

**IMPACT OF INDIVIDUAL AND HOUSEHOLD  
FACTORS ON THREE-WHEEL DRIVERS' JOB  
SATISFACTION IN THE RATHNAPURA  
DISTRICT, SRI LANKA**

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***Abstract***

*Job satisfaction is a vital concept in achieving the quality and efficiency of any job. The three-wheel drivers play an important role in uplifting the economic capability of their families while providing an essential service to the communities satisfying a considerable portion of transportation demand in Sri Lanka. However, the three-wheel drivers are less appreciated by the society and fail to possess a credit due to lack of trust, unsafe driving, illegitimate deals, misalliance talking pattern and behaviors. Without a better understanding of job satisfaction of three-wheel drivers, a good service is scarcely hoped by this occupation and still a proper attention has not been paid by scholars. The purpose of this study is to investigate the impact of individual and household factors on the job satisfaction of three-wheel drivers. The study was conducted in the Ratnapura District. This study used multi-stage sampling procedure and the sample size was 200 three-wheel drivers. Logistic Regression analysis was employed to analysis data. In addition, descriptive statistics, ANOVA, Pearson's correlation, t-test and chi-square test were applied. The descriptive statistics found that the males (100%) are dominating in this occupation. From the sample, 79% live in the rural sector and 72% are married. The logistic regression model found that the three individual factors, age, educational level, income and two household factors, family size and other income source had a significant impact on job satisfaction. The odds ratio between income and three-wheel drivers' job satisfaction is greater than 1 showing a positive impact. The percentage of being satisfied for three-wheel drivers who passed A/L (41%) is less than those who learned up to grade 5 (92%). The study suggests promoting another income source in avoiding the sole dependency on the occupation of three-wheel driving to increase their job satisfaction.*

**Keywords:** Individual factors, Household factors, Job satisfaction; Logistic regression; Three-wheel drivers

## INTRODUCTION

The concept of job satisfaction has been comprehended in different ways. All the feelings of an individual about his or her job is reflected by job satisfaction. According to Spector (1997), job satisfaction is defined as the extent of peoples' like for their job. A combination of physiological, psychological and environmental circumstances is the job satisfaction (Sen, 2008). Job satisfaction of any kind of workers leads to increasing the quality and effectiveness of the service they provide. Satisfied people enjoy with their job and consider it as an essential part of their lives. They succeed in mollifying the requirement of the service receivers. Many researchers have conducted their studies on job satisfaction as a frequent variable in organizational and institutional behavior researches.

Without an organizational inclusion, three-wheel drivers provide an important service to the communities in the transportation system through an unregulated form in Sri Lanka. The three-wheel or trishaw transport service commenced in 1978 (Samarakoon et al. 2018). According to Kumarage et al. (2010) transportation through three-wheel can be identified as informal public transport. Three-wheel drivers operate in a semi-informal industry (Kirkorowicz, 2012). At present, it has become a popular and improvised mode of public transport in most of the urban and rural areas in Sri Lanka being a vital component in transportation system. It satisfies a considerable portion of transportation demand. Three-wheel taxi driving is one of the key occupations in informal, non-agricultural sector and in 2018, around 6% of the total employed were three-wheel drivers (De Silva and Arunatilake, 2020). Many people belonging to the low-income group joined into this occupation and a large number of road users patronized the service. The mechanisms with several tools exist to monitor the transportation industry in theory in Sri Lanka but practically, lack of enforcing them is common. As a result, three-wheel drivers operate under legally authorized background but poorly regulated. Most importantly a fixed price scale is not seen for three-wheel fares. A negotiation between drivers and passengers for fares based on locally accepted norm is followed by some drivers. The main income source of most of the families of three-wheel drivers is hiring their three-wheels. It is common phenomena that the three-wheel drivers' income is not stable and its fluctuation downward badly affects smooth flow of their livelihood due to many reasons. With these circumstances, from recent times, a large number of illegitimate deals, social disorders and many other serious issues have been revealed from everywhere in the country linked with three-wheel transport mode. Further, the three-wheel drivers are less appreciated by the society and fail to possess a credit due to lack of trust, unsafe driving, misalliance talking pattern and behaviors. Even though, three-wheels have become a popular transport mode of public transport system in Sri Lanka for decades, a very few is known about their job satisfaction. Without a better understanding of job satisfaction of three-wheel drivers, it is scarcely hoped a proper service by this widespread occupation. Job satisfaction among three-wheel drivers is an important factor to succeed a cost effective, optimal, efficient and environmentally friendly transport services for their passengers. Drivers' ability to work with less satisfaction may increasingly limit the Sri Lankan road users to access to this

important mode of informal public transport. Job satisfaction of three-wheel drivers has not still received proper attention from scholars and research studies on their job satisfaction are rare even though they made a gigantic contribution to the transportation system. The objective of this study is to investigate the impact of individual and household factors on the job satisfaction of three-wheel drivers in the Rathnapura District, Sri Lanka.

## LITERATURE REVIEW

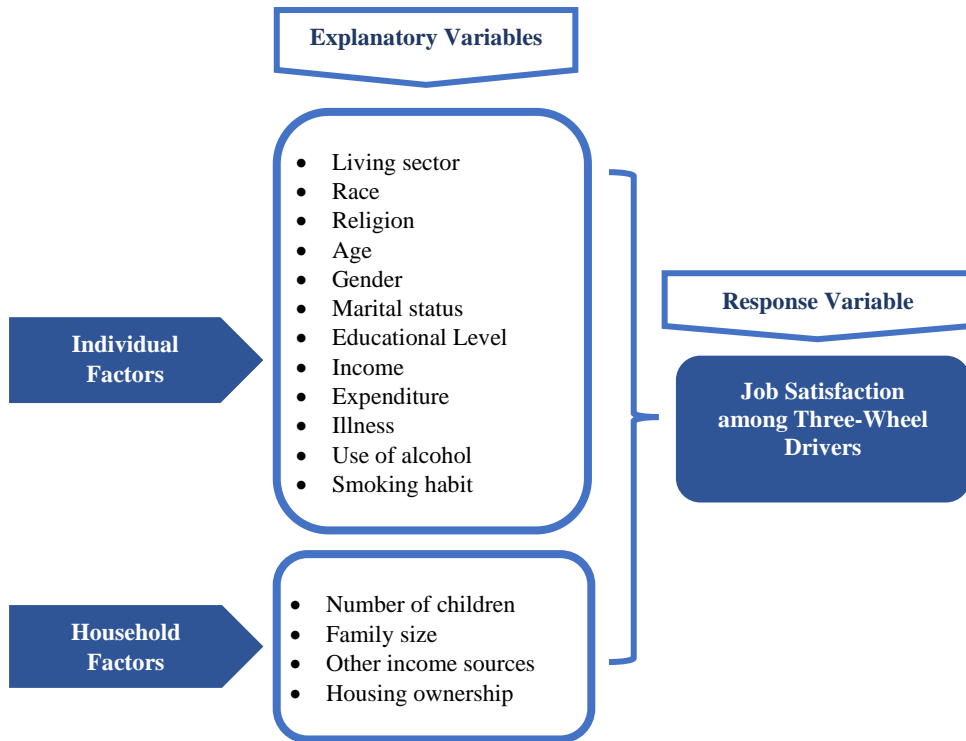
Different approaches are found towards defining the concept of job satisfaction. All the feelings that an individual has towards his/her job is the job satisfaction (Sowmya and Panchanatham, 2011). A combination of both positive and negative feelings that the workers having about their work is represented by job satisfaction. In Maslow's theory, it is suggested that the job satisfaction is approached with the perspective of human need fulfillment (Maslow, 1954). Some researchers have studied job satisfaction based on Maslow's theory. Herzberg's Two Factor Theory (Motivation/Hygiene Theory) has been formulated for investigating job satisfaction (Worlu and Chidoze, 2012; Anastasiou, 2014). Herzberg's Two Factor Theory assume that satisfaction and dissatisfaction are two separate phenomena. Intrinsic factors which were named as motivators were found to be satisfiers while extrinsic factors which were named as hygiene factors were found to be dissatisfiers (Sowmya and Panchanatham, 2011). The concept of job satisfaction is appeared to have a close relationship with motivation (Mbua, 2003). According to Singh and Tiwari (2011), the relationship between motivation and job satisfaction is positive, i.e., the increase in motivation is affected by the increase in job satisfaction while the decrease in motivation is affected by the decrease in job satisfaction. Based on this correlation, it is accepted to regard the theories of motivation as the theories of job satisfaction (Ngimbudzi, 2009).

Spector (1997) has summarized several common facts of job satisfaction such as communication, appreciation, nature of the work itself, organization's policies and procedures, the nature of the organization itself, co-workers, fringe benefits, promotion opportunities, personal growth, security and supervision, recognition and pay. However, these approaches were less popularized due to the emphasis on cognitive progressions rather than on underlying needs so that the attitudinal outlook has become predominant in the study of job satisfaction. Sowmya and Panchanatham (2011) pointed out that the pay and promotion is an essential factor for job satisfaction with respect to the commercial banks. Further, they have concluded that the employees have substantial feeling towards optimistic supervision behavior and pleasing organizational arrangement and both job suitability and the working condition and workers' interpersonal relationship are related to level of satisfaction within the working domain based on factor analysis. According to Bogler, (2001), demographic factors may play an important role in achieving job satisfaction and concluded that the teachers' perceptions on their occupation influence for their job satisfaction. A significant positive relationship was perceived between leadership and decision-making styles of principles and teachers' job satisfaction (Hui et al., 2013).

A study has been conducted by Amarasena et al. (2015) on examining the effects of demographic factors on overall job satisfaction among faculty members of state universities in Sri Lanka using multivariate regression analysis and the results found that the number of children and monthly gross salary positively influence for faculty members' overall job satisfaction. Rad and De Moraes (2009) have conducted a research study on factors affecting the job satisfaction of healthcare employees. They have concluded that interpersonal relationships and working conditions, contingent rewards, promotion, benefits and salaries as the best factors for predicting hospitals employees' job satisfaction.

Considering the transportation sector with respect to three-wheel drivers, a sociological study has been conducted by Samarakoon, et al. (2018) on socio-economic background of three-wheel drivers in rural sector in Sri Lanka. They have analyzed socio-economic background of three-wheel drivers using percentages. According to Kirkorowicz (2012), frequent health complains suffered by three-wheel drivers are musculoskeletal pain, poor utilization of primary care and alcohol/tobacco use are the most frequent health complaints as found by the study on health concerns of three-wheel drivers in Galle, Sri Lanka. Schmucker et al. (2011) suggested that three-wheel drivers have high risk for road traffic injury in the study of focusing risk of accidents among urban South Asian. Kumarage et al. (2010) have analyzed the economic and social parameters such as pricing of three-wheel service, income, vehicle ownership, employment type, educational level, age, marital status, and job satisfaction related to three-wheeler Taxi service in Sri Lanka.

Previous literature has demonstrated that the studies on job satisfaction are dominating in the fields corresponding to the bank employees, teachers, doctors, nurses etc. However, the studies on job satisfaction with reference to the three-wheel drivers are rare. The objective of this study is to examine the impact of individual and household factors on job satisfaction among three-wheel drivers in the Rathnapura district, Sri Lanka. This study will guild the future researchers by forming a base to conduct studies with respect to three-wheel transportation mode in Sri Lanka. Following figure 1 indicates the proposed conceptual frame work for the relationships between various factors and job satisfaction of three-wheel drivers.



**Figure 1: Conceptual framework**

Source: Compiled by the author

**Hypothesis 1:**

Null: There is not a significant impact of individual factors on three-wheel drivers' job satisfaction in Sri Lanka

Alternative: There is a significant impact of individual factors on three-wheel drivers' job satisfaction in Sri Lanka

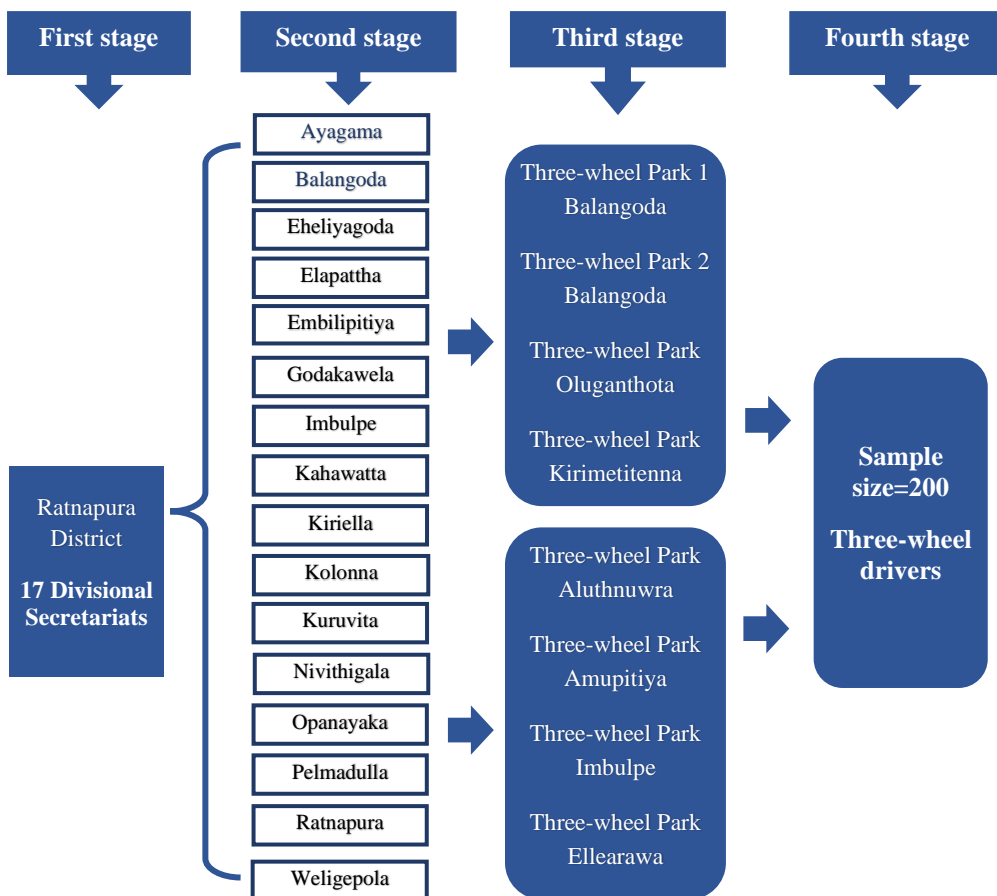
**Hypothesis 2:**

Null: There is not a significant impact of household factors on three-wheel drivers' job satisfaction in Sri Lanka

Alternative: There is a significant impact of household factors on three-wheel drivers' job satisfaction in Sri Lanka

## METHODS

The research approach followed in this study is the quantitative research approach. The study employed primary data gathered through a structured schedule. As the data collection instrument, the structured schedule was used due to the nature of the researcher’s self-recording of the response provided by the respondents. The sampling procedure involved a multi-stage sampling technique including a combination of simple random sampling, convenience sampling and snowball sampling for different stages.



**Figure 2: Sampling Procedure**

Source: Compiled by the author

As demonstrated in figure 1, the Ratnapura district was selected randomly from 25 districts in Sri Lanka in the first stage. Ratnapura district has been divided into 17 divisional secretariats and 2 divisional secretariats among them: Balangoda and Imbulpe were selected randomly for the study secondly. In both the first and second stages, simple random sampling was utilized based on the available sampling frame of 25 districts and 17 divisional secretariats in the Ratnapura district. The lottery

method was adopted to select the district and the two divisional secretariats for the study to ensure randomness. The sampling frame of three-wheel-parks of each divisional secretariat was unavailable. Therefore, based on convenience sampling, 8 three-wheel parks, 4 from each selected divisional secretariat were chosen at the third stage. The final sampling units to the sample is the three-wheel drivers and both convenience sampling and snowball sampling were applied to select the sample of three-wheel drivers. The absence of a sampling frame of three-wheel drivers (a list of the population of three-wheel drivers) caused final selection based on non-probability sampling techniques (convenience sampling and snowball sampling). Due to the risk arisen from the covid 19 pandemic situation, data collection from face to face interview method was problematic. Therefore, the data collection method adopted for this study was the telephone conversation. The telephone numbers were found with the help of preceding respondents working together in the same occupation. The survey was conducted from 01<sup>st</sup> May 2021 to 30<sup>th</sup> June 2021. This research paper was designed based on the information gathered from 200 three-wheel drivers.

The construction of the schedule consists of two main categories of questions. The schedule included the short questions as much as possible because of the data gathering done through telephone conversations. The first part focused on the individual characteristics of three-wheel drivers. It includes the living sector, race, religion, age, gender, marital status, educational qualifications, income from three-wheel hiring (before and after covid 19), total expenditure, illnesses, use of alcohol and smoking habit. The last question of the first part was about their overall job satisfaction. The second part is associated with household characteristics such as the number of children, family size, other income sources and housing ownership. The three-wheel drivers' job satisfaction was used as the response variable while the other individual and household factors as explanatory variables.

The measurement scales of the variables are given in table 1. The responses for the questions were recorded by adopting numerical values as 1, 2, 3... for each category of the variables measured in binary or multi-category nominal scale. For the continuous variables, quantitative amounts were recorded. The continuous variable, income was rearranged for the analysis averaging two incomes before and after the covid 19. In addition, the job satisfaction of three-wheel drivers was measured by asking one question, "By overall consideration, are you satisfied with this occupation?". For this question, binary nominal scale was used for the response, 1 for "yes" and 0 for "no".

**Table: 1 Types and Descriptions of the Variables**

Variables	Abbreviation	Measurement Scale	Variables	Abbreviation	Measurement Scale
<b>Living Sector</b>	LS	Categorical	Illness	IL	Binary
<b>Race</b>	RA	Categorical	Use of Alcohol	UA	Binary
<b>Religion</b>	RE	Categorical	Smoking Habit	SH	Binary
<b>Age</b>	AG	Categorical	Number of Children	NC	Categorical
<b>Gender</b>	GE	Binary	Family Size	FS	Categorical
<b>Marital Status</b>	MS	Binary	Other Income Sources	OI	Categorical
<b>Educational Level</b>	EL	Categorical	Housing Ownership	HO	Binary
<b>Income</b>	IN	Continuous	Job Satisfaction	JS	Binary
<b>Expenditure</b>	EX	Continuous			

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Source: Compiled by the author

The key data analysis technique for this study is logistic regression analysis. Descriptive statistics were used to identify the special characteristics of the sample. In addition, ANOVA, Pearson's correlation, t-test and chi-square test and Q-Q plot were utilized to fulfil some requirements for the main analysis. To check whether the assumptions for logistic regression are violated, types of explanatory variables are essential. The explanatory variables for Logistic regression analysis belonged to continuous, binary categorical and multi categorical. Therefore, different tests were used for checking multicollinearity depends on the types of explanatory variables.

The Binary Logistic Regression model is used in the analysis as follows



$$\text{logit } P(x) = \log \left( \frac{P(x)}{1 - P(x)} \right) = \sum_i^n \beta_i X_i$$

$i = 1, 2, \dots, n$

$$P(x) = \frac{e^{\alpha + \beta(x)}}{1 + e^{\alpha + \beta(x)}} = \frac{\exp(\alpha + \beta(x))}{1 + \exp(\alpha + \beta(x))}$$

$$P_1(x) = \frac{e^\alpha}{1 + e^\alpha} \quad \text{Satisfied} \quad P_0(x) = 1 - P_1(x) = \frac{1}{1 + e^\alpha} \quad \text{Not satisfied}$$

Where,  $x=0$

Response variable (Y) = Job Satisfaction among Three-wheel drivers

Being satisfied (Yes=1)

Not being satisfied (No=0)

Explanatory variables = X,

- |                    |                    |
|--------------------|--------------------|
| X <sub>1</sub> =AG | X <sub>5</sub> =UA |
| X <sub>2</sub> =MS | X <sub>6</sub> =FS |
| X <sub>3</sub> =EL | X <sub>7</sub> =OI |
| X <sub>4</sub> =IN | X <sub>8</sub> =HO |

Wald test Statistics as given below was applied to check the significance of each explanatory variables.

$$W_\tau = \frac{[\hat{\theta} - \theta_0]^2}{1 / I_n(\hat{\theta})} = I_n(\hat{\theta}) [\hat{\theta} - \theta_0]^2$$

Overall goodness of fit of the logistic model was assessed by Hosmer and Lemeshow goodness of fit test statistics as given below.

$$G^2_{HL} = \sum_{j=1}^{10} \frac{(O_j - E_j)^2}{E_j(1 - E_j/n_j)} \sim \chi^2_8$$

## RESULTS AND DISCUSSION

### Distribution of the sample

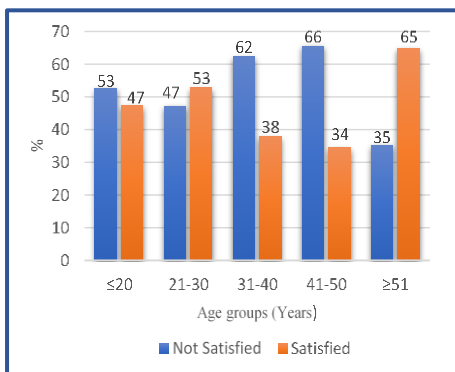
Job satisfaction of three-wheel drivers were characterized with respect to gender, living sector, marital status, educational level, use of alcohol, family size, other income sources, housing ownership, income and age. The sample includes 200 respondents and they all were found to be males showing that the three-wheel driving is a male dominating occupation as given in the table 2. Considering the job satisfaction of three-wheel drivers, 44.5% have satisfied with their job while 55.5% have not satisfied.

**Table 2: Distribution of the Sample**

Characteristics	Categories	Satisfaction		All (%)
		Yes (%)	No (%)	
<b>Gender</b>	Male	44.5	55.5	100
	Female	0	0	0
<b>Living Sector</b>	Urban	45	55	19
	Rural	43	57	79
	Estate	100	0	2
<b>Marital Status</b>	Married	38	62	72
	Not married	61	39	28
<b>Educational level</b>	Up to 5	56	44	8
	5-O/L	46	54	14
	Pass O/L	46	54	24
	Up to A/L	43	57	45
	Pass A/L	33	67	9
<b>Use of Alcohol</b>	Yes	42	58	73
	No	52	48	27
<b>Family Size</b>	≤3	47	53	18
	4-5	46	54	55
	≥6	39	61	27
<b>Other Income Sources</b>	No	28	72	9
	Farming	40	60	36
	Mining	51	49	37
	Micro business	50	50	9
	Government	44	56	9
<b>Housing Ownership</b>	Owned	44	56	44
	Others	45	55	56
<b>Job satisfaction</b>		44.5	55.5	100

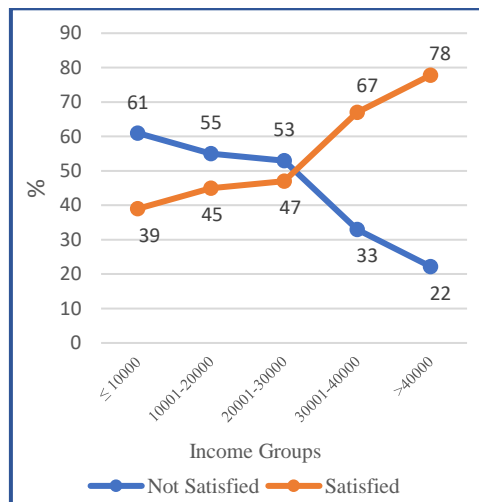
Source: Author's finding using Sample survey data

According to table 2, the majority of the three-wheel drivers (79%) live in the rural sector. For both the group of urban and rural sector, percentage of satisfaction (45%,43%) is lower than the percentage of dissatisfaction (55%, 57%). Most of the three-wheel drivers in the sample (72%) were married while 28% were the unmarried. Job satisfaction among married drivers is 38% and it is lesser than for unmarried (61%). Considering the educational level, the lowest percentage of satisfaction (33%) was recorded for the A/L passed group while it is highest for the group up to grade five (56%). The percentage with satisfaction was lower (46%, 46%, 43%, 33%) than the percentage with dissatisfaction (54%, 54%, 57%, 67%) for all the educational groups except the group up to grade five. The majority of the three-wheel drivers (73%) have been addicted for alcohol usage. Considering the family size, the highest percentage (55%) of the sample had family size of 4-5. The lowest percentage (39%) with satisfaction was recorded for the families with the number of members is  $\geq 6$ . Considering the other income sources, 91% of the sample was engaging in any kind of other income source. Only 9% of three-wheel drivers in the sample had no any other income source and the lowest satisfaction (28%) is found for this group. From the sample, only 44% had an own house built by themselves.



**Figure 3: Age and Job Satisfaction Among Three-Wheel Drivers**

Source: Compiled by the author



**Figure 4: Income and Job Satisfaction Among Three-Wheel Drivers**

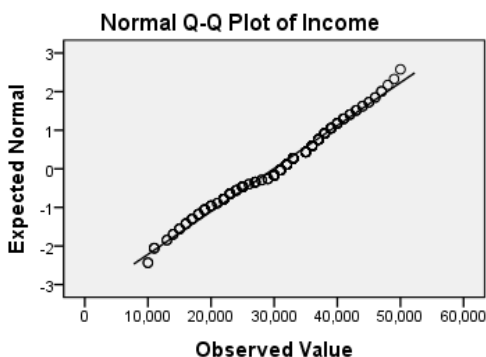
Source: Compiled by the author

According to figure 3, the percentage of three-wheel drivers satisfied with their job is much lower than dissatisfaction for the age groups of 31-40 and 41-50. However, the satisfied percentage is highest and is more than dissatisfaction for the age group  $\geq 51$ . As revealed by figure 4, percentages with job satisfaction increase with the increase of income while percentages with job dissatisfaction decrease with the increase of income. For three income groups,  $\leq 10000$ , 10001-20000 and 20001-30000, the percentage with being satisfied is lesser than the percentage with being

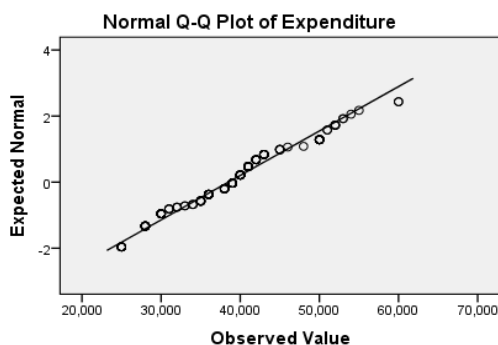
not satisfied while for two age groups, 30001-40000 and >40000, satisfaction is higher than dissatisfaction.

**Impact of individual and household factors**

The study applied multiple logistic regression technique to investigate impact of individual and household factors on job satisfaction of three-wheel drivers. The response variable in this study is job satisfaction among three-wheel drivers which was measured in nominal binary scale. At the first step of the analysis, 16 explanatory variables, living sector, race, religion, age, gender, marital status, educational level, income, expenditure, illnesses, use of alcohol, smoking habit, number of children, family size, other income sources and housing ownership were considered. The variable gender was excluded due to absence of female in this occupation. Requirement for running multiple logistic regression model is independence among explanatory variables (Assumption of Multicollinearity). For using parametric techniques (ex. ANOVA, T test) to check for multicollinearity among continuous variables normality assumption was checked for income and expenditure.



**Figure 5: Q-Q Plot for Normality**  
Source: Compiled by the author



**Figure 5: Q-Q Plot for Normality**  
Source: Compiled by the author

Normality assumption was satisfied for these two variables as shown by the above plots. Depending on the type of the variable, Pearson’s correlation, T test, ANOVA and chi-square test were applied to check multicollinearity among the explanatory variables.

**Table 3: Multicollinearity Using ANOVA, T-Test, Pearson’s Correlation and Chi-Square**

Factors	IN	EX	LS	RA	RE
<b>EX</b>	Pearson Correlation (p value=0.000)				
<b>LS</b>	ANOVA (p value=0.061)	ANOVA (p value=0.036)			
<b>RA</b>	ANOVA (p value=0.211)	ANOVA (p value=0.216)	Chi-Square (p value=0.041)		
<b>RE</b>	ANOVA (p value=0.123)	ANOVA (p value=0.213)	Chi-Square (p value=0.021)	Chi-Square (p value=0.001)	
<b>AG</b>	ANOVA (p value=0.067)	ANOVA (p value=0.031)	Chi-Square (p value=0.711)	Chi-Square (p value=0.326)	Chi-Square (p value=0.421)
<b>MS</b>	T test (p value=0.322)	T test (p value=0.322)	Chi-Square (p value=0.345)	Chi-Square (p value=0.722)	Chi-Square (p value=0.218)
<b>EL</b>	ANOVA (p value=0.059)	ANOVA (p value=0.531)	Chi-Square (p value=0.071)	Chi-Square (p value=0.071)	Chi-Square (p value=0.258)
<b>IL</b>	ANOVA (p value=0.321)	ANOVA (p value=0.331)	Chi-Square (p value=0.135)	Chi-Square (p value=0.137)	Chi-Square (p value=0.021)
<b>UA</b>	T test (p value=0.341))	T test (p value=0.008)	Chi-Square (p value=0.062)	Chi-Square (p value=0.070)	Chi-Square (p value=0.066)
<b>SH</b>	T test (p value=0.024)	T test (p value=0.633)	Chi-Square (p value=0.413)	Chi-Square (p value=0.072)	Chi-Square (p value=0.091)
<b>NC</b>	ANOVA (p value=0.049)	ANOVA (p value=0.249)	Chi-Square (p value=0.325)	Chi-Square (p value=0.271)	Chi-Square (p value=0.063)
<b>FS</b>	ANOVA (p value=0.058)	ANOVA (p value=0.069)	Chi-Square (p value=0.445)	Chi-Square (p value=0.320)	Chi-Square (p value=0.217)

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<b>OI</b>	ANOVA (p value=0.145)	ANOVA (p value=0.135)	Chi-Square (p value=0.322)	Chi-Square (p value=0.082)	Chi-Square (p value=0.350)
<b>HO</b>	ANOVA (p value=0.051)	ANOVA (p value=0.052)	Chi-Square (p value=0.843)	Chi-Square (p value=0.342)	Chi-Square (p value=0.218)
<b>Factors</b>	<b>AG</b>	<b>MS</b>	<b>EL</b>	<b>IL</b>	<b>UA</b>
<b>MS</b>	T test (p value=0.227)				
<b>EL</b>	Chi-Square (p value=1.000)	Chi-Square (p value=0.981)			
<b>IL</b>	Chi-Square (p value=0.034)	Chi-Square (p value=0.091)	Chi-Square (p value=0.520)		
<b>UA</b>	Chi-Square (p value=0.061)	Chi-Square (p value=0.213)	Chi-Square (p value=0.132)	Chi-Square (p value=0.057)	
<b>SH</b>	Chi-Square (p value=0.118)	Chi-Square (p value=0.281)	Chi-Square (p value=0.320)	Chi-Square (p value=0.074)	Chi-Square (p value=0.001)
<b>NC</b>	Chi-Square (p value=0.127)	Chi-Square (p value=0.059)	Chi-Square (p value=0.345)	Chi-Square (p value=0.322)	Chi-Square (p value=0.058)
<b>FS</b>	Chi-Square (p value=0.073)	Chi-Square (p value=0.081)	Chi-Square (p value=0.071)	Chi-Square (p value=0.087)	Chi-Square (p value=0.059)
<b>OI</b>	Chi-Square (p value=1.000)	Chi-Square (p value=0.073)	Chi-Square (p value=0.051)	Chi-Square (p value=0.0611)	Chi-Square (p value=0.281)
<b>HO</b>	Chi-Square (p value=0.760)	Chi-Square (p value=0.061)	Chi-Square (p value=0.061)	Chi-Square (p value=0.073)	Chi-Square (p value=0.0631)
<b>Factors</b>	<b>SH</b>	<b>NC</b>	<b>FS</b>	<b>OI</b>	<b>HO</b>
<b>NC</b>	Chi-Square (p value=0.011)				
<b>FS</b>	Chi-Square (p value=1.000)	Chi-Square (p value=0.025)			
<b>OI</b>	Chi-Square (p value=0.207)	Chi-Square (p value=0.058)	Chi-Square (p value=0.072)		
<b>HO</b>	Chi-Square (p value=0.066)	Chi-Square (p value=0.277)	Chi-Square (p value=0.136)	Chi-Square (p value=0.079)	

Source: Compiled by the author

Table 3 demonstrated the results of ANOVA, T-test, Pearson’s correlation and Chi-Square test used for checking multicollinearity among all variables willing to be employed for logistic regression analysis based on the different types of variables. A significant relationship exists among the variables corresponding to highlighted cells at 0.01 level and 0.05 level. Based on this analysis, the variables expenditure (EX),

living sector (LS), race (RA), religion (RE), illnesses (IL), smoking habit (SH) and number of children (NC) were removed from the model due to the violation of the assumption of multicollinearity. Age (AG), marital status (MS), educational level (EL), Income (IN), use of alcohol (UA), family size (FS), other income sources (OI) and housing ownership (HO) were retained as explanatory variables while the job satisfaction of three-wheel drivers as the response variable.

**Table 4: Results of Multiple Logistic Regression Model**

Explanatory Variables	B	S.E.	Wald	Sig.	Exp(B)	
<b>AG</b>			20.423	.000		
≤20	-.920	.722	1.626	.202	.398	
21-30	-.957	.639	2.241	.134	.384	
31-40	-2.140	.675	10.040	.002	.118	
41-50	-2.608	.774	11.366	.001	.074	
<b>MS</b>	Married	-.316	.405	.611	.434	.729
<b>EL</b>			12.689	.013		
Up to 5	2.033	.724	7.885	.005	7.633	
5-O/L	1.044	.596	3.067	.080	2.842	
O/L	.920	.660	1.942	.163	2.510	
Pass						
Up to A/L	.084	.690	.015	.903	1.088	
<b>IN</b>		.446	.175	6.499	.011	1.561
<b>UA</b>	Yes	-.195	.530	.136	.713	.823
<b>FS</b>			10.568	.005		
≤3	1.722	.570	9.115	.003	5.595	
4-5	.655	.540	1.474	.225	1.926	
<b>OI</b>			11.523	.021		
No	-.927	1.220	.577	.447	.396	
Farming	.452	.858	.278	.598	1.572	
Mining	.994	.883	1.267	.260	2.701	
Micro business	-.412	.881	.219	.640	.662	
<b>HO</b>	Owned	-.541	.368	2.167	.141	.582
<b>Constant</b>		.485	.904	.288	.592	1.625
<b>-2 Log likelihood</b>		227.406				
<b>Hosmer and Lemeshow Test</b>		9.453 (p value=0.306)				

Source: Compiled by the author

Table 4 provides the results of the fitted binary logistic regression model. Wald statistic was applied to the statistical significance of each variable in the model. As highlighted in the table 4, marital status (MS), use of alcohol (UA) and housing Ownership (HO) were not statistically significant in the model indicating that marital status, use of alcohol and housing ownership do not have a direct impact on three-wheel drivers job satisfaction. Three individual variables, age (AG), educational level (EL) and income (IN), and two household variables, family size (FS) and other income sources (OI) are statistically significant at 0.05 or 0.01 level. Overall adequacy of the fitted model was tested using Hosmer and Lemeshow goodness of fit test. It has given the test statistics as 9.453 with p value of 0.306 justifying the model is adequately fit in the data in this study.

Age is an individual factor used as a categorical variable in the model. Wald statistic has provided evidence of statistical significance for age to explain the three-wheel drivers' job satisfaction. The odds ratios of job satisfaction for the age group  $\leq 20$ , 21-30, 31-40 and 41-50 compared to age group  $\geq 51$  are 0.398, 0.384, 0.118 and 0.074 respectively. The probabilities of job satisfaction for the age group  $\leq 20$ , 21-30, 31-40 and 41-50 compared to age group  $\geq 51$  are 0.39, 0.38, 0.16 and 0.11 respectively while it is 0.61 for the age group  $\geq 51$ . The percentages of being satisfied are lower for age groups 31-40 and 41-50 (16% and 11%) than the age groups of  $\leq 20$ , 21-30 (39% and 38%). Further, the study indicates that 61% of three-wheel drivers in the age group  $\geq 51$  are satisfied, recording it as the only group where satisfaction is higher than dissatisfaction.

Education level is another individual factor which showed a significant relationship with three-wheel drivers' job satisfaction. Odds ratio of satisfaction for the educational level up to grade 5 reference to those who passed A/L is 7.633. It indicates that the odds of being satisfied is approximately 8 times higher for those who learnt up to five than those who passed A/L. The model predicts the probability of being satisfied for three-wheel drivers who learnt up to grade five 0.92 compared to those who passed A/L. The model predicts that 92% of three-wheel drivers who learnt up to grade five are satisfied with their job. Odds ratio of satisfaction for the educational level grade 5-O/L and passed O/L reference to those who passed A/L is 2.842 and 2.510 respectively. It indicates that the odds of being satisfied is approximately 3 times higher for the both groups of grades 5-O/L and passed O/L than those who passed A/L. Further it shows that the probability of being satisfied for three-wheel drivers who learnt in grades between 5-O/L is 0.82 compared to those who passed A/L and 82% of them are satisfied with their job. Similarly, 80%, 64% and 41% of three-wheel drivers who learnt in grades pass O/L, up to A/L and passed A/L are satisfied respectively with their job. Finally, it can be concluded that percentage of satisfaction is lowest among the A/L passed three-wheel drivers while it is highest among those who learnt up to grade five.

Income was used as a continuous variable in the model in this study. The odds ratio between income and three-wheel drivers' job satisfaction is greater than 1 showing a



positive relationship between income and three-wheel drivers' job satisfaction. Increase of income by one rupee causes to increase the odds of being satisfied by 1.5 times. However, for both the groups of minimum and maximum income earners, probability of satisfaction is lower than the probability of dissatisfaction.

Family size is a household factor investigated as a categorical variable in this study. As provided in the table 4, odds ratio for job satisfaction of three-wheel drivers whose family size is  $\leq 3$  compared to those whose family size is  $\geq 6$  is 5.595. It indicates that the odds of being satisfied is approximately 6 times higher for those whose family size is  $\leq 3$  than those whose family size is  $\geq 6$ .

The model predicts that 90% of three-wheel drivers whose family size is  $\leq 3$  are satisfied. The odds ratio for job satisfaction of three-wheel drivers whose family size is 4-5 compared to those whose family size is  $\geq 6$  is 1.926. It indicates that the odds of being satisfied is approximately 2 times higher for those whose family size is 4-5 than those whose family size is  $\geq 6$ . The model predicts 75% of three-wheel drivers whose family size is 4-5 are satisfied. Similarly, for those whose family size is  $\geq 6$ , the percentage of satisfaction is 61. The lowest satisfaction was found among the three-wheel drivers whose family size is  $\geq 6$ .

The second statistically significant household factor found in the model of explaining the three-wheel drivers' job satisfaction is the other income source. According to the table 4, the odds ratio of job satisfaction for three-wheel drivers without any other income source, had another income source from farming, from mining and micro business reference to those who had a government job are 0.396, 1.572, 2.701 and 0.662 respectively. It indicates that the odds of being satisfied is approximately 1.6 times and 2 times higher for those had other income from farming and mining respectively compared to those who had a government job. The probabilities of job satisfaction for three-wheel drivers without any other income source, had another income source from farming, mining and micro business are 0.39, 0.71, 0.81 and 0.51 respectively compared to those who had a government job. Further, 39%, 71%, 81% and 51% of three-wheel drivers who have no any other income sources, had another income source in farming, mining and micro business are satisfied with their job respectively. For the group with a government job as another income source, percentage of satisfaction is 61. The results revealed that the highest satisfaction was recorded for the three-wheel drivers who earned other income form employing in mining sector. The lowest satisfaction of three-wheel drivers with their job was found for the groups, not having any other income source for earning in addition to three-wheel driving.

## CONCLUSION

This study focused on examining the impact of individual and household factors influencing job satisfaction among three-wheel drivers in Rathnapura district in Sri Lanka using primary data collected through a structured schedule. Descriptive statistics have provided the sample distribution concerning age, income, living sector, marital status, educational level, use of alcohol, family size, other income sources and

housing ownership. The results revealed that three-wheel driving is entirely a male dominating occupation. The percentage of three-wheel drivers satisfied with their job is lower (44.5%) than those who are not satisfied (55%). The majority of the three-wheel drivers (79%) have come from the rural sector and 72% in the sample are married. The majority of three-wheel drivers (45%) have been educated up to A/L. It was clear that use of alcohol was dominating among most (72%) of the three-wheel drivers. The highest, 55% of the three-wheel drivers have belonged to families with 3 or 4 members. Considering the other income sources, only 9% have not engaged with any other job while the majority (37%) has employed in a job in the mining sector in addition to the three-wheel driving. Only 44% of the sample have an owned house built by themselves while 56% of them lived in the houses built by others.

The study utilized multiple logistic regression technique for identifying the factors influencing job satisfaction among three-wheel drivers. Job satisfaction was the binary response variable measured in a nominal scale. The assumption of multicollinearity was checked with the use of Pearson's correlation, ANOVA, T-test and Chi-square test. Wald statistics derived from multiple logistic regression model showed that marital status (MS), use of alcohol (UA) and housing Ownership (HO) were not statistically significant in the model indicating the absence of their direct impact on three-wheel drivers job satisfaction. Three individual variables age (AG), educational level (EL), income (IN)) and two household variables family size (FS) and other income sources (OI) were statistically significant in the model to describe the variability of three-wheel drivers' job satisfaction. Hosmer and Lemeshow's goodness of fit test value is 9.453 with a p-value of 0.306 and it ensured that the model adequately fits the data in this study.

The logistic regression model predicts that the odds ratios of job satisfaction for the age group  $\leq 20$ , 21-30, 31-40 and 41-50 compared to age group  $\geq 51$  are 0.398, 0.384, 0.118 and 0.074 respectively. The percentage of being satisfied with three-wheel driving is lowest for the age group 41-50 (11%). Further, the study indicates that 61% of three-wheel drivers in the age group  $\geq 51$  are satisfied, recording it as the only group with satisfaction higher than dissatisfaction. Considering educational level odds ratio of satisfaction for the educational level up to grade 5 reference to those who passed A/L is 7.633. It can be concluded that the percentage of satisfaction is lowest (41%) among the A/L passed three-wheel drivers while it is highest (92%) among those who learned up to grade five.

The odds ratio between income and three-wheel drivers' job satisfaction is greater than 1 showing a positive relationship between income and three-wheel drivers' job satisfaction. However, the model predicts that for both the groups of minimum and maximum income earners, the probability of satisfaction is lower than dissatisfaction. The odds ratio for job satisfaction of three-wheel drivers whose family size is  $\leq 3$  compared to those whose family size is  $\geq 6$  is 5.595. The model predicts that 90% of three-wheel drivers whose family size is  $\leq 3$  are satisfied with their job. The lowest satisfaction (61%) was found among the three-wheel drivers whose family size is  $\geq 6$ . The odds ratio of job satisfaction for three-wheel drivers without any other income

source reference to those who had a government job is 0.396. The results revealed that the highest satisfaction (81%) was recorded for the three-wheel drivers who earned other income from employing in the mining sector while the lowest satisfaction (39%) with their job was found among the three-wheel drivers who had no other income sources.

This study contributes to filling the existing gap in investigating the impact of individual and household factors on job satisfaction among three-wheel drivers in the Rathnapura district, Sri Lanka. It is concluded that the three-wheel drivers' job satisfaction is influenced by three individual factors, age, educational level and income and two household factors, family size and other income sources. The study suggested promoting for earning an additional income avoiding the dependency only on the occupation of three-wheel driving to increase the job satisfaction among three-wheel drivers to achieve a quality and better service from their occupation. This study provides a guidance to policy implications to develop three-wheel transportation service in Sri Lanka by addressing these factors found in this study by creating a fascinating environment around this vital occupation.

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