

SOCIO - ECONOMIC ANALYSES OF HEALTHCARE SECTOR FACILITATING THE ATTAINMENT OF GROSS NATIONAL HAPPINESS (GNH)

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Abstract: Human desires are limitless from the economic and non-economic factors. The development in the aspects of investment in the human capital is being at remarkable level especially in the South Asian Countries. In recent years, there was a significant development in occupational and environmental health status in the developing countries, than other industrial or developed countries. A sound economy of the country has to improve society in the case of health care, sustainability of food grains and other basic needs of the people. UNDP human index report says that income and economic status of the people in Bhutan is least developed. However, health status of the country is commendable with other developing countries. The public expenditure on healthcare, good governance, cultural heritage is the main reasons for remarkable stage in the healthcare sector in Bhutan. Generally the production sector or economic growth and healthcare status of the country have bi-directional relations to each other. The positive or negative movements in the two sectors are based on so many other factors like balanced nutritional intake, education, size of the family, good leadership, sustainable environment, limited social crimes, and etc. There is a direct relationship between economic growth and healthcare status of a country. A Canadian political philosopher, **John Ralston Saul** defined happiness as a balance of individual community interests. “The Enlightenment theory of happiness was an expression of public good or the public welfare, of the contentment of the people.” This research is based on socio - economic analyses of healthcare sector facilitating the attainment of Gross National Happiness (GNH) in the eastern Bhutan particularly at Trashigang Dzongkha (District).

Key words: Human Capital, Bi-directional, Sustainable development, nutrition and welfare economics.

1. Introduction

Skilled human resources are chronic scarce in almost all the sectors in Bhutan. There is no training facility to improve or provide technical skills to the people in Bhutan like the medical doctor, engineers and other sorts of technicians. Present existing skilled human resources have completed their courses from near by countries like India, Bangladesh, and Sri Lanka and so on. Every year the Government of Bhutan not only spends huge budget from the GNP for the training of the technical people but also take the responsibility of huge number of patients being send to the neighboring countries for their serious ill-health. Basically, Bhutan has very small population (7, 52, 693 as per 2004 data) in the country. Bhutan has good greenhouse by nature, no reckless chemical industries at the domestic level and not much of health hazardous waste from industry and households. Buddhist culture, monarchy, cultural heritage strongly look for the good health statues. Some of the other situations of the country are

- Earning capacity generally to be low in Bhutan, moreover people carry out agricultural farming on subsistence level which provides them with hand to mouth existence.
- In monetary terms the domestic production of goods and services are low, however the huge cost incurred by Royal Government Of Bhutan to develop the healthcare sector of the country to provide its basic premises of healthcare for all.
- Healthcare status of the country would be the primary component to promote the Bhutanese own idea of GNH and it is one of the tools to implement the welfare of the society.

2. Scope of Study

The scope of study of cost and economic analyses of health sector in an overview of Gross National happiness in Bhutan are given as below

- To make the people to understand their real situations at all levels particularly in the healthcare sector
- People should make use of the upcoming democracy to obtain the self-sustainability at all level
- The forth coming democratic government has to work hard to maintain as well as to improve the healthcare sector

- The Buddhism, national identity and un-greedy habit of the people have to be used to increase the welfare of the society
- The national social researchers and the educated people have to make the awareness about their own dynamic ordinal concept of Gross National Happiness at the domestic as well as worldwide.
- The actual relationship of GNH with other economic and welfare concepts to be defined in a proper way
- The factors which are favorable to the Bhutanese society by nature to keep good healthcare status would be used by the people to improve their personal wealth and economic development at the macro level of a country

3. Socio – Economic Status

Given assets, prices and community endowments are the decision maker for the individuals to decide about their health and nutritional status in the society. The new growth theories emphasized that through education, learning, skill formation and healthcare status make people much more productive and this would contribute significantly to the process of economic growth (Barro and Sala – I – Martin 1995; Barro 1996). In the early 1990s there was another important incident in development theory. The work of Amartya Sen and others on human capability (Sen. 1985, 2000), over two decades resulted in the gradual emergence of a human development paradigm – partly manifested in the Human Development Reports and highly used composite index of ranking countries on human development index. The assessment of economic growth as a measure of development success predates the emergence of the human development. The human ability and capability approach has intrinsic value for the well-being of the society; an indirect role in influencing social change and an indirect role in the improvement of economic development or output (Sen. 2000). The idea of investment on human capital can be a division of the idea of its outcome of human development. Human development as a paradigm offers more than the theory of human capital; it is within the former, reinforcement by the capability approach that it is possible to integrate economic and social policies, which should be the ultimate objective of good governments. On the base of this theoretical belief, we could compare the role being played by the Royal government of Bhutan to increase the capability of the human resources to ultimately reach the self-sufficiency of the country. The “education and health for all” programme of the government of Bhutan was the first and foremost important policy implication to be as a good government. The existing good record in education and health status along with other supportive factors of the country and high wisdom of the 4th majesty could make up with new dynamic concept of Gross National Happiness (GNH), which would help the country to receive the world’s attention from everywhere.

Table – 1 (a): Education, Occupation, and Size of the Family and Income Status of Bhutanese

S. No	Areas	Educational Status					Occupational Status					Monthly Income of the Family					Family Size					N. Res				
		< L. M	H i g h	D e g r	O t h e r s	A g r i c u l t u r e	I n d u s t r i e s	B u s i n e s s	P r o f e s s i o n a l s	O t h e r s	< 1	1-5	5-10	10-15	15-20	>20	2-4	5-7	8-10	>10						
1	Khalling																									
	Male	32	2	2	9	7	6	1	4	2	1	8	8	7	1	19	27	13	8	11	8	37	32	11	6	86
	Female	38	2	7	1	6	9	1	4	8	0	9	7	7	2	25	29	23	9	4	1	39	41	8	3	91
2	Yongphula																									
	Male	18	7	5	3	7	2	9	1	5	3	2	2	1	13	15	6	3	2	1	17	18	4	1		40
	Female	25	6	3	1	5	1	9	0	9	1	1	1	1	6	11	13	6	4	0	19	15	5	1		40
3	Kangma																									
	Male	9	6	2	1	5	1	2	4	3	3	3	3	3	5	7	8	2	1	0	9	7	5	2		23
	Female	11	4	5	2	5	9	1	7	2	8	8	8	8	9	11	5	1	1	0	11	12	3	1		27
4	Kanglung																									
	Male	19	1	7	5	4	8	2	6	5	3	5	4	4	11	13	7	6	13	3	17	28	6	2		53
	Female	17	1	5	1	9	1	2	9	0	9	6	8	8	16	19	6	5	4	2	13	31	4	4		52
5	Rongthong																									
	Male	16	4	4	2	9	1	9	1	6	2	7	7	6	6	11	13	3	2	0	12	16	5	2		35
	Female	22	1	1	9	3	1	2	2	1	4	4	5	1	14	9	10	7	4	2	19	16	9	2		46
6	Pam																									
	Male	6	3	0	1	2	5	2	3	1	1	1	1	3	4	1	4	0	0	0	5	6	1	0		12
	Female	10	8	3	1	0	8	1	4	2	7	7	7	3	7	9	2	1	0	0	4	9	7	2		22
7	Trashigang																									
	Male	23	1	5	8	5	2	1	3	5	3	8	6	6	17	23	8	6	4	5	28	26	7	2		63
	Female	26	1	2	5	7	2	2	7	1	9	7	8	8	20	27	5	7	1	2	25	29	5	3		62
8	Rangjung																									
	Male	10	8	2	2	6	1	9	1	4	2	2	2	5	7	9	4	2	1	10	14	3	1			28
	Female	22	1	5	5	3	0	1	2	0	2	3	9	9	16	18	0	2	0	19	16	6	4			45

Source: Primary Data

Table – 1(b): Education, Occupation, Size of the Family and Income Status of Bhutanese

Sta tus	Educational Status					Occupational Status					Monthly Income of the Family					Family Size					
	< L.M	High	Hig her	De/ Dip	Oth ers	Ag	In d	Bu s	Pr of	Oth ers	<1	1 to 5	5 to 10	10 to 15	15 to 20	>20	2 to 4	5 to 7	8 to 10	>10	N.R es
To tal	304 (41.9 3)	180(2 4.83)	101(13.9 3)	60(8.2 7)	80(1 1.04)	365(50.3 4)	22(3)	139 (19)	64(8.8)	135(18.6)	181(24.9 7)	236 (33)	154(21.2 4)	73(1 0.07)	56(7.7)	25(3.4 4)	284(39.1 7)	316(43.5 9)	89(1 2.27)	36(4 .97)	725
Ma le	133(18.3 5)	82(11 .31)	35(4 .83)	25(3.4 4)	65(8 .96)	182(25.1)	18(2.5)	66(9.1)	32(4.4)	42(5 .79)	79(1 0.9)	107 (15)	65(8. 97)	36(4 .97)	35(4.8)	18(2.5)	135(18.6)	147(20.2 8)	42(5 .79)	16(2 .2)	340(46.9)
Fe ma le	171(23.5 8)	98(13 .51)	66(9 .10)	35(4.8 3)	15(2 .06)	183(25.2 4)	4(0 .6)	73(10)	32(4.4)	93(1 2.8)	102(14.0 7)	129 (18)	89(1 2.28)	37(5 .1)	21(2.9)	7(0. 96)	149(20.6)	169(23.3 1)	47(6 .48)	20(2 .75)	385(53.1)

Source: Primary Data

Table -1(c) Personal Status of the Respondent in Trashigang Dzongkha

Particulars	Khalling			Yongphula			Kangma			Kanglung			Rongthong			Pam			Trashigang			Rangjung		
	Sex			Sex			Sex			Sex			Sex			Sex			Sex			Sex		
Age	M	F	%	M	F	%	M	F	%	M	F	%	M	F	%	M	F	%	M	F	%	M	F	%
<20	5	8	7.3	2	5	8.8	1	4	10	3	4	6.7	4	2	7.4	1	1	5.9	5	3	6.4	2	5	9.6
20 - 30	8	1	11.	7	7	17.	3	2	10.	7	6	12.	5	7	14.	3	5	23.	9	6	12.	3	8	15.
31 - 40	3	3	38.	1	1	36.	8	6	28.	1	1	32.	1	1	28.	4	3	26.	1	1	28.	1	1	35.
41 -50	2	3	33.	8	2	25.	9	1	40.	1	1	34.	9	7	32.	3	7	29.	2	2	44.	7	0	23.
50+	8	9	9.6	4	6	12.	2	4	12.	8	7	14.	3	5	17.	2	3	14.	6	5	8.8	6	6	16.
Marital Status																								
Single	1	9	11.	7	9	20.	5	1	12.	9	2	20.	7	8	18.	3	2	14.	1	1	21.	3	1	5.4
Married	6	7	83.	2	2	67.	1	2	80.	3	3	72.	2	3	71.	6	9	82.	4	4	71.	2	3	86.
Living Relation	7	3	5.6	4	6	12.	1	3	8.0	5	3	7.6	2	2	9.8	0	1	2.9	4	6	7.2	1	5	8.2
Family Size																								
2 to 4	3	3	42.	1	1	45.	9	1	40.	1	1	28.	1	1	38.	5	4	26.	2	2	42.	1	1	39.
5 to 7	3	4	41.	1	1	41.	7	2	38.	2	3	56.	1	1	39.	6	9	44.	2	2	44.	1	1	41.
8 to 10	1	8	10.	4	5	11.	5	3	16.	6	4	9.5	2	5	17.	3	1	23.	5	7	9.6	0	3	12.
>10	6	3	5.0	1	1	2.5	2	1	6.0	2	4	5.7	1	2	4.9	0	2	5.8	2	3	4.0	0	1	6.8
Educational Status																								
0 - 8	3	3	39.	1	2	53.	9	1	40.	1	1	34.	1	2	46.	6	1	47.	2	2	39.	1	2	43.
9th - 10th	2	2	27.	7	6	16.	6	4	20.	1	1	30.	4	1	18.	5	3	32.	1	1	21.	6	8	31.
11th - 12th	9	6	14.	5	3	10.	2	5	14.	5	0	14.	3	4	16.	1	0	8.8	2	8	18.	4	5	9.5
Diploma/ Degree	7	9	9.0	3	1	5.0	1	2	6.0	4	9	12.	4	3	6.1	7	1	5.8	5	7	9.6	0	3	6.8
Others	1	6	9.6	7	5	15.	5	5	20.	8	1	8.5	7	9	12.	4	2	5.8	1	2	11.	6	0	8.2

Occupational status																								
Agriculture	42	48	50.9	29	19	60.0	11	9	40.0	26	29	52.4	19	22	50.6	58	38.2	31	27	46.4	19	21	54.8	
Industry	1	0	0.56	1	0	1.25	2	1	6.00	5	0	4.76	1	1	2.47	2	1	8.82	5	1	4.80	1	0	1.37
Own Business	18	1	10.7	5	9	17.5	4	7	22.0	13	9	20.9	6	4	12.4	3	4	20.6	13	9	25.6	4	2	21.9
Profession	8	7	8.47	3	1	5.00	3	2	10.00	5	6	10.48	2	4	7.41	1	2	8.82	8	7	12.00	2	3	6.85
Others	17	27	24.9	2	1	16.3	3	8	22.0	4	8	11.4	7	5	27.2	1	7	23.5	6	8	11.2	2	9	15.1
Monthly Income																								
<1000	19	25	24.9	13	6	23.8	5	9	28.0	11	6	25.7	6	4	24.7	3	3	17.7	1	2	29.6	5	9	19.2
1000 - 5000	27	29	31.6	15	1	32.5	7	1	36.0	11	9	30.5	1	9	24.7	4	7	32.4	2	2	40.0	7	1	31.5
5001 - 10000	13	23	20.3	6	3	23.8	8	5	26.0	7	6	12.4	1	0	28.4	1	9	29.4	8	5	10.4	9	8	36.9
10001 - 15000	8	9	9.60	3	6	11.3	2	1	6.00	6	5	10.5	3	7	12.4	4	2	17.7	6	7	10.4	4	0	5.48
15001 - 20000	1	4	8.47	2	4	7.50	1	1	4.00	1	4	16.2	2	4	7.41	0	1	2.94	4	1	4.00	2	2	5.48
>20000	8	1	5.1	1	0	1.3	0	0	0.0	3	2	4.8	0	2	2.5	0	0	0.0	5	2	5.6	1	0	1.4

Source: Primary Data

The education status of the respondent is discussed in the above table and these data have been collected from the study area. Out of 725 respondents about 304 people are below middle secondary school level, which represents almost 41.93%, out of these 18.35% of them are male and 25.58% female. At the next level 38.76% of people are being at the higher middle secondary to below degree or diploma level in the society. Only 8.27 percent of people are being at the level of either degree or at the diploma level. This study also has proved that the educational status of a country is nearly 50 to 60 percent. As a result, more than 40% of the people are at the illiterate level whose main occupational status would be agriculture. More than 50 percent of the people are depending on agriculture sector in the study area. There is no much industrial sector from the study area as well as from the whole country, so only 3 percent of the people are engaging themselves in the industrial sector. Nearly 20 percent of the respondents are doing their own business at the tiny and big level according to their economic status. The respondents being in the professional level like teaching, management, higher officials, and so on are nearly at 9 percent.

UNDP human index report says that income and economic status of the people in Bhutan is least developed. One of the main reasons to be considered for the least economic status of the people is size of the family. Nearly 40 per cent people are having 2 to 4 members in a family and 43.5 percent of the respondents are having 5 to 7 members in their family. More than 15 percent of the people in Bhutan are having more than 8 members in their family. The reason for the large size of the family members in the

Bhutanese society is lack of family planning and there is no policy of norms like small family in the country.

The monthly income status of the respondents' family income is briefed in the above table. Nearly 58 percent of the people in the study area are earning less than 5000 Ngultrum per month. 21.23 percent of the respondents' family income is more than Nu. 5000 but less than Nu.10000 and remaining 21.24 of the people are having more than Nu. 10000. The main reason for this low level of income status in Bhutanese society is due to low level literacy rate and very high dependability on agriculture. Even though the majority of the Bhutanese income status is low, the possibility of high level of non-market transactions and the nature of non-greediness people, never make them to feel their low income status. Though, the skilled human resources are chronic scarce in almost all the sectors in the country. But labour's virtual presents and contribution to their occupations are given in the below table as an average number of working hours in a day by the respondents. More than 50 percent of the people are working for 5 to 8 hours in a day and 28 percent of the respondent is engaged for 9 to 12 hours in a day.

Table -2: Average number of working hours in a day

Hours	No of Respondents	%
< 5 hours	37	5.10
5 to 8 hours	419	57.79
9 to 12 hours	203	28.00
> 12 hours	66	9.10
Total	725	100.00

Source: Primary Data

The consumption pattern and expenditure of the respondents are discussed in the below table. More than 25 percent of the respondents' income is spent for the consumption of alcohol and tobacco items. More than 50 percent of the respondent's are spending Nu. 500 –1000 and Nu. 1000 - 2000 for the consumption of alcohol and tobacco items. As compared to the amount spent for the alcohol and tobacco, even some people are spending fewer amounts for the items like grocery, vegetable and non-vegetable and so on.

Table -3.a: Consumption Pattern and Expenditure for a Month (in Nu)

Items	<500	500 - 1000	1000 - 2000	>2000	Total	%
Grocery items	58	35	19	29	141	19.45
Vegetable	64	58	17	12	151	20.83
Non-Vegetable	52	78	15	21	166	22.90
Fuel and Light	75	55	24	19	173	23.86
Clothing	48	13	9	6	76	10.48
Alcohol and tobacco items	92	39	41	29	201	27.72
Entertainment	61	16	6	0	83	11.45
Other Miscellaneous	63	22	9	15	109	15.03
Total	330	207	98	90	725	100.00
%	45.52	28.55	13.52	12.41	100.00	

Source: Primary Data

Table – 3.b.: Consumption Pattern and Expenditure for a Month (%)

Items	<500	500 - 1000	1000 - 2000	>2000	Total	%
Grocery items	41.13	24.82	13.48	20.57	100.00	19.45
Vegetable	42.38	38.41	11.26	7.95	100.00	20.83
Non-Vegetable	31.33	46.99	9.04	12.65	100.00	22.90
Fuel and Light	43.35	31.79	13.87	10.98	100.00	23.86
Clothing	63.16	17.11	11.84	7.89	100.00	10.48
Alcohol and tobacco items	45.77	19.40	20.40	14.43	100.00	27.72
Entertainment	73.49	19.28	7.23	0.00	100.00	11.45
Other Miscellaneous	57.80	20.18	8.26	13.76	100.00	15.03
Total	45.52	28.55	13.52	12.41	100.00	100.00

Source: Primary Data

4. Health – Economic Status

Presently, the people are very conscious about their health status in all the way at all levels than before. The objective of health care system is simple as the primary concern of low - costs, efficiency and quality at all levels of medical care. The system of integrated practice management (PM) and electronic medical record (EMR) makes it very easier to get information about the patient, workflows, and way of reducing operation costs and accelerates the financial or revenue cycles. There is no doubt that the EMR will be an essential one for physicians, hospitals and other providers seeking to deliver high quality, cost – effective patient care. Financing was necessary but not sufficient condition for enhancing efficiency medical care. Financial reforms would become futile if they are not well supported by other complementary measures and effective implementations.

Healthcare information makes people to take better decisions about health care. Better-informed individuals are found to use more medical care, confirming the earlier findings of Bunker and Brown (1974) and Hay and Leahy (1982). Medical care is assumed to be an input into the household production of health (Grossman, 1972). Different diseases are having different production functions, and a marginal product, the people decide the maximum quantity of health care by comparing the marginal benefits of improved health to the marginal costs. Basically individuals are not aware of diseases and its consequences, so they are not correctly informed about the marginal benefits. Individuals experience symptoms, which are noisy indicators of disease. Health information and disease symptoms are the estimate of marginal product of medical care for the consumers. If marginal product is high, the demand for health care and the number of visits to physician by the people will be more. A people who decide to meet the physician, he decides about how much medical care is to be done.

Health care expenditure tends to decrease the demand for health and physician visits, implying that physician visits and hospital care are substitutes. Naturally the demand for health for female is more than the male; hence females tend to be better informed than males. Women's time is more important input into the household production of family health. Education and occupation in a health field are associated with more information. Education improves personal health behavior and builds citizen demand for better public health outcomes. Educated people involved in activities like slaughter house, hygiene and discourage vector breeding to improve public health regulations. When public health systems weaken people pay a high price in terms of illness, debility and death and if full-fledged outbreaks occur the economic costs can be very large. Limitless benefits of public goods are produced by public health services to facilitate economic growth and poverty reduction. Poor public health status of a country adversely affects the economic growth including reduced attraction for investors and tourists. The poor people pay a high price in terms of debility, reduced earning capacity, health expenditures and death. The rich people suffer mortality from communicable diseases, but nevertheless suffer repeated episode of morbidity, which are reflected in high rates of stunt amongst their children. The child hampered not only by inadequate access to food, but also drains on the body's resources from fighting infections.

In the choices of health care demand which is available in Bhutan, nearly 70 percent of the people prefer hospital treatment for their ill-health due to the Royal Government of Bhutan provides medical facilities to the people at free of cost. 12.5 percent of the people prefer traditional healthcare systems.

Table – 4 (a): Choices of healthcare demand of the Respondents

S. No	Areas	Choices of Treatment					No. Of Respondents
		Hospital	T. Medicine	Spiritual	S. Medication	More than One	
1	Khalling						
	Male	58	16	3	0	9	86
	Female	63	8	2	0	18	91
2	Yongphula						
	Male	23	7	1	3	6	40
	Female	21	4	2	0	13	40
3	Kangma						
	Male	17	3	1	0	2	23
	Female	19	2	1	0	5	27
4	Kanglung						
	Male	36	8	3	2	4	53
	Female	33	6	5	1	7	52
5	Rongthong						
	Male	26	4	0	0	5	35
	Female	31	7	1	1	6	46
6	Pam						
	Male	9	1	2	0	0	12
	Female	15	3	1	0	3	22
7	Trashigang						
	Male	48	7	0	4	3	62
	Female	51	5	3	1	3	63
8	Rangjurn						
	Male	22	3	0	1	2	28
	Female	32	7	1	0	5	45
	Total	504	91	26	13	91	725
	Male	239	49	10	10	31	339
	Female	265	42	16	3	60	386

Source: Primary Data

The Government of Bhutan expenditure on healthcare sector as a public expenditure was remarkable than any other Southeast Asian countries like Bangladesh, Nepal, Thailand, India and etc. In the Southeast Asian countries Bhutan was ranked as number one from the government expenditure on healthcare sector. India is one of the main financial supports for Bhutan, however even compared to India's government expenditure on healthcare sector; it was very limited with Bhutan's expenditure. The significant relation between healthcare expenditure and Y status of the people make them to receive more analytical attention in healthcare sector. Many healthcare researches have found that the ratio of healthcare expenditure to GDP increased as countries developed economically and industrially. Abel-Smith (1963, 1967) found that after adjusting for inflation, exchange rates and population, GDP is a major determinant of health expenditure. The question had been raised in the

Newhouse (1977) about what determines the quantity of resources a country devotes to medical care and suggests that per capita GDP of the country is the single-most important factor. This study found a positive linear relationship between the percentages of healthcare expenditure to GDP. Hitris and Posnett (1992) used 560 people time series and cross section observation from 20 OECD countries over the period 1960-87 and found a strong and positive correlation between per capita health spending and GDP. Hansen and King (1996), McKoskey and Seldon (1998), Gertham and Lothgren (2000), Karatzas (2000) agree that healthcare expenditure is dependent on the GDP of the country.

Table - 4 (b): Choices of Healthcare, Expenditure and Income Loss of the Respondent and Care Taker in Trashigang Dzongkha

Particular	Khalling			Yongphula			Kangma			Kanglung			Rongthong			Pam			Trashigang			Rangjung		
	Sex			Sex			Sex			Sex			Sex			Sex			Sex					
	M	F	%	M	F	%	M	F	%	M	F	%	M	F	%	M	F	%	M	F	%	M	F	%
Choice of Treatment																								
Hospital Treatment	5	6	68	2	2	55	1	1	72	3	3	65	2	3	70		1	70	4	5	79	2	3	74
	8	3	.4	3	1	.0	7	9	.0	6	3	.7	6	1	.4	9	5	.6	8	1	.2	2	2	.0
Traditional Treatment	1		13			13			10			13			13			11			9			13
	6	8	.6	7	4	.8	3	2	.0	8	6	.3	4	7	.6	1	3	.8	7	5	.6	3	7	.7
Spiritual prayer			2			3			4			7			1			8			2			1
	3	2	8	1	2	8	1	1	0	3	5	6	0	1	2	2	1	8	0	3	4	0	1	4
Self Medication			0			3			0			2			1			0			4			1
	0	0	0	3	0	8	0	0	0	2	1	9	0	1	2	0	0	0	4	1	0	1	0	4
More than one Option		1	15		1	23			14			10			13			8			4			9
	9	8	.3	6	3	.8	2	5	.0	4	7	.5	5	6	.6	0	3	8	3	3	8	2	5	6
M.S. for H.C Per A																								
< Nu. 500	2	2	28			16			14	1		19			19			17	1	1	27			17
	6	5	.8	7	6	.3	5	2	.0	1	9	.0	9	7	.8	2	4	.6	8	6	.2	6	7	.8
Nu. 500 - 1000	2	3	33	1		30			12	1	1	26		1	21			8	1	1	28			17
	8	1	.3	6	8	.0	2	4	.0	6	2	.7	7	0	.0	1	2	8	6	9	.0	5	8	.8
Nu. 1001 - 3000	1	1	13		1	31			28	1		18	1	1	30			29			12			12
	1	2	.0	8	7	.3	5	9	.0	1	8	.1	3	2	.9	4	6	.4	9	6	.0	1	8	.3
Nu. 3001 - 5000	1		11			13			24		1	15			13			32		1	14			21
	2	9	.9	5	6	.8	7	5	.0	6	0	.2	3	8	.6	3	8	.4	8	0	.4	7	9	.9
> Nu. 5000		1	13			8			22		1	21			14			11	1	1	18		1	30
	9	4	.0	4	3	8	4	7	.0	9	3	.0	3	9	.8	2	2	.8	1	2	.4	9	3	.1
E.L.Y for R due to I																								
< Nu. 500	3	4	43	1	1	31		1	36	2	1	33	1	1	33			29	2	2	40	1	1	38
	3	4	.5	3	2	.3	8	0	.0	1	4	.3	2	5	.3	3	7	.4	5	6	.8	2	6	.4
Nu. 500 - 1000	1	2	24	1		26	1		34	1	1	32	1	1	28			20	2	1	32		1	27
	8	5	.3	2	9	.3	0	7	.0	8	6	.4	0	3	.4	2	5	.6	1	9	.0	7	3	.4
Nu. 1001 - 3000	1	1	18		1	23			16			11			17			20			12			16
	5	7	.1	7	2	.8	2	6	.0	3	9	.4	5	9	.3	3	4	.6	7	9	.8	4	8	.4
Nu. 3001 - 5000	1		9			13			10			10			16			17			8			11
	2	4	0	5	6	.8	2	3	.0	6	5	.5	7	6	.0	2	4	.6	6	5	8	3	5	.0
> Nu. 5000			5			5			4			12			4			11			5			6
	8	1	1	3	1	0	1	1	0	5	8	.4	1	3	9	2	2	.8	3	4	6	2	3	8

E.L.Y for the C.T																								
< Nu. 500	4	5	53	2	2	62		1	46	2	2	44	1	2	55		1	55	3	3	55	1	2	52
	2	3	.7	3	7	.5	7	6	.0	6	1	.8	8	7	.6	5	4	.9	4	5	.2	5	3	.1
Nu. 500 - 1000	2	2	27	1		26			32	2	1	37	1	1	28			23	2	2	36		1	30
	9	0	.7	2	9	.3	8	8	.0	1	8	.1	2	1	.4	4	4	.5	5	1	.8	8	4	.1
Nu. 1001 - 3000		1	9.			8.			12			11			11			11			6.			11
	5	2	6	4	3	8	4	2	.0	3	9	.4	3	6	.1	1	3	.8	2	6	4	2	6	.0
Nu. 3001 - 5000			6.			2.			8.			4.			4.			8.			1.			4.
	7	5	8	1	1	5	3	1	0	2	3	8	2	2	9	2	1	8	1	1	6	1	2	1
> Nu. 5000			2.			0.			2.			1.			0.			0.			0.			2.
	3	1	3	0	0	0	1	0	0	1	1	9	0	0	0	0	0	0	0	0	0	2	0	7

Source: Primary Data

Note: M.S. for H.C per A – Money Spent for Healthcare per Annum

E.L.Y for R due to I – Estimated Loss of Income for the Respondent due to ill-health

E.L.Y for the C.T – Estimated Loss of Income for the Care Takers

The Choices of healthcare treatment of the Bhutanese people and money spent by them for the medical treatment and at last the income loss of the respondents and their dependents due to illness are clearly indicated in the above table – 4 (b). The data on the above table describes that more than 70 per cent of the Bhutanese prefer to take treatment for their ill-health from the hospital. Nearly 13 per cent of the people prefer traditional healthcare treatment for their illness. The number of people depends on other sorts of treatment like spiritual prayer and self medication in the Bhutanese society are being at highly negligible stage. The money spent for the treatment by the respondent from their pocket is very much limited. Around 20 per cent people spent less than Nu. 500 per annum and less than 20 per cent respondents spent more than Nu. 5000. The rest of the people are spending between Nu. 500 – 5000 per annum. If we look at the income loss of the respondent in the study area, more than 40 per cent of the people feel they are losing only less than Nu. 500 and less than 10 per cent of the Bhutanese felt that they lost more than Nu. 5000, during the time of their illness. The amount of income loss from the respondent's care takers are even very much less as compared to the respondents'. More than 60 per cent care takers feel that their loss of income is because of attending the respondents' ill health which is < Nu. 500 and only less than 2 per cent of the respondents' care takers loss more than Nu. 5000. The ultimate reason for the better healthcare choices and negligible amount spend and loss of income due to illness in the Bhutanese society is because of free medical care facilities provided by the Royal Government of Bhutan and better implementation of the healthcare policies by the health ministry of the country.

Table – 5: Public expenditure of health as % of total expenditure - 2001

S. No	Country	%
1	Bhutan	90.6
2	Maldives	83.5
3	Korea	73.4
4	Thailand	57.1
5	Sri Lanka	48.9
6	Bangladesh	44.2
7	Nepal	29.7
8	Indonesia	25.1
9	India	17.9
10	Myanmar	17.8

Source: Economic and Political weekly Jan 7, 2006

Production sector is directly related to better health and nutritional status of the household, which ultimately increase the income status of the household and economic growth of the country. Poor health reduces the days of work in the production sectors or it reduces the working capacity of the labour, which therefore affects the total production at the macro level. The elasticity of agricultural output with respect to nutrition and health status is an indication of the productivity and health relationship. The foremost concern of the government in developing countries is about the basic needs of the people, education and healthcare projects rising public sector expenditure. Human capital expenditure can be more easily justified in terms of promoting economic development and thus generate a large increase in productivity. Health and nutritional status of the individual positively affects the productivity and human capital formation especially to the low –income earners group. In 1980s and even before the average health and nutrition of the developed countries were increasing compared to developing countries due to the better health facilities and economic sustainability. The macro health indicators of life expectancy, infant mortality, nutritional status and safe drinking water availability could make us to understand the better health status of the country. In low income countries except India and China the life expectancy were 50 to 52 but at the same time in industrial economy it was 72 to 79 in 1970's and 80's. The absolute gap between developing and industrialist countries have enormously reduced by the contributions of the government and private sectors in the improvement of human development through education and health services.

Table -6: Supportive Healthcare facilities of a country

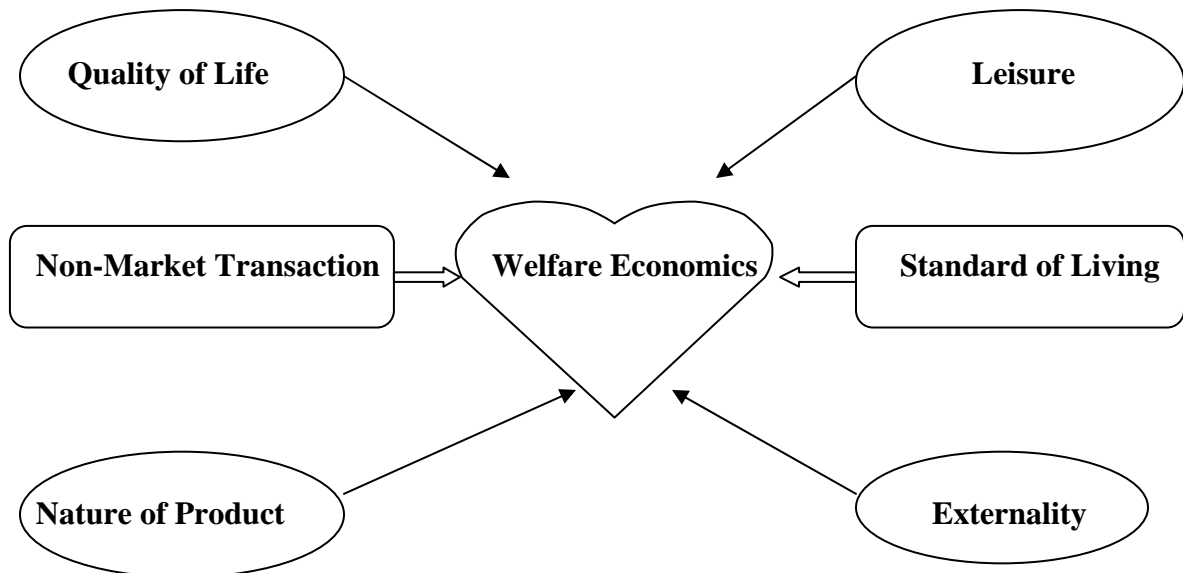
Facilities	No of Respondents					
	Yes	%	No	%	Total	%
Drinking Water Availability	660	91.03	65	8.97	725	100.00
Drink Boiled or Otherwise Used	595	82.07	130	17.93	725	100.00
Availability of Toilet Facilities	617	85.10	108	14.90	725	100.00
Availability of Drainage System	428	59.03	297	40.97	725	100.00

Source: Primary Data

5. Welfare Economics and the Promotion of GNH

Prof. Pigou has determined GNP and welfare economics in terms of money. Welfare is the state of mind of human being by the amount of satisfaction and happiness derived from the various activities. A person with more goods and wealth may be happier than a person with fewer goods or wealth, but possibly not. The person with fewer goods, but a lot of leisure, quality of life like living in a peaceful society, consume less polluted water, air, and relaxed way of life, non-market transactions like gardening, constructing of huts by the own family members, and standard of living may be give much more happiness and high level of satisfaction than the person with many goods, little leisure, consuming of polluted air, water, complicated, tensioned, and stressful environmental life.

Chart - 1



Actually the above-mentioned factors in the flow chart directly or indirectly affect the welfare of the individual or society at the macro level, but which are not included in the estimation of GNP.

However, here we focus how these factors increases happiness of the individual at the micro level and Gross National Happiness at the macro level in country like Bhutan? To get the answer for this question we discuss each of the above factors with supportive data below:

(a) Leisure

Longer working hours may make people unhappy because it reduces the leisure, in other words shorter working hours may increase leisure and make people happy. Actually the basic desire of the human being is taking more leisure and more consumption. In one way both are not good for the health. On the other side leisure satisfies the needs of the consumers. The national welfare is enhanced by an expansion of goods and services designed to satisfy the needs of ultimate consumers in the present and in the future. People in the Bhutanese society lack behind the hard working or having poor work culture, for instance more than 5 hours in day people are spending for chatting, watching Television, movies, gambling, and in the national games, etc. this could be proved by the following data.

Chat	TV/Cinema	Gambling/ Sports	Reading	Gardening	Others	Total	H. Per Person
954.9	858.2	449.7	154.4	98.3	54.1	2563.6	5.7

(b) Quality of life

Quality of life of the human being reflects the society’s welfare. Life in overcrowded cities is full of tensions. Accidents, crimes, problems of water, power, housing, transportation and polluted environment make people more complex and quality of life becomes deteriorate. Ultimately it reduces the welfare and health status of the society. But in country like Bhutan and its ecological and geographical conditions tend to increase welfare of the society. Bhutan is one of the odd countries around the map where it has been found that the forest cover is increasing over the years. Bhutan has taken strong policies to preserve its natural inheritance for future generations than any other developing countries in the world. Bhutan lies 38,394 sq. km of land squeezed in between the Indian plains and the Tibetan plateau. Bhutan lies at the juncture of the light cold and breeze land of pleasant Euro- Asia and the Indo-Malayan kingdom of the Indian sub-continent. The ecological diversity of kingdom has barely matched with any where of the Asian countries. Nearly 3/4 of the land is covered by forest, which helps to absorb the greenhouse gases (GHG). The proper implementation of conservation policies of

the country keeps up to guard one of the top 10-biodiversity hotspots in the world. These are the main factors to be considered for the odd concept or idea of Gross National Happiness (GNH), which was propounded by the 4th king of Bhutan and ultimately it increase the welfare and health status of the country.

(c) Non-Market transaction

In the present dynamic society many goods and services are not marketed, which actually satisfies the human needs and increase the welfare of the society. For instance, maintaining vegetables & fruits gardening nearby house and construction of huts of the people by themselves without buying many things in the market in the remote areas. These sorts of things are very common in developing countries particularly country like Bhutan where majority of the people are living in the remote villages and the basic facilities which are enjoyed by the urban people are virtually absent to the people the non- market transactions are unavoidable.

(d) Externalities

Basically the externalities include external economies and external diseconomies. The former refers, as a result of taking decision by individual (consumer or producer) the benefits or gains received by other than him. On the other hand, disadvantages or detrimental received by other than him is known as external diseconomies. Prof. Pigou includes externalities as one of the main factors to increase or decrease welfare of the society. The people of Bhutan and their basic characters are undoubtedly increasing the social welfare. All most all the people are very good at heart, good helping tendencies, not very greedy, mostly people are happy whatever they have, not much worried about the future like other countries people and at last not many reckless chemical industries to make any external diseconomies.

(e) Nature of Production and Standard of Living

A country can be described by high sophistication of life style, high-tech at all level, development in the industrial sector, good enough resource accessibility, and material well-being across the state, which will pursue the problems of unstable politics, not harmonized peaceful environment and society, weak health status and moreover threats from the terrorism either at the domestic level or from the outside. As a result of these problems, ultimately the economic status of the country would

shake. Moreover for the safety of the people and country government may spend huge money for national defense and for the production of arms and weapons. All these things disturb the welfare of the society. However, on the contrary the kingdom of Bhutan is described as being very limited in all the above mentioned elements, consequently Bhutan has gained the reputation of being a peaceful country around the world and where there is no much treats from the terrorism, economic disparity, sophisticated life style and material well being are virtually absent. In this case Bhutan is more fortunate than other neighboring countries in the South Asian region. So far in the history, Bhutan has never been colonized nor was in direct collision of two world wars. Till the half of the 20th century, Bhutan had the isolationist policy and it began to develop political orientation and close relationship with India, which turned out to be the best ways of expanding its own territorial security and prospects for socio-economic development. The controversial relation between India and China could enhance Bhutan's security and economic status. In these circumstances the government of Bhutan doesn't have any need to spend huge money for the national defense and the amount spend for the national security by the government for many decades are at the negligible level. This keeps the welfare of the society at a remarkable stage and strongly supports the country to develop their virgin idea of GNH.

A Canadian political philosopher, **John Ralston Saul** defined happiness as a balance of individual community interests. "The Enlightenment theory of happiness was an expression of public good or the public welfare, of the contentment of the people."

Happiness is universally shared aspiration for all the human being and GNH concept believe that happiness means the satisfaction of the material and non- material needs. GNH is a "Middle path" in which spiritual and material pursuits are balanced. Economic growth is on just aspects that impress the social requirements of society and is not seen as the dominating force in development. Government has become the philosophical foundation for the policy making process and implementing in Bhutan. The idea of GNH can be defined in many ways like:

1. GNH stands for holistic needs of human being in terms of both physical and mental well being.
2. GNH seeks to complement inner skills of happiness with outer circumstances.
3. GNH recognizes that happiness can be realized as societal goal rather than individualized goal or good.
4. GNH reflects individual feeling directly like mirror.

The Bhutanese virgin concept of Gross National Happiness is carrying many complications and criticisms by the experts because of its immeasurability. However the idea of GNH is widely spreading around the world in a quicker pace. Presently many researches are going on this area and experts trying their level best to make this concept for uncritical stage. Basically the concepts, which are related to satisfaction, happiness state of mind of the human being, and psychological feelings or ordinal utility analyses are criticized by many economists and healthcare researchers for many decades. However they all can't refute simply like these concepts is futile and it is not fulfilling the desire of the human beings. In the present study we are discussing about the factors, which are interrelated to each of them and make the relationship between each other and ultimately leads to the happiness at the individual level or Gross National Happiness at the country level.

Basically utility means want satisfying power derived from the consumption. But the amount of satisfaction or power derived from the consumption of goods and services depends on the type of nutritious intake of the people. In each and every commodity in the package itself the whole ingredients and the amount of nutritious it contains must be printed. Generally, the people may not be cautious about all these things and it makes imbalance of nutritious intake. This casual attitude of the people might be of illiteracy and lack of awareness. Education gives enough awareness and teaches the importance of taking nutritious food not only to avoid ill health but also make the people to be more brilliant and for smart behavior. On the other hand having balance nutritious food by the people make them to perform well at studies. The increasing literacy rate in the society restricts the people to go for fewer children in the family and controls population explosion at the macro level. In a reverse way, when the size of the family is very small the parents may able to provide better education to the children. When all the individuals in the society take the decision to have small size of the family, which would help the government to implement developmental policies to increase welfare of the society and ultimately it makes to be considered as a good governance. The good governance not only concentrated to improve the developmental policy but also keep good environments like environmental conservation policies to preserve forest, water, air and to reduce the social crimes in the society. When the country has high literacy rate, good governance, and environment with limited social crime, it increases the quality of life of the people, which gives good health. On the one side good healthcare status of a country obviously and undoubtedly bring the rapid economic development through high production activities and allow the individual to work for more works in the production sector. Because of good health status, people happen Work for more

hours in the production sector not only improves the country's economy but also the individuals' economic status. When all these discussed factors are hypothetically assumed to be in a favorable situation in a country what more else needed to obtain the GNH? Or what factors hinder in the derivation of GNH?

6. Findings

Some of the important finding of this research is as given below:

- Improvement had been seen in the health care sector in recent years
- Expenditure has increased in both health and educational sector of the country
- Life expectancy of the people have improved because of the better medical facilities
- There was a positive improvement in the health sector and as a result reduction in some the major illnesses such as leprosy, tuberculoses, malaria and etc
- Human resources and facilities in the health care sector has improved than before

7. Conclusion

Now (2008) the country has decided to step into the democracy from monarchy, which would make its own way through time for self sustainability, economic growth and development in the production sectors of Bhutan. Health facilities provided generally enhance the personal fitness of the individuals there by generating good work force. Sound work force in turn develops the economy by turning the unturned economy into sound economy through efficient utilization of resources with their abilities and talents. Economic growth and economic development with good healthcare status place a vital role in the achievement of the virgin dynamic concept of Gross National Happiness (GNH) in the country.

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