



SYNTHESIS OF INDIVIDUAL COMMUTE EXPENDITURE

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Abstract: Public transportation may seem like a more cost-effective option. If one skips the solo drive and switch to a taxi or a bus, one will likely save money (even if you keep your car for weekends). Over time, you'll spend less on car maintenance, gas, depreciation, parking fees, and everything else that contributes to your commuting expense since a bus or train pass costs less. However, the other thing to keep in mind when calculating one's commuting costs is time, something that is often forgotten in the commuting equation. Though you're saving money when you commute via public transportation, you aren't saving time. In fact, commuting on public transportation costs twice as much in terms of time compared to driving alone in a car. And, yes, you can put a money value on that time. Consider what you could do with that time if you weren't on the bus or the taxi. In the end, measuring the true cost of your commute comes down to where you live, how you commute, and how open your company is to remote work. This paper gives a brief idea on the commute expenditure of High school teachers and their take on Public transport use versus private transport use.

Index terms: *Transportation, expenditure, Maintenance, time.*

1. Introduction:

Transport is part of the daily rhythm of life. Mobility is a fundamental human activity and need, but is restricted by the friction of distance. As a complex industry in terms of land use, employment and functions, transport is a major factor interlinked with the environment and with the spatial distribution and development of all other forms of economic and social activity. Economic theories, methods and perspectives contribute significantly towards an understanding of transport and their eventual solution.

Transport is a central dimension of the national and global production systems that are reshaping the world, and is therefore, a topic of universal interest and importance. Transport industries exist to provide for the movement of people and goods, and for the provision and distribution of services; and transport thereby fulfils one of the most pervasive activities in any society or economy." There is no escape from transport..." (Munby, 1986, 7). In advanced countries, modern transport systems involving rail, road and air networks are generally well developed; global economic integration relies upon efficient maritime transport; and the development of the less-developed parts of the world is substantially dependent upon transport. "Even in the world most remote and least developed of inhabited regions; transport in some form is a fundamental part of the daily rhythm of life: (Hoyle, 1973, 9).

The study of transport is not the sole prerogative of any one academic discipline, and transport is too important to be left entirely in the hands of its practitioners. Transport by its very nature, lends itself to multidisciplinary study and to interaction between those who operate or use transport systems and those who seek to analyse them.

2. Objective of the Study:

The sole objective of this study is to break down the average percentage-wise intra-city Income-expenditure distribution on commute of an individual.

3. Sources of Data and Methodology:

Primary data is used to obtain information on the individual's economic situation and transport use and ownership. It is obtained through a structured questionnaire survey method through a random sampling approach which had been chosen and used to insure the adequate representation. This is to attain a sample representative of the travel behaviour, inclusive of expenditure on commute particularly, of population of the study area. In order to determine the sample size, the applied method was set to accept an error of about 5percent and confidence level of 95 percent. The sample size also depends on nature of units, population and study, number of variables, groups and sub-groups to be studied, intended depth of analysis, precision and reliability of results required, level of expected non- response, size of questionnaire and population and available resources randomly administered among high school and college teachers. The total sample size is further affected by the total number of choice scenarios and the number of choice alternatives in a given scenario. Considering the above factors, a sample size of 120 is drawn using purposive sampling method, the focused group being High School Teachers, specific to Aizawl, Mizoram, India.

4. Analysis of Data:

In economic terms, travel is an intermediate good, because demand for travel is derived from the demand for other spatially separated goods and services. Thus, one travels in order to engage in work or otherwise. Apart from sightseeing and some types of holiday, rarely do people travel simply for the sheer pleasure of the trip. Like other goods and services, travel has a cost. When an individual makes a trip, he or she values the destination activity sufficiently to incur the trip cost. Urban travel (Saxena, 2005).

The cost of travel usually has two components, time and money. Time spent travelling is time not spent doing other things, hence those who value their time highly will be willing to spend more money in order to save time by using a faster mode (Hoyle et.al 1998). Research has shown that the value of time is positively correlated with wage rates or income levels (Small, 1992); hence as real income increases over time, the demand for faster modes of travel also increases.

4.1 Number of working/ earning members in the family:

The number of working members in the family is often a clear representation of the increased use of transportation, be it public or privately owned. Fifty nine percent of the respondents have up to 2 earning members in the family; Thirty eight percent having 3-5 earning members and the remaining three percent have 6 and above earning members in the family. It is found that family having higher working members spend more on commute, whereby the need to commute to and from work is a determining factor. It is thus mandatory that the number of working members be made known so that a clear-cut ratio and interpretation on commute cost is synthesized.

4.2 Number of students in the family:

Thirteen percent of the respondents have no student family members; Fifty eight percent have 1 to 2 student family members whereas twenty seven percent of the respondents have 3-5 student family members and three percent of the respondents have 6 student members and above. Commute to and from learning institutions is also a basic factor contributing to frequency of transport used and ultimately commute cost. School busses are more or less non-existent in a city as Aizawl, which means that a few rupees have to be set aside for daily travel by the students; who are in general not earning so as to say.

4.3 Income:

Income resonates travel pattern and travel behaviour. The knowledge of individual as well as household overall take in is necessary to break down certain economic behaviour and analysis; income being a prominent variable that influence any economic as well as social undertakings.

4.3.1 Personal Income:

13% (thirteen percent) of the respondents have a monthly income of less than or equal to Rs.15000 and 42% (Forty two percent) have a monthly income between Rs. 15001- Rs. 35000; 21% (twenty one percent) have

an income of between Rs. 35001- Rs.45000 monthly and 17% (seventeen percent), a monthly income between Rs.45001- Rs. 65000. 7% (seven percent) of the total respondents have a monthly income of above Rs. 65000.

The average monthly personal income of the sample respondents is Rs. 33405.

4.3.2 Household Income:

9% (nine percent) of the sample respondents have a monthly household income less than or equal to Rs. 30000; 21% (Twenty one percent) have a monthly household income between Rs. 35001-Rs.50000, 39% (thirty nine percent) between Rs. 50001- Rs. 80000; 15% (fifteen percent) between Rs 80001-Rs. 11000, 8% (eight percent) between Rs.110001-Rs.150000 and the rest 8% (eight percent) with a monthly household income of Rs.150001 and above.

The average monthly household income of the sample respondents is Rs. 98000.

4.4 Amount of money spent on transportation for travel within the city a month by the individual respondents:

18% (eighteen percent) of the respondents spend less than Rs.500 for intra-city travel in a month; 44% (forty four percent) between Rs.501-Rs.1500, 18% (eighteen percent) between Rs. 1501- Rs.2500, 11% (eleven percent) between Rs. 2501-Rs.3500 and 9% (nine percent) spend Rs.3501 and above for monthly intra-city travel.

The average intra-city travel expense of the sample is around Rs.2500 monthly.

4.5 Average percentage of Individual monthly income spent on intra-city transportation:

An average of around 7.48% of their monthly income is spent on intra-city transportation by the respondents.

4.6 Amount of money spent on transportation for travel within the city a month by the individual respondents on privately owned vehicles:

Out of a sample of 120 respondents, 18% (eighteen percent) do not own private vehicles; as such their expenditure on private vehicle maintenance is Rs.0 monthly. 7% (seven percent) of the total respondents spend between Rs.1-Rs. 500 a month, 30% (thirty percent) of the respondents spend between Rs.501-Rs.1500. 31% (thirty-one) spend between Rs.1501-Rs.3000 monthly and 14% (fourteen percent) spend above Rs.3000 monthly.

The average expenditure on management of privately owned vehicles by the respondents is Rs.2600 monthly. Management of privately owned vehicles include the maintenance of two-wheeler vehicles, four-wheeler vehicles etc or both together. This is inclusive of expenditures on diesel, petrol, driver (if applicable), depreciation, parking fees, fines etc,

4.7 Amount of money spent on transportation for travel within the city by the individual respondents on travelling by public vehicles in a month:

Out of a sample of 120 respondents, 29% (twenty nine percent) spend Rs.0 as they do not travel at all by public transportation. 36% (thirty six percent) of the respondents spent between Rs.1-Rs.500. 22% (twenty two percent) spending between Rs.1501-Rs.3000 a month; 10% (ten percent) spent Rs.1501-3000 and the remaining 3% (three percent) of the respondents spend Rs 3000 and above monthly. The spending of more money on commute by a mere three percent of the respondents is mainly because of their preference of taxis over buses, which is a personal preference and purely subjective on matters pertaining to comfort, flexibility and space.

The average monthly expense on the use of public transportation for intra-city travel is Rs.693 per individual.

5. Conclusion:

It is thus concluded that more money is spent on commute by private vehicles than by the use of public transportation; whereby the likely reason being the popular travel by buses and taxi-pooling. It is also concluded that respondents who use taxis as means of transportation do spend more as compared to those using other means of public transport; taxi fares being unreasonably high. The spending on commute by the respondents is limited to a specific area, Aizawl city, in this case, and may show variation as according to the place and time of study. It must be noted that the economic standing of the place of study plays an important role in travel behavioural pattern and mode of commute and ultimately expenditure on commute. An

individual devotes a predictable fraction of income and time to travel. It is shown that these time and money budgets are stable over space and time and can be used for projecting future levels of mobility and transport mode. However, the fixed travel money budget requires that mobility rises nearly in proportion of income.

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