AN ANALYSIS OF COMMUNITY ATTITUDES TOWARDS THE ENVIRONMETAL FRIENDLY PUBLIC TRANSPORT SYSTEM IN SRI LANKA

Abstract

The primary purpose of this study is to identify to what extend community expecting environmental friendly public transport and to identify the attitudes of the consumers towards the maintaining environmental friendly public transport systems in Sri Lanka. Transportation is a non-separable part of human lives and Public transportation exhibits a very close relationship with the lives of the people in any society. Well-developed countries consider their public transportation system as a seriously important factor and now it's becoming a kind of measure in the progress of the country. It is vital to discuss environmental pollution and its impact to the society when a country plans its public transportation system. Aim of this study is to identify to what extend community expecting environmental friendly public transport and to identify the attitudes of the consumers towards the maintaining environmental friendly public transport systems in Sri Lanka. As the nature of the research is qualitative, it has used interviews and questionnaires as its data collection tools. In the purpose of elaborating the relationship between community attitudes and the public transportation system, collected data will be analyzed using SPSS package. It is hoped this study will contribute to create more suitable environment for people to live. At the same time, secondary objective of this study is to contribute to the existing literature regarding the public transportation in Sri Lanka.

Keywords: Attitudes, Environmental, Public Transportation

1. Introduction

Transport is the transit of humans, animals, and goods from one place to another. So, transport is playing an important role in linking people to occupation, education, etc. If the capitals are the “Engines of Economic Growth” its mobility systems are the “wheels of that engine” It is similar to the transmigrate system in the human body, if blood stops flowing a person is dead – if the transport system breaks, moving the country is dead. When it comes to the Transportation system of Sri Lanka, travel is a common problem people confront daily. Transportation is the first thing comes to the mind when people need to go somewhere. Most probably people waste a considerable time to decide which transport mode to use. Sri Lankans waste a lot of time on the streets. The traffic faced by the general public slows the pace of all cars, buses motorbikes, and etc. whether it is private or not. As per projected figures, an 87.1% of vehicles on our roads coming under private transport, including cars, motorbikes and, three-wheel. In contrast, a mere 5.7% of vehicles, owning to the public transport, includes main buses. The number of private vehicles on our streets significantly surpasses the minimum number request for a smooth flow of traffic. At the same time, this adversely impacts on the green environment, though it is a public or a private vehicle. As a result of that transportation has caused to boost the air pollution and water pollution level. So, it’s human responsibility to develop and maintain an environmental healthy public transportation system.

In brief, the inefficiency in public transportation system is adversely impacts on each and every person in the society. This negative impact can be reduced by introducing more efficient and effective transport system which will be a lead to decrease number of vehicles and the heavy traffic jams on the roads. At the same time this system needs to be cost-effective, comfortable as well as environmental healthy to be an effective mobility system. And also if the society can maintain the public transportation system in an efficient and effective manner, it will definitely give a fair solution to this heavy traffic jam, by reducing the number of private vehicles on the roads.

2. Literature Review

The literature review identifies what is already known about the area of interest and then it synthesizes to the findings. The qualitative and quantitative studies are considered in this review. The main objective was to identify community attitudes towards to environmental friendly public transportation system.

According to the research performed by Roche, Mourato, Fischedick, pietzner and viebahn (2010) it is explained the public attitudes and preferences towards Hydrogen Fuel Cell Vehicles. Quantitative studies depict low awareness about the technology but positive attitudes towards it. However, Qualitative studies revealed mix of positive and negative attitudes towards HFCV's. These qualitative studies also provide information about how attitudes towards technology differ with new information. The final result of the study was in line with quantitative key findings, positive attitudes towards HFCV's. In another study Lam, Taghia and Katupitiya have evaluated an autonomous public transportation system through employing autonomous vehicles in urban setting and they suggest that the autonomous vehicles can improve performance, safety and reduce traffic and accident risks by eliminating human errors in driving. However their use introduces an excess significant complexity into transport operations. Purpose of the research performed by Chowdhuri, Hadas, Gonzales and Schot 2018) was to compare the importance of the five integration attributes between policy makers and Public Transport users. The study was conducted in Auckland. The results of the study provide similarities and differences between policy makers and users perception of services required by an integrated system. Moreover, it is proven that out of the seven policy makers six deemed "network integration" is the most significant attribute. It is suggested that policy makers should consider these findings and find ways to minimize the transfer waiting times when planning an integrated system. In another study Kroesen, Handy & Chorus (2017) in line with earlier longitudinal transportation studies focusing on the direction of causation between (travel) attitudes and behavior, the present analyses indicate that attitudes and behaviors (in a travel behavior context) influence each other over time. If policy makers may not act on discord with respect to public transport, people will generally adjust their attitudes towards this method downwards. It seems that regular use of public transportation is thus necessary to maintain a positive attitude towards the use of this method.

The ways in which persons think and in what way they feel about various travel options play a vital role in determining their transportation choices. Understanding these matters is really important. While technological developments, e.g. mobile information systems and communications, become more and more present and customers tend to share more and more data with each other. The research performed by Bae, Kim and Chung (2017) was to examine the effect of latent class on mode choice behavior, which can reflect psychometric traits and attitudes. Results confirmed that socio-economic characteristics, psychometric traits and mode attributes variables have a significant impact on mode choice behavior across classes and latent traits. Although Mode choice behavior is a complex concept to predict, it has been studied in different ways in this survey which was conducted in Seoul, Korea.Sundaravali Narayanaswami, (2017) has depicted that the demand for public transport is influenced by a combination of factors, such as fares, quality of service and income and car ownership. A qualitative study of public transport users and car users has been performed by Beirao and Sarsfiled, (2007) to obtain a deeper understanding of travelers' attitudes towards transport and to explore perceptions of public transport service quality. It has suggested that the innovative aspects on transportation service development that are discussed can upsurge human attitudes on public transportation. According to Boyle & Associates, Inc. (2018) have summarized that transit can be explained using a single sentence as reliability, safety, frequency, quality of service and

connecting residence with destinations. Therefore to provide a good public transportation policy makers need to pay close attention to all these elements in planning, scheduling, and delivering transport service. So operational planners have a major role in ensuring these fundamentals are maximized through their scheduling and design. According to the study conducted by Thogersen (2018), it has proposed a new instrument for measuring transport related lifestyles and its usefulness as a segmentation tool for the population of private transport consumers has been demonstrated. Key findings of the study showed that the proposed instrument is able to identify meaningful lifestyle segments and six identified segments differ with regard to vehicle ownership, environmental friendly choices and openness to new environmentally friendly transport innovations. It is also concluded that TRL segmentation can be used for all kinds of campaigns directed at transport consumers including public service and social marketing campaigns.

As Mugion, Toni, Raharjo, Pietro and Sebathu (2018) remarks in their research, there are some constraints of urban public transport system in the city of Rome; huge traffic restriction in the city Centre, the ration between buses and distance per inhabitant is low etc. The qualitative study depicts that there is dissatisfaction with the service quality for buses and subway lines. Moreover the relationship between service quality and satisfaction is confirmed. (Cronin and Taylor, 1992; Anderson and Sullivan, 1990; Woodside et al, 1989; Taylor and Baker, 1994) Due to low level of relationship between customer preference and service category differences, public transportation industry provides low overall satisfaction. This utility can be increased through privatization and deregulation. But Andreassen (2005) has suggested a third solution as a systematic measure of public services ability to satisfy its users through its services. Improved gratification or condensed unhappiness may enhance new customer entrance to the market. Through differentiating the public transportation way to reproduce regularity users' satisfaction will reduce the problem of market exit and loss of relative market share to private alternatives. Most transportation consumer research has been of the origin-destination variety that provides a detailed description of the traveler, mode used, and trip purpose (Gilat, 1963). A few studies, however, have partially focused on consumer attitude measurement emphasizing the identification and assessment of consumer values relevant to transport selection decisions (Ackoff, 196S; Lansing, Mueller, & Barth, 1964; Mahoney, 1964; Stanford Research Institute, 1965).Standardized automated information exchange among travelers and Transportation Company can be introduced as one of the growing significant concepts which are used to assess the service quality of public transport. Researchers provide a collection of articles that present new ways to improve the eco-friendly performance of the freight section, with particular emphasis on new modelling techniques, logistical operations, delivery mechanisms, and decision making approaches. Articles in this issue all address the environmental performance of goods movement in some way. Solutions for these problems can be categorized topically depend on their concentration. In brief, the article contained herein cover four key aspects:

(1) New Methods for Measuring and Modelling Environmental Impacts;

(2) Innovative Logistics and Operational Approaches;

(3) Novel Approaches for Final Delivery of Freight; and

(4) Ways to Influence Decision Making in the Freight Sector.

Miller, Souza and Kahn (2013) have depicted that Transportation plays a key role in promoting the livability of communities (2013) due to its interaction with all three areas of sustainable development. First time ever, in 1992 United Nation's Earth Summit and reinforced in its outcome document elaborated the role of transport in sustainable development. Moreover, sustainable transport should be viewed and

integrated as a key element in sustainable development strategies. Under this context, Rangarajan (2013) has recognized stakeholder involvement is essential in order to incorporate diverse perspectives and preferences. Diverse strategies and practices are carrying out transportation stakeholders in order to separate transportation from carbon dioxide emissions. Researchers that have considered possible sustainable mobility conversions highlight the need for both technological and institutional changes to reach a fundamental reconstruction of transport systems used for sustainability. Nykvist and Whitmarsh provide three main approaches to fostering sustainable transport can be identified (see also, 2008):

(a) Improving efficiency and reducing the impact of vehicles (via improvements to existing vehicle technologies or development of new vehicle or fuel technologies) (Hamelinck and Faaij, 2006; Romm, 2006; Solomon and Banerjee, 2006);

(b) Using more sustainable modes of travel (via increased use of public transport, walking, cycling and car sharing) (Enoch and Taylor, 2006; Mont, 2004; Seidel et al., 2005); and

(c) Reducing the need to travel (via urban planning, mobility management, lifestyle change and greater use of Information and Communication Technologies (Cairns, 2004; Nieuwenhuis and Wells, 1997; Schwanen et al., 2011).

According to Austin (2011; Deutsche Bahn Facebook page, 2014; Bregman, 2012) the idea of interacting electronically with the customer is not new but still existing approaches are mainly focused on social media.

According to Ali, Mi, Shah, Jamal Shah, Khan, Ullah, and Bibi road and transportation is playing a major role in prosperity, economic growth and development of the particular region. Through this study it has revealed that the road infrastructure has significant socio economic and cultural impacts which considerably impact the local people support for China Pakistan Economic Corridor. As per this study community attitudes towards the development of China Pakistan Economic Corridor were depend on all social, economic, cultural and environmental factors. Furthermore this has shown that the a well-established road transportation system will help the country to minimize the poverty, reduce unemployment, reduce social problem, improve living standard, and provide access to education, health care centres banking etc. Therefore, key findings of this study reveal that local community has positive attitudes towards this China Pakistan Economic Corridor Development.

Quodomine has depicted in order for the United States to develop intelligent public transportation policy, the perception divide surrounding public transportation must be addressed. It is better to get an understanding regarding the geographic realities and distinct population needs and attitudes in order to deliver intelligent and successful transportation.

3. Methodology

3.1 Overview

We are expect to collect data mainly through structured interviews which are conducted with passengers who are travelling for their day to day working requirements under various professions and vocations. We supposed to select the sample based on the data which are indicating in Department of census and statistics – Sri Lanka. Data analysis will be done analysis through research paper and regression statistical method, based on the data which are collected from the interviews. Passengers are expected to cover following areas.

1. General information of the passenger.
2. Basic opinion regarding the transport system in Sri Lanka.
3. Weather he/she satisfied with current transport method which he/she is using.
4. What is the approach that he/she suggests which towards for environmental friendly public transport system in Sri Lanka?

3.2 Research Approach

This present study is qualitative in nature. Qualitative study can help deliver information about individual attitudes and decisions relating to public transport. As per Qualitative research consultant's association Qualitative research is designed to reveal a target audience's range of behavior and the perceptions that drive it with reference to specific topics or issues. It uses in-depth studies of small groups of people to lead the creation of hypotheses. The results of qualitative research are more descriptive rather than predictive. This study was conducted to analyses the community attitudes towards the environmental friendly public transport system in Sri Lanka. This study use qualitative method to expand above relationship. That qualitative data will be, collected by using a questionnaire and used that result for this study. This study also conducted through focus groups and quantitative surveys. Existing data sets need to be collated and data gaps identified. Qualitative research should precede quantitative data collection to identify the main drivers of attitudes towards to public transport and to inform subsequent quantitative methods to identify the main drivers and their impact.

3.3 Population and Study Sample

As per researchers point of view this study is about to an analysis of community attitudes towards the environmental friendly public transport system in Sri Lanka. Population consists of employees in Sri Lanka. Sri Lanka employment rate divided into 4 categories those are employee, employer, own account workers and contributing family workers. To have a better representation about the target population sample of this study has selected as employees in Sri Lanka. Study sample will be, selected based on gender basis in public and private sectors.

3.4 Operationalization

Operationalization is a process of defining the measurement of a phenomenon that is not directly measurable, though its existence is indicated by other phenomena. Operationalization is thus the process of defining a fuzzy concept so as to make it clearly distinguishable, measurable and understandable in terms

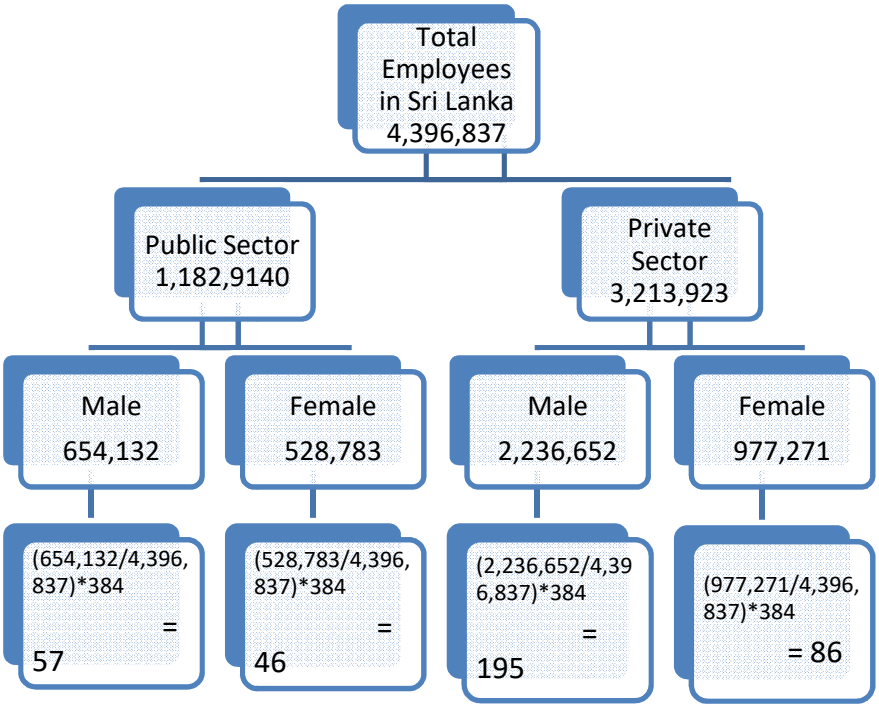
of empirical observations. (Wikipedia)This research is about an analysis of community attitudes towards the environmental friendly public transport system in Sri Lanka. As per researchers' perspective, this study uses qualitative methods to identify the relevant attitudes. For instance, Questionnaires and interviews will be used as qualitative data collection methods. Resulted data will be more descriptive and can be used to identify the main drivers of attitudes and their impact towards to environmental friendly public transport system. SPSS Package, MS Excel will be used as Statistical analysis packages.

3.5 Sample Size and Selection of Sample

Study sample was selected as follows.

Total Employed Population	7,830,976	
Employers	242,995	
Employees	**4,396,837**	**Selected Population**
Contributing family workers	660,064	
Own account workers	2,531,081	

Since the population was nearly 4.3 million 384 sample amounts has selected according to the Anderson table under the confidence level of 95%.



3.6 Sources and Collection of Data

As per the study intended to perform has both quantitative and qualitative characteristics, it has chosen interviews and questionnaires as major data collection methods.

Interviews

Interviews are one of the most used ways of collecting information from individual research participants. All Structured, Semi-structured and Unstructured interviews will be used in our study. In Structured interviews, we provide respondents a limited number of answers that have been decided in advance. In Semi-structured interviews, respondents are free to answer the questions in the way they choose. However, the interviewer asks the questions in the same way as in structured interviews. Interviewer can also probe for more information. Unstructured interviews are wholly open to both interviewer and to respondents. Basically, interviewer has a list of topics that he wants to know from the respondent and there is no any sequential order to ask questions. Moreover, respondents are also free to answer the questions in any way they choose.

Due to time and resource limitations, interviews will be conducted by telephone and as face to face interviews.

Questionnaires

Questionnaires can be divided into both quantitative and qualitative as per the nature of the study. We are intended to collect information through both closed ended and open ended questionnaires. Answers gathered from closed ended questions will be analyzed using quantitative methods such a pie charts, bar charts and percentages. Open ended questionnaires will be analyzed using qualitative methods such as discussions and critical analyses. In purpose of cost reduction and time efficiency; we are planning to use computer questionnaires which will be sent to research respondents by an email. Moreover, respondents also can answer the questionnaire whenever they have time.

Even though in house survey questionnaires are more time consuming and expensive, we can gain more information from the research participants. Therefore, we wish to visit research participants personally and gain information.

4.0Finding and Discussion

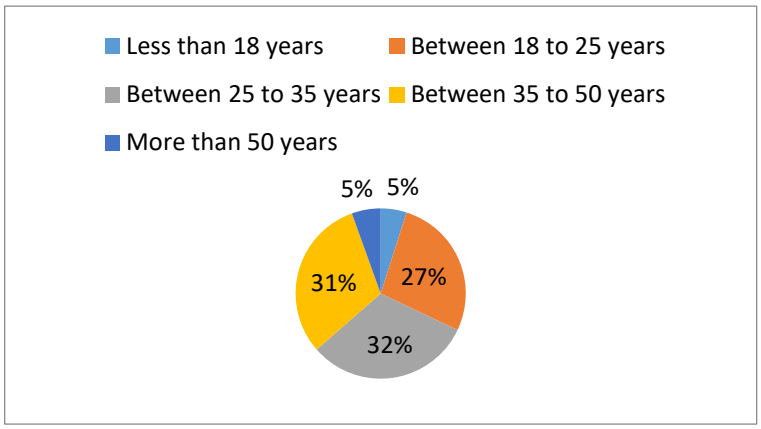
4.1 Demographic Information

Figure 4.1: Age

32% of respondents were age in between twenty five to thirty five years old. 27% of respondents were age in between eighteen to twenty five years old. Majority of 31% of respondents were age in between thirty five to fifty years old. 5% of respondents were age over fifty years and similar amount of respondents were age less than eighteen years old.

Figure 4.2: Gender

Majority of females were participated to the study that is two hundred and two respondents. Others were males. That means, majority of males might use motorcycle or three wheeler for transportation as an alternative for public transportation.



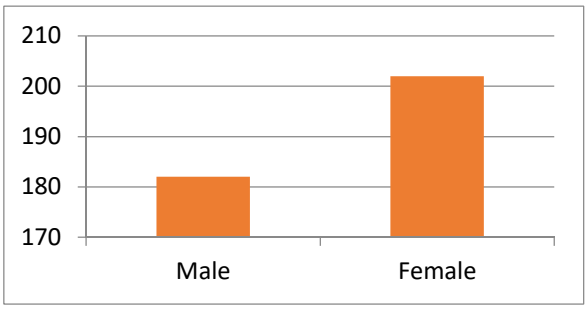
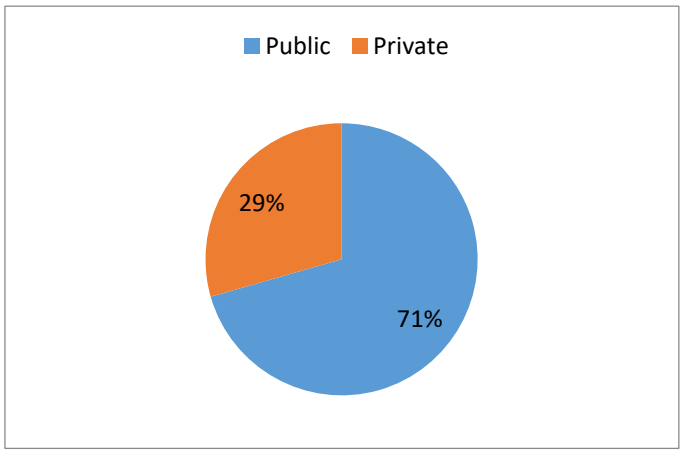


Figure 4.3: Marital Status

Two hundrend and forty three, 63% of respondents were single and others were married.

Figure 4.4: Working sector

71% of respondents were working in public sector who travelled via public transportation. Others were working in private sector. Most public sector workers were travelling in public transportation.



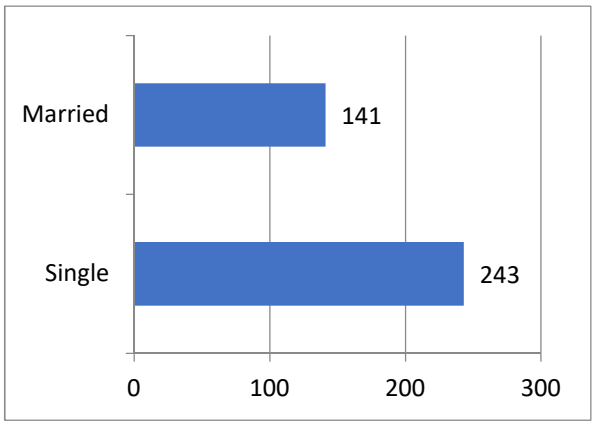
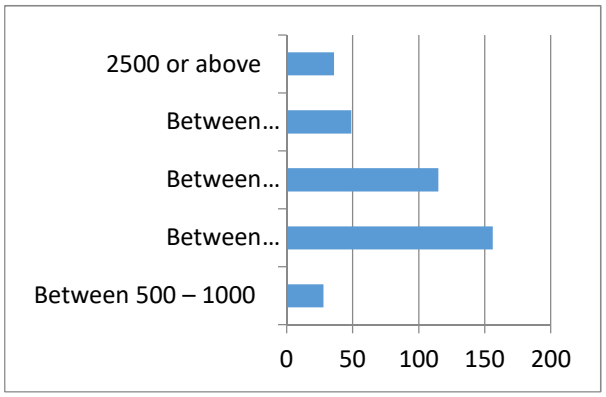
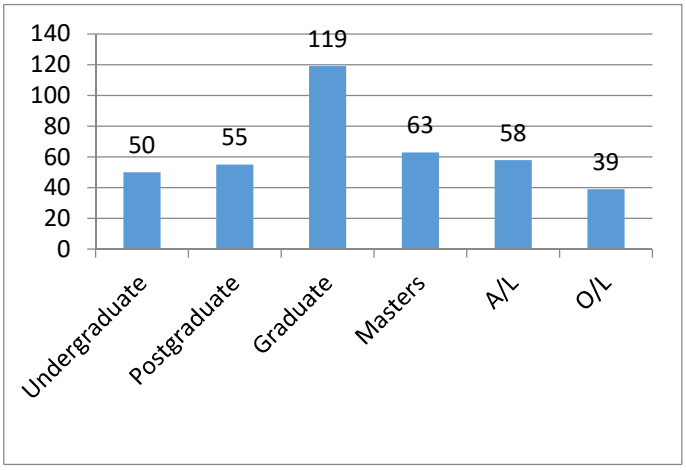


Figure 4.5 Education Level

Majority of respondents were gruadates that is one hundrend and nineteen. Others were having masters level education (16.4%), postraduate level education (14.3%) and undergraudate (13%) educatied people. 15.1% of people were edcuated up to A/L's and others of 10.1% of people were educated up to O/L's.

Figure 4.6: Spend on travel per month





40.6% of respondents spent 1000 LKR to 1500 LKR per month for travelling and 29.9% of respondents spent 1500 LKR to 2000 LKR per month. 12.7% of respondents spent 2000 LKR to 2500 LKR per month for travelling and 9.3% of respondents spent more than 2500 LKR per month. 7.2% of respondents spent 500LKR to 1000 LKR per month for travelling purposes.

4.2 Variable Analysis

4.2.1 Economic environment

EE1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	8	2.1	2.1	2.1
	Disagree	46	12.0	12.0	14.1
	Neutral	57	14.8	14.8	28.9
	Agree	233	60.7	60.7	89.6
	Strongly Agree	40	10.4	10.4	100.0
	Total	384	100.0	100.0	

Table 4.1: Make more job opportunities

71.1% of people said that ability of public transportation modes to make more job opportunities. However, 14.1% of people were not agreed for the similar idea. 14.8% of people were not provided any positive or negative response regarding the same.

EE2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	9	2.3	2.3	2.3
	Disagree	49	12.8	12.8	15.1
	Neutral	51	13.3	13.3	28.4
	Agree	216	56.2	56.2	84.6
	Strongly Agree	59	15.4	15.4	100.0
	Total	384	100.0	100.0	

Table 4.2: Timely and efficient service

71.6% of people said about timely and efficient service of public transportation method. 15.1% of people were not agreed with the same.

EE3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	6	1.6	1.6	1.6
	Disagree	50	13.0	13.0	14.6
	Neutral	61	15.9	15.9	30.5
	Agree	225	58.6	58.6	89.1
	Strongly Agree	42	10.9	10.9	100.0
	Total	384	100.0	100.0	

Table 4.3: Affordable cost

69.5% of respondents were satisfied with the affordable cost of public transportation since economic empowerment is higher when compared to private transportation methods.

EE4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	10	2.6	2.6	2.6
	Disagree	34	8.9	8.9	11.5
	Neutral	56	14.6	14.6	26.0
	Agree	226	58.9	58.9	84.9
	Strongly Agree	58	15.1	15.1	100.0
	Total	384	100.0	100.0	

Table 4.4: Fare

Public transportation fare is important for 74% of respondents since they were using public transportation mode for daily transport activities.

EE5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	14	3.6	3.6	3.6

	Disagree	46	12.0	12.0	15.6
	Neutral	55	14.3	14.3	29.9
	Agree	218	56.8	56.8	86.7
	Strongly Agree	51	13.3	13.3	100.0
	Total	384	100.0	100.0	

Table 4.5: Special benefits

70.1% of people granted special benefits to passengers of public transport modes by the government. This is profitable to use public transport modes when compared to private transport modes.

4.2.2 Infrastructure

I1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	10	2.6	2.6	2.6
	Disagree	53	13.8	13.8	16.4
	Neutral	48	12.5	12.5	28.9
	Agree	221	57.6	57.6	86.5
	Strongly Agree	52	13.5	13.5	100.0
	Total	384	100.0	100.0	

Table 4.6: Equipped with modern technology

71.1% of respondents were equipped with modern technology in public transportation of Sri Lanka.

I2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	12	3.1	3.1	3.1
	Disagree	45	11.7	11.7	14.8
	Neutral	54	14.1	14.1	28.9
	Agree	222	57.8	57.8	86.7
	Strongly Agree	51	13.3	13.3	100.0
	Total	384	100.0	100.0	

Table 4.7: Adequate resource and capacity

71.1% of people said about adequate resource and capacity availability in public transportation. But 14.8% of people were not agreed with the statement.

I3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	9	2.3	2.3	2.3
	Disagree	46	12.0	12.0	14.3

	Neutral	62	16.1	16.1	30.5
	Agree	200	52.1	52.1	82.6
	Strongly Agree	67	17.4	17.4	100.0
	Total	384	100.0	100.0	

Table 4.8: Feel safe
69.5% of people said feel safe about public transportation mode for passengers.

I4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	6	1.6	1.6	1.6
	Disagree	52	13.5	13.5	15.1
	Neutral	51	13.3	13.3	28.4
	Agree	221	57.6	57.6	85.9
	Strongly Agree	54	14.1	14.1	100.0
	Total	384	100.0	100.0	

Table 4.9: Easily book tickets
71.7% of people said about ability of passengers to easily book a ticket to use public transportation mode.

I5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	13	3.4	3.4	3.4
	Disagree	45	11.7	11.7	15.1
	Neutral	57	14.8	14.8	29.9
	Agree	218	56.8	56.8	86.7
	Strongly Agree	51	13.3	13.3	100.0
	Total	384	100.0	100.0	

Table 4.10: Never breakdown on the road
70.1% of respondents were satisfied with public transportation because it is never breaks down on the road.

4.2.3 Social Culture

S1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	9	2.3	2.3	2.3
	Disagree	48	12.5	12.5	14.8
	Neutral	53	13.8	13.8	28.6
	Agree	231	60.2	60.2	88.8
	Strongly Agree	43	11.2	11.2	100.0

S1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	9	2.3	2.3	2.3
	Disagree	48	12.5	12.5	14.8
	Neutral	53	13.8	13.8	28.6
	Agree	231	60.2	60.2	88.8
	Strongly Agree	43	11.2	11.2	100.0
	Total	384	100.0	100.0	

Table 4.11: contributes to reduce environmental pollution

71.4% of people use public transportation to contribution from small amount to reduce the effects of environmental pollution through public transportation.

S2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	10	2.6	2.6	2.6
	Disagree	39	10.2	10.2	12.8
	Neutral	62	16.1	16.1	28.9
	Agree	225	58.6	58.6	87.5
	Strongly Agree	48	12.5	12.5	100.0
	Total	384	100.0	100.0	

Table 4.12: Public transportation is inevitable to face modern society works

Environmental pollution through public transportation is inevitable because of the way modern society works as for the idea of 71.1% of respondents.

S3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	11	2.9	2.9	2.9
	Disagree	36	9.4	9.4	12.2
	Neutral	62	16.1	16.1	28.4
	Agree	211	54.9	54.9	83.3
	Strongly Agree	64	16.7	16.7	100.0
	Total	384	100.0	100.0	

Table 4.13: Recommendation to use public transportation

71.6% of people said about it should to reduce their private transportation usage in order to reduce environmental pollution.

S4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	12	3.1	3.1	3.1

	Disagree	42	10.9	10.9	14.1
	Neutral	53	13.8	13.8	27.9
	Agree	210	54.7	54.7	82.6
	Strongly Agree	67	17.4	17.4	100.0
	Total	384	100.0	100.0	

Table 4.14: Expect every others to do

72.1% of people would only reduce environmental pollution by using public transportation, if everyone else will do the same.

S5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	7	1.8	1.8	1.8
	Disagree	42	10.9	10.9	12.8
	Neutral	55	14.3	14.3	27.1
	Agree	233	60.7	60.7	87.8
	Strongly Agree	47	12.2	12.2	100.0
	Total	384	100.0	100.0	

Table 4.15: expect to get incentive from the government

72.9% of people could like to get incentives from the people who looked after the environment.

4.2.4 Environmental

E1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	9	2.3	2.3	2.3
	Disagree	38	9.9	9.9	12.2
	Neutral	72	18.8	18.8	31.0
	Agree	226	58.9	58.9	89.8
	Strongly Agree	39	10.2	10.2	100.0
	Total	384	100.0	100.0	

Task 4.16: Impact on health

69.1% of people said that environmental pollution through transportation had an impact on their health. 12.2% of people were not agreed with the same.

E2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	9	2.3	2.3	2.3
	Disagree	46	12.0	12.0	14.3
	Neutral	46	12.0	12.0	26.3

	Agree	233	60.7	60.7	87.0
	Strongly Agree	50	13.0	13.0	100.0
	Total	384	100.0	100.0	

Table 4.17: Transportation is a problem for freshwater resources

73.7% of people said that transportation related pollution was a problem for freshwater resources.

E3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	11	2.9	2.9	2.9
	Disagree	42	10.9	10.9	13.8
	Neutral	70	18.2	18.2	32.0
	Agree	204	53.1	53.1	85.2
	Strongly Agree	57	14.8	14.8	100.0
	Total	384	100.0	100.0	

Table 4.18: Dust and gas

67.9% of people said that dust and gas caused to increment of transportation pollution to increase in the area.

E4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	10	2.6	2.6	2.6
	Disagree	46	12.0	12.0	14.6
	Neutral	65	16.9	16.9	31.5
	Agree	214	55.7	55.7	87.2
	Strongly Agree	49	12.8	12.8	100.0
	Total	384	100.0	100.0	

Table 4.19: Quality of river water

68.5% of people said about good quality of river water in the area.

E5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	8	2.1	2.1	2.1
	Disagree	56	14.6	14.6	16.7
	Neutral	64	16.7	16.7	33.3
	Agree	211	54.9	54.9	88.3
	Strongly Agree	45	11.7	11.7	100.0
	Total	384	100.0	100.0	

Table 4.20: Flora fauna
66.6% of people said about improved life of flora fauna in the area.

4.2.5 Health

H1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	15	3.9	3.9	3.9
	Disagree	37	9.6	9.6	13.5
	Neutral	55	14.3	14.3	27.9
	Agree	222	57.8	57.8	85.7
	Strongly Agree	55	14.3	14.3	100.0
	Total	384	100.0	100.0	

Table 4.21: Health status
72.1% of people said about the improvement of health status of the community after using more public transportation for transport methods.

H2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	8	2.1	2.1	2.1
	Disagree	46	12.0	12.0	14.1
	Neutral	56	14.6	14.6	28.6
	Agree	216	56.2	56.2	84.9
	Strongly Agree	58	15.1	15.1	100.0
	Total	384	100.0	100.0	

Table 4.22: Relaxed and stressful
71.3% of respondents felt relaxed and no longer stressful when using public transportation mode.

H3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	8	2.1	2.1	2.1
	Disagree	51	13.3	13.3	15.4
	Neutral	51	13.3	13.3	28.6
	Agree	219	57.0	57.0	85.7
	Strongly Agree	55	14.3	14.3	100.0
	Total	384	100.0	100.0	

Table 4.23: healthy atmosphere
71.3% of passengers felt optimistic about the healthy atmosphere and environmental friendly in the town due to high usage of public transportation.

H4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	9	2.3	2.3	2.3
	Disagree	49	12.8	12.8	15.1
	Neutral	59	15.4	15.4	30.5
	Agree	209	54.4	54.4	84.9
	Strongly Agree	58	15.1	15.1	100.0
	Total	384	100.0	100.0	

Table 4.24: less risk for accidents

69.5% of people felt about less risk for accidents when using environmental friendly public transportation mode.

H5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	9	2.3	2.3	2.3
	Disagree	48	12.5	12.5	14.8
	Neutral	57	14.8	14.8	29.7
	Agree	209	54.4	54.4	84.1
	Strongly Agree	61	15.9	15.9	100.0
	Total	384	100.0	100.0	

Table 4.25: reduction of noise

70.3% of people felt reduction in noise level which was not good for physical and mental health due to use of environmental friendly public transportation.

4.3 Correlation Analysis

Correlations

		Economic_Avg	Attitude_Avg
Economic_Avg	Pearson Correlation	1	.706**
	Sig. (2-tailed)		.000
	N	384	384
Attitude_Avg	Pearson Correlation	.706**	1
	Sig. (2-tailed)	.000	
	N	384	384

**. Correlation is significant at the 0.01 level (2-tailed).

Table 4.26: Correlation between economic empowerment and community attitude

Correlation between economic empowerment and community attitude is 0.706. This is positive and strong relationship. Hypothesis is as below,

$H0_1$: There is no relationship between economic empowerment and community attitude towards public transportation

$H1_1$: There is relationship between economic empowerment and community attitude towards public transportation

Null hypothesis is rejected and alternative hypothesis is accepted. Therefore, there is relationship between economic empowerment and community attitude towards public transportation.

Correlations

		Infrstructure_Avg	Attitude_Avg
Infrstructure_Avg	Pearson Correlation	1	.757**
	Sig. (2-tailed)		.000
	N	384	384
Attitude_Avg	Pearson Correlation	.757**	1
	Sig. (2-tailed)	.000	
	N	384	384

**. Correlation is significant at the 0.01 level (2-tailed).

Table 4.27: Correlation between infrastructure and community attitude

Correlation between infrastructure and community attitude is 0.757. This is positive and strong relationship. Hypothesis is as below,

$H0_2$: There is no relationship between infrastructure and community attitude towards public transportation

$H1_2$: There is relationship between infrastructure and community attitude towards public transportation

Null hypothesis is rejected and alternative hypothesis is accepted. Therefore, there is relationship between infrastructure and community attitude towards public transportation.

Correlations

		Social_Avg	Attitude_Avg
Social_Avg	Pearson Correlation	1	.728**
	Sig. (2-tailed)		.000
	N	384	384
Attitude_Avg	Pearson Correlation	.728**	1
	Sig. (2-tailed)	.000	
	N	384	384

**. Correlation is significant at the 0.01 level (2-tailed).

Table 4.28: Correlation between social culture impact and community attitude

Correlation between socio cultural impact and community attitude is 0.728. This is positive and strong relationship. Hypothesis is as below,

$H0_3$: There is no relationship between socio cultural impact and community attitude towards public transportation

$H1_3$: There is relationship between socio cultural impact and community attitude towards public transportation

Null hypothesis is rejected and alternative hypothesis is accepted. Therefore, there is relationship between socio cultural impact and community attitude towards public transportation.

Correlations

		Enviornmental_Avg	Attitude_Avg
Enviornmental_Avg	Pearson Correlation	1	.712**
	Sig. (2-tailed)		.000
	N	384	384
Attitude_Avg	Pearson Correlation	.712**	1
	Sig. (2-tailed)	.000	
	N	384	384

**. Correlation is significant at the 0.01 level (2-tailed).

Table 4.29: Correlation between environmental impact and community attitude

Correlation between environmental impact and community attitude is 0.712. This is positive and strong relationship. Hypothesis is as below,

$H0_4$: There is no relationship between environmental impact and community attitude towards public transportation

$H1_4$: There is relationship between environmental impact and community attitude towards public transportation

Null hypothesis is rejected and alternative hypothesis is accepted. Therefore, there is relationship between environmental impact and community attitude towards public transportation.

Correlations

		Health_Avg	Attitude_Avg
Health_Avg	Pearson Correlation	1	.718**
	Sig. (2-tailed)		.000
	N	384	384
Attitude_Avg	Pearson Correlation	.718**	1
	Sig. (2-tailed)	.000	
	N	384	384

**. Correlation is significant at the 0.01 level (2-tailed).

Table 4.30: Correlation between health impact and community attitude

Correlation between health impact and community attitude is 0.718. This is positive and strong relationship. Hypothesis is as below,

$H0_5$: There is no relationship between health impact and community attitude towards public transportation

$H1_5$: There is relationship between health impact and community attitude towards public transportation

Null hypothesis is rejected and alternative hypothesis is accepted. Therefore, there is relationship between health impact and community attitude towards public transportation.

4.4 Regression Analysis

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.839[a]	.704	.700	.37744

a. Predictors: (Constant), Health_Avg, Enviornmental_Avg, Economic_Avg, Infrstructure_Avg, Social_Avg

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	128.111	5	25.622	179.852	.000[a]
	Residual	53.851	378	.142		
	Total	181.962	383			

a. Predictors: (Constant), Health_Avg, Enviornmental_Avg, Economic_Avg, Infrstructure_Avg, Social_Avg

b. Dependent Variable: Attitude_Avg

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.419	.111		3.760	.000
	Economic_Avg	.138	.043	.152	3.215	.001
	Infrstructure_Avg	.304	.044	.313	6.971	.000
	Social_Avg	.099	.047	.109	2.087	.038
	Enviornmental_Avg	.183	.039	.202	4.680	.000
	Health_Avg	.173	.040	.192	4.311	.000

a. Dependent Variable: Attitude_Avg

Table 4.31: Regression Analysis

Health impact $p = 0.000$ ($p < 0.050$), environmental impact $p = 0.000$ ($p < 0.050$), economic empowerment $p = 0.001$ ($p < 0.050$), infrastructure impact $p = 0.000$ ($p < 0.050$) and social cultural impact $p = 0.038$ ($p < 0.050$) are collectively influenced on the community attitude towards public transportation mode.

4.4 Recommendations

1. 17.1% of people said about importance of public transportation to increase number of job opportunities. Thus, it is suggested to increase the public transportation mode in the country to enhance job opportunities and increase the passenger comfortable transportation in peak hours of the day.
2. 15.1% of people were not satisfied with timely and efficient service of public transportation. It is suggested to increase the timely and efficient service of public transportation in the country in order to change community response towards the use of public transportation.
3. 16.4% of public were not satisfied with the modern technology application in public transportation mode of the country. Technology application will help to provide more convenient transportation service to people. Thus, it is suggested to develop a technology in the public transportation mode
4. 14.8% of people said inadequate resources and capacity of public transportation mode. Thus, people refuse to use public transportation and move to private transportation modes. Therefore, it is suggested to provide adequate resources and capacity to carry out public transportation in the country.
5. 14.3% of people felt safe the public transportation mode. Therefore, it is suggested to develop a safe transportation service in the country to ensure safety of public transportation when compared to private transportation.
6. 72.9% of people expect incentives from the government due to use of public transportation over private transportation modes. Therefore, it is suggested to provide more benefits to the people who use public transportation instead of private transportation.
7. Public transportation reduces the negative environmental impact at least from small amounts when compared to use of private transportation. Therefore, it is important to acknowledged general public about the matter and asked them to use more public transportation in day today activities.

5.0 Conclusion

Diversified people provided their response to the survey questionnaire. Most people are young who are using public transportation for schooling, working and etc. Majority of females travels via public transportation. Both single and married people provided their response to the survey. Majority of people are working in public sector. Also they are from different educational background including undergraduates, postgraduate level people, graduates, master's degree holders, or educated up to A/L's and O/L. Most people spent 1000 – 1500 LKR to travel per month. Second majority spent 1500 -2000 LKR for travelling purposes in a month.

Public transportation mode created number of job opportunities to people in the country. They satisfied with timely and efficient service of public transportation. Cost on public transportation is economically profitable to people. Bus fare is important to daily travelling people via public transportation. Further,

people get special benefits from usage of public transportation. Therefore, economic empowerment is higher of public transportation when compared to private transportation mode.

Modern technology is equipped by public transportation. Adequate resource and capacity availability is available in public transportation. Public transportation is the most safe transportation mode. They are able to easily book tickets in public transportation. Those buses are not easily break down on the road. Therefore, infrastructure facilities of the public transportation are at good condition.

Public transportation mode helps to reduce environmental pollution at least from small amounts. Modern community activities lead to higher environmental pollution but public transportation had some effect on reduction of the pollution. People thought that they should use public transportation mode instead of private transportation modes to give some contribution on environmental pollution. Most people ready to use public transportation to reduce environmental pollution if others will do the same. Also people expect some government incentives because of use of public transportation under the concept of avoidance of environmental pollution. Socio cultural factors had some impact on community attitude towards public transportation.

Environmental pollution through transportation had an impact on health status of community. Transportation related pollution was a problem for freshwater resources. Dust and gas caused to increment of transportation pollution to in the area. There can be seen good quality of river water in the area. Also they were seen increased life of flora fauna in the area. In this way, environmental impact influence on community attitude on use of public transportation.

They were seen improvement of health status of the community after using more public transportation for transport methods. Public transportation was felt relaxed and no longer stressful like private transportation mode. They felt optimistic about the healthy atmosphere and environmental friendly in the town due to high usage of public transportation. People felt about less risk for accidents when using environmental friendly public transportation mode. People felt reduction in noise level which was not good for physical and mental health due to use of environmental friendly public transportation.

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Appendix 1:

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