

SAFE MOBILITY FOR WOMEN: ASSESSING TRAVEL CHALLENGES AND CONSTRAINTS

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ABSTRACT

With the development of technology and the revolution in society, female travelers have increased significantly than previous eras. This tends them to use more transportation modes, mostly public transport. However, women encounter significant challenges in transport systems related to accessibility, safety, and security. Later women tend to use particular transport modes, other than using public transportation because most of the time the harassments have been occurred and reported there. The objective of this research was to investigate the mobility issues of females while travelling and possible measures to reduce them. By distributing a questionnaire among the female travelers in Northern Province in Sri Lanka, data were collected. To analyze the data, SPSS software was used. In the analysis, mobility issues were used as the dependent variable and associated factors for them as independent variables. By applying the binary logistic regression method, the analysis was conducted. The study found that twenty-two percent of female travelers in the age group of 21 -30 years face sexual harassment more than others during travelling, and one-third of sexual related issues happened in the trains than other public transport modes. As Sri Lanka is considering as a safe country to travel for women, this percentage is a considerably high value. So, to control this situation, it is necessary to revise and remake travel policies and laws of public transport by the government in Sri Lanka.

Keywords: Female, Travelling, Mobility, Harassment, Transport mode, Binary logistic analysis

1. INTRODUCTION

Transportation is essential in urban life, connecting people and enabling daily activities. They use different types of transport modes to make their travel fast and easy. Both men and women travel from one place to another place to satisfy their needs. When considering both of them, women include in a major part of the public transportation. But during that travelling they must have secure and comfortable journeys. However, nowadays sometimes it has been changed to unsecure and uncomfortable due to many reasons. Even though the development of technology turns into a reason for this. The development of technology is not only contributing to the advantages but also giving disadvantages. Video recordings and taking photos of women while travelling are examples of harassments occurred while travelling due to modern technologies.

When considering the population of Sri Lanka, there are about 21,413,249 people according to the United Nations data and it is equivalent to 0.27% of the total world population. Most of them are using public transportation in their day today lives. Also, both men and women use vehicles such as motor tricycles, cars, buses, and motorcycles for their daily purposes as well. For this research, Northern province was selected, and according to the Department of Census and Statistics, the population data of Northern Province of Sri Lanka, it clearly show that the percentage of women is a little bit higher than the percentage of men.

Both men and women are traveling from one place to another to find new frontiers, pursue business opportunities, or just relax. Unlike men, in terms of physical safety, women travelers undergo cultural and social security problems in public and private traveling modes when they are travelling alone. By careful planning of travel in all types of travelling

modes and maintaining common sense and respect for religious and social differences, the risks during travel can be reduced, and security of the journey will be increased. Even though the government of Sri Lanka should possess more policies and laws to mitigate the harassments which are occurring for women while travelling. As a result, the use of private transportation modes for travelling may decrease, while women's reliance on public transportation could increase. It will also help to reduce environmental pollution by carbon emissions, and sustainable transportation in Sri Lanka will increase.

2. LITERATURE REVIEW

Studies conducted across different countries highlighted that women experience significant inequalities and safety concerns in mobility systems, which strongly influence their travel behavior and transport choices. In some research articles, it has been found that women preferred marshrutkas for work trips because they were perceived as cleaner, safer, faster, and cheaper compared to buses and taxis (Turdaliev & Edling, 2018). Women reported lower risks of theft, accidents, and sexual harassment when using marshrutkas, leading local authorities to promote these services through social media and public campaigns. Similarly, research in Žilina by (Pourhashem et al., 2019) revealed that women's transport decisions were shaped by factors such as safety, service quality, employment status, and access to driving licenses. Women tended to avoid public transport during crowded evening hours due to concerns about violence, insecurity, and low service frequency. These findings emphasize the need for transport systems that are safe, affordable, and responsive to women's mobility needs. Research done in Pakistan and other regions of Asia further demonstrate how cultural and social restrictions limit women's mobility. Adeel et al., 2017 reported that women in Pakistan were almost four times less mobile than men, largely due to social norms, security concerns, and restrictions imposed by male family members. Most women relied on walking and made fewer trips outside the home. Research by Yang et al., 2018 also showed that female travelers across Asia frequently face gender discrimination, social restrictions, and safety challenges during travel. Furthermore, studies conducted in the United States and Canada identified sexual harassment, assault, and personal security risks as major concerns for women travelers (GBTA & AIG Travel, 2018; Government of Canada, 2013). Likewise, (Hsu et al., 2009) found that women commonly experienced harassment at crowded buses and isolated bus stops, creating fear and anxiety while traveling. Overall, these studies suggest that improving women's mobility requires safer public transport systems, stronger transport policies, better service quality, and awareness programs to address gender-based safety concerns.

3. METHOD

Five districts (Jaffna, Mannar, Vavuniya, Mullaittivu, Kilinochchi) of the Northern Province have been selected. The total population of the province, according to DCS (2025), is approximately 1,152,000. A questionnaire has been prepared and distributed to female travelers; answers of 642 females have been recorded in Excel. The sample size has been determined using a confidence level of 95% (Noordzij et al., 2010).

Table 2: Independent variables used in the BLR model

District	Civil status
Age	Types of sexual harassments
Travel period	Time of travelling
Use of Public transport	Types of transport mode

Factors affecting the mobility issues of female travelers (dependent variable) and covariates have been analyzed through Binary Logistic Regression in SPSS. The model for the data analysis was estimated by the Enter method.

4. RESULTS AND DISCUSSION

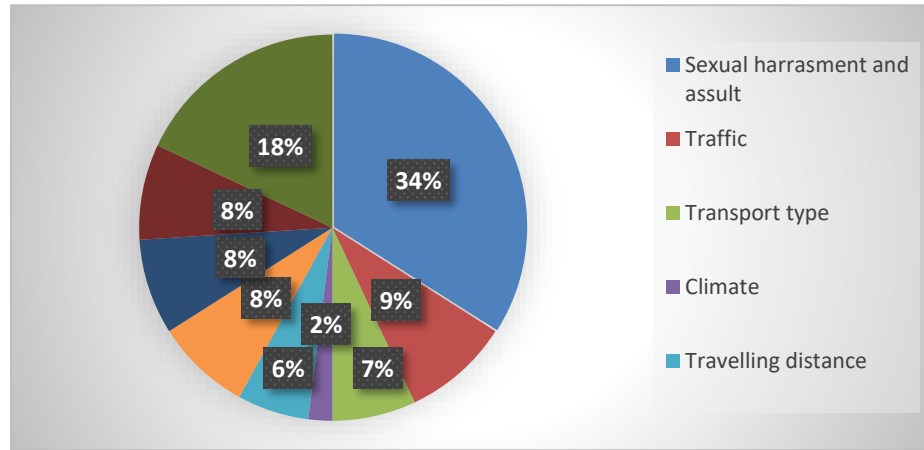


Figure 1: Mobility issues faced by women

The above pie chart (Figure 1) summarizes the results of the responses for the questioner which were given to the women. It describes the dependent variables of the model.

Civil status, districts, age groups, and main facing risks shown in Table 1 were considered in the research as independent variables. With the help of the SPSS software, every value for the issue was found, and the most considerable reason was identified as sexual harassment. Results explain on what the types of sexual harassments are facing by women during travelling. Among them one fifth of women face sexual harassment during travelling in private buses. According to the results of the research, it was explained what are the security methods and percentages of responses can be followed by female travelers to improve security from sexual harassment. If the significance value of the dependent and independent variable less than 0.05, then the independent variable is much more significant with the dependent variables.

Table 3: Data analysis using SPSS for sexual harassment and assault

Sexual harassment		Sig. Val (P)	Exp(B)	95% C. I. for EXP(B)	
				Lower	Upper
District	Jaffna	.995	-	-	-
	Kilinochi	.980	1.015	.299	3.442
	Mullaitheevu	.969	.968	.191	4.916
	Mannar	.974	.976	.232	4.107
	Vavuniya	.724	.751	.153	3.678
Civil status		.159	2.696	.677	10.728
Age	Below 20	.000	-	-	-
	21-30 years	.533	2.370	.157	35.653
	31-40 years	.001	232.131	9.569	5631.097
	41-50 years	.018	31.108	1.792	540.135
	51-60 years	.026	17.857	1.408	226.472
	Above 60	.089	9.341	.711	122.771

Travel period	Daily	.000	-	--	-
	Weekly	.000	.002	.000	.066
	Monthly	.202	.154	.009	2.723
	Annually	.002	.007	.000	.156
Use of public transport		.000	28.879	8.019	104.010

Considering the above facts, it explains that the use of public transport, like buses are more affects in sexual harassment than other transport modes, and females below 20 and between 31-40 women are more significant with the sexual harassment.

5. CONCLUSION

In this case, the study aimed at investigating female travelers in Northern Province of Sri Lanka through questionnaires with regards to mobility issues related to civil status, districts, age groups and the major threats. Sexual harassment and assaults have been identified through the analysis of the data using SPSS software to be the major threat faced by 34% of the respondents due to cultural issues, lack of proper infrastructure, lack of law enforcement, and lack of proper reporting of the crimes. In this respect, females use private transport even if it is expensive since harassment cases happen on public transport, which causes environmental pollution.

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