# Analysis of logistic Problems in Bangladesh by the using of ECR method

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## Introduction

Recently many difficulties in transpiration sector, especially in good mobility of Bangladesh. Increasing levels of traffic demand in Dhaka to Chittagong is most important for healthy economy for Bangladesh. The concept of 'Logistics' has the potentiality for solving the many of these difficulties and complicated problem. Logistics can be classified process and transport activity by private company and in governmental organization with the considering the environment and the framework of its systems. The approach we have chosen to present a general over view of Bangladeshi peoples thinking about the problem of goods transportation and how to solve of them by the priority basis of problems. In this case we are taking to field of survey and experimental study.

## Objectives

➢ To identify the problem of physical distribution from Dhaka to Chittagong and to introduce the better logistics policy in Bangladesh.

➢ To justify the depth of problems and to consent with local peoples for good transportation in Bangladesh.

## Back ground of this paper

Existing situation in Bangladesh transportation is not at all satisfactory. According to the transportation goods is very important for maintaining economic stability. In Bangladesh natural disaster is very high and it's coming in every year. Logistics analysis of transportation is prefer the frameworks. In my previous study enclosed the framework of physical distribution, logistic cycle and supply chain and it's a very much important to following the next analysis. Regarding of them goods transportation in Bangladesh to maintaining the logistically is lot of problems.

## Population of the Dhaka-Chittagong City

After independence in 1971 from Pakistan first census count on 1974 in Bangladesh that time population was 71.4 million and Dhaka City's population was 1.67 million and the Chittagong City's population was 0.94 million respectfully. Until now four censuses performed in Bangladesh, last in 2001 January but this is unpublished yet. Approximately until 2000 Bangladesh population was 130.2 million, Dhaka and Chittagong City's population counted in 6.84 and 2.34 million respectfully. And the area of Dhaka City is 1353 sq. km and the Chittagong City is 986 sq. km. In Bangladesh annual growth rate is now 1.5 percent.

Table 2. Population information　　　　(Million)

| Year | Bangladesh | Dhaka City | Chittagong City |
|------|-----------|-----------|-----------------|
| 1974 | 71.4 | 1.67 | 0.94 |
| 1981 | 89.9 | 3.44 | 1.38 |
| 1991 | 111.4 | 3.69 | 1.40 |
| 2000 | 130.2 | 6.84 | 2.34 |

## Problems of logistics in Dhaka-Chittagong

### i. Production distribution chain

In Bangladesh the production distribution chain is not establish and still now a very old systems. The production distribution chain prefer to settle the geographical area and to final to final customer. In this respect Bangladesh needs to goods data to assessing or planning the transportation order. The concept of production distribution chain is the fundamental way of logistics transportation and its support on time service of goods mobility. Structure of supply chain is very important in goods transportation sector and it will be exercised by the many groups of participants.

An understanding of the supply chain is a useful asset when assessing the way in which different distribution markets are organized and controlled.

### ii. Goods demand

To analyze the goods availability and the distribution by the way of case study, it seems that population of these cities and goods are increasing rapidly. Supply and demand for products and the logistics management is very useful role in goods mobility. In these region basic demands of goods supply not fulfilling the demand logistically. In Bangladesh transportation authority always neglecting the people opinion, so this is a great problem in logistics transportation.

### iii. Lack of logistics policy

To observing the logistics and to introducing the new logistics policy there is lack of physical distribution. In Bangladesh Ministry of transportation authority is not to taking good policy for logistics transportation. In goods mobility there is no combination with the logistics cycle and to physical distribution operation items in Bangladesh. Logistics transportation assures the goods ready for their entire life but still now there is lot of lacking in their process.

### iv. Storage problem

This paper we found the big gap of storage and goods transportation. All kind of goods is increasing and there is no any combination to storage and goods mobility. So, it's a big problem of logistics transportation. Logistics

transportation must be allow the good combination of the storage systems. In Bangladesh still storage go-down is very few and in other side there is no any good combination of this sector, some storage are out of transportation facility. So, lack of storage facility logistics transportation facing a big trouble in Bangladesh.

### v. Road based transportation

Goods mobility in the Dhaka-Chittagong almost 80% depends on the road-based transportation. In logistics transportation physical distribution is very difficult to distribute only the road network. The population and the volume of traffic and goods are increasing dramatically, the number of streets not to increasing. So, road network don't have the capacity to bear the more stress. Logistics transportation recommends also the rail and other network transportation, which deficiency in Bangladesh. Logistics have to recommend the good assessment for the new infrastructure facility.

### vi. Environmental problem

Currently Environmental problem is a big phenomenon in the world. Vehicular gas emission is creating a lot of problems in these two cities of Bangladesh. Environment pollution's is very high, so current systems detract the environments. The magnitude of damage has increased over the years, due partly to population increase, extension of human occupancy in the hazardous zones and disturbance of the natural environment by development projects. In future damage may be increasing highly some area of Bangladesh over flow by that effect. According to this mechanical vehicle also one of the big reason for making environment pollution. So, good and modern transportation can reduce the effect of environmental pollution by the way of logistics.

### Necessity of questionnaire survey

Describe the lot of problems we can understood the scale of problems, especially goods sector in Bangladesh. But the shortage of data supply we don't know the depth of problems. So, here we think the necessity of field of survey and to gathering concuss people opinion. From the next target of this research is to experimental study with the Bangladeshi people and their thinking, to defined the importance of problem.

Regarding of this ECR method is very optimistic method to taking the peoples opinion and to analysis, how to settle the problems by the priority basis. ECR can consider the people's opinion by the way of transportation also. For example train is good for goods mobility or truck is good for mobility or any other policy taking.

### Applying ECR method

Here is Expand Contribution Rule (ECR) method. And the Simple Contribution Rule (SCR) is the main base of salvation. Using the plus mynas 5 point method described result of highest value and lowest value of evaluation. SCR method is as below;

$$g(c_{ij}^l,...,c_{ij}^m) = \sum_{l=1}^{m} u^l(a_i) - \sum_{l=1}^{m} u^l(a_j)$$

ECR method came from SCR method and ECR method is as below;

$$g(c_{ij}^l,...,c_{ij}^m) = \sum_{l=1}^{m} w^l c_{ij}^l + \lambda \sum_{l=1}^{m} w^l Min(0,c_{ij}^l) - m\theta$$

This ECR method taking the procedure to clarifying the preference group. Here g : is preference group, $c_{ij}$ : preference the item j and I is decision maker 1, $w^l$: weight of e of preference j and I, $\lambda$ ($\geqq 0$): high in respect of the agreement, $\theta$ ($\geqq 0$): the weak relation, which is removes. This is structured the importance and less importance and in particularly ISM method is required to calculation the result. This method solve the problems by the priority basis observation. Firstly I am planning to take part in survey by questionnaire method and its contain the question is;

Table 2. Evaluation object of ECR method

| 1. | The fare is cheap |
|---|---|
| 2. | The number of trains are too many |
| 3. | The diagram of train services is on time and straight |
| 4. | For shipment expert hands are available |
| 5. | In this freight transportation information technology is available |
| 6. | Container services are enough for goods shipment in train |
| 7. | Transportation time is very short for shipment |
| 8. | Reduce the environment pollution and take care the policy is good |
| 9. | Attitudes of the responsible workers are very sincere and safety |
| 10. | warehouse is enough for shipment in the both cities |

This is only takings concuss people of Bangladesh by the way of plus mynas 5 point of distribution.

My opinion is that, above formation can solve the Dhaka-Chittagong transportation by the ECR method. To the development needs proper design and management and to needs traffic engineering techniques. Use to supply chain concept have to the ability to develop goods mobility nicely.

### References

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