

Socio-economic Benefits of Rickshaw-pulling with Special Reference to Income, Employment and Services: A Study in Dhaka City.

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***Abstract:** This paper is based on a study drawing on information from different groups of people engaged in rickshaw pulling in Dhaka city. General Objective of this study is to consider the socio-economic benefits of rickshaw-pulling with special reference to 'Income', 'Employment' and 'Services' in Dhaka city. Now-a-days Rickshaws are found as an efficient, versatile and sustainable form of transportation. A large number of people are directly and indirectly engaged with this profession who are contributing to our national economy. Besides, rickshaw pulling, the business of owning, painting, manufacturing, repairing and renting out are also directly contributing to the economy of Bangladesh. Rickshaw pulling is crucial to employment and the socio-economic structure of Bangladesh, especially amongst the poorest sections of society. Three ideas constitute the central message of this study. Firstly, a large number of people are generating income by pulling rickshaws which helps them and their dependent family members to live from hand to mouth. Secondly, rickshaw pulling is a source of employment to other people also who are involved in this industry like owner, manufacturer, garage owner, repair shop owner, small food shop owner etc. People who are illiterate, unskilled and lacking capital, rickshaw pulling is an easy option to get employment. Their dependent family members are also benefited in this way. Thirdly, Rickshaw offers a moderately acceptable service within reasonable cost range and it is also a pollution free vehicle compared to other non private modes. Sometimes they are found as the only mode of transport in those areas where other motorized vehicles can not run. But some adverse effects are also noticeable such as traffic congestion due to slow and fast moving vehicles are plying on the same road. If separate lane for rickshaws is arranged beside the main roads and if rickshaws are not allowed to enter the main road, society will be relieved of traffic congestion which presents some threatening situation in the transportation sector of Bangladesh.*

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1.0 Introduction

Rickshaws have a positive role in modern transport system when mobility and clean environment are the basic concern of policy makers. Rickshaws first appeared in Japan in around 1868. The Japanese name “jinrikisha” for the vehicle which literally translated means man-powered carriage. The concept then spread to countries including China, India, Singapore, the French-Indo-China colonies, South Africa and for a short period of time in America and Australia. Rickshaws were probably introduced in Dhaka city in the early part of previous century. Now-a-days Rickshaws are found as the most common nonmotorized form and one of the key primary modes of transport in Dhaka. According to the Institute for Transportation and Development Policy (ITDP) (2005) and the Strategic Transport Plan for Dhaka (STP) (2005), the total rickshaw population is now estimated at around 500,000. Although they live in extreme poverty, they are generating income and thereby contributing towards our economy. Moreover, other people like rickshaw manufacturer, owner, garage owner, repair man, small food shop owner, painter etc, are also generating income directly or indirectly by depending on this profession. So rickshaws are found to be crucial to Bangladesh’s development as a source of income to millions of people. Thus, it cannot be overstated how crucial the rickshaw is to the employment and the socio-economic structure of Bangladesh, especially among the poorest section of society.

Rapid and ongoing urbanization in Bangladesh has resulted in myriad problems including extreme levels of traffic congestion and air pollution. Traffic accidents, health problems and access issues for the urban population prioritize the use of rickshaws which have positive effects on environmental quality and the quality of lives of low-income people of Bangladesh. The combination of moderately acceptable service quality within reasonable cost range, privacy, sense of security, eco-friendliness compared to other non private modes also makes rickshaws popular to the common populace. We have chosen this topic as rickshaw pulling is contributing to our economy in the arena of income, employment and service.

2.0 Literature Review

Very few studies were found on this particular topic and most of them were descriptive. Wipperman, T & Sowula, T (2007) cited in their study “The Rationalization of Non-Motorized Public Transport in Bangladesh” that there are around two million people employed as rickshaw pullers across Bangladesh and around 14% of the total Bangladeshi population relies indirectly on rickshaw pulling for their livelihoods (family of rickshaw-pullers, manufacturers, garage owners, painters, repair men) and in Dhaka alone, 20% of the population relies on pulling or indirectly, which amounts to about 2.5 million people (Wipperman & Sowula 2007), Hoque, Khondaker & Alam (2005). Rahman, Mamun Muntasir and D’Este, Glen and Bunker, Jonathan M. (2008), cited in their study titled “Problems and prospects of non-motorized public transport integration in developing cities” that, rickshaws have a key socio-economic role to play in Dhaka. They are the preferred travel mode by vulnerable social groups - women, children and the elderly – due to their safety, security and comfort perspective. In addition, they provide

an alternative to the high user cost for taxis and auto rickshaws, and to the poor operating characteristics of motorized public transport.

Rickshaws continue to be crucial for the transport system of Dhaka, particularly when considering short trips as primary trip types in Dhaka; a modal preference for rickshaws by significant social groups (women and office goers) improved sense of security, comfort and reliability; reduced road occupancy compared to private automobiles (Bari, M & Effroysman, D 2004); huge workforce involvement; and a growing role as a freight carrier. Research by Ali & Islam (2007) estimated that 6% of Bangladesh's GDP can be accounted for by rickshaw pulling. In Dhaka alone, around \$300,000 is estimated to transfer between rickshaw pullers and passengers per day (Gallagher 1992; Ali & Islam study 2005).

Sharifa Begum and Binayak Sen suggested in their study titled "Pulling rickshaws in the city of Dhaka: A way out of poverty" that an analysis of the dynamic effects of labour intensity is crucial to understand the actual pro-poorness of a growth process and in designing a better policy environment for the poor.

Rickshaws contribute substantially to the employment sector of Bangladesh especially in Dhaka city. It is estimated that there are around two million rickshaw pullers across Bangladesh (Ali & Islam 2007) and that around 14% of the Bangladeshi population relies indirectly on rickshaw pulling for their livelihoods (their families, manufacturers, garage owners, painters, repair men) (Wipperman & Sowula 2007).

As the current phase of globalization and liberalization accelerate the pace of development of peasants and landless agricultural laborers the number of rickshaw pullers is increasing. Large-scale displacement of people from the habitats, closure of factories and retrenchment of workers and casualization and insecurity of employment has made rickshaw riding an option that assures a relatively stable subsistence income without demands of skill. For most of the able-bodied, rickshaw pulling is an instant source of employment, a job which require little technical know-how and virtually no investment. (AK Kom, 2002).

But none of the above mentioned papers tried to examine the socioeconomic benefits of rickshaw pulling in Bangladesh. In this perspective, the present study may claim to have some extent of novelty in discussing the contribution of various categories of people related to rickshaw pulling in the context of income, employment and service in Bangladesh.

3.0 Objectives and Scope of the Study

General Objective of this study is to analyze the income, employment and services rendered by rickshaw-pulling in Dhaka city. In this context following issues have been examined in this study.

- Income of rickshaw pullers in Dhaka,
- Employment of rickshaw pullers in Dhaka,
- Services of rickshaw pullers in Dhaka,
- Expenditure of rickshaw pullers in Dhaka,

In addition to the above the study also considers the issues mentioned below-

- Income and Expenditure of rickshaw Manufacturers in Dhaka,
- Income and Expenditure of rickshaw Owners in Dhaka,
- Income and Expenditure of rickshaw Painters in Dhaka,
- Income and Expenditure of rickshaw Garage Owners in Dhaka,
- Income and Expenditure of rickshaw Repair Shop Owners in Dhaka and
- Income and Expenditure of Small Food shop Owners in Dhaka.

4.0 Methodology

The research methodology adopted for this study is descriptive in nature. Information was collected through both primary and secondary sources. For primary data, a well designed questionnaire was administered in certain areas of Dhaka City such as Dhanmondi, Mirpur, Mogbazar and the respondents were the rickshaw pullers, rickshaw owners, manufacturers, repairers, painters, garage owners and small food shop owners. For secondary data, publications in Articles, books, reports of Bangladesh Bureau of Statistics (BBS) and other relevant institutions were used.

As we had no way of listing to all of individual rickshaw pullers out of which representative sample could be drawn, convenient sampling method was used to select a representative sample of respondents. At the first stage, we spent some time interacting and consulting with a few rickshaw pullers in the neighborhood within the study area (Satmosjid road, Dhanmondi, Dhaka). Drawing on this information, we prepared a set of seven questionnaire modules. At the second stage, these questionnaires were tested in the field by interviewing a few rickshaw pullers, and revised in the light of the responses. The actual interviews were conducted in the months of November-December 2008. In the final stage, the filled-in questionnaires were scrutinized to check whether a respondent's answers were consistent with each other. Completing this process, we were finally able to cover a sample of 318 rickshaw pullers, 70 of rickshaw owners, 60 of Rickshaw manufacturers, 69 of Rickshaw repairers, 25 of Rickshaw painters, 10 of Rickshaw garage owners and 82 of small food shop owners.

We have selected Rayerbazar and Shanirbil of Mohammadpur area; Maradia of Khailgaon area, as these areas has a concentration on rickshaw industry. So, we have taken majority samples of rickshaw-owners, garage-owners, repair shop-owners, manufacturers and rickshaw-pullers from these areas. We have selected another sampling area Mirpur which is densely populated area. The remaining samples are taken from the other areas like Dhanmondi, Shajahanpur, Motijheel, Siddeswari and Mogbazar at a random basis, we have concentrated our survey on those slum areas where profuse rickshaw-owners, garage-owners, repair shop-owners, manufacturers, and rickshaw-pullers are available. We have chosen those shops as small food shops which are located temporarily upon the footpath and most of the customers of these shops are rickshaw-pullers or van-pullers and day-laborers.

5.0 Empirical Results

Rickshaws are found as an efficient, versatile and sustainable form of transportation in Bangladesh. Rickshaws are vital pieces of the economic fabric of the poor who mostly belong to the deprived class of the society. Three ideas constitute the central message of this study. They are summarized here and elaborated in the discussion below. Firstly, rickshaw pulling offers a moderately acceptable quality service within reasonable cost range. Rickshaws have no adverse impact on environment like air or sound pollution and sometimes they are found to be the only mode of transport in those areas where other motorized vehicles can not run. Secondly, a large number of people are generating income by pulling rickshaws which helps them and their dependents family members to live from hand to mouth. Moreover, rickshaw pulling is a source of employment to other people who are involved in this industry as owner, manufacturer, garage owner, repair shop owner, small food shop owner etc. People who are illiterate, unskilled and lacking capital can easily generate income by involving in this profession. Their dependent family members are also benefited in this way. But some adverse effects are also noticed, as rickshaws sometimes create traffic congestion due to slow and fast moving vehicles are plying on the same roads. If separate lane for rickshaws is arranged on main road and if these are not allowed to enter the main road then we will get better service from rickshaws. The main focus of this study is to see the impact of rickshaw pulling on income generation, employment generation and affording services to the people in Dhaka city.

i) Social Characteristics of Rickshaw Pullers as evidenced from the survey:

To get a vivid picture of the social status of rickshaw pullers, different aspects like educational status, residential status, ownership status and family size of the rickshaw pullers have been discussed in the study. The details are as follows:

Educational Status of Rickshaw Pullers and their children:

About 90% Rickshaw Pullers are illiterate, but children of some rickshaw pullers are literate. Among the children aged 5 and above, who are an overwhelming majority (56%) have no formal education at all, and 37% have only incomplete secondary education.

Table 01: Educational Status of children of Rickshaw Pullers:

Educational Status	Number of children of Rickshaw Pullers	Percentage (%)
Below S.S.C	225	36.58
S.S.C	39	6.34
H.S.C	4	0.65
Graduation	0	0.00
Masters	0	0.00
No education	347	56.42
Total	615	100.00

Source: Field survey

Residential Status of Rickshaw Pullers:

Majority of the rickshaw pullers (67.90%) are permanent migrants of Dhaka city, while one third (32.1%) of them are seasonal migrants from rural areas. It is evident that both permanent and seasonal migrant rickshaw pullers have come from rural areas to Dhaka City¹. The majority has been engaged in this profession due to the lack of any regular employment and it is easier to adopt this profession especially for men who are illiterate, unskilled and lacking capital. Moreover, regular flows of income, neighbors' influence are the other factors that are

usually considered for choosing this profession. Thus, the theoretical Harris Todaro Model² has been found to be operating in Bangladesh. Due to overwhelming population growth, extreme poverty and push factors like river bank erosion, flood, drought etc in the rural areas, a large number of people are migrating from rural areas to Dhaka city in search for better income, better job opportunities and better social services (pull factors). In this way, after migration substantial number of people starts rickshaw pulling as their means of living.

Table 2: Residential Status of Rickshaw Pullers:

Residential Status	Number of Rickshaw Pullers	Percentage
Permanent migrant	216	67.90
Seasonal/ Migrant from rural areas	102	32.10
Total	318	100.0

Source: Field survey

Family Size of the Rickshaw Pullers:

In the present study, the average family size of the rickshaw puller including himself is found to be 4.77 (1517/318). This appears to be in the close proximity of the national family size of 4.9 (Census 2001). It indicates that the rickshaw pullers support on an average 5 persons including him.

¹Characteristics of Permanent Migrants: We have considered the people who became permanent residents of Dhaka city after migration from rural areas in search of better employment opportunity and took rickshaw pulling as their profession.

Characteristics of Seasonal Migrants: We are considering those people as seasonal migrants who are coming to Dhaka city in time of lean season and start to pull rickshaw, when they don't have any employment in their respective rural areas. Again in time of peak season they are returning to those rural areas for taking part in those activities. Thus, we have come across many rickshaw pullers among the respondents, who stays for six months in Dhaka city as rickshaw puller and they spend the remaining six months in rural areas to perform the agricultural activities.

²Harris Todaro Model reaches us to the conclusion that the factor urbanization is attracting the poor people from the rural areas to come into the city in search of employment opportunities and thus increasing burden on the city dwellers.

Table 3: Family Size of the Rickshaw Pullers:

Size of the Family	Number of family members	Percentage (%)
1-5	226	71.1
6-10	92	28.9
Total	318	100.0

Source: Field survey

Ownership status of rickshaws:

The ownership status of rickshaws means whether the rickshaw pullers own any rickshaw or rent from other rickshaws owners. Majority of the respondents (79.25%) rented their rickshaws from the rickshaw owners and the rest owned rickshaw.

Table 4: The ownership status of Rickshaw Pullers:

Ownership status	Number of Rickshaw Pullers	Percentage (%)
Owner of the Rickshaw	66	20.75
Rent the Rickshaw	252	79.25
Total	318	100.0

Source: Field survey

ii) Types of People involved in Rickshaw Pulling and other Rickshaw related activities as found in the study:

It has been observed that a huge number of people are directly and indirectly dependent on rickshaw pulling service in Dhaka city. Majority of them are rickshaw pullers who are earning a meager income which is insufficient to live in this city. In addition to them, other people like manufacturer, owner, painter, repair shop owner, garage owner and small food shop owner are also found to survive through rickshaw pulling in this mega city.

iii) Income Generation of the Rickshaw Pullers and Other People involved in Rickshaw related activities:

Majority of the rickshaw pullers are found as poor class people with lower standard of living. As most of them belong to the average monthly income of TK6000-7000, non-educated group, having a small margin of savings and having children without education. Each Rickshaw puller is feeding more than 1 people a day. From our research it has been found the number of rickshaw pullers involved with one rickshaw is 14937 (475/318). To identify the economic characteristics of the rickshaw pullers, the average monthly income and expenditure are discussed in the following section as average monthly income and expenditure indicate the level of the standard of living and economic status of a person.

Moreover, the rickshaw pulling plays an important role in income generation for various groups of people to a large extent like owner, manufacturer, garage owner, repair shop owner, small food shop owner etc. It has been observed that in a typical month a rickshaw puller earns TK 6792, a rickshaw manufacturer earns TK 35,808, a rickshaw owner earns TK 32,118, a rickshaw painter earns TK 5,629, a rickshaw repair shop owner earns TK 7,156, a rickshaw garage owner earns TK 48,390 and a small food shop owner earns TK 13,283 from the rickshaw pulling service.

For rendering the rickshaw pulling service a rickshaw puller usually spends TK 6,684, a manufacturer expends TK 23,981 of which TK 1,548 for salary of his employees; a rickshaw owner expends TK 13,769; a rickshaw painter expends TK 1,634 of which TK 1,634 as salary of his employees; a rickshaw repair shop owner expends TK 2,202 of which TK 1,984 for repairing rickshaws and TK 218 for giving salary of his employees; a rickshaw garage owner expends 28,695 TK and a small food shop owner expends TK 7,285 per month of which TK 6,343 for running the shop and TK 942 for giving salary of his employees.

It appears from the table (table- 5) that although the rickshaw-pullers are earning a very small income from rickshaw-pulling, they are able to set aside some income as savings which comes into the income streams of the entire country. Each rickshaw puller contributes TK 108 monthly (TK 1, 296 yearly) while other groups such as rickshaw manufacturer TK 11, 827 monthly (TK 1, 41,924 yearly); a rickshaw owner contributes TK 18, 349 monthly (TK 2, 20,188 yearly); a Rickshaw Painter TK 3, 995 monthly (TK 47,940 yearly); a rickshaw repair shop owner TK 3995 monthly (TK 47940 yearly); a garage owners TK 19, 695 monthly (TK 2, 36, 340 yearly) and a small food shop owners TK5, 998 monthly (TK 71,976 yearly) to the savings of our economy.

Table 5: Average earning & expenditures per month of various categories of populace involving rickshaws in Dhaka:

Categories of the occupation	Average Earning per month (in TK)	Average Expenditure per month (in TK)	Average Savings per month (in TK)
Rickshaw-pullers	6,792	6,684	108
Manufacturer	35,808	23,981	11,827
Rickshaw owner	32,118	13,769	18,349
Rickshaw Painter	5,629	1,634	3,995
Rickshaw Repair Shop Owner	7,156	2,202	4,954
Rickshaw Garage owners	48,390	28,695	19,695
Small Food Shop	13,283	7,285	5,998
Total	93,994	48,871	45,123

Source: Field survey

Breakdown of Monthly Income of the Rickshaw Pullers:

The monthly Income of the Rickshaw Pullers is calculated on the basis of earning from fare and average monthly income of rickshaw pullers during seasonal migration. The number of working days during a month is found to be 20-25 days on an average.

The average monthly income of rickshaw pullers is found to be TK 6792 where the total earning has been classified into average income earned from rickshaw pulling³ (TK 6173) and average income during seasonal migration⁴ (TK 619). It has been observed that major portion

(around 91%) of monthly income comes from rickshaw pulling and the rest comes from income during seasonal migration. It has also been observed that the range of monthly average income of a rickshaw puller is TK6000 to 7001.

Table 6: Monthly average earning (in TK) by Rickshaw Pullers:

Type of income	Taka (BD)	%
Average income	6792	100
• Average income from rickshaw pulling	6173	91
• Average income during seasonal migration	619	9

Source: Field survey

Table 7: Range of Monthly average Income of the Rickshaw Pullers:

Range of Income in TK	Number of Rickshaw Pullers	Percentage (%)
2000-3000	1	0.3
3001-4000	20	6.3
4001-5000	43	13.5
5001-6000	46	14.5
6001-7000	84	26.4
7001-8000	52	16.4
8001-9000	38	11.9
9001-10000	23	7.2
10001-11000	9	2.8
11001+	2	.6
Total	318	100.0

Source: Field survey

³Average income from rickshaw pulling indicates average monthly income that is earned only from rickshaw fare.

⁴Average income related to the others represents the average income of the rickshaw pullers when they serve as day laborers or income from their own land or other occupations during seasonal migration (when they are not serving as rickshaw pullers).

Breakdown of Monthly Expenditures of Rickshaw Pullers:

The monthly expenditure of rickshaw pullers is composed of average expenditure related to rickshaw pulling (which consists of expenditure for deposit to the owner⁵, repair & maintenance⁶ and food⁷) and average expenditures related to other than rickshaw pulling (which consists of family expenditure⁸ & house rent).

The monthly expenditure of rickshaw pullers is taka 6684. The major expenditures related to rickshaw pulling comprise around 35% of total expenditure bore by a rickshaw puller. Among this 47% expenditure are on paying deposits to the rickshaw owners. And among the average expenditure due to other items is around 78% expenditure is composed of family expenditure.

It has been observed that rickshaw puller who earns about TK 281 daily from his hard work of rickshaw pulling expend around TK 40 on taking food from outside during services, TK 40 (one shift) or TK 80 (two shifts) daily on paying rents to the rickshaw owners if they do not possess any rickshaw. It has been found that the range of average monthly expenditures is TK 2001 to TK 2500.

Table-08: Average expenditure as a percentage of income:

Types of Average expenditure	Taka (BD)	%
Expenditure related to rickshaw pulling	2328	34
Other expenditures	4356	66
Total expenditure	6684	100

Source: Field survey

Table 9: Category wise monthly average expenditure (in TK) by Rickshaw Pullers:

Types of expenditure (Average)	Taka (BD)	%
Deposit to the rickshaw owner	1103	47
Repair and maintenance	346	15
Food	879	38
Average expenditure related to rickshaw pulling	2328	35
Family expenditures	3389	78
House rent	967	22
Average expenditure related to others	4356	65
Total Average expenditure	6684	100

Source: Field survey

⁵ Deposits to the rickshaw owners indicate the average monthly payment to the rickshaw owners for renting a rickshaw for one shift or two shifts.

⁶ Average expenditure on repair & maintenance indicates average monthly expenditure for maintaining a rickshaw which is not provided by rickshaw owners.

⁷ Average expenditure indicates the average monthly spending on foods from small food shops beside the foot path while the rickshaw pullers are in their service

⁸ Average family expenditures comprise expenditure on food, education, health for the rickshaw pullers and their family.

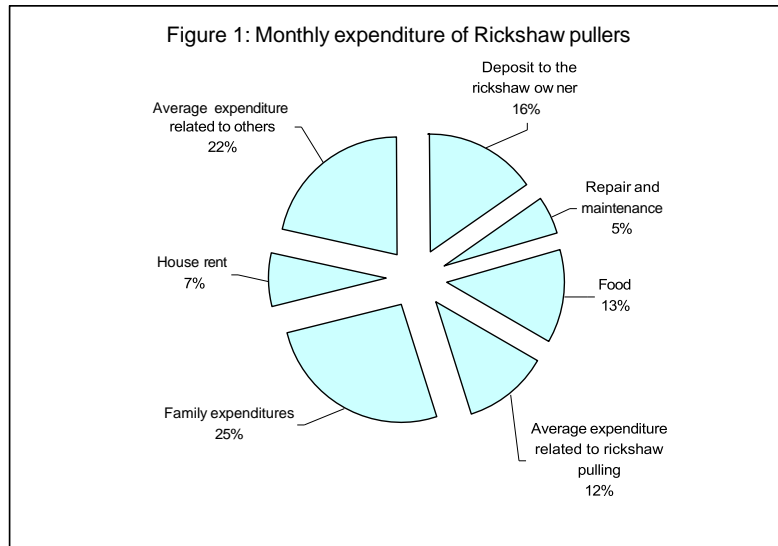


Table 10: Range of Monthly Expenditure of the Rickshaw Pullers:

Range of Total Expenditure in TK	Number of Rickshaw Pullers	Percentage (%)
500-1000	3	9
1001-1500	61	19.2
1501-2000	92	28.9
2001-2500	96	30.2
2501-3000	45	14.2
3001-3500	16	5.0
3501-4000	4	1.3
4001-4500	1	0.3
Total	318	100.0

Source: Field survey

Thus the rickshaw pullers can save only TK 4464 (Net average income = Average monthly income – Average expenditure related to rickshaw pulling = TK 6792 – TK 2328) on an average after spending on deposits, repair & maintenance and food. And they can save only TK 108 per month (Average income – Average expenditure=TK 6792 – TK 6684 = TK 108) and (TK 108 x 12) TK 1296 per year from rickshaw pulling that can barely meet their necessities. Thus it has been observed that rickshaw pullers of our country are somehow surviving and contributing a very small portion to the savings of our economy. These data certainly indicate a standard of living which is significantly lower. So, the most of the rickshaw pullers belong to the poor class in Dhaka city having a very lower income and expenditure to meet their basic necessities of day to day life.

iv) Employment provided by Rickshaw Pulling and other related activities:

The rickshaw pulling industry not only benefited the rickshaw pullers but also other groups of people like rickshaw-owners, garage-owners, repair shop-owners, manufacturers, painters, small food shop owners by providing income and employment to them. Rickshaw pulling offers more prospects than any other agricultural activities to the poor people without land and those who are seasonal migrants. That's why rickshaw pulling is the pivotal source of their income. Now a days a good number of people are investing on rickshaws, as it is the least costly form of investment compared to investment in other transport vehicles. The investor requires a very small sum of money to purchase a rickshaw. It costs TK 12,000-18000 for purchasing a new rickshaw and TK 6,000-8,000 for purchasing a second-hand rickshaw. For getting a license of a new rickshaw from City Corporation it costs TK 20,000 which is lower than the license cost of a new Auto rickshaw. On the other hand some people are also earning from renting their license to rickshaw owners or garage owners (Source: Field survey).

It has been found that 157 rickshaw pullers work in one shift (49.37%), where as 161 rickshaw pullers work in two shifts (50.63%). Thus, the actual employment generation is 475 against 318 rickshaw-pullers included in this study. This figure has been obtained by considering two shifts rickshaw-pullers (157) and 161 of one shift rickshaw-pullers.⁹

Moreover, a significant number of people are also surviving by adopting rickshaw related professions like owner, manufacturer, garage owner, repair shop owner, small food shop owner etc. The owners of rickshaws rent out their rickshaws usually for two shifts. In this way they are generating employment and thereby rickshaw generates income for a large number of people like one owner, one manager and one repair man. The Manufacturers of rickshaws are maintaining their family with this income and also providing job to other people like Foot-body maker (the basic structure of a rickshaw made of steel and the wooden parts of a rickshaw like the hood, seat etc) painter etc., who are also engaged in manufacturing of rickshaw. In this way one chassis maker, two foot-body makers, two hood makers and one painter are earning money from one rickshaw.

The Garage owners own large number of rickshaws in their garages. Here one owner and one employee for repairing and maintaining the rickshaws are engaged with one rickshaw. The Repairing shops are some road sides repairing shops available for repairing rickshaws. This sort of activity is generating employment for a large number of people and bringing income for their families. Here one shop owner and one employee are engaged with one rickshaw. Road side small food shops are found everywhere in our country. These shops are meeting the demand of the rickshaw pullers like providing them with food, drinking water, beetle-leaf, cigarettes etc.

⁹ Total number of two shift rickshaw-pullers = (157x2=) 314, total number of one shift rickshaw-pullers = (161x1=) 161. So, the total employment generation (314+161) = 475.

In this way the huge demand from the rickshaw pullers is creating employment opportunities for those people who are owners and workers of small food shops and also generating income for them. Here one shop owner and one employee are engaged with one rickshaw.

v) Nature of Transport Services provided by Rickshaw vis a vis other modes of Transport in Dhaka city:

Rickshaws are not only the means of income generation or employment generation, but also rendering a very useful service to the community of our country by playing the following important roles:

Door to door service: In Dhaka, there are many areas like Purana Paltan and other unplanned areas of the city where the roads are very narrow to go by private car, CNG run three wheelers, truck, bus or other vehicles. In that case the rickshaws are the only transport that helps us to go to those areas.

Only mode of transport: Rickshaw is the only mode of transport in some rural areas of the country. Again in some villages the roads are very narrow and in bad condition where rickshaw is the only transport that can only ply on the roads. In this instance rickshaw-pulling are rendering very useful services to the community by carrying people to their destined destination.

An inexpensive mode of transport for the middle class people: A large number of people in Bangladesh fall in the middle class group whose income do not permit them to choose expensive transports like taxi cab, CNG run three wheelers and other costlier mode of transports. So, rickshaw is the least costly mode of transport for them.

Eco-friendly mode of transport: The eco-friendliness of rickshaws compared to other motorized vehicles makes rickshaws popular in Bangladesh. It is totally free from air and sound pollution which is beneficial for our healthy life. It has been found that a substantial part of total traffic is non-motorized vehicles which create severe congestion problem especially in road intersections and around 80% of total trips in Dhaka city is comprised of non-motorized transport and only 5.9% trips are made by motorized transport. (www.engconsult.com/pub/dstar.htm)

vi) Overall Contribution (Economic and Social Services) of Rickshaw in Dhaka city:

From this study it is evident that rickshaw pullers are contributing significantly to our society as well as to our economy. Though a large number of people are directly depending on this profession, they are living in a very poor condition in Dhaka city. Moreover, other related groups to this profession like manufacturer, owner, painter, repair shop owner, garage owner and small food shop owner are also contributing to the society as well as the economy of Bangladesh through income and employment generation.

Rickshaw pullers are also providing a useful service to the people of Dhaka city by giving door to door service, especially in narrow roads. Rickshaw pulling is an inexpensive mode of transport for the middle class people of Dhaka city. In addition, this

service is totally free from air and sound pollution, which is beneficial for healthy life of the people of Dhaka city.

6.0 Conclusion

Rickshaws provide an important and popular means of transport in the urban, semi-urban and rural areas of our country. Rickshaws offer low-cost personal mobility, nonpolluting environment and labor-intensive service in the economy. It can move easily even in a narrow lane. It is an easy, cheap and eco-friendly transport for every body. Normally a rickshaw is run by two pullers so that two families are directly dependent and families of rickshaw manufacturer, owner, painter, repair shop owner, garage owner and small food shop owner are also indirectly dependent on the rickshaw. It is a way of providing a livelihood and a chance of social mobility of those poor people who have nothing else. Tom in *Bangladesh Barta* digs deep into the state of the Rickshaw pullers in Bangladesh and finds: as being the main mode of transport 57% of all journeys in Bangladesh are made on a rickshaw. Rickshaw pulling represents 6% of national GDP; 14 million people (10% of the total population) rely on it directly or indirectly for their livelihoods. In this backdrop, it may be asserted that the rickshaw-pulling in Bangladesh is not only generating income and employment of some poorer section of people rather providing useful services to the community. However, some adverse effects are also noticeable such as traffic congestion due to slow and fast moving vehicles plying on the same roads. If separate lane for rickshaws is arranged beside the main roads and if rickshaws are not permitted to enter the main road, society will be relieved of traffic congestion which presents some threatening situation in the transportation sector of Bangladesh.

7.0 Limitations and Recommendations for Further Research

The findings of this study may be generalized after taking into consideration certain limitations. This study considers only the socio-economic benefits of rickshaw-pulling with special reference to 'Income', 'Employment' and 'Services' in the Dhaka city. Further research can be undertaken in other major metropolitan cities of Bangladesh. To provide more definite evidence, both qualitative and quantitative, a further study could be undertaken based on an extensive survey on socio-economic background of rickshaw pullers and the information on village economies from which these rickshaw pullers have migrated to the urban area.

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