduced. Before the construction of Karakoram Highway (KKH), the road was not metaled and proper aligned, so vehicles consumed more fuel then now. While 22% of the selected sample disagrees with the above mention statement and 2% of the selected sample remains neutral to this statement.

Statement-7: Do you think that KKH helps to bring safer and comfortable transportation facilities at cheaper fares in your region?

Figure-5.7:

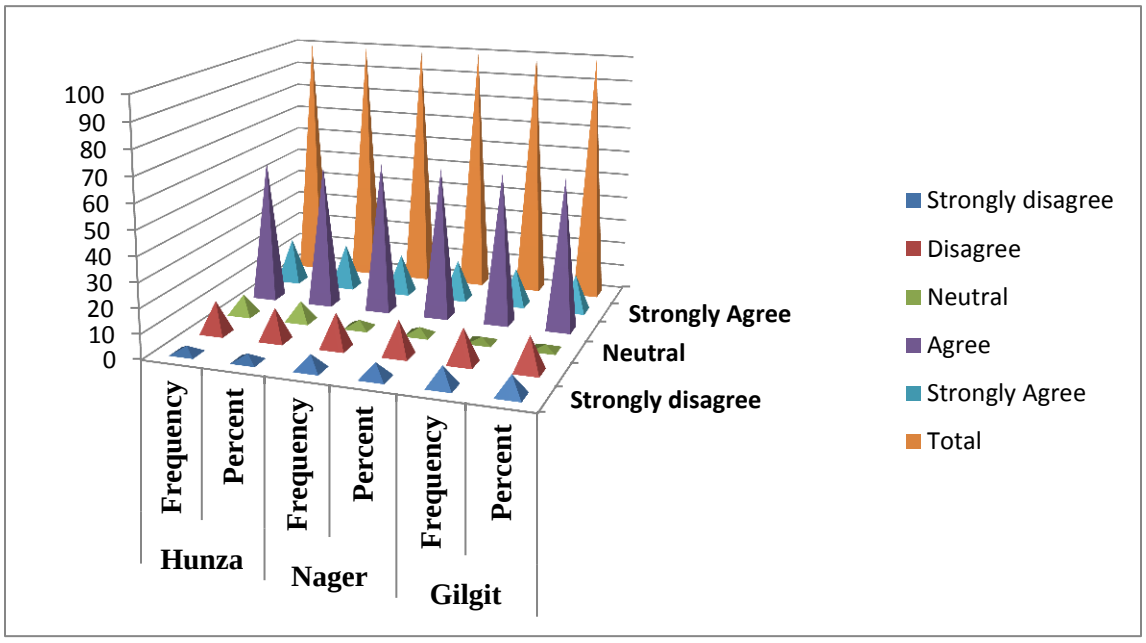


Figure-7 shows the response of the selected sample when the question that Karakoram Highway helps to bring safer and comfortable transportation facilities at cheaper fares in your region. After the construction of Karakoram Highway (KKH), many local transportation companies were opened which provide cheaper and safer transportation facilities for the local people of Gilgit-Baltistan. The above figure-7 shows that 18% of the selected sample strongly agrees and 58% of the people have agreed with that, which means that 76% of the total sample agrees that after the construction of Karakoram Highway (KKH) people of Gilgit-

Baltistan getting cheaper and safer transportation facilities. Only 16% of the selected sample disagrees that KKH has no effect of cheaper and safer transportation facilities in the region and 8% of the people remain neutral with the above statement. The above figure shows the response of the people of district Nager that 22% of the selected sample strongly agrees and 56% of the people have agreed with that, which means that 78% of the total sample agrees that after the construction of Karakoram Highway (KKH), people of Gilgit-Baltistan getting cheaper and safer transportation facilities. While 15% of the selected sample disagrees that Karakoram Highway has no effect of cheaper and safer transportation facilities in the region and 7% of the people remain neutral. Similarly, the above chart also shows the response of district Gilgit that 17% of the selected sample strongly agrees and 63% of the people have agreed with that, which means that 80% of the total sample agrees that after the construction of Karakoram Highway (KKH), people of Gilgit-Baltistan getting cheaper and safer transportation facilities. While 13% of the selected sample disagrees that Karakoram Highway has no effect of cheaper and safer transportation facilities in the region and 7% of the people remain neutral to this statement.

Statement-8: Do you think Karakoram Highway helps to improve the savings of locals in the region due to the reduction of transportation costs?

Figure-5.8:

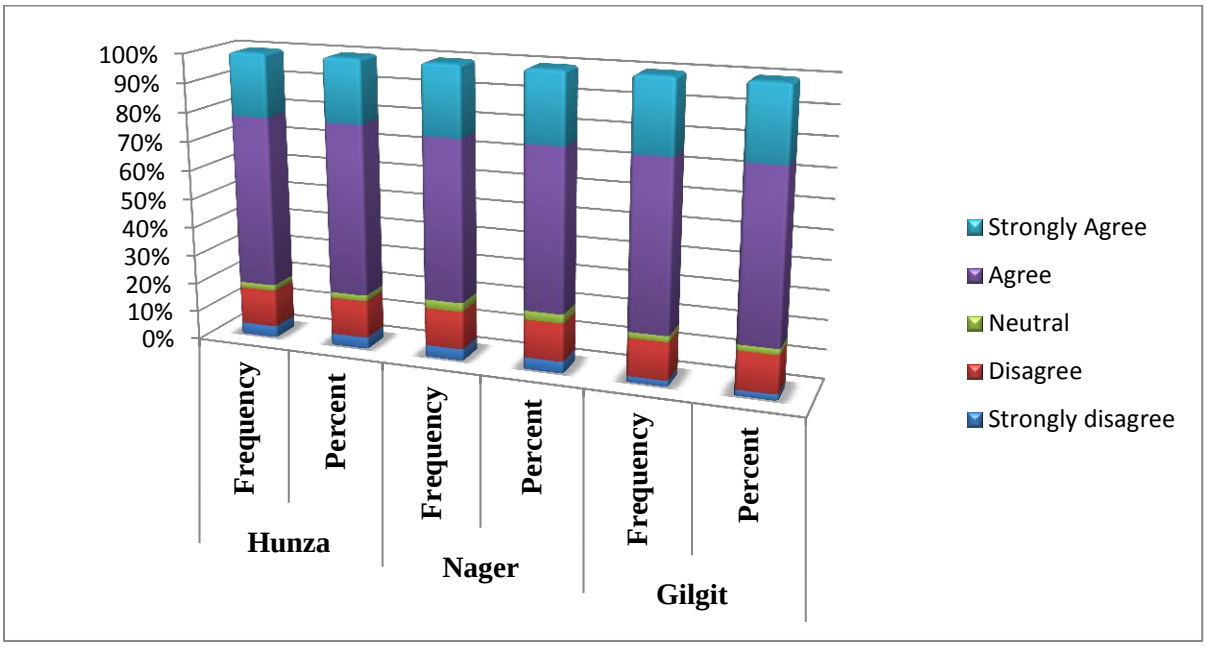


Figure-8 shows the response of the selected sample when a question that KKH helps to improve the savings of locals in Gilgit-Baltistan due to a reduction in transportation cost. After the construction of Karakoram Highway (KKH), many local transportation companies were opened which provide cheaper transportation facilities for the local people of Gilgit-Baltistan. This helps locals to increase their savings. The above figure-8 shows that 22% of the selected sample strongly agrees and 59% of the people have agreed with that, which means that 81% of the total sample agrees that KKH helps to improve the savings of locals in the Gilgit-Baltistan due to reduction in transportation cost. Only 17% of the selected sample disagrees that KKH has no effect on the savings of the locals in Gilgit-Baltistan and 2% of the people remain neutral. The above figure-8 also reflections the response of the people of district Nager that 24% of the selected sample strongly agrees and 55% of the people have agreed with that, which means that 79% of the total sample agrees that, KKH helps to improve the savings of locals in the Gilgit-Baltistan due to reduction in transportation cost. While 17% of the selected sample disagrees that KKH has no effect on the savings of the locals in Gilgit-Baltistan and 4% of the people remain neutral. Similarly, the above chart also shows the response of the people of district Gilgit that 25% of the selected sample strongly agrees and 58% of the people have agreed with that, which means that 83% of the total sample agrees that, KKH helps to improve the savings of locals in the Gilgit-Baltistan due to reduction in transportation cost. While 15% of the selected sample disagrees that KKH has no effect on the savings of the locals in Gilgit-Baltistan and 2% of the people remain neutral to this statement.

Statement-9: Do you think Karakoram Highway helps the local producer to trade out their locally manufactured Goods to Pakistan markets at cheaper transportation costs than before?

The below table-3 shows the response of the selected sample when a question that KKH helps the local producer to trade out their locally manufactured Goods to Pakistan markets at cheaper transportation costs than before. After the construction of Karakoram Highway (KKH), Gilgit-Baltistan is now connecting with the other parts of Pakistan. Therefore local producers trade out their locally manufactured products to Pakistan markets at cheaper transportation costs. This helps local's producers to earn more income by selling their products to Pakistan markets. The below table-3 shows that 20% of the selected sample

strongly agrees and 65% of the people have agreed with that, which means that 85% of the total sample agrees that KKH helps the local producer to trade out their locally manufactured Goods to Pakistan markets at cheaper transportation cost than before. Only 10% of the selected sample disagrees that KKH has no effect on the income of the local producers who sell their products in Pakistani markets and 5% of the people remain neutral with the above statement. The below table-3 also shows the response of the people of district Nager that 22% of the selected sample strongly agrees and 61% of the people have agreed with that, which means that 83% of the total sample agrees that, KKH helps the local producer to trade out their locally manufactured Goods to Pakistan markets at cheaper transportation cost than before. Only 10% of the selected sample disagrees that KKH has no effect on the income of the local producers who sell their products in Pakistani markets and 7% of the people remain neutral. Similarly, the below table-3 also shows the response of district Gilgit that 24% of the selected sample strongly agrees and 65% of the people have agreed with that, which means that 89% of the total sample agrees that, KKH helps the local producer to trade out their locally manufactured Goods to Pakistan markets at cheaper transportation cost than before. Only 7% of the selected sample disagrees that that KKH has no effect on the income of the local producers who sell their products in Pakistani markets and 4% of the people remain neutral to this statement.

Table-5.3:

Statement-9: Do you think Karakoram Highway (KKH) helps the local producer to trade out their locally manufactured Goods to Pakistan markets at cheaper transportation costs than before?						
	Hunza		**Nager**		**Gilgit**	
	Frequency	**Percent**	**Frequency**	**Percent**	**Frequency**	**Percent**
Strongly Disagree	5	5.0	4	4.0	3	3.0
Disagree	5	5.0	6	6.0	4	4.0
Neutral	5	5.0	7	7.0	4	4.0
Agree	65	65.0	61	61.0	65	65.0
Strongly Agree	20	20.0	22	22.0	24	24.0
Total	100	100.0	100	100.0	100	100.0

Table-5.4:

Statement-10: Do you think KKH help to reduce the transportation cost among the various districts of Gilgit-Baltistan?						
	Hunza		Nager		Gilgit	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Strongly Disagree	1	1.0	4	4.0	12	12.0
Disagree	17	17.0	6	6.0	0	0.0
Neutral	1	1.0	7	7.0	2	2.0
Agree	51	51.0	61	61.0	57	57.0
Strongly Agree	30	30.0	22	22.0	29	29.0
Total	100	100.0	100	100.0	100	100.0

The above table-4 shows the response of the selected sample when a question that KKH helps to reduce the transportation cost among the various districts of Gilgit-Baltistan. After the construction of Karakoram Highway (KKH), various districts of Gilgit-Baltistan are now connecting with each other. Therefore local people move faster from one district to another. The above table shows that 30% of the selected sample strongly agrees and 51% of the people have agreed with that, which means that 81% of the total sample agrees that KKH helps in reduces the transportation cost among the various districts of Gilgit-Baltistan. while18% of the selected sample disagrees that KKH has no effect on the transportation cost among the district of Gilgit-Baltistan and 1% of the people remain neutral with the above statement. The above table-4 shows the response of the people of district Nager that 22% of the selected sample strongly agrees and 61% of the people have agreed with that, which means that 83% of the total sample agrees that KKH helps in reduces the transportation cost among the various districts of Gilgit-Baltistan. While 10% of the selected sample disagrees that KKH has no effect on the transportation cost among the district of Gilgit-Baltistan and 4% of the people remain neutral with the above statement. Similarly, the above table-4 also shows the response of district Gilgit that 29% of the selected sample strongly agrees and 57% of the people have agreed with that, which means that 86% of the total sample agrees that KKH helps in reduces the transportation cost among the various districts of Gilgit-Baltistan.

While 12% of the selected sample disagrees that KKH has no effect on the transportation cost among the districts of Gilgit-Baltistan and 2% of the people remain neutral to this statement**.**

Table-5.5:

Statement-11: Before the construction of KKH, the Cost of transportation was higher than after.						
	Hunza		**Nager**		**Gilgit**	
	Frequency	**Percent**	**Frequency**	**Percent**	**Frequency**	**Percent**
Strongly Disagree	2	2.0	2	2.0	1	1.0
Disagree	21	21.0	23	23.0	20	20.0
Neutral	3	3.0	2	2.0	3	3.0
Agree	51	51.0	52	52.0	54	54.0
Strongly Agree	23	23.0	21	21.0	22	22.0
Total	100	100.0	100	100.0	100	100.0

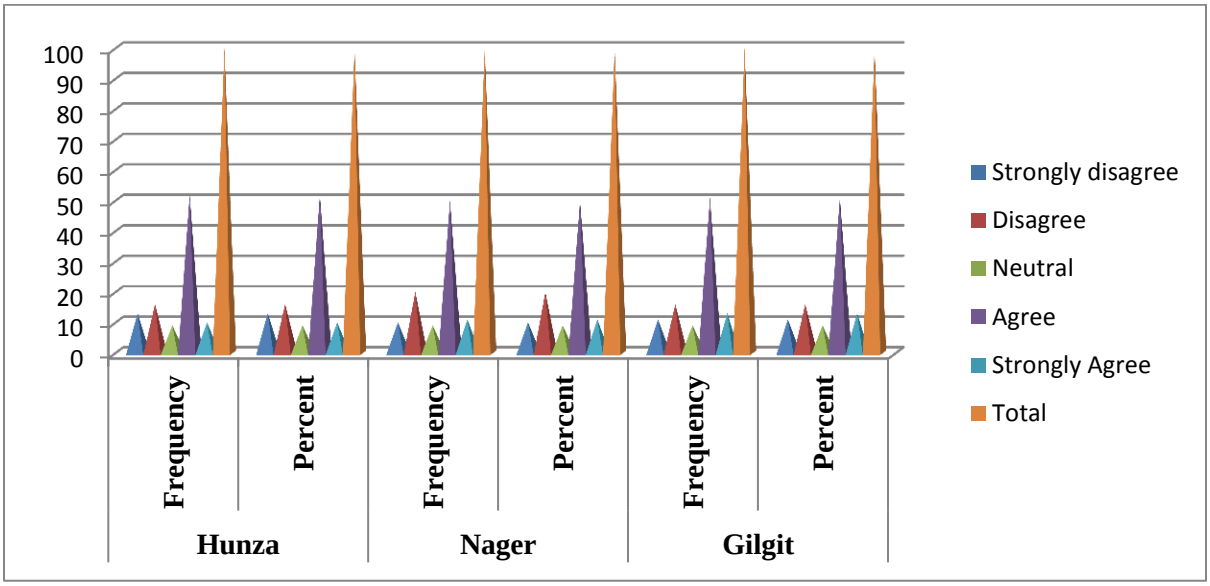
The above table-5 shows the response of the selected sample when a question that KKH helps to reduces the transportation cost among the various districts of Gilgit-Baltistan. After the construction of Karakoram Highway (KKH), various districts of Gilgit-Baltistan are now connecting with each other. Therefore local people move faster from one district to another. The above table-5 shows that 30% of the selected sample strongly agrees and 51% of the people have agreed with that, which means that 81% of the total sample agrees that KKH help in reduces the transportation cost among the various districts of Gilgit-Baltistan. While 18% of the selected sample disagrees that KKH has no effect on the transportation cost among the districts of Gilgit-Baltistan and 1% of the people remain neutral with the above statement. The above table-5 shows the response of the people of district Nager that 21% of the selected sample strongly agrees and 52% of the people have agreed with that, which means that 73% of the total sample agrees that KKH help in reduces the transportation cost among the various districts of Gilgit-Baltistan. While 25% of the selected sample disagrees that Karakoram Highway has no effect on the transportation cost among the district of Gilgit-Baltistan and 2% of the people remain neutral to this statement. Similarly, the above table-5 also shows the response of district Gilgit that 22% of the selected sample strongly agrees and 54% of the people have agreed with that, which means that 76% of the total sample agrees that Karakoram Highway help in reduces the transportation cost among the various districts of

Gilgit-Baltistan. While 21% of the selected sample disagrees neutral that KKH has no effect on the transportation cost among the district of Gilgit-Baltistan and 3% of the people remain to this statement.

5.3.2. Cost of Goods Traded from Outside the Gilgit-Baltistan:

Statement-12: After the construction of Karakoram Highway (KKH), the Cost of Goods/ Services trade into GB has reduced than before.

Figure-5.9:

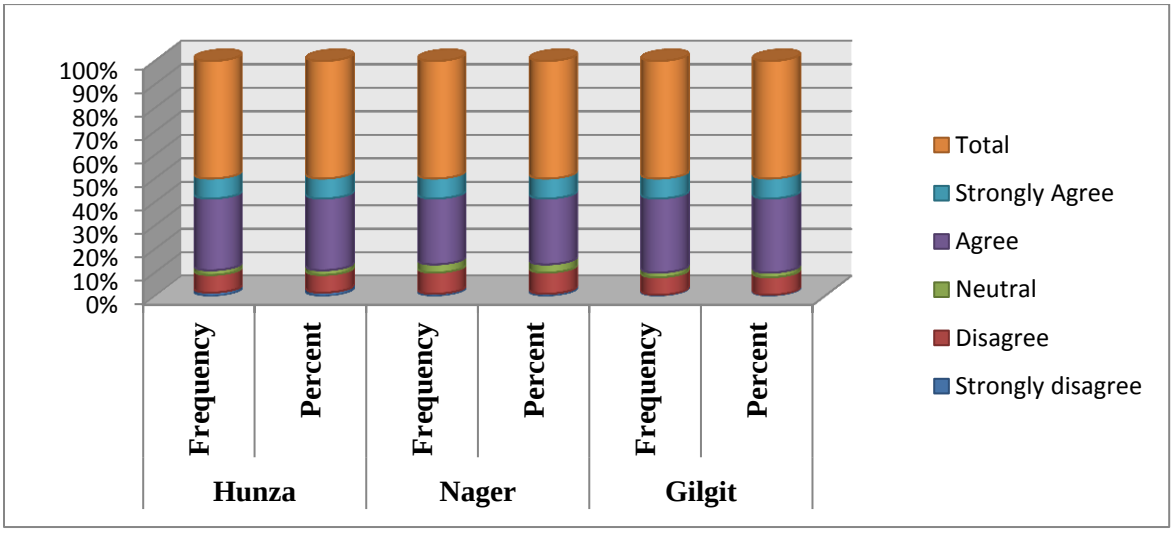


The above figure-09 shows the response of the selected sample when a question that the Cost of Goods and Services trade into Gilgit-Baltistan has reduced after the construction of Karakoram Highway (KKH). Before the formation of Karakoram Highway to import consumer goods to Gilgit-Baltistan people were using horses and donkeys. Because of dangerous passes and narrow tracks, people of G-B were facing difficulties to trade consumer goods into Gilgit-Baltistan. It took several days to trade these consumer goods into Gilgit-Baltistan. So it was an expensive work to trade consumer goods into G-B. Since its formation, consumer goods easily trade into G-B through heavy trucks and other good carriers. Now, it takes only a few days to trade these consumer goods into Gilgit-Baltistan. Therefore the costs of those imported Goods are also higher than now. But after its formation cost of goods traded into G-B has reduced. The above figure-09 shows that 10% of the selected sample strongly

agrees and 52% of the people have agreed with that, which means that 62% of the total sample size agrees that the Cost of Goods and Services trade into Gilgit-Baltistan has reduced after the construction of Karakoram Highway (KKH). While 29% of the selected sample disagrees that KKH has no effect on the Cost of Goods and services traded into Gilgit-Baltistan and 9% of the people remain neutral with the above statement. The above figure-09 shows the response of the people of district Nager that 11% of the selected sample strongly agrees and 50% of the people have agreed with that, which means that 61% of the total sample size agrees that the Cost of Goods and Services trade into Gilgit-Baltistan has reduced after the construction of Karakoram Highway (KKH). While 30% of the selected sample disagrees that KKH has no effect on the Cost of Goods and services traded into Gilgit-Baltistan and 9% of the people remain neutral with the above statement. Similarly, the above figure also shows the response of district Gilgit that 13% of the selected sample strongly agrees and 51% of the people have agreed with that, which means that 64% of the total sample size agrees that the Cost of Goods and Services trade into Gilgit-Baltistan has reduced after the construction of Karakoram Highway (KKH). While 27% of the selected sample disagrees that KKH has no effect on the Cost of Goods and services traded into Gilgit-Baltistan and 9% of the people remain neutral to this statement.

Statement-13: Do you think after the construction of KKH help to bring various Goods/Services in your native district at cheaper prices/cost than before?

Figure-5.10:

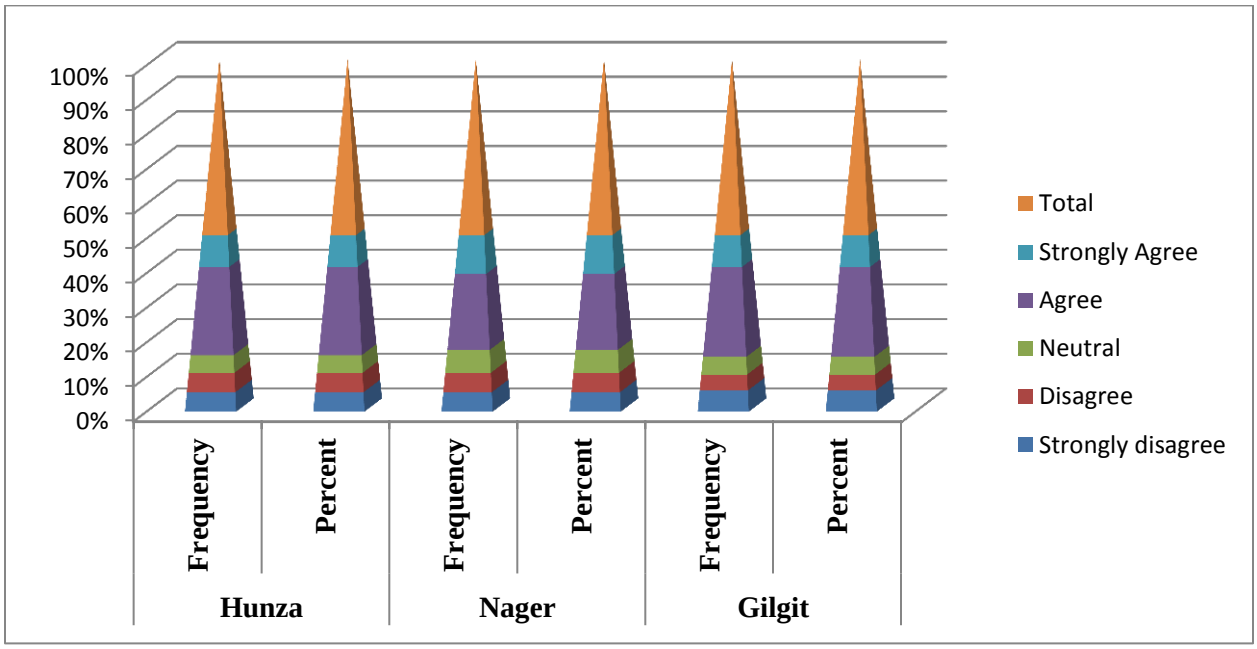


The above figure-10 shows the response of the selected sample when the question after the construction of Karakoram Highway (KKH) helps to bring various Goods and Services in district Hunza at cheaper prices/costs than before. Before the formation of Karakoram Highway, to import consumer goods to Gilgit-Baltistan people were used horses and donkeys. Because of dangerous passes and narrow tracks, people of G-B were facing difficulties to trade consumer goods into Gilgit-Baltistan. It took several days to trade these consumer goods into Gilgit-Baltistan. So it was an expensive work to trade consumer goods into G-B. Since its formation, consumer goods easily trade into G-B through heavy trucks and other good carriers. Now, it takes only a few days to trade these consumer goods into Gilgit-Baltistan. Therefore the prices/costs of those imported Goods were higher than now. The above figure shows that 17% of the selected sample strongly agrees and 61% of the people have agreed with that, which means that 78% of the total sample size agrees that KKH helps to bring various Goods and Services in the district Hunza at cheaper prices/costs than before. While 18% of the selected sample disagrees that KKH has no effect on the Cost of goods and services traded into district Hunza and 4% of the people remain neutral with the above statement.

The above figure-10 shows the response of the people of district Nager that 17% of the selected sample strongly agrees and 56% of the people have agreed with that, which means that 73% of the total sample size agrees that, KKH helps to bring various Goods and Services in the district Nager at cheaper prices/costs than before. While 20% of the selected sample disagrees that KKH has no effect on the Cost of goods and services traded into district Nager and 7% of the people remain neutral. Similarly, the above figure-10 also shows the response of district Gilgit that 17% of the selected sample strongly agrees and 63% of the people have agreed with that, which means that 80% of the total sample size agrees that, KKH helps to bring various Goods and Services in the district Gilgit at cheaper prices/costs than before. While 16% of the selected sample disagrees that KKH has no effect on the Cost of goods and services traded into district Gilgit and 4% of the people remain neutral to this statement.

Statement 14: Do you think after the construction of KKH, prices of locally produced goods have been marked on market prices?

Figure-5.11:

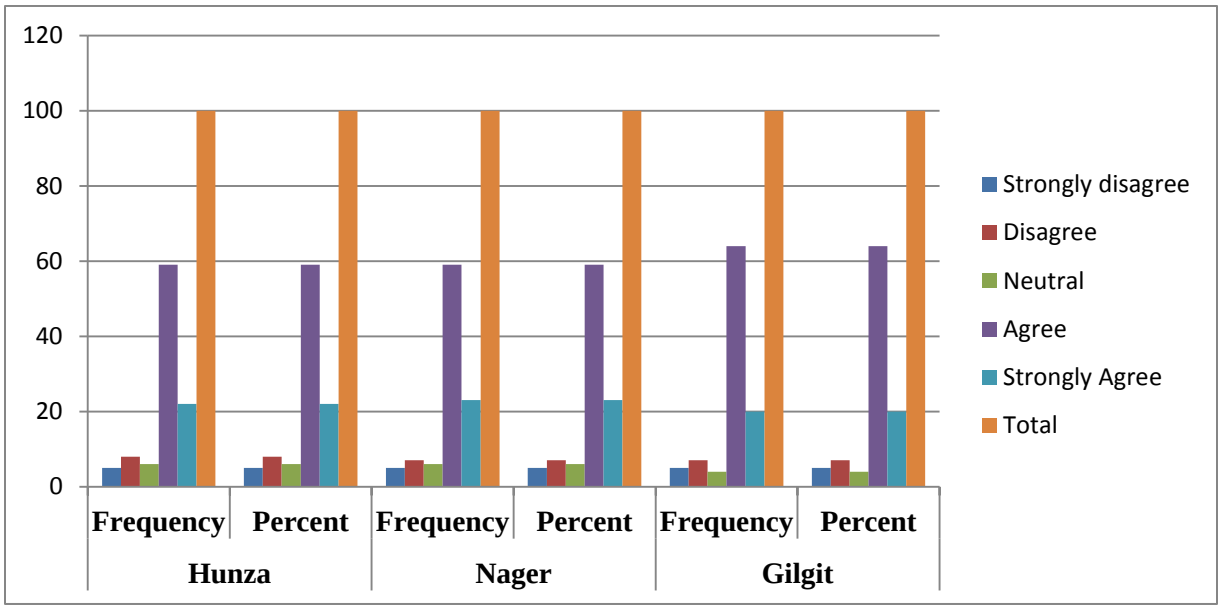


The above figure-11 shows the response of the selected sample when question after the construction of Karakoram Highway (KKH), prices of locally produced goods have been marked on market prices. Before the construction of Karakoram Highway, locally produced goods of Gilgit-Baltistan were not be taken into the Pakistani market. Therefore prices of locally produced goods had been not marked on market prices. The above figure-11 shows that 18% of the selected sample strongly agrees and 50% of the people have agreed with that, which means that 68% of the total sample size agrees that prices of locally produced goods have been marked on market prices. While 22% of the selected sample disagrees with the above statement and 10% of the people remain neutral to this statement. The above figure-11 shows the response of the people of district Nager that 22% of the selected sample strongly agrees and 43% of the people have agreed with that, which means that 65% of the total sample size agrees that prices of locally produced goods have been marked on market prices. While 22% of the selected sample disagrees with the above statement and 13% of the people remain neutral to this statement. Similarly, the above figure also shows the response of district Gilgit that 18% of the selected sample strongly agrees and 51% of the people have agreed with that, which means that 69% of the total sample size agrees that prices of locally produced

goods have been marked on market prices. While 21% of the selected sample disagrees with the above statement and 13% of the people remain neutral to this statement.

Statement-15: Before the construction of KKH, the Cost of Goods/ Services imported into GB was more than after.

Figure-5.12:



The above figure-12 shows the response of the selected sample when a question that the Cost of Goods and Services trade into Gilgit-Baltistan was more than now after the construction of Karakoram Highway (KKH). Before the formation of Karakoram Highway people of Gilgit-Baltistan used horses and donkeys for carrying purpose through various pony tracks or various passes to import goods from various cities of Pakistan. At that time people had to import only limited Goods due to the unavailability of the proper road. Therefore the costs of those imported Goods are also higher than now. The above figure-12 shows that 22% of the selected sample strongly agrees and 59% of the people have agreed with that, which means that 81% of the total sample size agrees that the Cost of Goods and Services trade into Gilgit-Baltistan was higher than now after the construction of Karakoram Highway (KKH). While 13% of the selected sample disagrees that KKH has no effect on the Cost of goods and services traded into Gilgit-Baltistan and 6% of the people remain neutral with the above statement. The above figure-12 shows the response of the people of district Nager that 23% of the selected sample strongly agrees and 59% of the people have agreed with that, which

means that 82% of the total sample size agrees that the Cost of Goods and Services trade into Gilgit-Baltistan was higher than now after the construction of Karakoram Highway (KKH). While 12% of the selected sample disagrees that KKH has no effect on the Cost of goods and services traded into Gilgit-Baltistan and 6% of the people remain neutral with the above statement. Similarly, the above figure also shows the response of district Gilgit that 20% of the selected sample strongly agrees and 64% of the people have agreed with that, which means that 84% of the total sample size agrees that the Cost of Goods and Services trade into Gilgit-Baltistan was higher than now after the construction of Karakoram Highway (KKH). While 12% of the selected sample disagrees that KKH has no effect on the Cost of goods and services traded into Gilgit-Baltistan and 4 % of the people remain neutral to this statement.

5.3.3. Time of Travelling:

Table-5.6:

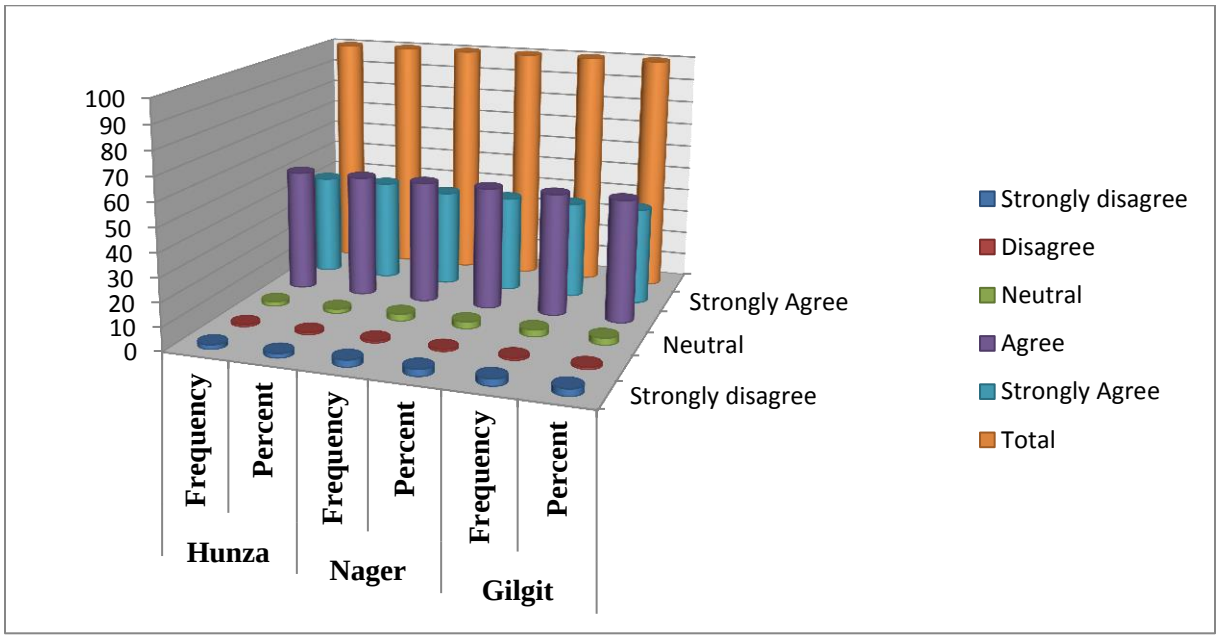
Statement-16: After the construction of KKH, the time of traveling from G-B to other parts of Pakistan has reduced than before.						
	Hunza		**Nager**		**Gilgit**	
	Frequency	**Percent**	**Frequency**	**Percent**	**Frequency**	**Percent**
Strongly Disagree	2	2.0	3	3.0	2	2.0
Disagree	1	1.0	1	1.0	2	2.0
Neutral	0	0.0	2	2.0	4	4.0
Agree	49	49.0	52	52.0	51	51.0
Strongly Agree	48	48.0	42	42.0	41	41.0
Total	100	100.0	100	100.0	100	100.0

The above table-6 shows the response of the selected sample when a question asked that, the time of traveling from GB to other parts of Pakistan has reduced after the construction of Karakoram Highway (KKH). Before the formation of Karakoram Highway people of Gilgit-Baltistan were used horses and donkeys for traveling purposes through various pony tracks or various passes to visit the various cities of Pakistan. Therefore the time of traveling from Gilgit-Baltistan to other parts of Pakistan was higher than now but after its formation, the time of traveling to other cities of Pakistan has been reduced now. The above table-6 shows that 48% of the selected sample strongly agrees and 49% of the people have

agreed with that, which means that 97% of the total sample size agrees that the time of traveling has been reduced after the formation of Karakoram Highway (KKH). While only 3% of the selected people have disagreed with the above statement. The above table-6 shows the response of the people of district Nager that 42% of the selected sample strongly agrees and 52% of the people have agreed with that, which means that 94% of the total sample size agrees that the time of traveling has been reduced after the formation of Karakoram Highway (KKH). While 4% of the selected sample disagrees with the above statement and 2% of people remain neutral to this statement. Similarly, the above figure also shows the response of district Gilgit that 41% of the selected sample strongly agrees and 51% of the people have agreed with that, which means that 92% of the total sample size agrees that the time of traveling has been reduced after the formation of Karakoram Highway (KKH). While 4% of the selected sample disagrees with the above statement and 4% of people remain neutral to this statement.

Statement-17: Do you think after the construction of Karakoram Highway (KKH), the time of traveling among the various districts of GB has reduced than before?

Figure-5.13:

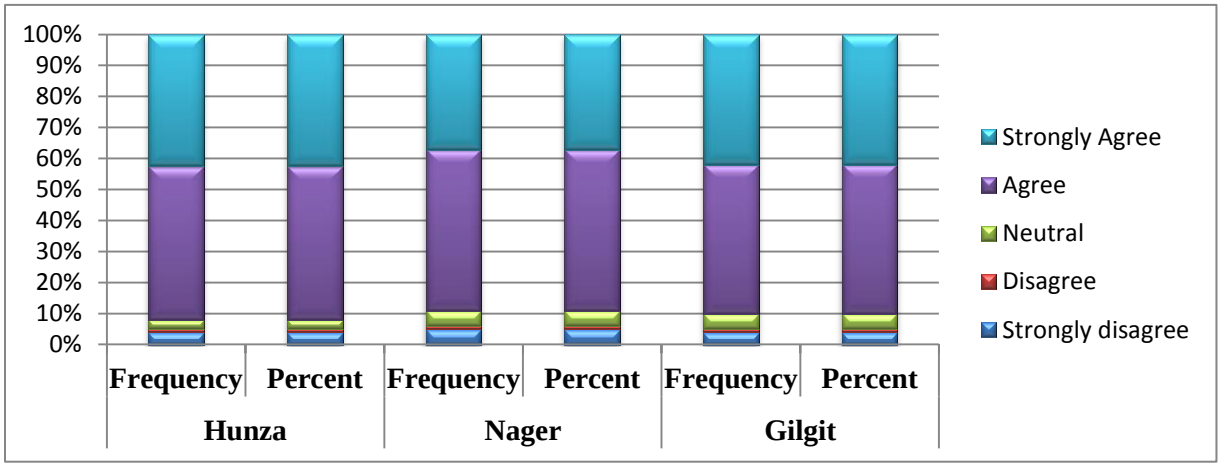


The above figure-13 shows the response of the selected sample when a question asked, that after the construction of Karakoram Highway (KKH) the time of traveling among the

various districts of GB has reduced than before. The above figure-13 shows that 43% of the selected sample strongly agrees and 52% of the people have agreed with that, which means that 95% of the total sample size agrees that the time of traveling among the various districts of GB has reduced than before. While 3% of the selected sample disagrees that KKH has no effect on the reduction of time of traveling among the district in Gilgit-Baltistan and 2% of the people remain neutral with the above statement. The above figure-13 shows the response of the people of the district Nager that 41% of the selected sample strongly agrees and 52% of the people have agreed with that, which means that 93% of the total sample size agrees that the time of traveling among the various districts of GB has reduced than before. While 4% of the selected sample disagrees that KKH has no effect on the reduction of time of traveling among the district in Gilgit-Baltistan and 3% of the people remain neutral with the above statement. Similarly, the above figure also shows the response of district Gilgit that 41% of the selected sample strongly agrees and 52% of the people have agreed with that, which means that 93% of the total sample size agrees that the time of traveling among the various districts of GB has reduced than before. While 4% of the selected sample disagrees that KKH has no effect on the reduction of time of traveling among the district in Gilgit-Baltistan and 3% of the people remain neutral with the above statement.

Statement-18: Do you think KKH helps employees, students, businessmen/women and patients to reach their offices, schools, colleges, markets, and hospitals on time than before?

Figure-5.14:



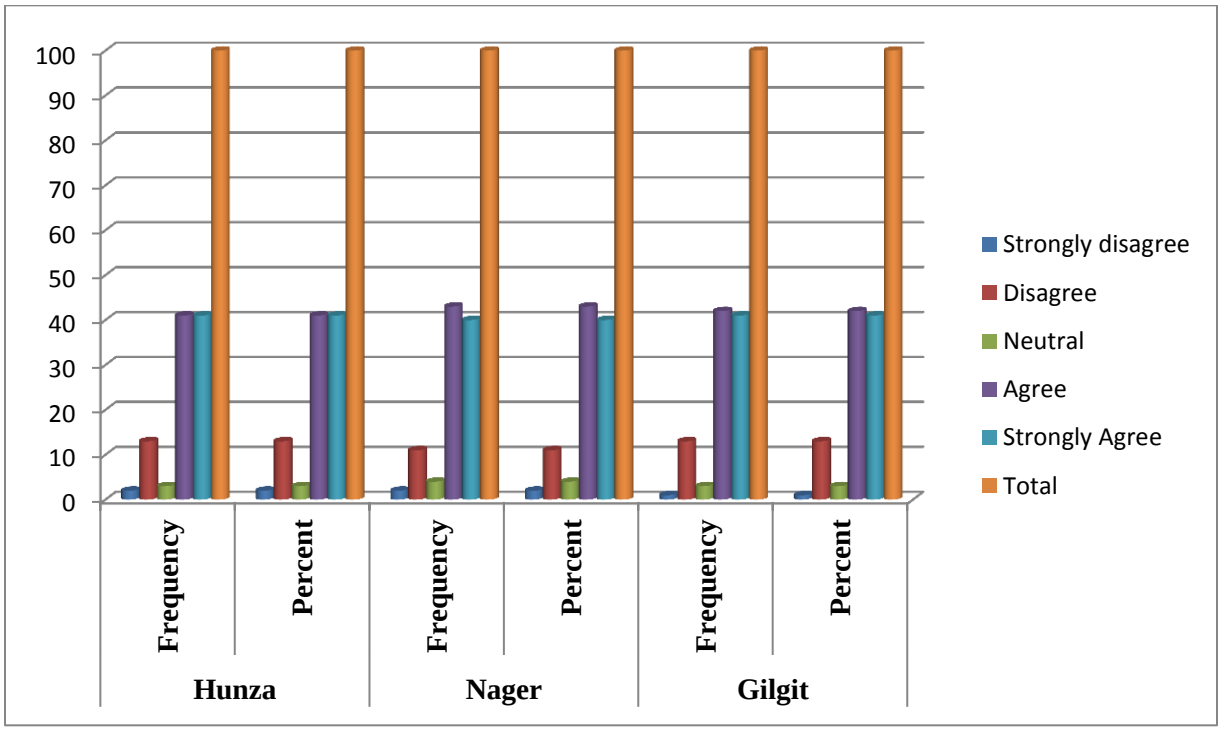
The above figure-14 shows the response of the selected sample when a question asked, that Karakoram Highway helps employees, students, businessmen, and patients to reach their offices, schools, colleges, universities, and hospitals on time after the construction of Karakoram Highway (KKH). The above figure-14 shows that 42% of the selected sample strongly agrees and 49% of the people have agreed with that, which means that 91% of the total sample size agrees that Karakoram Highway helps employees, students, businessmen, and patients to reach their offices, schools, colleges, universities, and hospitals on time than before. While 5% of the selected sample disagrees that KKH has no effect on the employees, students, businessmen, and patients to reach their offices, schools, colleges, universities, and hospitals on time and 8% of the people remain neutral with the above statement. The above figure14 shows the response of the people of the district Nager that 37% of the selected sample strongly agrees and 52% of the people have agreed with that, which means that 89% of the total sample size agrees that Karakoram Highway helps employees, students, businessmen, and patients to reach their offices, schools, colleges, universities, and hospitals on time than before. While 6% of the selected sample disagrees that KKH has no effect on the employees, students, businessmen, and patients to reach their offices, schools, colleges, universities, and hospitals on time and 5% of the people remain neutral with the above statement. Similarly, the above figure-14 also shows the response of district Gilgit that 42% of the selected sample strongly agrees and 48% of the people have agreed with that, which means that 90% of the total sample size agrees that Karakoram Highway helps employees, students, businessmen, and patients to reach their offices, schools, colleges, universities, and hospitals on time than before. While 5% of the selected sample disagrees that KKH has no effect on the employees, students, businessmen, and patients to reach their offices, schools, colleges, universities, and hospitals on time and 5% of the people remain neutral with the above statement.

Statement-19: Before the construction of KKH, the time of traveling for people of the GB to other parts of Pakistan was more than after.

The below figure-15 shows the response of the selected sample when a question asked that the time of traveling for people of the GB to other parts of Pakistan was more than after. Before the formation of Karakoram Highway people of Gilgit-Baltistan were used horses and

donkeys for traveling purposes through various pony tracks or various passes to visit the various cities of Pakistan. Therefore the time of traveling from Gilgit-Baltistan to other parts of Pakistan was higher than now. The below figure-15 shows that 41% of the selected sample strongly agrees and 41% of the people have agreed with that, which means that 82% of the total sample size agrees that the time of traveling to Gilgit-Baltistan was more than after. While 15% of the selected sample disagrees with the above statement and 3% of the people remain neutral to this statement. The below figure-15 shows the response of the people of the district Nager that 40% of the selected sample strongly agrees and 43% of the people have agreed with that, which means that 83% of the total sample size agrees that the time of traveling to Gilgit-Baltistan was more than after. While 13% of the selected sample disagrees with the above statement and 4% of the people remain neutral to this statement. Similarly, the below figure-15 also shows the response of district Gilgit that 41% of the selected sample strongly agrees and 42% of the people have agreed with that, which means that 83% of the total sample size agrees that the time of traveling to Gilgit-Baltistan was more than after. While 14% of the selected sample disagrees with the above statement and 3% of the people remain neutral to this statement.

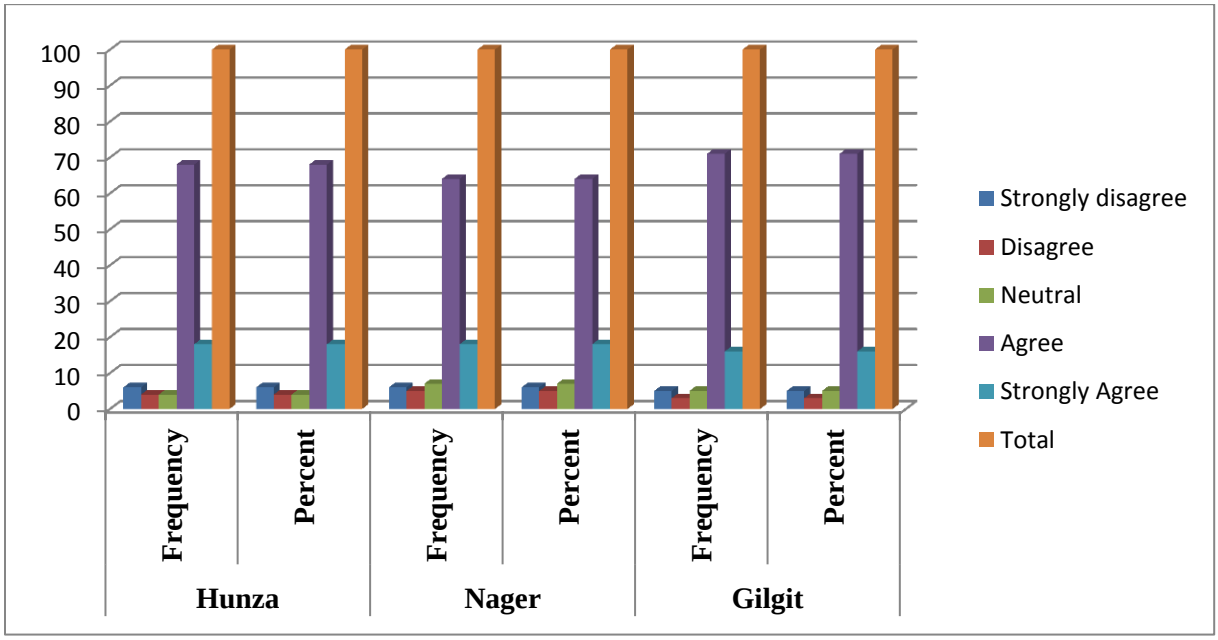
Figure-5.15:



5.3.4. Saving of Fuel:

Statement-20: After the construction of Karakoram Highway (KKH), various fuel products like Gasoline and Kerosene oil has been trading into GB for domestic fueling purpose than before.

Figure-5.16:



The above figure-16 shows the response of the selected sample from district Hunza when a question asked that after the construction of Karakoram Highway various fuel products like Gasoline and Kerosene oil have been trading into GB for domestic fueling purpose. Before the formation of Karakoram Highway people of Gilgit-Baltistan were used woods and bushes for domestic fueling purposes. But after its construction, various fueling products such as gasoline, LPG cylinders, and kerosene oil are used in Gilgit-Baltistan for domestic fueling purposes. The above figure-16 shows that 18% of the selected sample strongly agrees and 68% of the people have agreed with that, which means that 86% of the total sample size agrees that after the construction of KKH, people of GB are used various fuel products Gasoline, LPG cylinders, and Kerosene Oil for domestic fueling purposes. While 10% of the selected sample disagrees with the above statement and 4% of the people remain neutral regarding the use of various fuel products in G-B than after. The above figure shows the response of the people of the district Nager that 18% of the selected sample

strongly agrees and 64% of the people have agreed with that, which means that 82% of the total sample size agrees that after the construction of KKH, people of GB are used various fuel products Gasoline, LPG cylinders, and Kerosene Oil for domestic fueling purposes. While 11% of the selected sample disagrees with the above statement and 7% of the people remain neutral. Similarly, the above figure-16 also shows the response of district Gilgit that 16% of the selected sample strongly agrees and 71% of the people have agreed with that, which means that 87% of the total sample size agrees that after the construction of KKH, people of GB are used various fuel products Gasoline, LPG cylinders, and Kerosene Oil for domestic fueling purposes. While 8% of the selected sample disagrees with the above statement and 5% of the people remain neutral with the above statement.

Table-5.7:

Statement-21: Do you think KKH helps to reduced deforestation of trees which were used for domestic fueling and construction purposes?

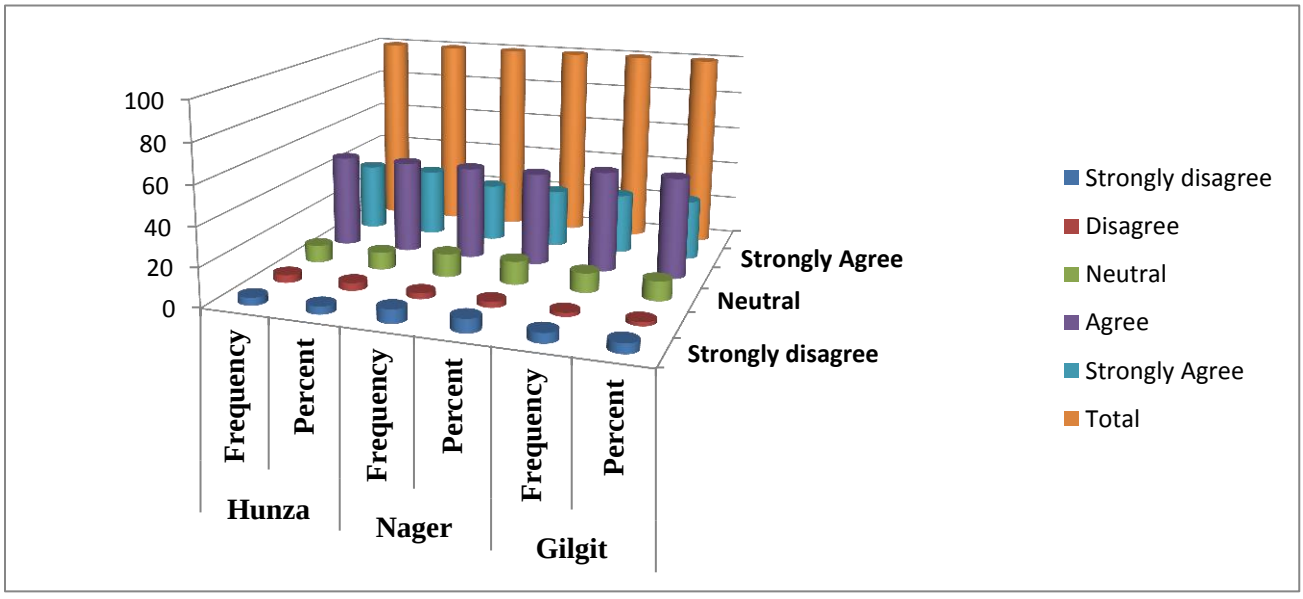
	Hunza		Nager		Gilgit	
	Frequency	**Percent**	**Frequency**	**Percent**	**Frequency**	**Percent**
Strongly Disagree	14	14.0	11	11.0	13	13.0
Disagree	17	17.0	18	18.0	17	17.0
Neutral	7	7.0	10	10.0	7	7.0
Agree	48	48.0	50	50.0	46	46.0
Strongly Agree	14	14.0	11	11.0	17	17.0
Total	100	100.0	100	100.0	100	100.0

The above table-7 shows the response of the selected sample from district Hunza when a question asked that Karakoram Highway (KKH) helps to reduced deforestation of trees, which are used for domestic fueling and construction purposes. Before the construction of Karakoram Highway people of Gilgit-Baltistan were used woods and bushes for domestic fueling purposes. Forest wood was also used for construction purposes in Gilgit-Baltistan. But after its construction, various fueling products such as gasoline, LPG cylinders, and kerosene oil are used in Gilgit-Baltistan for domestic fueling purposes. Similarly, various synthetic wood products like plywood, chipboards, aluminum windows and doors are used for construction purposes in Gilgit-Baltistan. The above table-7 shows that 14% of the selected

sample strongly agrees and 48% of the people have agreed with that, which means that 62% of the total sample size agrees that after the construction of KKH, helps to reduced deforestation of trees, which are used for domestic fueling and construction purposes. While 31% of the selected sample disagrees with the above statement and 7% of the people remain neutral to this question. The above table-7 shows the response of the people of the district Nager that 11% of the selected sample strongly agrees and 50% of the people have agreed with that, which means that 61% of the total sample size agrees that after the construction of KKH, helps to reduced deforestation of trees, which are used for domestic fueling and construction purposes. While 29% of the selected sample disagrees with the above statement and 10% of the people remain neutral to this question. Similarly, the above table-7 also shows the response of district Gilgit that 17% of the selected sample strongly agrees and 46% of the people have agreed with that, which means that 61% of the total sample size agrees that after the construction of KKH, helps to reduced deforestation of trees, which are used for domestic fueling and construction purposes. While 30% of the selected sample disagrees with the above statement and 7% of the people remain neutral to this question.

Statement-22: Do you think KKH has provided an opportunity for locals to use modern economical fuel products like LPG Cylinders, Kerosene Oil Heaters, and other products for their domestic purpose than before?

Figure-5.17:



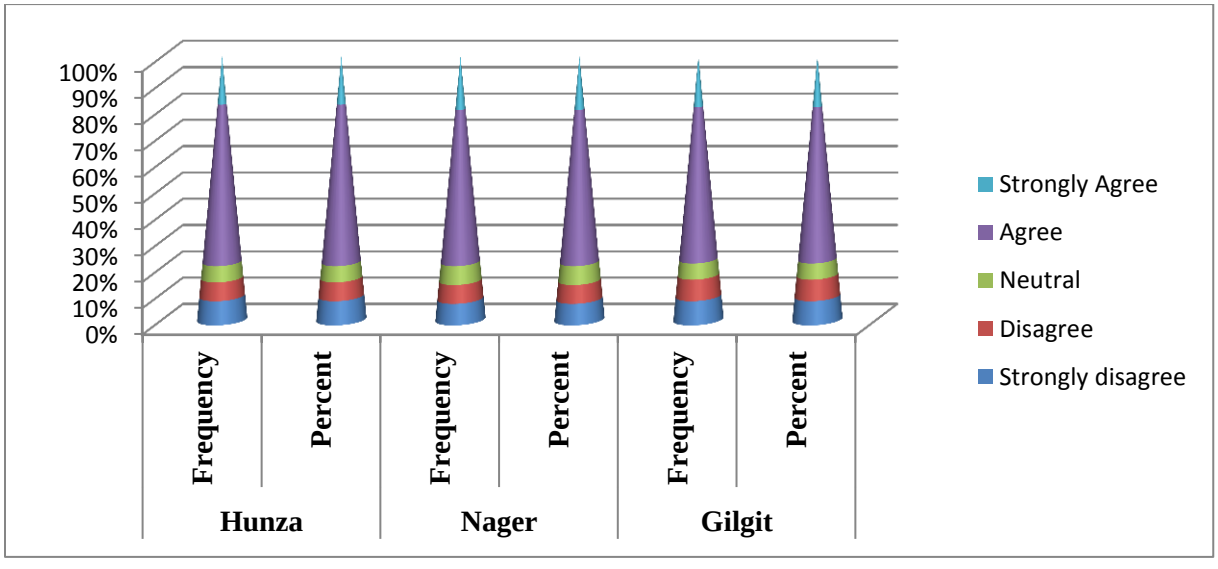
The above figure-17 shows the response of the selected sample from district Hunza when a question asked that after Karakoram Highway has provided an opportunity for locals to use modern economical fuel products like LPG Cylinders, Kerosene Oil Heaters, and other products for their domestic purpose than before. Before the formation of Karakoram Highway people of Gilgit-Baltistan were used forest woods and bushes for domestic fueling purposes. Getting wood and shrubs for domestic fuel was a costly and time-consuming task for the people of Gilgit-Baltistan. But after its construction locals use modern economical fuel products like LPG Cylinders, Kerosene Oil Heaters, and other products for their domestic purpose than before. The above figure-17 shows that 35% of the selected sample strongly agrees and 48% of the people have agreed with that, which means that 83% of the total sample size agrees that after the construction of KKH, locals to use modern economical fuel products like LPG Cylinders, Kerosene Oil Heaters, and other products for their domestic purpose. While 8% of the selected sample disagrees with the above statement and 9% of the people remain neutral regarding the use of various economical fuel products in G-B than after. The above figure-17 shows the response of the people of the district Nager that 30% of the selected sample strongly agrees and 48% of the people have agreed with that, which means that 73% of the total sample size agrees that after the construction of KKH, locals to use modern economical fuel products like LPG Cylinders, Kerosene Oil Heaters, and other products for their domestic purpose. While 10% of the selected sample disagrees with the above statement and 12% of the people remain neutral. Similarly, the above figure-17 also shows the response of district Gilgit that 31% of the selected sample strongly agrees and 52% of the people have agreed with that, which means that 83% of the total sample size agrees that after the construction of KKH, locals to use modern economical fuel products like LPG Cylinders, Kerosene Oil Heaters, and other products for their domestic purpose. While 7% of the selected sample disagrees with the above statement and 10% of the people remain neutral.

Statement-23: Before the construction of Karakoram Highway, various fuel products like Gasoline and Kerosene oil had not traded into the GB for domestic fuel purposes than after.

The below figure-18 shows the response of the selected sample from district Hunza when a question asked that after the construction of Karakoram Highway various fuel

products like Gasoline and Kerosene oil was not traded into the GB for domestic fuel purposes than after. Before the formation of Karakoram Highway people of Gilgit-Baltistan were used woods and bushes for domestic fueling purposes. But after its construction, various fueling products such as gasoline, LPG cylinders, and kerosene oil are used in Gilgit-Baltistan for domestic fueling purposes. The below figure-18 shows that 18% of the selected sample strongly agrees and 60% of the people have agreed with that, which means that 78% of the total sample size agrees that before the construction of KKH, various fuel products like Gasoline and Kerosene oil had not traded into the GB for domestic fuel purposes. While 16% of the selected sample disagrees with the above statement and 6% of the people remain neutral to this statement. The below figure-19 shows the response of the people of the district Nager that 20% of the selected sample strongly agrees and 58% of the people have agreed with that, which means that 78% of the total sample size agrees that before the construction of KKH, various fuel products like Gasoline and Kerosene oil had not traded into the GB for domestic fuel purposes. While 15% of the selected sample disagrees with the above statement and 7% of the people remain neutral to this statement. Similarly, the below figure-18 also shows the response of the people of district Gilgit that 19% of the selected sample strongly agrees and 58% of the people have agreed with that, which means that 77% of the total sample size agrees that before the construction of KKH, various fuel products like Gasoline and Kerosene oil had not traded into the GB for domestic fuel purposes. While 17% of the selected sample disagrees with the above statement and 6% of the people remain neutral to this statement.

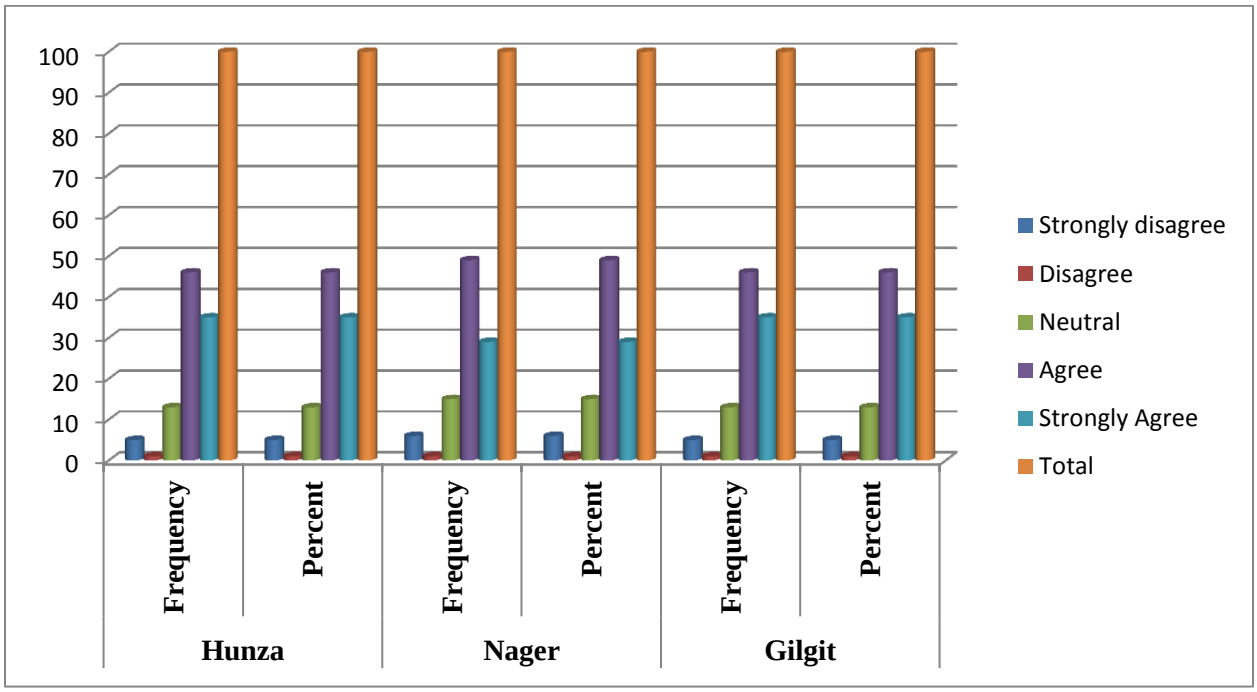
Figure-5.18:



5.4. Education Sector:

Statement-24: After the construction of KKH, the literacy rate of the GB has raised than before.

Figure-5.19:

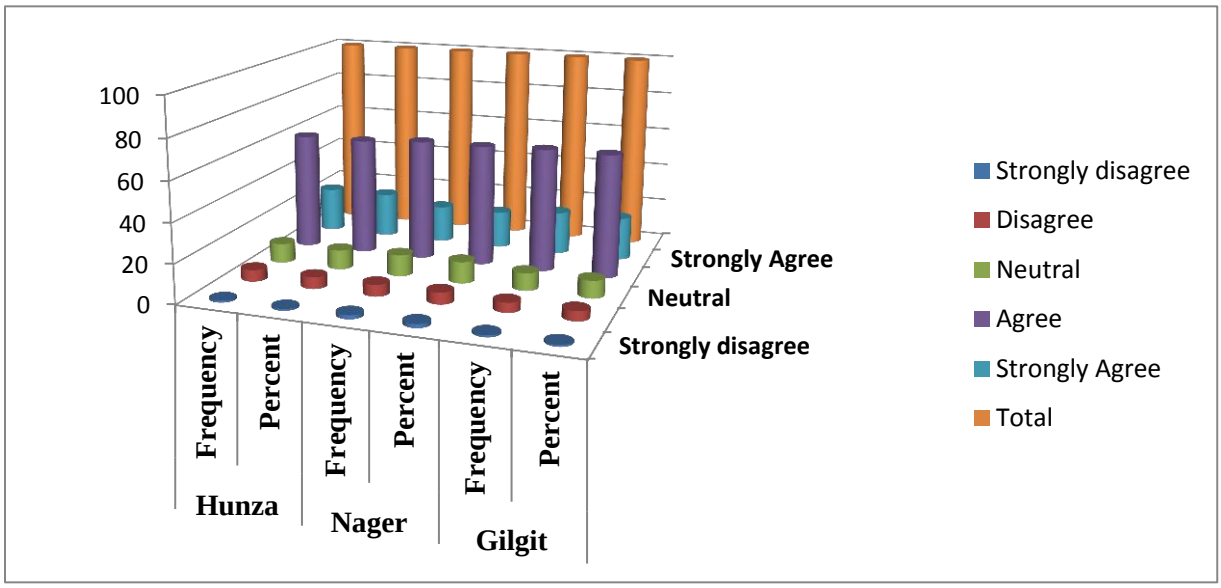


The above figure-19 shows the response of the selected sample from district Hunza when a question asked that after the construction of Karakoram Highway the literacy rate of the Gilgit-Baltistan has raised. After its formation, educational professionals from different cities of Pakistan are traveling to Gilgit-Baltistan to rendering their service in the education department of G-B. Therefore, after its construction literacy rate of G-B has raised. The above figure-19 shows that 34% of the selected sample strongly agrees and 47% of the people have agreed with that, which means that 81% of the total sample size agrees that after the construction of KKH, the literacy rate of G-B has raised. While 8% of the selected sample disagrees with the above statement and 11% of the people remain neutral to this statement. The above figure-19 shows the response of the people of the district Nager that 29% of the selected sample strongly agrees and 49% of the people have agreed with that, which means that 78% of the total sample size agrees that after the construction of KKH, the literacy rate of G-B has raised. While 7% of the selected sample disagrees with the above statement and 15%

of the people remain neutral to this statement. Similarly, the below figure-19 also shows the response of district Gilgit that 35% of the selected sample strongly agrees and 46% of the people have agreed with that, which means that 81% of the total sample size agrees that after the construction of KKH, the literacy rate of G-B has raised. While 6% of the selected sample disagrees with the above statement and 13% of the people remain neutral.

Statement-25: After the construction of Karakoram Highway (KKH), the literacy rate of your district has raised than before.

Figure-5.20:



The above figure-20 shows the response of the selected sample from district Hunza when a question asked that Karakoram Highway helps to increase the enrollment rate of the district Hunza students in schools, colleges, and universities. Karakoram Highway has linked various districts of Gilgit-Baltistan. Therefore, people have got easy access to their schools, colleges, and universities which increased the enrollment rate of the district Hunza. The above figure-20 shows that 23% of the selected sample strongly agrees and 60% of the people have agreed with that, which means that 83% of the total sample size agrees that Karakoram Highway helps to increase the enrollment rate of the district Hunza students in schools, colleges, and universities. While 7% of the selected sample disagrees with the above statement and 10% of the people remain neutral to this statement. The above figure-20 shows

the response of the people of the district Nager that 19% of the selected sample strongly agrees and 62% of the people have agreed with that, which means that 81% of the total sample size agrees that Karakoram Highway helps to increase the enrollment rate of the district Nager students in schools, colleges, and universities. While 8% of the selected sample disagrees with the above statement and 11% of the people remain neutral. Similarly, the below figure-20 also shows the response of district Gilgit that 22% of the selected sample strongly agrees and 63% of the people have agreed with that, which means that 85% of the total sample size agrees that Karakoram Highway helps to increase the enrollment rate of the district Gilgit students in schools, colleges, and universities. While 6% of the selected sample disagrees with the above statement and 9% of the people remain neutral to this statement.

Table-5.8:

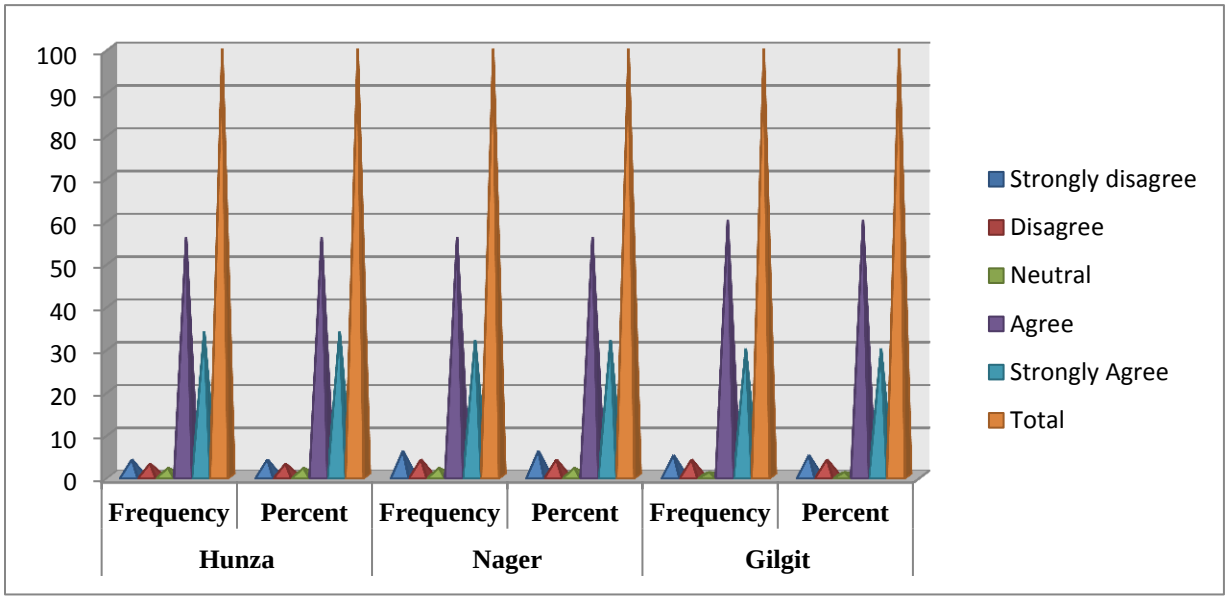
Statement-26: Do you think after the construction of KKH, the Quality of education in your native district has increased than before?						
	Hunza		**Nager**		**Gilgit**	
	Frequency	**Percent**	**Frequency**	**Percent**	**Frequency**	**Percent**
Strongly Disagree	1	1.0	2	2.0	1	1.0
Disagree	4	4.0	5	5.0	4	4.0
Neutral	12	12.0	14	14.0	13	13.0
Agree	54	54.0	50	50.0	50	50.0
Strongly Agree	29	29.0	29	29.0	32	32.0
Total	100	100.0	100	100.0	100	100.0

The above table-8 shows the response of the selected sample from district Hunza when a question asked that the Quality of education in the district Hunza has increased than before. Before the construction of Karakoram Highway, there were no standard educational institutions in Gilgit-Baltistan where people of Gilgit-Baltistan get a quality education. After its formation, educational professionals from different cities of Pakistan are traveling to Gilgit-Baltistan to rendering their service in the education department of G-B. Therefore, after its construction the Quality of education in the district Hunza has increased. The above table-8 shows that 29% of the selected sample strongly agrees and 54% of the people have agreed with that, which means that 83% of the total sample size agrees that Karakoram Highway

helps to enhance the quality of education in the district Hunza. While 5% of the selected sample disagrees that KKH has no effect in improving the quality of education in the district Hunza and 12% of the people remain neutral with the above statement. The above table-8 shows the response of the people of the district Nager that 29% of the selected sample strongly agrees and 50% of the people have agreed with that, which means that 79% of the total sample size agrees that Karakoram Highway helps to enhance the quality of education in the district Nager. While 7% of the selected sample disagrees that KKH has no effect in improving the quality of education in the district Nager and 14% of the people remain neutral. Similarly, the above table-8 also shows the response of district Gilgit that 32% of the selected sample strongly agrees and 55% of the people have agreed with that, which means that 82% of the total sample size agrees that Karakoram Highway helps to enhance the quality of education in the district Gilgit. While 5% of the selected sample disagrees that KKH has no effect in improving the quality of education in the district Gilgit and 13% of the people remain neutral to this statement.

Statement-27: Do you think after the construction of Karakoram Highway, students of your native district are traveling abroad for their higher studies?

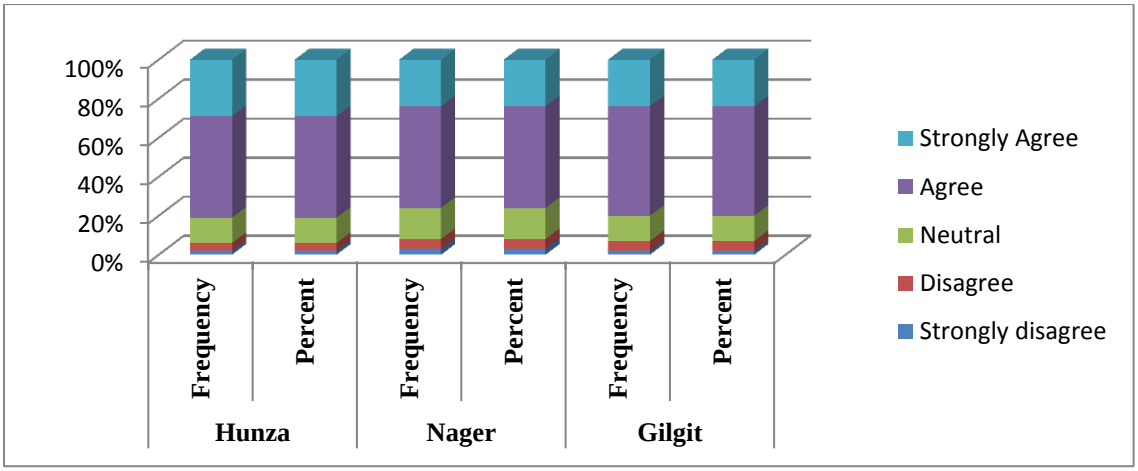
Figure-5.21:



The above figure-21 shows the response of the selected sample from district Hunza when a question asked that students of the district Hunza are traveling abroad for their higher studies. Therefore, after its construction students of the district, Hunza is traveling abroad for their higher studies. The above figure-21 shows that 34% of the selected sample strongly agrees and 56% of the people have agreed with that, which means that 90% of the total sample size agrees that students of the district Hunza are traveling abroad for their higher studies. While 7.1% of the selected sample disagrees that KKH has no effect on the students of the district Hunza for their higher studies and 2% of the people remain neutral with the above statement. The above figure-21 shows the response of the people of the district Nager that means that 88% of the total sample size agrees that students of the district Nager are traveling abroad for their higher studies. While 10% of the selected sample disagrees that KKH has no effect on the students of the district Nager for their higher studies and 2% of the people remain neutral. Similarly, the below figure-21 also shows the response of district Gilgit that 30% of the selected sample strongly agrees and 60% of the people have agreed with that, which means that 90% of the total sample size agrees that students of the district Gilgit are traveling abroad for their higher studies. While 9% of the selected sample disagrees that KKH has no effect on the students of the district Gilgit for their higher studies and 2% of the people remain neutral with the above statement.

Statement-28: Before the construction of Karakoram Highway, the literacy rate of your native district was lower than after.

Figure-5.22:



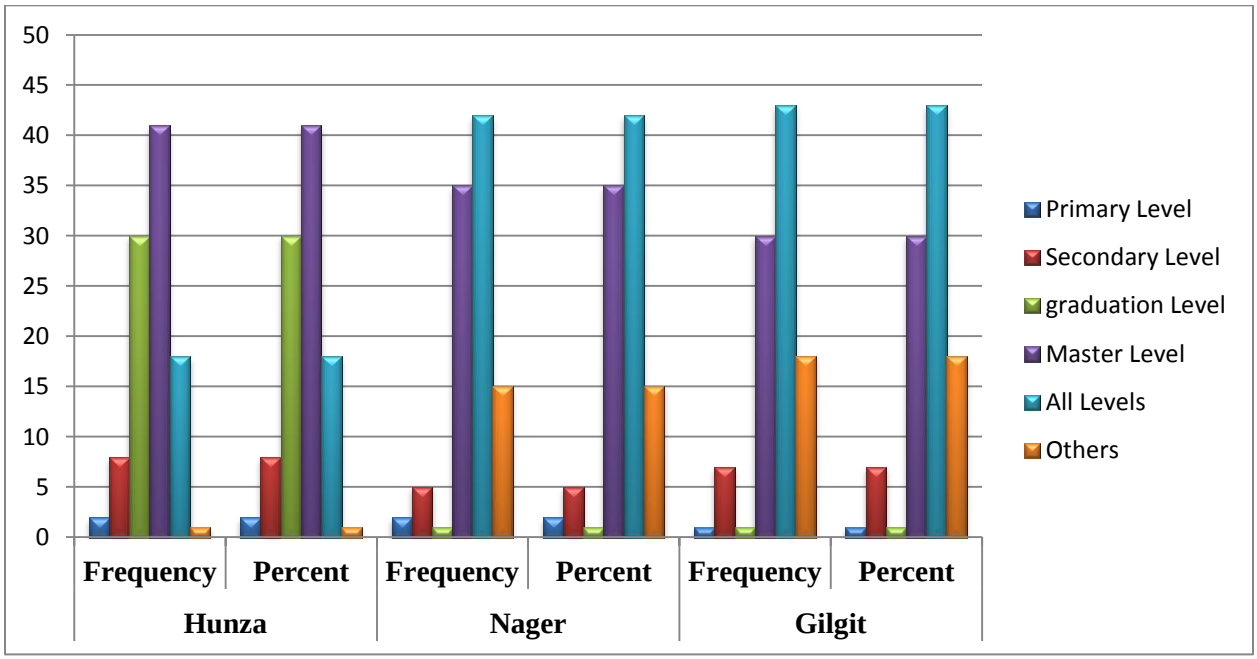
The above figure-22 shows the response of the selected sample from district Hunza when a question asked that the literacy rate of the district Hunza was lower than after. Before the construction of Karakoram Highway, there were no standard educational institutions in Gilgit-Baltistan where people of Gilgit-Baltistan get a quality education. Therefore, before its construction, the literacy rate of the district Hunza was lower as compares to its formation. The above figure-24 shows that 29% of the selected sample strongly agrees and 52% of the people have agreed with that, which means that 81% of the total sample size agrees that the literacy rate of the district Hunza was lower than after. While 6% of the selected sample disagrees that KKH has no effect on the literacy rate of the district Hunza was lower than after and 13% of the people remain neutral with the above statement. The above figure-22 shows the response of the people of the district Nager that 24% of the people have strongly agreed and 52% of the people have agreed with that, which means that 76% of the 24% of the total sample size agrees that the literacy rate of the district Nager was lower than after. While 8% of the selected sample disagrees that KKH has no effect on the literacy rate of the district Nager was lower than after and 16% of the people remain neutral. The above figure-22 shows the response of the people of the district Gilgit that 24% of the selected sample strongly agrees and 56% of the people have agreed with that, which means that 80% of the total sample size agrees that the literacy rate of the district Gilgit was lower than after. While 7% of the selected sample disagrees that KKH has no effect on the literacy rate of the district Gilgit was lower than after and 13% of the people remain neutral with the above statement.

Statement-29: Which level of education has increased in your native district after the construction of Karakoram Highway (KKH)?

The below figure-23 shows the different categories of the educational levels for the district, Hunza the below figure-23 shows that 2% of people believe that the primary level of education in the district Hunza has increased. 30% of people believe that the Graduation level of education in the district Hunza has increased. While 41% of people believe that the master level of education in the district Hunza has increased and 18% of people believe that all levels of education in the district Hunza have increased after the construction of KKH. According to the above table mostly people in the district Hunza believe that after the construction of Karakoram Highway master-level education has increased in the district Hunza. 1% of people

believe that other forms of education like technical, vocational and certifications have increased in the district Hunza after the formation of Karakoram Highway. For district Nager, the figure-23 shows that 2% of people believe that the primary level of education in the district Nager has increased. 35% of people believe that the Graduation level of education in the district Nager has increased. While 42% of people believe that the master level of education in the district Nager has increased and 15% of people believe that all levels of education in the district Nager have increased after the construction of KKH. Similarly, for the district, Gilgit the below figure-23 shows that 1% of people believe that the primary level of education in the district Gilgit has increased. 39% of people believe that the Graduation level of education in the district Gilgit has increased. While 43% of people believe that the master level of education in the district Gilgit has increased and 17% of people believe that all levels of education in the district Gilgit have increased after the construction of KKH. According to the above table mostly people in the district Gilgit believe that after the construction of Karakoram Highway master-level education has increased in the district Gilgit.

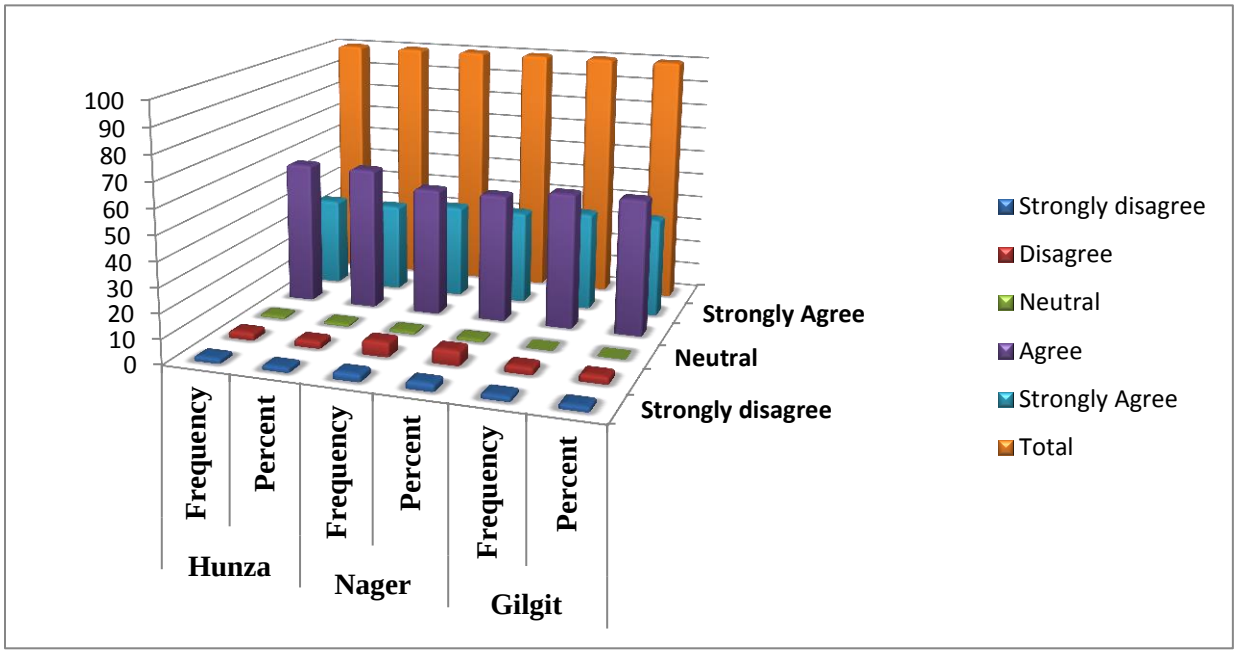
Figure-5.23:



5.5. Health Sector:

Statement-30: After the construction of KKH, a Health facility in your native district has improved than before.

Figure-5.24:

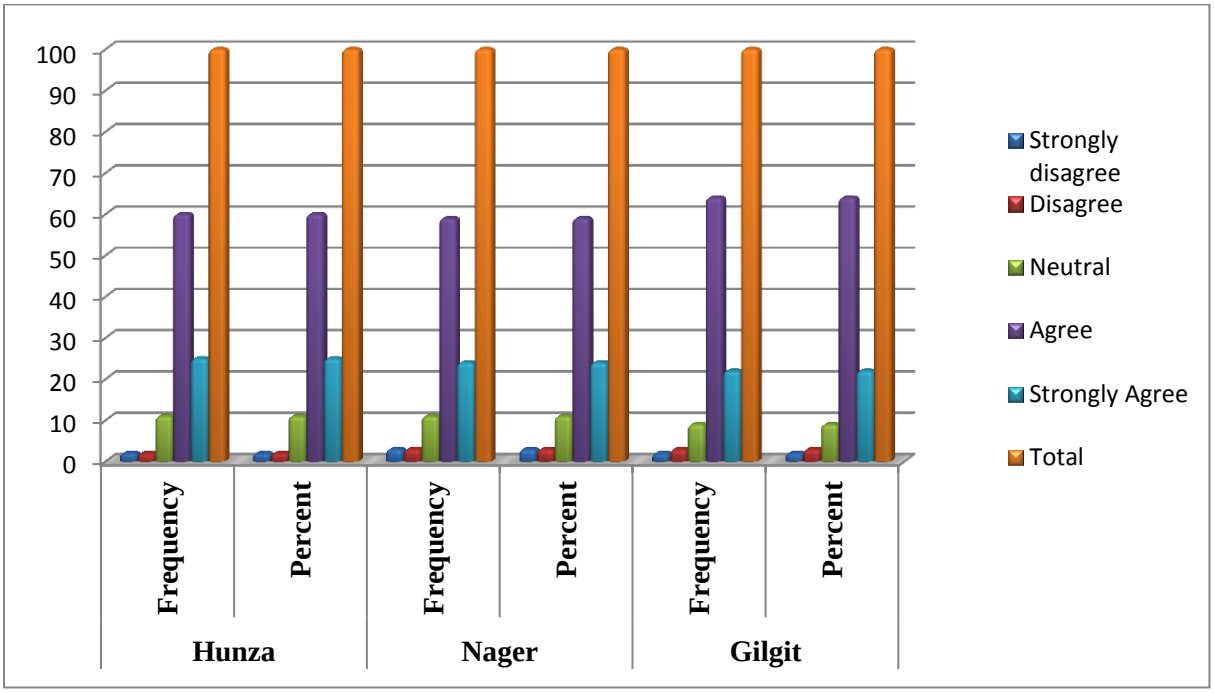


The above figure-24 shows the response of the selected sample from district Hunza when a question asked that a Health facility in the district Hunza has improved than before. Before the construction of Karakoram Highway, there were no standard hospitals in Gilgit-Baltistan where people of Gilgit-Baltistan get quality health facilities. After its formation, medical specialists like doctors, surgeons, psychiatrists and other medical technicians from different cities of Pakistan are traveling to different districts of Gilgit-Baltistan. These medical specialists are rendering their service in the private hospitals and health departments of Gilgit-Baltistan. Therefore, after its construction, a Health facility in the district Hunza has improved due to the availability of doctors and other paramedic staff in the hospitals. The above figure-24 shows that 36% of the selected sample strongly agrees and 58% of the people have agreed with that, which means that 94% of the total sample size agrees that a Health facility in the district Hunza has improved than before. While 5% of the selected sample disagrees that KKH has no effect on the Health facility in the district Hunza has improved than before and 1% of the people remain neutral with the above statement. The above figure-24 shows the response

of the people of district Nager that 38% of the selected sample strongly agrees and 52% of the people have agreed with that, which means that 90% of the total sample size agrees that a Health facility in the district Nager has improved than before. While 9% of the selected sample disagrees that KKH has no effect on the Health facility in the district Nager has improved than before and 1% of the people remain neutral. The above figure-24 shows the response of the district Gilgit that 40% of the selected sample strongly agrees and 55% of the people have agreed with that, which means that 95% of the total sample size agrees that a health facility in the district Gilgit has improved than before. While 5% of the selected sample disagrees that KKH has no effect on the health facility in the district Gilgit has improved than before.

Statement-31: After the construction of Karakoram Highway, the infant mortality rate of your native district has decreased than before.

Figure-5.25:



The above figure-25 shows the response of the selected sample from district Hunza when a question asked that the infant mortality rate of the district Hunza has decreased than before. Before the construction of Karakoram Highway, there were no standard hospitals in Gilgit-Baltistan where people of Gilgit-Baltistan get quality health facilities. After its

formation, medical professionals such as medical specialists, gynecologists, dermatologists, surgeons, psychologists, and other medical technicians have been traveling from different cities of Pakistan to different districts of Gilgit-Baltistan. These medical professionals are rendering their service in the private hospitals and government hospitals of Gilgit-Baltistan. Therefore, after its formation the infant mortality rate of the district Hunza has decreased due to the availability of child specialist doctors and other early prevention vaccination programs in the hospitals. The above figure-25 shows that 25% of the selected sample strongly agrees and 60% of the people have agreed with that, which means that 85% of the total sample size agrees that the infant mortality rate of the district Hunza has decreased than before. While 4% of the selected sample disagrees that KKH has no effect on the infant mortality rate of the district Hunza has decreased than before and 11% of the people remain neutral with the above statement. The above figure-27 shows the response of the district Nager that 24% of the selected sample strongly agrees and 59% of the people have agreed with that, which means that 83% of the total sample size agrees that the infant mortality rate of the district Nager has decreased than before. While 6% of the selected sample disagrees with the above statement and 11% of the people remain neutral. The above figure-25 shows the responses of the people of district Gilgit that 22% of the selected sample strongly agrees and 64% of the people have agreed with that, which means that 86% of the total sample size agrees that the infant mortality rate of the district Gilgit has decreased than before. While 5% of the selected sample disagrees with the above statement and 9% of the people remain neutral with this statement.

Statement-32: Do you think after the construction of KKH, the maternity death rate of your native district has decreased than before?

The below figure-26 shows the response of the selected sample from district Hunza when a question asked that the maternity death rate of the district Hunza has decreased than before. Before the construction of Karakoram Highway, there were no standard hospitals in Gilgit-Baltistan where females of Gilgit-Baltistan get quality gynecological facilities. Since its formation, medical professionals such as medical specialists, gynecologists, dermatologists, surgeons, psychologists, and other medical technicians have been traveling from different cities of Pakistan to different districts of Gilgit-Baltistan. These medical professionals are rendering their service in the private hospitals and government hospitals of Gilgit-Baltistan.

Therefore, after its formation the maternity death rate of the district Hunza has decreased due to the availability of specialized gynecological doctors and other early prevention vaccination programs in the hospitals. The below figure-26 shows that 25% of the selected sample strongly agrees and 66% of the people have agreed with that, which means that 91% of the total sample size agrees that the maternity death rate of the district Hunza has decreased than before. While 7% of the selected sample disagrees that KKH has no effect on the maternity death rate of the district Hunza has decreased than before and 2% of the people remain neutral with the above statement. The below chart-26 shows the responses of the people of the district Nager that 34% of the selected sample strongly agrees and 50% of the people have agreed with that, which means that 84% of the total sample size agrees that the maternity death rate of the district Nager has decreased than before. While 10% of the selected sample disagrees with the above statement and 6% of the people remain neutral. The below chart-26 also shows the responses of the people of district Gilgit that 25% of the selected sample strongly agrees and 65% of the people have agreed with that, which means that 90% of the total sample size agrees that the maternity death rate of the district Gilgit has decreased. While 9% of the selected sample disagrees with the above statement and 1% of the people remain neutral with this statement.

Figure-5.26:

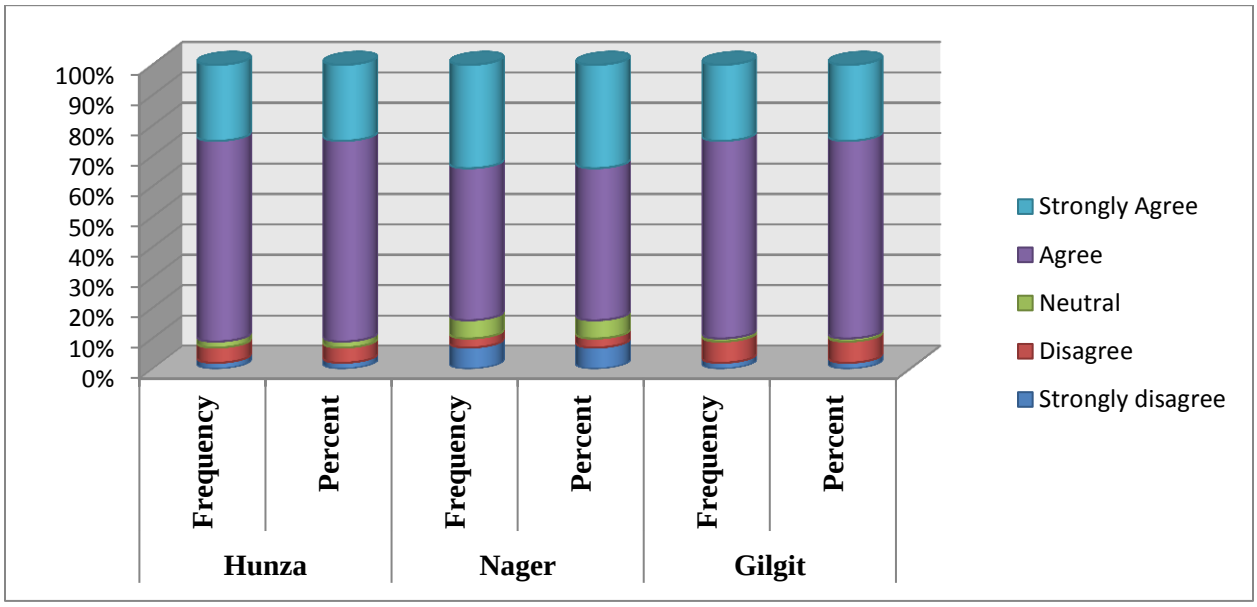


Table-5.9:

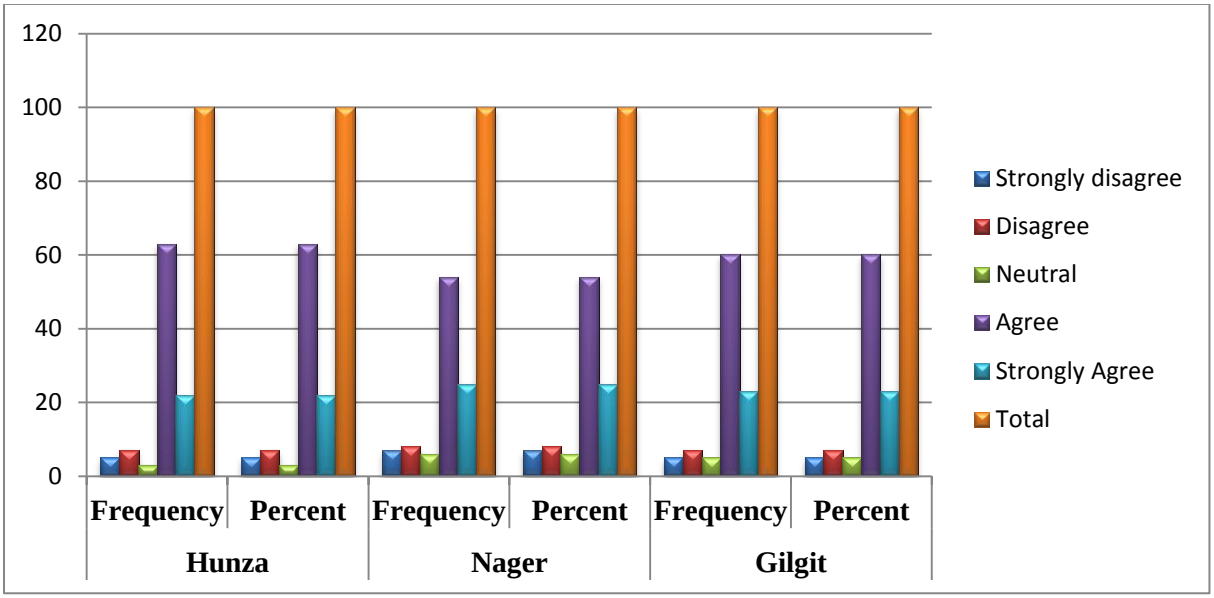
Statement-33: After the construction of KKH, in case of emergency cases, causalities have been reduced than before.						
	Hunza		Nager		Gilgit	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Strongly Disagree	3	3.0	3	3.0	2	2.0
Disagree	3	3.0	5	5.0	6	6.0
Neutral	6	6.0	5	5.0	4	4.0
Agree	61	61.0	59	59.0	65	65.0
Strongly Agree	27	27.0	28	28.0	23	23.0
Total	100	100.0	100	100.0	100	100.0

The above table- 9 shows the reflections of the selected sample from district Hunza when a question asked that in case of emergency cases, causalities have been reduced than before. Before the construction of Karakoram Highway, there were no standard hospitals in Gilgit-Baltistan where people of Gilgit-Baltistan get quality health and medicine facilities. After its formation, people of the Gilgit-Baltistan timely reaching hospitals in case of any emergency cases, where medical specialists like doctors, surgeons, psychiatrists and medicines from different cities of Pakistan are traveling to different districts of Gilgit-Baltistan to rendering their service in the private hospitals and government hospitals of Gilgit-Baltistan. Therefore, after its formation, emergency cases, causalities have been reduced than before. The above table-9 shows that 27% of the selected sample strongly agrees and 61% of the people have agreed with that, which means that 88% of the total sample size agrees that people of the district Hunza in case of emergency cases, causalities have been reduced than before. While 6% of the selected sample disagrees that KKH does no effect on the people of the district Hunza in case of emergency cases, causalities have been reduced than before and 6% of the people remain neutral with the above statement. For district Nager, the above table-9 reflections that 28% of the selected sample strongly agrees and 59% of the people have agreed with that, which means that 87% of the total sample size agrees that people of the district Nager in case of emergency cases, causalities have been reduced than before. While 8% of the selected sample disagrees that KKH does no effect on the people of the district Nager in case of emergency cases, causalities have been reduced than before and 5% of the

people remain neutral. While for the district Gilgit the above table-9 shows that 23% of the selected sample strongly agrees and 65% of the people have agreed with that, which means that 88% of the total sample size agrees that people of the district Gilgit in case of emergency cases, causalities have been reduced than before. While 8% of the selected sample disagrees that Karakoram Highway (KKH) does no effect on the people of the district Gilgit in case of emergency cases, causalities have been reduced than before and 4% of the people remain neutral with the above statement.

Statement-34: Do you think that after the construction of KKH, classified Doctors and surgeons have traveled to your native district than before?

Figure-5.27:



The above figure-27 shows the reflections of the selected sample from district Hunza when a question asked that classified doctors and surgeons have traveled to the district Hunza than before. Before the construction of Karakoram Highway, there were no standard hospitals in Gilgit-Baltistan, where people of Gilgit-Baltistan get quality health and medicine facilities. After its formation, medical specialists like doctors, surgeons, psychiatrists, and medicines from different cities of Pakistan are traveling to different districts of Gilgit-Baltistan. These medical professionals are rendering their service in the private hospitals and government hospitals of Gilgit-Baltistan. Therefore, since its construction, classified Doctors and surgeons have traveled to the district Hunza than before. The above figure-27 shows that 22% of the selected sample strongly agrees and 63% of the people have agreed with that, which means

that 85% of the total sample size agrees that classified Doctors and surgeons have traveled to your native district before. While 12% of the selected sample disagrees that KKH has no effect on the enhancement of classified Doctors and surgeons in the district Hunza and 3% of the people remain neutral with the above statement. For district Nager, the above figure-29 reflections that 25% of the selected sample strongly agrees and 54% of the people have agreed with that, which means that 79% of the total sample size agrees that classified Doctors and surgeons have traveled to your native district than before. While 15% of the selected sample disagrees that KKH has no effect on the enhancement of classified Doctors and surgeons in the district Nager and 6% of the people remain neutral. For the district Gilgit, the above figure-27 shows that 23% of the selected sample strongly agrees and 60% of the people have agreed with that, which means that 83% of the total sample size agrees that classified Doctors and surgeons have traveled to your native district than before. While 12% of the selected sample disagrees that Karakoram Highway (KKH), has no impacts on the enhancement of classified Doctors and surgeons in the district Gilgit and 5% of the people remain neutral with the above statement.

5.6. Market Prices:

Table-5.10:

Statement-35: After the construction of Karakoram Highway, Market Prices of consumer goods trade into Gilgit-Baltistan for household use have reduced than before.						
	Hunza		**Nager**		**Gilgit**	
	Frequency	**Percent**	**Frequency**	**Percent**	**Frequency**	**Percent**
Strongly Disagree	9	9.0	9	9.0	8	8.0
Disagree	5	5.0	7	7.0	5	5.0
Neutral	8	8.0	6	6.0	8	8.0
Agree	68	68.0	64	64.0	67	67.0
Strongly Agree	10	10.0	14	14.0	12	12.0
Total	100	100.0	100	100.0	100	100.0

The above table- 10 shows the reflections of the selected sample from district Hunza when a question asked that Market Prices of consumer goods trade into Gilgit-Baltistan for

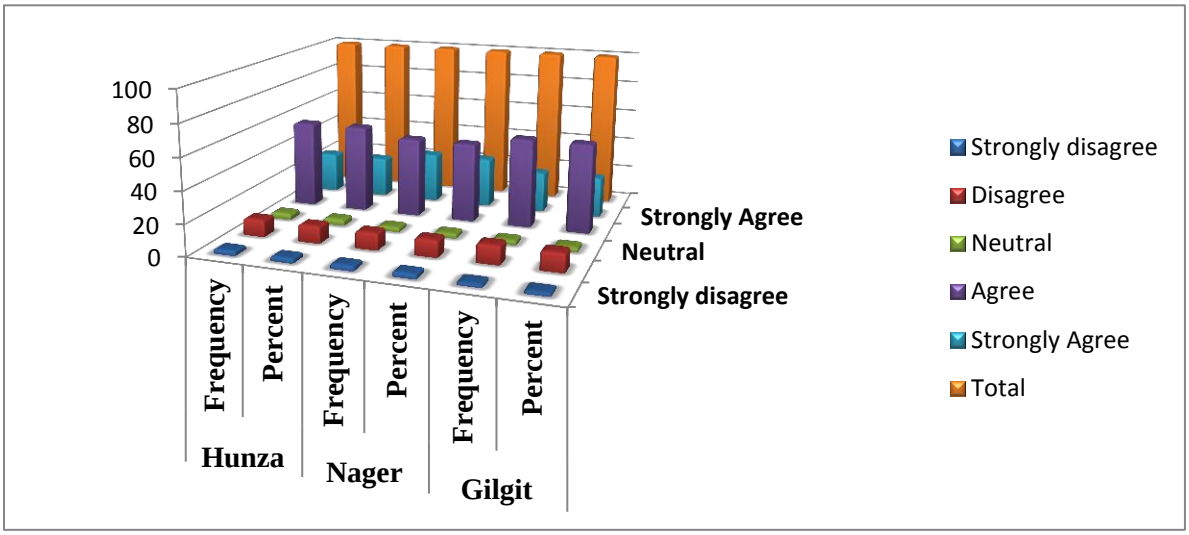
household use have reduced than before. Prior to the construction of Karakoram Highway, to import consumer goods to Gilgit-Baltistan people were used horses and donkeys. Because of dangerous passes and narrow tracks, people of G-B were facing difficulties to trade consumer goods into Gilgit-Baltistan. It took several days to trade these consumer goods into Gilgit-Baltistan. So it was an expensive work to trade consumer goods into G-B. Since its formation, consumer goods easily trade into G-B through heavy trucks and other good carriers. Now, it takes only a few days to trade these consumer goods into Gilgit-Baltistan. Therefore Market Prices of consumer goods trade into Gilgit-Baltistan for household use have reduced than before. The above table-10 shows that 10% of the selected sample strongly agrees and 68% of the people have agreed with that, which means that 78% of the total sample size agrees that Market Prices of consumer goods trade into Gilgit-Baltistan for household use have reduced than before. While 14% of the selected sample disagrees with the above statement and 8% of the people remain neutral to this statement. The above table-10 shows the reflections of the people of district Nager that 14% of the selected sample strongly agrees and 64% of the people have agreed with that, which means that 78% of the total sample size agrees that Market Prices of consumer goods trade into Gilgit-Baltistan for household use have reduced than before. While 16% of the selected sample disagrees with the above statement and 6% of the people remain neutral. The above table-10 also shows the reflections of the people of district Gilgit that 12% of the selected sample strongly agrees and 67% of the people have agreed with that, which means that 79% of the total sample size agrees that Market Prices of consumer goods trade into Gilgit-Baltistan for household use have reduced than before. While 13% of the selected sample disagrees with the above statement and 8% of the people remain neutral to this statement.

Statement-36: After the construction of Karakoram Highway (KKH), the market prices of locally produced handicrafts and dry fruits have higher in Pakistan than before.

The below figure-28 shows the response of the selected sample from district Hunza when a question asked that the market prices of locally produced handicrafts and dry fruits have higher in Pakistan than before. Prior to the construction of Karakoram Highway, people were used horses and donkeys for transportation purposes. Because of dangerous passes and narrow tracks, people of G-B were facing difficulties to trade-out domestically produced

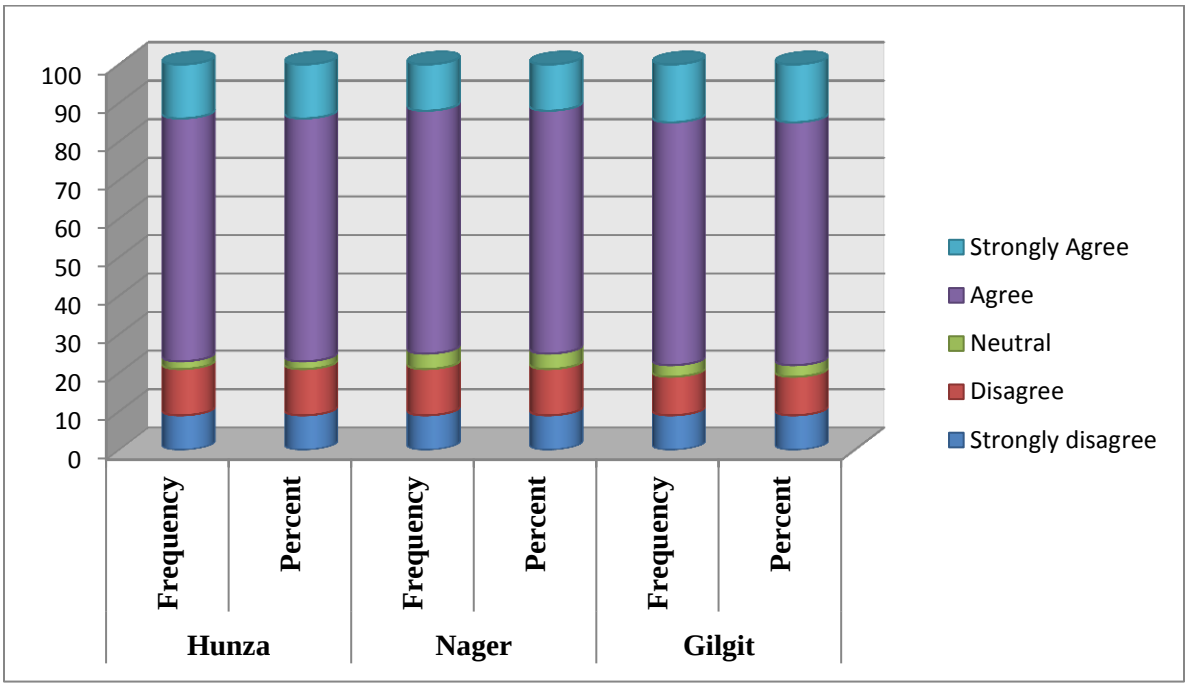
goods from Gilgit-Baltistan to other parts of Pakistan. Since its formation, domestically produced goods easily trade-out from G-B through trucks, buses, cars, and other good carriers. Therefore, the market prices of locally produced handicrafts and dry fruits have higher in Pakistan than before. The below chart-28 shows that 26% of the selected sample strongly agrees and 56% of the people have agreed with that, which means that 82% of the total sample size agrees that, the market prices of locally produced handicrafts and dry fruits have higher in Pakistan than before. While 14% of the selected sample disagrees with the above statement and 4% of the people remain neutral to this statement. The below figure-28 shows the reflection of the people of district Nager that 32% of the selected sample strongly agrees and 51% of the people have agreed with that, which means that 83% of the total sample size agrees that, the market prices of locally produced handicrafts and dry fruits have higher in Pakistan than before. While 14% of the selected sample disagrees with the above statement and 3% of the people remain neutral. Similarly, the below figure-27 also shows the responses of the people of the district Gilgit that 26% of the selected sample strongly agrees and 57% of the people have agreed with that, which means that 83% of the total sample size agrees that, the market prices of locally produced handicrafts and dry fruits have higher in Pakistan than before. While 14% of the selected sample disagrees with the above statement and 3% of the people remain neutral to this statement.

Figure-5.28:



Statement-37: Before the construction of Karakoram Highway (KKH), Market Prices of consumer goods trade into Gilgit-Baltistan for household use were higher than after.

Figure-5.29:



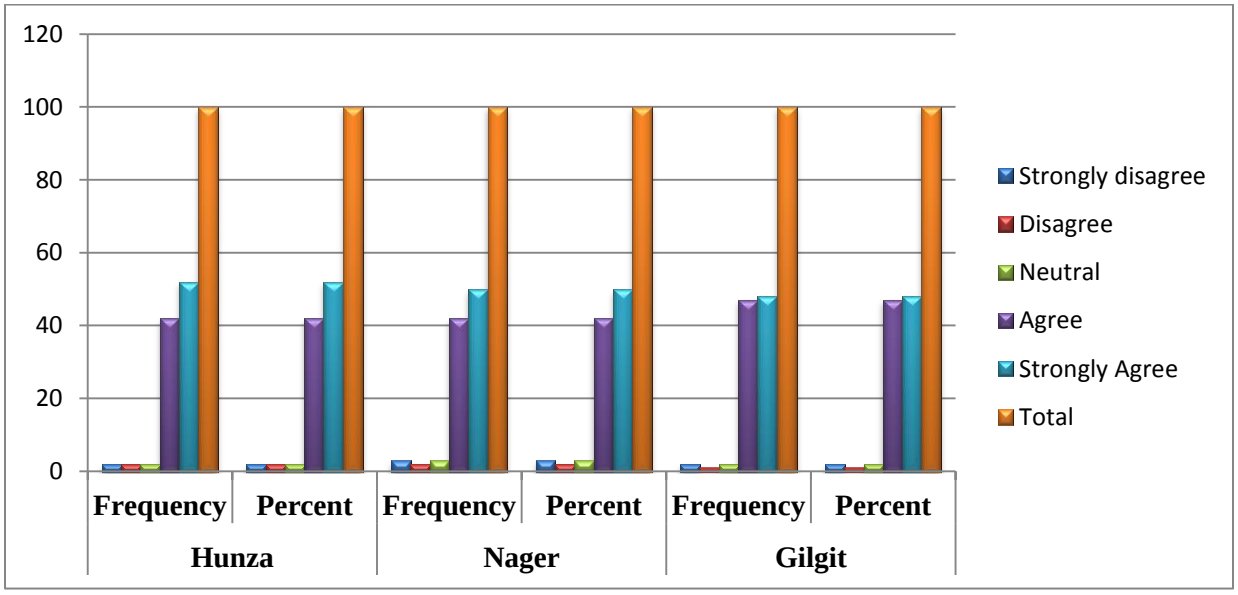
The above figure-29 shows the reflections of the selected sample from district Hunza when a question asked that market prices of consumer goods trade into Gilgit-Baltistan for household use were higher than after. Before the construction of Karakoram Highway, to import consumer goods to Gilgit-Baltistan people were used horses and donkeys. Because of dangerous passes and narrow tracks, people of G-B were facing difficulties to trade consumer goods into Gilgit-Baltistan. It took several days to trade these consumer goods into Gilgit-Baltistan. So it was an expensive work to trade consumer goods into G-B. Therefore Market Prices of consumer goods trade into Gilgit-Baltistan for household use was higher than after. The above figure-29 shows that 14% of the selected sample strongly agrees and 63% of the people have agreed with that, which means that 77% of the total sample size agrees that Market Prices of consumer goods trade into Gilgit-Baltistan for household use were higher than after. While 21% of the selected sample disagrees with the above statement and 2% of the people remain neutral to this statement. The above figure-29 reflections the responses of the people of district Nager that 12% of the selected sample strongly agrees and 63% of the people have agreed with that, which means that 75% of the total sample size agrees that

Market Prices of consumer goods trade into Gilgit-Baltistan for household use were higher than after. While 21% of the selected sample disagrees with the above statement and 4% of the people remain neutral. While the above figure-29 also shows the responses of the people of district Gilgit that 15% of the selected sample strongly agrees and 63% of the people have agreed with that, which means that 78% of the total sample size agrees that Market Prices of consumer goods trade into Gilgit-Baltistan for household use were higher than after. While 19% of the selected sample disagrees with the above statement and 4% of the people remain neutral to this statement.

5.7. Tourism:

Statement-38: After the construction of Karakoram Highway (KKH), the inflow of tourists has increased.

Figure-5.30:



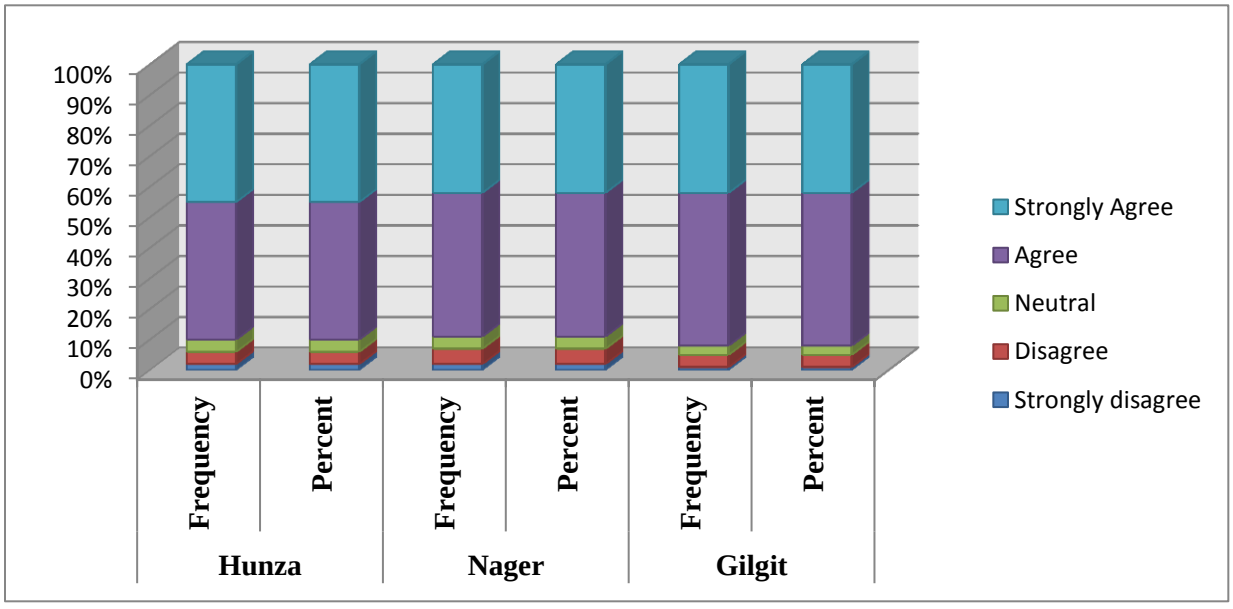
The above figure-30 shows the reflections of the selected sample from district Hunza when a question asked that after the formation of Karakoram Highway the inflow of tourists has increased. Before the construction of Karakoram Highway, Tourists had to use horses and donkeys to travel to Gilgit Agency. Because of dangerous passes and narrow tracks, tourists from Pakistan and foreign countries were facing difficulties to travel into Gilgit-Baltistan. It took several days for these tourists to go to Gilgit-Baltistan. So it was an expensive activity to

go to Gilgit Baltistan. After its construction, tourists easily travel into G-B through buses, coasters, cars, and other means of transports. Now, it takes only one day for these tourists to go to Gilgit-Baltistan. Therefore, since its formation, the inflow of tourists has increased in Gilgit-Baltistan.

The above figure-30 shows that 52% of the selected sample strongly agrees and 42% of the people have agreed with that, which means that 94% of the total sample size agrees that the inflow of tourists has increased in Gilgit-Baltistan. While 4% of the selected sample disagrees with the above statement and 2% of the people remain neutral to this statement. The above figure-30 shows the responses of the people of district Nager that 50% of the selected sample strongly agrees and 42% of the people have agreed with that, which means that 92% of the total sample size agrees that the inflow of tourists has increased in Gilgit-Baltistan. While 5% of the selected sample disagrees with the above statement and 3% of the people remain neutral. While the above chart-29 also shows the responses of the selected sample of district Gilgit that 48% of the selected sample strongly agrees and 47% of the people have agreed with that, which means that 95% of the total sample size agrees that the inflow of tourists has increased in Gilgit-Baltistan. While 3% of the selected sample disagrees with the above statement and 2% of the people remain neutral to this statement.

Statement-39: Tourism increases employment opportunities.

Figure-5.31:



The above figure-31 shows the reflections of the selected sample from district Hunza when a question asked that after the formation of Karakoram Highway tourism increases employment opportunities. Since the formation of Karakoram Highway, tourists easily travel into G-B through buses, coasters, cars, and other means of transports. Now, it takes only one day for these tourists to go to Gilgit-Baltistan. This has increased tourist arrivals in Gilgit-Baltistan. The inflow of tourists brings employment opportunities for the locals in hoteling, rent a car, camping sites, huts, and restaurant sectors. Therefore, since its formation, tourism increases employment opportunities. The above figure-31 shows that 45% of the selected sample strongly agrees and 45% of the people have agreed with that, which means that 90% of the total sample size agrees that tourism increases employment opportunities. While 6% of the selected sample disagrees with the above statement and 4% of the people remain neutral to this statement.

The above figure-31 shows the responses of the people of district Nager that 42% of the selected sample strongly agrees and 47% of the people have agreed with that, which means that 89% of the total sample size agrees that tourism increases employment opportunities. While 7% of the selected sample disagrees with the above statement and 4% of the people remain neutral. While the above figure-30 also shows the responses of the selected sample of district Gilgit that 42% of the selected sample strongly agrees and 50% of the people have agreed with that, which means that 92% of the total sample size agrees that tourism increases employment opportunities. While 5% of the selected sample disagrees with the above statement and 3% of the people remain neutral to this statement.

Table-5.11:

Statement-40: Tourism improves the quality of life in your native district than before.						
	Hunza		**Nager**		**Gilgit**	
	Frequency	**Percent**	**Frequency**	**Percent**	**Frequency**	**Percent**
Strongly Disagree	3	3.0	3	3.0	3	3.0
Disagree	8	8.0	10	10.0	5	5.0
Neutral	3	3.0	4	4.0	3	3.0
Agree	53	53.0	54	54.0	56	56.0
Strongly Agree	33	33.0	30	30.0	33	33.0
Total	100	100.0	100	100.0	100	100.0

The above table-11 shows the response of the selected sample from district Hunza when a question asked that after the formation of Karakoram Highway tourism improves the quality of life in the district Hunza than before. Since the formation of Karakoram Highway, tourists easily travel into G-B through buses, coasters, cars, and other means of transports. Now, it takes only one day for these tourists to go to Gilgit-Baltistan. This has increased tourist arrivals in Gilgit-Baltistan. People of GB have mostly carried out tourism-related businesses like hoteling, restaurants, camping sites, huts, rents a car and fast food shops.

The inflow of tourists brings economic opportunities for the locals to earn the income. This income has been helping the local people to improve their living standards. Therefore, since its formation, tourism improves the quality of life in the district Hunza than before. The above table-11 shows that 33% of the selected sample strongly agrees and 53% of the people have agreed with that, which means that 86% of the total sample size agrees that tourism improves the quality of life in the district Hunza than before. While 11% of the selected sample disagrees with the above statement and 3% of the people remain neutral to this statement.

The above table-11 shows the reflections of the people of district Nager that 30% of the selected sample strongly agrees and 54% of the people have agreed with that, which means that 84% of the total sample size agrees that tourism improves the quality of life in the district Nager than before. While 13% of the selected sample disagrees with the above statement and 4% of the people remain neutral.

Similarly, the above table-11 also shows the responses of the people of district Gilgit 33% of the selected sample strongly agrees and 56% of the people have agreed with that, which means that 89% of the total sample size agrees that tourism improves the quality of life in the district Gilgit than before. While 8% of the selected sample disagrees with the above statement and 3% of the people remain neutral to this statement.

Statement-41: Do you think earning received from tourism helped to increase spending on education and health?

The below figure-32 shows the responses of the selected sample from district Hunza when a question asked that earning received from tourism helped to increase spending on education and health. Tourists easily travel into G-B through buses, coasters, cars, and other

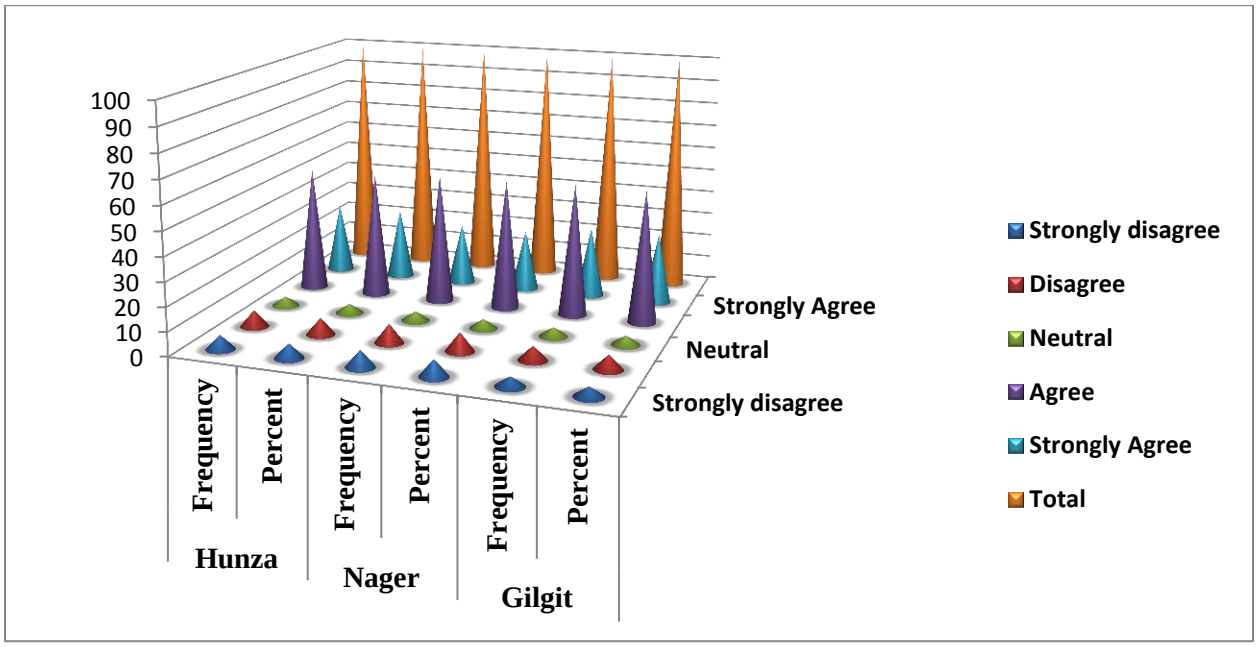
means of transports on Karakoram Highway. Now, it takes only one day for these tourists to go to Gilgit-Baltistan. This has increased tourist arrivals in Gilgit-Baltistan. The inflow of tourists brings economic opportunities for the locals to earn the income. This income has been helping the local people to improve their living standards and earning received from tourism helped to increase spending on education and health. To get quality education from the best educational institutions in Pakistan people of G-B send their children to down cities in Pakistan.

Therefore, the literacy rate of Hunza is above 95% in the region. Similarly, to get quality health facilities from the best hospitals in Pakistan people of G-B send their patients to down cities in Pakistan for batter treatment. Therefore, the life expectancy rate of Hunza is above 85 years in the region. Therefore, since its formation, the earnings received from tourism helped to increase spending on education and health in the district Hunza. The below figure-31 shows that 30% of the selected sample strongly agrees and 53% of the people have agreed with that, which means that 83% of the total sample size agrees that earning received from tourism helped to increase spending on education and health. While 13% of the selected sample disagrees with the above statement and 4% of the people remain neutral to this statement.

For district Nager, the below figure-32 shows the response of the selected sample that 26% of the selected sample strongly agrees and 55% of the people have agreed with that, which means that 81% of the total sample size agrees that earning received from tourism helped to increase spending on education and health. While 15% of the selected sample disagrees with the above statement and 4% of the people remain neutral.

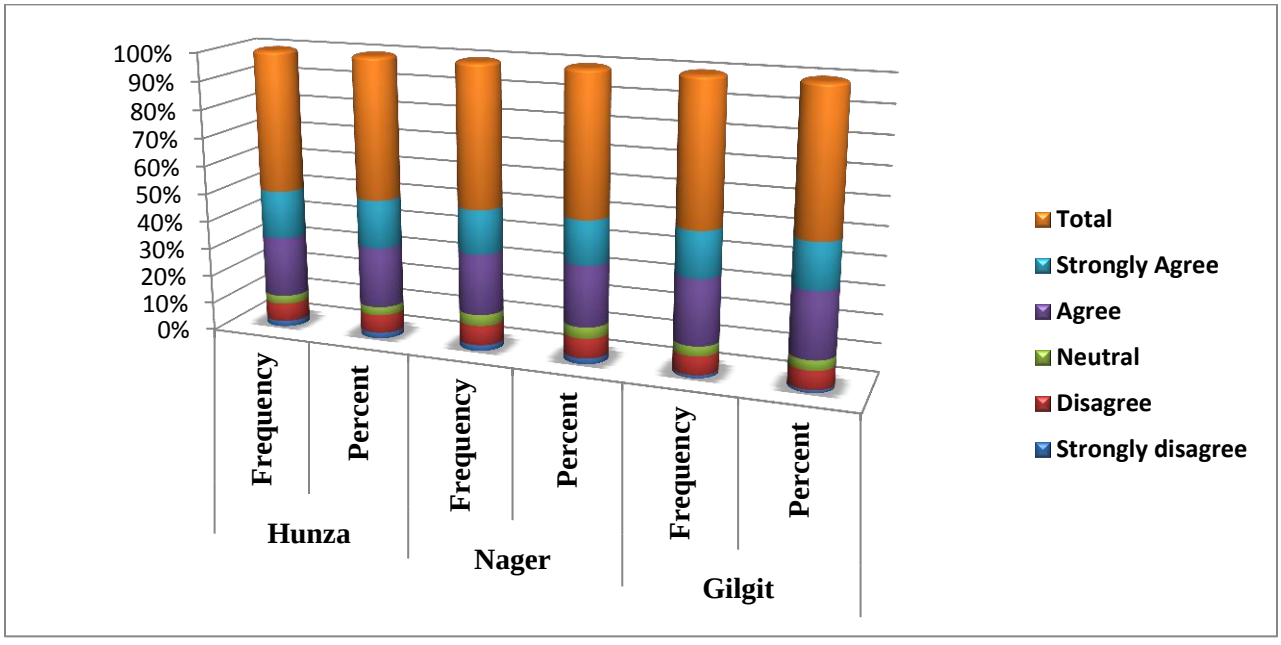
While the below figure-32 also shows the response of the people of district Gilgit that 30% of the selected sample strongly agrees and 56% of the people have agreed with that, which means that 86% of the total sample size agrees that earning received from tourism helped to increase spending on education and health. While 10% of the selected sample disagrees with the above statement and 4% of the people remain neutral to this statement.

Figure-5.32:



Statement-42: Do you think CPEC as an extension of Karakoram Highway (KKH), will further improve tourism in this region?

Figure-5.33:



The above figure-33 shows the response of the selected sample from district Hunza when a question asked that CPEC as an extension of Karakoram Highway (KKH), will further improve tourism in this region. Construction of Karakoram Highway has increased tourist arrivals in Gilgit-Baltistan. The inflow of tourists brings economic opportunities for the locals to earn the income. Now in the China Pakistan Economic Corridor (CPEC) project, Karakoram Highway has been extended from Khunjrab pass to the new Hazara Motorway.

Under this project, new bridges, tunnels are constructing to reduce the time of travel. After the extension of the CPEC project, only a few hours taken to reached Gilgit from Islamabad. This will help to boost tourism activities in the region. Therefore, since its formation, CPEC as an extension of KKH will further improve tourism in this region. The above figure-32 shows that 34% of the selected sample strongly agrees and 43% of the people have agreed with that, which means that 77% of the total sample size agrees that CPEC as an extension of KKH will further improve tourism in this region. While 17% of the selected sample disagrees with the above statement and 6% of the people remain neutral to this statement.

The above figure-33 shows the response of the people of district Nager that 31% of the selected sample strongly agrees and 43% of the people have agreed with that, which means that 74% of the total sample size agrees that CPEC as an extension of KKH will further improve tourism in this region. While 18% of the selected sample disagrees with the above statement and 8% of the people remain neutral.

For district Gilgit, the above figure-33 shows that 32% of the selected sample strongly agrees and 46% of the people have agreed with that, which means that 78% of the total sample size agrees that CPEC as an extension of KKH will further improve tourism in this region. While 15% of the selected sample disagrees with the above statement and 7% of the people remain neutral to this statement.

Statement-43: Before the completion of KKH, the inflow of tourists in the region was lower than now.

The below table-12 shows the response of the selected sample from district Hunza when a question asked that before the formation of Karakoram Highway, the inflow of tourists in the region was lower than now.

Before the construction of Karakoram Highway, Tourists had to use horses and donkeys to travel to Gilgit Agency. Because of dangerous passes and narrow tracks, tourists from Pakistan and foreign countries were facing difficulties to travel into Gilgit-Baltistan. It took several days for these tourists to go to Gilgit-Baltistan. So it was an expensive activity to go to Gilgit Baltistan. Therefore, prior to its formation, the inflow of tourists in the region was lower than now.

Table-5.12:

Statement-43: Before the completion of Karakoram Highway (KKH), the inflow of tourists in the region was lower than now.						
	Hunza		**Nager**		**Gilgit**	
	Frequency	**Percent**	**Frequency**	**Percent**	**Frequency**	**Percent**
Strongly disagree	7	7.0	9	9.0	5	5.0
Disagree	6	6.0	5	5.0	4	4.0
Neutral	4	4.0	5	5.0	4	4.0
Agree	46	46.0	47	47.0	45	45.0
Strongly Agree	37	37.0	35	35.0	42	42.0
Total	100	100.0	100	100.0	100	100.0

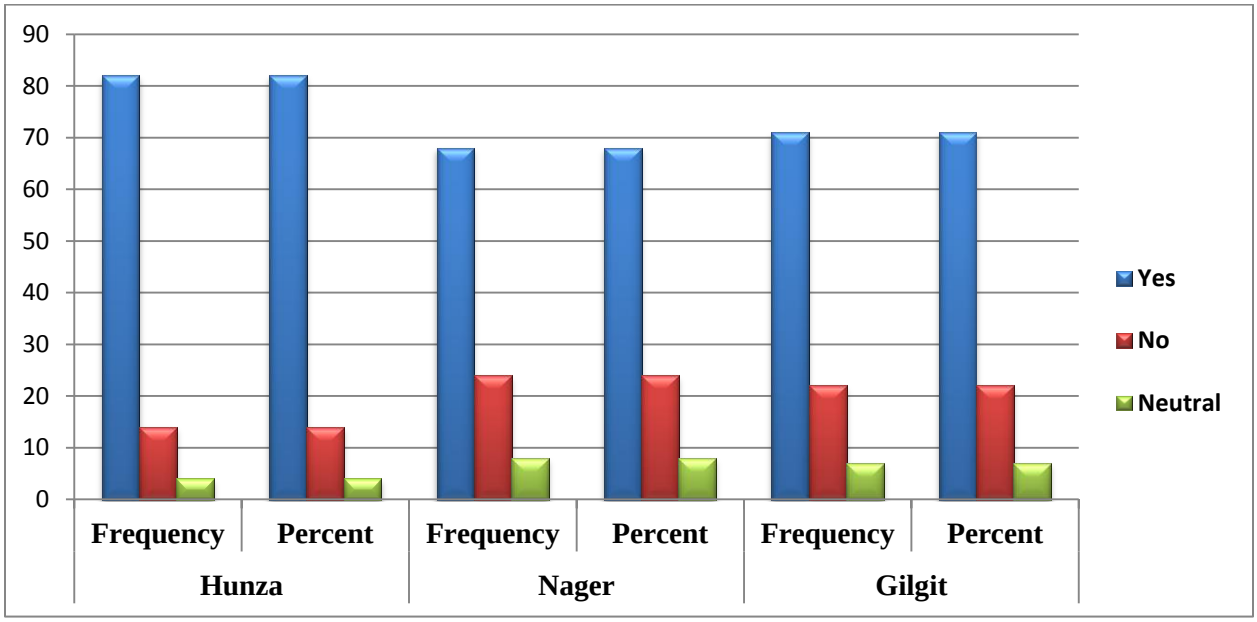
The above table-12 shows that 37% of the selected sample strongly agrees and 46% of the people have agreed with that, which means that 83% of the total sample size agrees that the inflow of tourists in the region was lower than now. While 13% of the selected sample disagrees with the above statement and 4% of the people remain neutral to this statement. For district Nager, the above table-12 shows the response of the people that 35% of the selected sample strongly agrees and 47% of the people have agreed with that, which means that 82% of the total sample size agrees that the inflow of tourists in the region was lower than now. While 14% of the selected sample disagrees with the above statement and 5% of the people remain neutral. The above table-12 also shows the response of the people of district Gilgit that 42% of the selected sample strongly agrees and 45% of the people have agreed with that, which means that 87% of the total sample size agrees that the inflow of tourists in the region

was lower than now. While 9% of the selected sample disagrees with the above statement and 4% of the people remain neutral to this statement.

5.8. Karakoram Highway (KKH)

Statement-44: Do you think that after the construction of Karakoram Highway (KKH), socio-economic conditions in Gilgit-Baltistan have been improved than before?

Figure-5.34



The figure-34 shows the response of the people of three selected districts of Gilgit-Baltistan that after the construction of Karakoram Highway (KKH), the socio-economic conductions of the people of Gilgit-Baltistan have been improved that before. For district Hunza, the above figure-34 shows the response of the people that 82% of the people from the selected sample have replied "Yes" and 14% of the people have replied "No". While 4% of the people from selected sample remain neutral to this statement. The above results show that most people in the district Hunza agreed that after the formation of Karakoram Highway (KKH), the socio-economic conditions of the people of G-B have been improved than before. The people in district Hunza believe that after its construction social and economic conditions of the people of district Hunza and whole G-B have been improved. They think that KKH helps to provide employment opportunities in the region and it is also helping in the influx of

tourists in the G-B. This road infrastructure is helping the people of the region, by reducing the time of traveling and their transportation costs. The people of district Hunza also believe that Karakoram Highway (KKH) also improves the facilities of education, health, and goods available in the local markets.

Similarly, the above figure-34 show the results of the people of district Nager that 68% of the people from the selected sample have replied "Yes" and 24% of the people have replied "No". While only 8% of the people from selected sample remain neutral to this statement. They also think that after its construction both the social and economic conditions of the people of Nager and whole G-B have been improved than before. The people of Nager agreed that KKH is helping to improve the education and health facilities in the region than before. They also believe that this highway provided employment opportunities for the people of G-B especially in the fields of tourism, transportation, and border trade between Pakistan and China via Sost dry port.

The above figure-34 also shows the response of the people of district Gilgit that 71% of the people from the selected samples have replied "Yes" and 22% of the people have replied "No". While only 7% of the people from selected sample remain neutral to this statement.

5.9. Concluding Remarks

After analyzing the results, we concluded that the people of the three selected districts are of the opinion that the socio-economic conditions of Gilgit-Baltistan have improved after the construction of the Karakoram highway. Since the construction of the Karakoram highway, income opportunities have increased in G-B, which has improved the living standard of the people of Gilgit-Baltistan. Karakoram Highway has also helped to improve the health and educational facilities in the region. The results show that after the formation of Karakoram Highway, the tourism sector has boosted. This road provides tourists with easy access to Gilgit-Baltistan.

CHAPTER 6

CONCLUSION AND RECOMMENDATIONS

6.1. Conclusion

The present study examines the Social and Economic effects of Karakoram Highway (KKH) on the Gilgit-Baltistan. Using Socio-Economic variables that include education, health, livelihood, market prices of goods trade into Gilgit-Baltistan, and tourism. A primary data is collected from the three districts of G-B which includes Hunza, Nager, and Gilgit. The study used frequency and descriptive analysis to shows the finding of the study. These findings are consistent with existing literature on the roles of physical infrastructure on social and economic development. According to Saboori and Sapri (2014), physical infrastructure is a basic component of economic advancement, guaranteeing versatility for people, viability, and effectiveness in the appropriation of products and services. More prominent socio-economic development has a positive impact on revenue generation, education, health, and other socio-economic facilities. Another study explains three primary effects of foundation, portraying, that framework has unmistakable consequences for the earth as well as legitimately impacts welfare (time and cost investment funds, advance security, happy with voyaging, and correspondence organize improvement) and financial matters (business openings, economic development) (Bristow and Nellthorp,2000).

The results show that since the formation of the Karakoram Highway (KKH), there have been social and economic advancement in Gilgit-Baltistan. From the frequency analysis results, the study shows that People from three selected districts of Gilgit-Baltistan have strongly agreed that since the formation of the Karakoram Highway (KKH), economic conditions in G-B improved especially the livelihood, market prices, trade, and tourism sector. The empirical results show that 88.33% of the total population from three selected districts of Gilgit-Baltistan has agreed that the income-earing opportunities in Gilgit-Baltistan have increased since the formation of the Karakoram Highway (KKH). While 90% of the total population from three selected districts has agreed that the sources of income generated from tourism, hoteling and rent a car service have increased since the formation of the Karakoram Highway (KKH). Many people from the three selected districts believe that after the

construction of Karakoram Highway transportation cost, cost of goods traded into G-B, and fuels are economically available than before. The time of traveling of the individuals of Gilgit-Baltistan is also reduced after its construction. The results of the study show that 85.33% of the total population from selected sample districts strongly agrees that since the formation of the Karakoram Highway (KKH), transportation cost has been reduced than before, costs of goods trade into G-B also have been reduced than before, time of traveling has been reduced than before. The results also show that various fuel products like Gasoline and Kerosene oil have been trading into GB for domestic fueling purposes than before. This means that Karakoram Highway (KKH) has positive effects on transportation cost, costs of goods trade into Gilgit-Baltistan, time of traveling, and saving of fuel. Further, the results show that 85.65% of the people from selected three districts of Gilgit-Baltistan have also strongly agreed that Karakoram Highway (KKH) helps employees, students, businessmen/women and patients to reach their offices, schools, colleges, markets, and hospitals on time than before.

Similarly, many people from three selected districts of Gilgit-Baltistan are certain that since the formation of the Karakoram Highway (KKH), the education and health sector in Gilgit-Baltistan have been enriched than before. The empirical results show that 80% of the total population from selected three districts of Gilgit-Baltistan has strongly agreed that after the formation of Karakoram Highway the literacy rate of the Gilgit-Baltistan has raised. After its formation, educational professionals from different cities of Pakistan are traveling to Gilgit-Baltistan to rendering their service in the education department of Gilgit-Baltistan. While 89.33% of the total population from three selected districts of Gilgit-Baltistan have agreed that students of 3 selected districts of Gilgit-Baltistan are traveling abroad for their higher studies. Prior to the formation of Karakoram Highway, there were no standard educational institutions in Gilgit-Baltistan where individuals of Gilgit-Baltistan get a quality education. After its formation, the individuals of Gilgit-Baltistan travel to other parts of Pakistan to pursue higher education and in addition travel abroad for their higher studies. Therefore, after its construction students from three selected districts of Gilgit-Baltistan are traveling abroad for their higher studies. The results show that the formation of Karakoram Highway also promotes health facilities in the region. It is helping in the mobility of doctors; medicines, paramedic staffs, and transfer from three selected districts of Gilgit-Baltistan have

agreed that the maternity death rate of the three selected districts of G-B has decreased than before its formation. While 85% of the total population from three selected districts of Gilgit-Baltistan have agreed that numbers of Doctors and paramedic staff have increased in hospitals than before its formation. Further, before the construction of Karakoram Highway, there were no standard hospitals in Gilgit-Baltistan where serious patients from G-B to cities of Pakistan. According to results, 93% of the people from three selected districts of Gilgit-Baltistan have strongly agreed that after the formation of the Karakoram Highway Health facility in three selected districts have improved than before. The study results also show that 84.66% of the total population from three selected districts of Gilgit-Baltistan has agreed that the infant mortality rate of the three selected districts has decreased and 88% of the total population of Gilgit-Baltistan get quality health facilities. After its formation, medical specialists like doctors, surgeons, psychiatrists and other medical technicians from different cities of Pakistan are traveling to different districts of Gilgit-Baltistan. These medical specialists are rendering their service in the private hospitals and health departments of Gilgit-Baltistan. Therefore, after its construction, Health facilities in 3 selected districts of Gilgit-Baltistan have improved due to the availability of doctors, medicines, and other paramedic staff in the hospitals.

Karakoram Highway is also helping to lift tourism activities in the area. According to the individuals of Gilgit-Baltistan, prior to the formation of Karakoram Highway, tourists had to use horses and donkeys to travel to Gilgit Agency. Because of dangerous passes and narrow tracks, tourists from Pakistan and foreign countries were facing difficulties to travel into Gilgit-Baltistan. It took several days for these tourists to go to Gilgit-Baltistan. So it was an expensive activity to go to Gilgit Baltistan. After its construction, tourists easily travel into G-B through buses, coasters, cars, and other means of transports. Now, it takes only one day for these tourists to go to Gilgit-Baltistan. This has increased tourist arrivals in Gilgit-Baltistan. The empirical results show that people of the three selected districts of Gilgit-Baltistan believes, that after the construction of Karakoram Highway tourism influx into the Gilgit-Baltistan has increased than before. The results of the study also show that 93.66% of the total population from three selected districts of Gilgit-Baltistan has agreed that after the formation of Karakoram Highway the inflow of tourists has increased. Similarly, nearly 87.66% of the total population from three selected districts of Gilgit-Baltistan has agreed that income from the tourism influx has helped the locals to improve the expectations for everyday comforts of

the community members in Gilgit-Baltistan. While 76% of the total population from three selected districts of Gilgit-Baltistan have agreed that CPEC as an extension of Karakoram Highway will further improve tourism in this region. Now in the China Pakistan Economic Corridor (CPEC) project, Karakoram Highway has been extended from Khunjrab pass to the new Hazara Motorway. Under this project, new bridges, tunnels are constructing to reduce the time of travel. After the extension of the CPEC project, only a few hours taken to reached Gilgit from Islamabad. This will help to boost tourism activities in the region.

6.2. Recommendations

1. Livelihood opportunities for the people of Gilgit-Baltistan have improved since the construction of Karakoram Highway. Now the Government should support the local people to set up new economic opportunities in tourism sector, supply chin and upgrade the local industries.
2. Maintenance of the Karakoram Highway from Chilas to Dassu section may lead to economic up-gradation and provide comfortable traveling facilities for patients, students, families, and goods transportation.
3. Government and private sector should invest in hoteling and motel industries to promote tourism industry in Gilgit-Baltistan. The government should provide subsidy on food and accommodations to private hotels like in South-East Asia.
4. The government should promote/advertise tourist spots of the Gilgit-Baltistan, under the new tourism policy initiated by the prime minister of Pakistan. The Indian government provides free booklets to tourists about the tourism spots in India at the airports.
5. Under the China Pakistan Economic Corridor (CPEC) project, the government should up-grade the Human Capital by providing them technical education, engineering courses and establishing medical institutions in Gilgit-Baltistan.
6. The government should provide the necessary utility infrastructure like electricity and gas. Especially, the federal government should invest in power projects to provide cheaper energy sources to the people of Gilgit-Baltistan, which will help to promote their business activities.

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