

A Study on the Socioeconomic Situations of Mingohn Village, Hlegu Township, Yangon Region

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Abstract

This research paper concern with the socioeconomic situations of Mingohn village, Hlegu township, Yangon region. The study adopted descriptive research design to collect data from a sample survey. The 293 sample households were selected with 95% confidence interval and margin of error 5%. Simple random sampling was used in data collection. It was analyzed descriptively using percentage, mean and standard deviation, and also inferentially using regression and Pearson correlation test. The findings of the study revealed sex ratio of the Mingohn village was 87.2% and dependency ratio was 30.5%.Child-woman ratio was 116.16%. According to education level ,53.55% of sample household members were high school level. Concerning housing condition, houses of Mingohn village are wooden houses with zinc roofing and brick pillars. The used of fuel consumption for the households was electronic with 85.7%.The employment status for the household member were17.2% in causal workers,12.7% were non-government services,7.4% were government staff and 49.4 were dependents.39.2% of the sample households' annual income were 4,000,001 kyats to 6,000,000 kyats. There is a positive linear relationship between annual income and annual expenditure and there is a moderate correlation with statistically significance of sample households.

Key words: socioeconomic situations, simple linear regression, correlation

1. Introduction

Socioeconomic is the important role in the development of the country. Socioeconomic status is an economic and sociological combined total measure of the person's work experience and individual or family's economic status and social position in related to others. This paper covers the social, education and economic development of Mingohn village, Hlegu township, Yangon region. Mingohn village is interesting because of the big village. It lies on Hlegu-Mingohn Road. It also occupies the center part of other villages. It is the main centre of village and government staffs with an area of about 150 acres. It is also a well-developed village in terms of social and economic aspects. The sample of these research selected by using the Yamane formula with 95% confidence level and 5% margin of error. To make an analysis of

socioeconomic situations of the Mingohn village, 293 sample households selected by using simple random sampling method. Therefore, this research paper covers the population and education status of Mingohn village. This research paper will help lay down development programmer for Hlegu township as it is an analysis of socioeconomic development of Mingohn village. In this study, primary data, secondary data and quantitative research methods were used. The government has the objective of the rural development. The government has set up the five objectives rural development tasks; (1) to be safe smooth and good transportation in the rural areas, (2) to be available of pure water in the rural areas,(3) to raise of the education standard of the rural people and growth of the economy in the rural areas,(4) to develop the socioeconomic situation of the rural areas and (5) to narrow the socioeconomic gaps between rural and urban areas by alleviating poverty in the rural areas. In performing rural development activities, the states employs its role as strategy planner, policy marker and supervisor and then rural development computes been to perform to these strategies plan has collected in selected target areas by making model village approach.

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The Historical Background of Mingohn Village

In April 2014, the latest census was conducted by the Government of the Republic of the Union of Myanmar. In the post-independence period, comprehensive population and housing censuses were only successfully undertaken in 1973, 1983 and most recently in April 2014. Hlegu township is one of 45 townships making up Yangon region. Hlegu township in Myanmar situated about 45 km northeast of Yangon. In these census, Hlegu township has a population of 270,741 people. 15 percent of the population are urban, it the remaining 85 percent being rural. It has a total of 58,023 households, with the mean household size being 4.3 persons which is consistent with both the Union and Yangon Region household sizes. It is involved on 22,060 villages, and 57 village tracts. In Hlegu Township, females more than males with 98 males per 100 females. The population density in Hlegu township constituted 181 persons per square kilometre.

The proportion of productive working population between 15 to 64 years of age in Hlegu township is 66.3 percent. The proportion of children aged 14 and below together with the proportion of the elderly aged 65 and over are less than the proportion of the working age group population. Fewer proportions of children and elderly reduce the dependency of those age groups on the working age population. 59.8 percent found by the Labour force participation rate in Hlegu Township.

Mingohn village is existed in the Hlegu township, Yangon region. Mingohn village is situated near Co-operative College, phaunggyi and far from 20 miles in Hlegu township. It is border with Gonminshowe village in the east, with Co-operative College, Phaunggyi in the south, with Central Institute of Civil Service (Lower Myanmar) in the west and with No.1 Basic military Training Force in the north.

Mingohn village has an area of around 150 areas. Mingohn village divided into 6 wards. The Mingohn village is 1018 houses and 1105 households, total population over 5000. It has one of the B.E.P.S, one of the B.E.H.S and one monastic school, occupies in the village. It is running with a total of 1919 students and 64 teachers century also produce outstanding citizens. It is found that there are 3 monasteries that lecturer give on Buddhism to monks. Mingohn village has two churches.

Mingohn village is abundance of plains and less hills. Some difference ethic groups are living in the village such as Burmese, Mon, Kayin, Chin, Shan, Rakhine and Franch.

Objective of the study

In this study, the research objective is to analyze the socioeconomic situations of Mingohn village.

Scope and limitation of the study

This study focuses on the households of Mingohn village, Hlegu township, Yangon region. The minimum sample size is selected with 293 households by using simple random sampling method.

2. Research Methodology

This research paper arranges a rationale for design of research, target population, sample size, data collection method and data analysis. The design of research consisted a quantitative approach and primary data and secondary data .The survey method was employed to collect the data from sample people by distributing questionnaires.

In this study, primary data and quantitative research methods were used. Quantitative research method was significant to generate the measurable cause and effect of variables, and the relationship between the variables. Sample survey research design with the form of questionnaire was used to collect the data from selected sample.

By using descriptive statistics analysis to present the figures from the findings with tables and charts, the respondents were interviewed by using standard questionnaires during the research. Descriptive statistics are concerned with summarizing the properties of the sample of observations. Inference statistics apply the mathematical theory of probability to make decisions about the likely properties of populations based on sample evidence. An inference is a generalization or conclusion about some attribute of a population based on the data in a sample. If a sample is high representative of the population, as random sampling assures, then inferences about the parent population can be made with a high level of confidence.

Simple Regression and Correlation Analysis

In this research paper describe the simple linear regression and correlation analysis , in which a single numerical independent variable, X, is employ to estimate the numerical dependent variable Y, such as using annually income to estimate the annually expenditure for the sample households.

Simple Linear Regression Model

The simple linear regression model is

$$Y_i = \beta_0 + \beta_1 X_i + \varepsilon_i$$

Where

β_0 = Y intercept for the population

β_1 = slope for the population

ε_i = random error in Y for observation i

Y_i = Dependent variable

X_i = Independent variable for observation i

Assumption

The four assumptions of regression are as follows:

- Linearity
- Independence of errors
- Normality of error
- Equal variance

Correlation Analysis

Pearson correlation was used for the strength of relationship between two variables to analyze. According to (Evans, 1996), the size of the value of Pearson correlations (r) can range from -1.00 to 1.00.

3. Data Analysis and Discussion

Demographic change can influence the underlying growth rate of the economy, structural productivity growth living standards, saving rates, consumption rates and investment. These factors can influence the long-run unemployment rate and equilibrium interest rate, housing market trend and the demand for the financial assets. Socioeconomic is generally to undertake an impact assessment and carrying about socioeconomic progress usually in terms of growth such as life expectancy, literacy people, gross domestic product and employment rate.

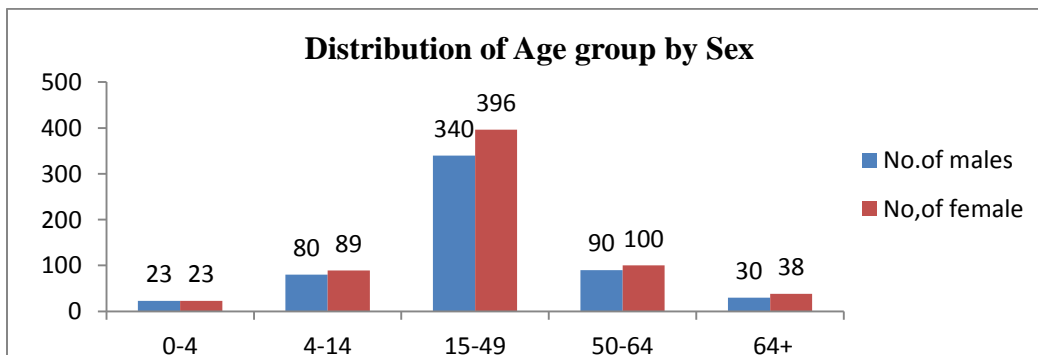
Distribution of Age group by Sex

Table (3.1) Distribution of Age group by Sex

Age group	No. of males	Percent	No. of females	Percent
≤4	23	4.1	23	3.5
5-14	80	14.2	89	13.8
15-49	340	60.4	396	61.3
50-64	90	16.0	100	15.5
≥ 65	30	5.3	38	5.9
Total	563	100.0	646	100.0

Source: Survey Data, 2020

Figure (3.1) Distribution of Age group by Sex



Source: Survey Data, 2020

In this study, questionnaires were distributed to 293 sample households. According to the table above, it is found that there are 1209 people living in 293 sample households. There are 563 males and 646 females. Most of the males are between the age of 15 and 49 years and it constitutes 60.4% of total males. Similarly most of the females are between the age of 15 and 49

years and it constitutes 61.3% of total females. Therefore, it is found that the most of the population in Mingohn village are working people and it has good future prospect in economic development.

Distribution of Sex ratio

Sex ratio is the demographic concept that measure the proportion of male to female in a given population.it is usually measured as the number of males per females. According to the survey data, sex ratio for Mingohn village is as follow:

$$SR = \frac{M}{F} \times 100$$

Where, SR = Sex ratio

M = the number of males

F = the number of females

$$SR = \frac{563}{646} \times 100 = 87.2\%$$

According to the result, sex ratio of Mingohn village is 87.2%. This means that there is 88 males for every 100 female births, which are the number of male is less than that of females in Mingohn village.

Distribution of Dependency ratio

Dependency ratio is calculated to analyze the workforce of the working people in Mingohn village.

There are generally two categories of dependent: young dependent and older dependent. According to the norm set by the United Nations, those who are between 15 and 64 years belong to the working people. Those under 14 are young dependents and those over 65 belong to older dependents.

Dependency ratio is the number of population at the dependent age per 100 populations at the working age.

$$D.R = \frac{P_{0-14} + P_{65+}}{P_{15-64}} \times 100$$

$$D.R = \frac{P_{0-14}}{P_{15-64}} \times 100 + \frac{P_{65+}}{P_{15-64}} \times 100$$

$$D.R = Y.D.R + O.D.R$$

Where, D.R = dependency ratio

Y.D.R = young dependency ratio

O.D.R = old dependency ratio

P_{0-14} = population aged under 15

P_{65+} = population aged over 65

P_{15-64} = population aged between 15 and 64

$$Y.D.R = \frac{215}{926} \times 100 = 23.22\%$$

$$O.D.R = \frac{68}{926} \times 100 = 7.34\%$$

$$D.R = 23.22\% + 7.34\% = 30.56\%$$

According to the result, There has greater young dependency ratio than old dependency ratio in Mingohn village because of 0 to 14 ages people are greater than over 65 ages people. dependency ratio 30.56 % and it is a fair dependency.

Distribution of Child-Woman Ratio

Child-woman rate of a particular region or a country also determines living standard and health states of that region or country. If child-woman rate is high, the living standard is low. Otherwise, the region or country enjoys development in social-economic situation. People living there are expected to have knowledge on health.

Child-woman ratio is the number of children per 1000 women at the reproductive ages.

$$CWR = \frac{P_{0-4}}{F_{15-49}} \times 1000$$

Where, CWR = child-woman ratio

P_{0-4} = population aged 0-4

F_{15-49} = female population aged 15-49

$$CWR = \frac{46}{396} \times 1000 = 116.16\%$$

Woman between 15-49 years of age is a woman at bearing age. When studying child-woman rate of people in Mingohn village, the number of child is assumed low as child-woman rate is 116.16%.

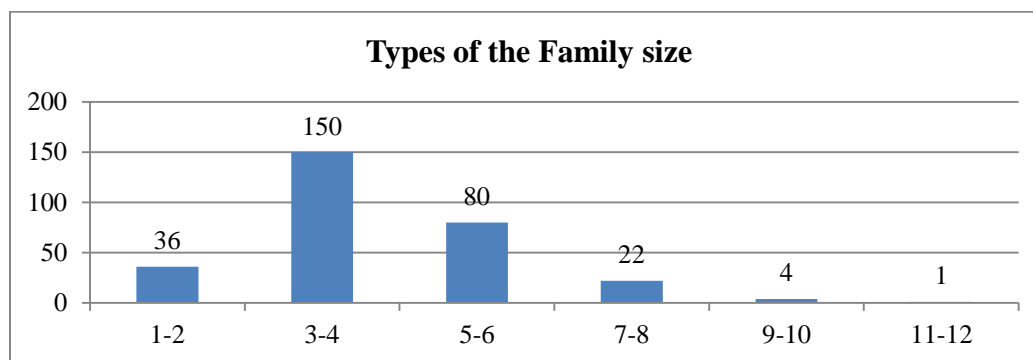
Types of the Family size

Table (3.2) Types of the Family size

Family Size	1-2	3-4	5-6	7-8	9-10	11-12	Total
Frequency	36	150	80	22	4	1	293
Percent	12.2	51.2	27.3	7.5	1.5	0.3	100.0

Source: Survey Data, 2020

Figure (3.2) Types of the Family size



Source: Survey Data, 2020

According to the findings, it is found that the most of the family size are between 3 and 4 people and it constitutes 51.2% and the second of the family size are between 5 and 6 people and it constitutes 27.3% of total family size. So, the family size of sample households in Mingohn village is found fair.

Demographic profile of Sample Household Heads

Table (3.3) Demography profile of Sample Households Heads

		Frequency	Percent
Gender	Male	237	80.9
	Female	56	19.1
Race	Burmese	270	92.2
	Mon	3	1.0
	Kayin	2	0.7
	Chin	12	4.1
	Shan	3	1.0
	Rakhine	2	0.7

	Franch	1	0.3
Religious	Buddhist	276	94.2
	Christians	17	5.8
Age	≤ 20	1	0.3
	21-40	75	25.6
	41-60	141	48.1
	≥ 61	76	26.0
Education level	Doctor of philosophy	1	0.3
	Master degree	0	0
	Ordinary degree	30	10.2
	Under graduate	5	1.7
	High school level	74	25.3
	Middle school level	95	32.4
	Primary school level	73	24.9
	KG	0	0
	Monastic education	13	4.5
	Illiterate	2	0.7
Occupation	Government Staff	22	7.5
	Merchant	59	20.1
	Non-government staff	22	7.5
	Farmer	15	5.1
	Causal worker	118	40.3
	Housework	28	9.6
	Pension	29	9.9

Source: Survey Data, 2020

According to the result, it explains the demography factor of sample household heads. Of all the participants, 80.9 % are males and 19.1% are females. 92.2% of sample size are Burmese, 94.2% of sample size are Buddhist. 25.9% of sample household heads are under 40 years old and 74.1% of them are above 40 years old. So, In addition, 82.6% learnt primary, middle and high

school level. However, the largest portion of sample household heads is working causal workers with 40.3%.

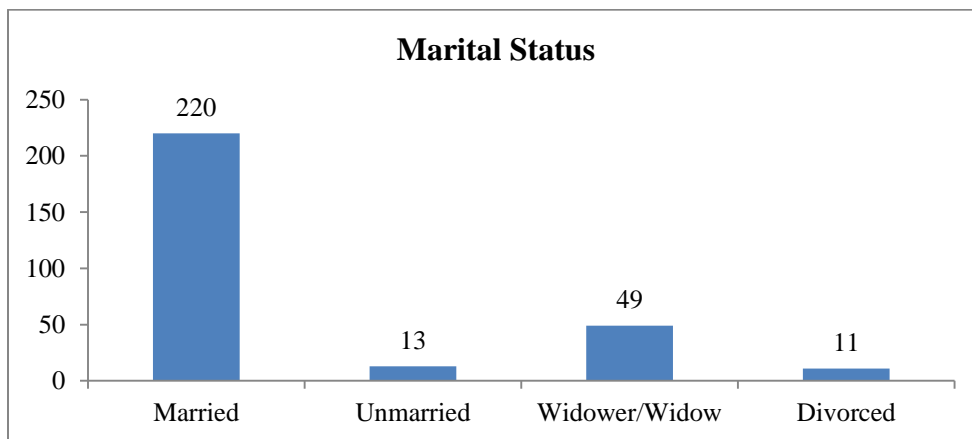
Marital Status of Sample Household heads

Table (3.4) Marital Status of Sample Household Heads

Marital Status	Frequency	Percent
Married	220	75.1
Unmarried/Single	13	4.4
Widower/Widow	49	16.7
Divorced	11	3.8
Total	293	100.0

Source: Survey Data, 2020

Figure (3.3) Marital Status of Sample Household Heads



Source: Survey Data, 2020

When studying the married status of those who are 14 and over 14, 75.1% of the heads of household are married and widower and widow people constitutes 16.7% of sample household heads. The samples of 4.4% are single and a divorced person constitutes 3.85 of the sample household heads. It is because they are Myanmar Buddhists who follow and practices Myanmar culture and tradition.

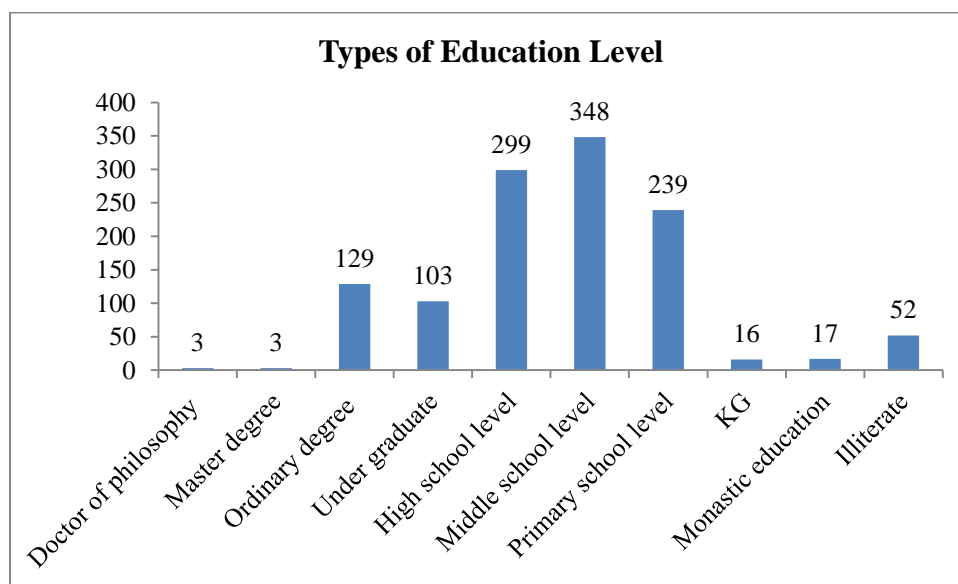
Level of Education in Sample Household Members

Table (3.5) Level of Education in Sample Household Members

Education level	Frequency	Percent
Doctor of philosophy	3	0.2
Master degree	3	0.2
Ordinary degree	129	10.7
Under graduate	103	8.5
High school level	299	24.7
Middle school level	348	28.8
Primary school level	239	19.8
KG	16	1.3
Monastic education	17	1.4
Illiterate	52	4.3
Total	1209	100.0

Source: Survey Data, 2020

Figure (3.4) level of Education in Sample Household Members



Source: Survey Data, 2020

According to the above table, it is found that 53.5% of sample household members are high school level and middle school level, 19.8% of sample size is a primary education level of total people. 11.1% of sample size is also graduates and their education level is a bit high

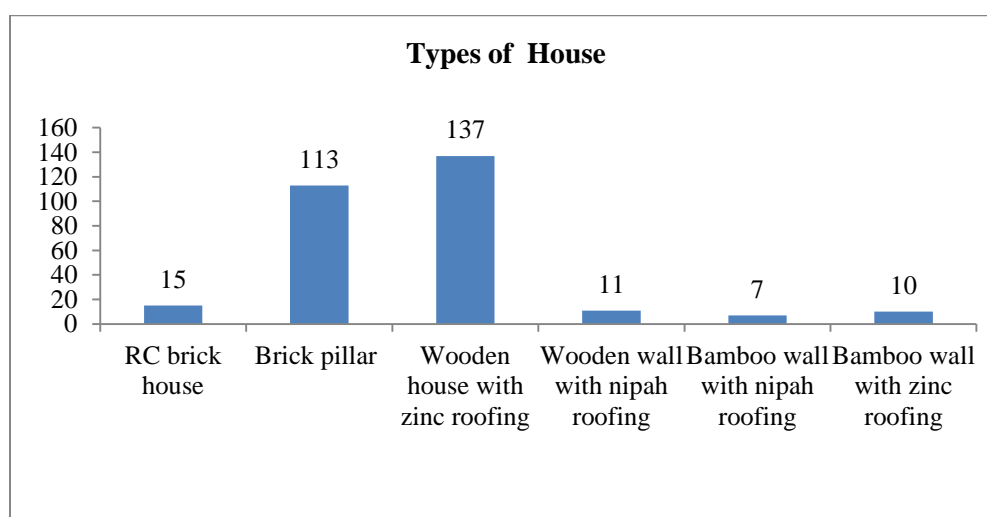
Types of House in Sample Households

Table (3.6) Types of House in Sample Households

Type of House	Frequency	Percent
RC brick house	15	5.1
Brick pillar	113	38.6
Wooden house with zinc roofing	137	46.8
Wooden wall with nipah roofing	11	3.8
Bamboo wall with nipah roofing	7	2.4
Bamboo wall with zinc roofing	10	3.4
Total	293	100.0

Source: Survey Data, 2020

Figure (3.5) Types of House in Sample Households



Source: Survey Data, 2020

The above table shown, it is found that 46.8% of houses are wooden houses with zinc roofing. It is maximum of total houses. There are 38.6% brick pillars, the second greatest number of houses. Other types of house are brick house (5.1%), wooden wall with nipah roofing (3.8%), bamboo wall with zinc roofing (3.4%) and bamboo wall with nipah roofing (2.4%). So the living standard of sample households is found great.

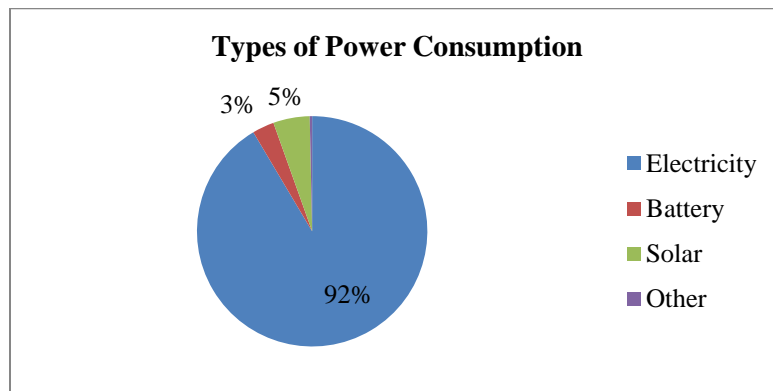
Types of Power Consumption

Table (3.7) Types of Power Consumption

Power consumption	Frequency	Percent
Electricity	268	91.5
Battery	9	3.1
Solar	15	5.1
Other	1	0.3
Total	293	100.0

Source: Survey Data, 2020

Figure (3.6) Types of Power Consumption



Source: Survey Data, 2020

As shown in the table above, it is found that 91.5% of sample households use electricity, the most of total power consumption. 5.1% use solar system, 3.1% use battery system and 0.3% use candle. . It is also found that the living standard is great because they can use personal grades with electricity.

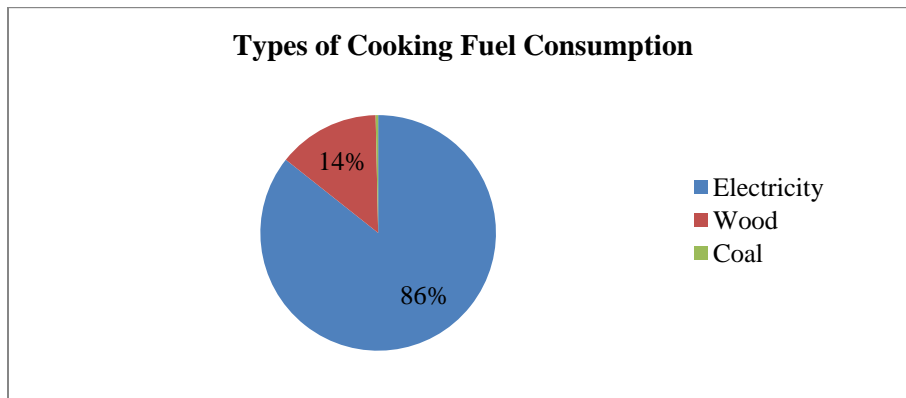
Types of Cooking Fuel Consumption

Table (3.8) Types of Cooking fuel consumption

Cooking fuel consumption	Frequency	Percent
Electricity	251	85.7
Wood	41	14.0
Coal	1	0.3
Total	293	100.0

Source: Survey Data, 2020

Figure (3.7) Types of Cooking fuel consumption



Source: Survey Data, 2020

According to the result, it is found that 85.7% of sample households use the electricity, 14% of them used the wood and 0.3% sample households used the coal for cooking.

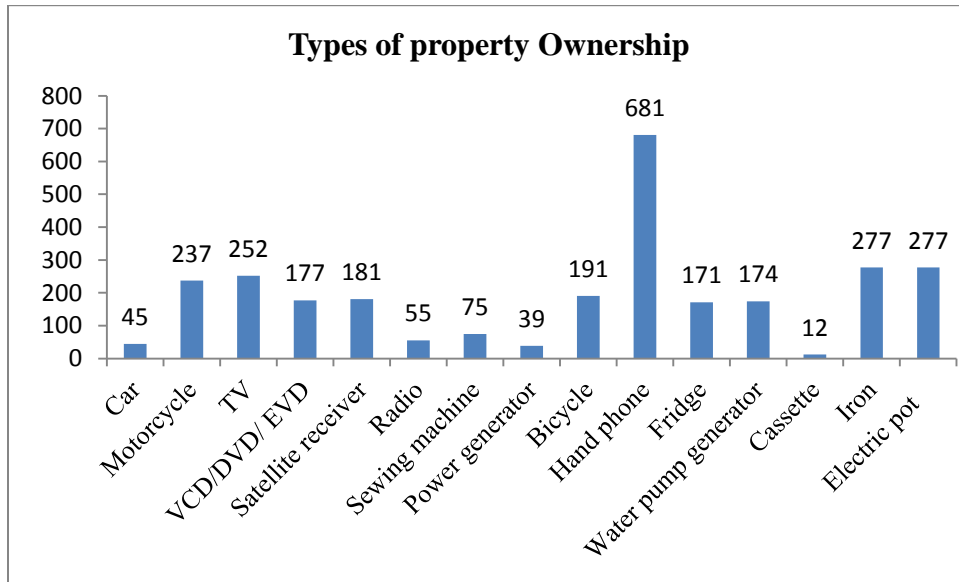
Types of Property Ownership of Sample Households

Table (3.9) Types of Property Ownership of Sample Households

Property Ownership	Frequency	Percent
Car	45	15.4
Motorcycle	237	80.9
TV	252	97.3
VCD/DVD/ EVD	177	60.4
Satellite receiver	181	61.8
Radio	55	18.8
Sewing machine	75	25.6
Power generator	39	13.3
Bicycle	191	65.2
Hand phone	681	232.4
Fridge	171	58.4
Water pump generator	174	59.4
Cassette	12	4.1
Iron	277	94.5
Electric pot	277	94.5

Source: Survey Data, 2020

Figure (3.8) Types of Property Ownership of Sample Households



Source: Survey Data, 2020

As the result, it is found that 15.4% of sample households own cars, 80.9% of sample households own motorcycles, 97.3% of sample households own televisions, 60.4% of sample sizes own VCD/DVD/EVD. 61.8% of sample sizes own Satellite receivers, 18.8% of sample sizes own radios, 25.6% of sample sizes own sewing machines, 13.3% of sample sizes own power generators, 65.2% of sample sizes own bicycles, 232.4% of sample sizes own hand phones, 58.4% of sample sizes own fridges, 59.4% of sample sizes own water pump generator, 4.1% of sample sizes own cassette, 94.5% of sample sizes own irons and 94.5% of sample sizes own electric pots. It is therefore found that sample sizes own two hand phones each. According to the findings above, it can be said that the living standard of Mingohn village is found fair.

Transportation and Communication

Since it lies on Hlegu-Mingohn road, Mingohn village enjoys smooth transportation and communication because YBS 45 Buses drive from 5 am to 5 pm in every day. Goods are transported to other towns and cities.

Use of fly-proof Latrine

In the survey, all sample households use fly-proof Latrine and so 100% of sample households in Mingohn village use fly-proof Latrine.

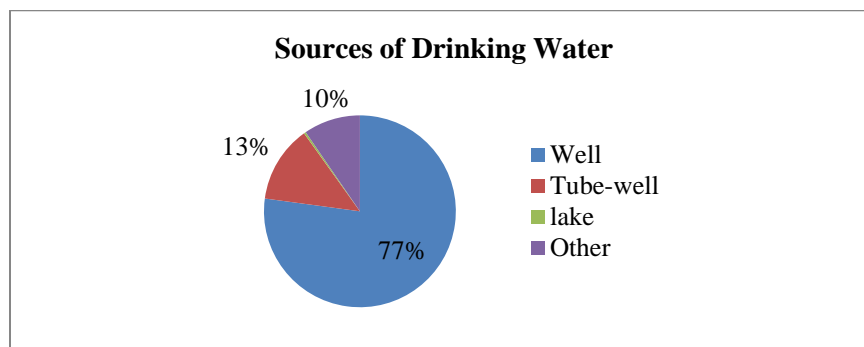
Sources of Drinking Water

Table (3.10) Sources of Drinking Water

Sources of Drinking water	Frequency	Percent
Well	226	77.1
Tube-well	38	13.0
lake	1	0.3
Other	28	9.6
Total	293	100.0

Source: Survey Data, 2020

Figure (3.9) Sources of Drinking Water



Source: Survey Data, 2020

According to the findings, it is found that 77.1 % of sample households use well, 13.0 % of sample households use tube -well ,9.6% of sample households use other and 0.3% of sample households use lake.

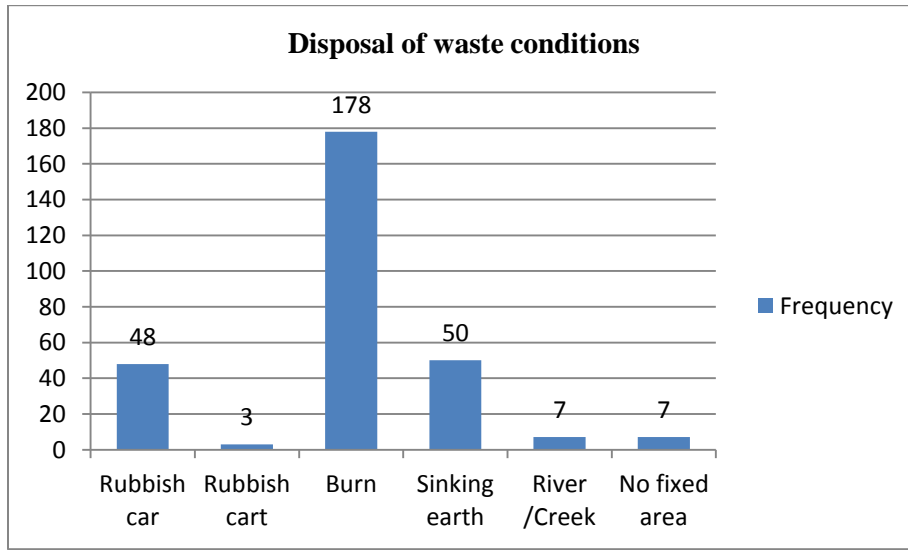
Disposal of waste conditions

Table (3.11) Disposal of waste conditions

Disposal of waste condition	Frequency	Percent
Rubbish car	48	16.4
Rubbish cart	3	1.0
Burn	178	60.8
Sinking earth	50	17.1
River /Creek	7	2.4
No fixed area	7	2.4
Total	293	100.0

Source: Survey Data, 2020

Figure (3.10) Disposal of waste conditions



Source: Survey Data, 2020

According to the survey data, it is found 60.8% of sample households disposed by burning the waste, 17.1% of sample households disposed by sinking the waste in the ground, 16.4% of sample households are disposing the waste in rubbish car and 5.8% of the total people are disposing the waste river/creek, rubbish cart and no fixed area. Therefore it can be seen most sample households are using burn for disposing the waste.

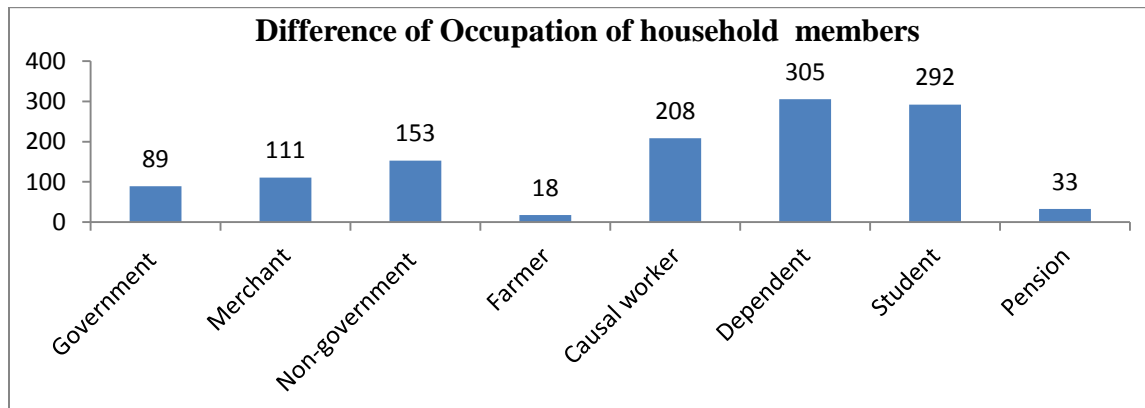
Types of Occupation in Sample Household Members

Table (3.12) Types of Occupation in Sample Household Members

Occupation	Frequency	Percent
Government	89	7.4
Merchant	111	9.2
Non-government	153	12.7
Farmer	18	1.5
Causal worker	208	17.2
Dependent	305	25.2
Student	292	24.2
Pension	33	2.7
Total	1209	100.0

Source: Survey Data, 2020

Figure (3.11) Types of Occupation in Sample Household Members



Source: Survey Data, 2020

According to the table, it is found that 17.2% or 208 of household members are causal workers, 12.7% of them or 153 household members are non-government services, 7.4% or 89 household members are government staff and there are 25.2% house workers (dependents) and 24.2% students. One significant point is that the number of dependents is greater than any other occupations.

Annually Income of Sample Household Heads

Table (3.13) Annually Income of Sample Household Heads

Income	Frequency	Percent
≤ 1000000	36	12.3
1000001-2000000	76	25.9
2000001-3000000	89	30.4
3000001-4000000	48	16.4
4000001-5000000	20	6.8
5000001-6000000	13	4.4
6000001-7000000	-	-
7000001-8000000	3	1.0
≥ 8000001	8	2.8
Total	293	100.0
Mean	2854870.307	
Minimum	0	
Maximum	30000000	
Standard Deviation	2987960.139	

Source: Survey Data, 2020

As the results, it is found 30.4% of sample household heads earn between 2000001 kyats and 3000000 kyats per year, 25.9 % of them earn between 1000001 kyats and 2000000 kyats per year and 16.4% of sample size earn between 300001 kyats and 4000000 kyats per year.

Based on the survey data, the annually mean income of sample household heads was 2854870.307 kyats with a range of 0 kyats to 30000000 kyats and standard deviation of 2987960.139 kyats.

Annually Income of Sample Households

Table (3.14) Annually Income of Sample Households

Income	Frequency	Percent
≤2000000	17	5.8
2000001-4000000	111	37.9
4000001-6000000	115	39.2
6000001-8000000	27	9.2
8000001-10000000	10	3.4
10000001-12000000	5	1.7
≥ 12000001	8	2.8
Total	293	100.0
Mean	4855479.522	
Minimum	1200000	
Maximum	36000000	
Standard Deviation	3422197.699	

Source: Survey Data, 2020

In the table above, it is discovered that the majority of household or 39.2% of them earn between 4000001 kyats and 6000000 kyats per year, the second greatest annual income earn between 2000001 kyats per year and 4000000 kyats and it constitutes 37.9% of sample households, and the third greatest annual income earn between 6000001 kyats and 8000000 kyats per year and it is only 9.2%.It is found that the number of household earn annually income of over 12000001 kyats it is the greatest in Mingohn village.

Based on the survey data, the annually mean income of sample households was 4855479.522 kyats with a range of 1200000 kyats to 36000000 kyats and standard deviation of

3422197.699kyats. It can be assessed that annually income of households in Mingohn village it is found fair.

Types of Annually Expenditure

Table (3.15) Types of annually Expenditure

Expenditure	Food	%	Clothing	%	Education	%	Others	%
≤ 500000	-	-	221	75.4	217	74.1	152	51.7
500001-1000000	23	7.9	62	21.2	41	14.0	98	33.3
1000001-1500000	68	23.2	9	3.1	17	5.8	21	7.1
1500001-2000000	84	28.7	1	0.3	9	3.1	8	2.7
2000001-2500000	69	23.5	-	-	5	1.7	7	2.4
2500001-3000000	17	5.8	-	-	6	2.0	4	1.4
3000001-3500000	3	1.0	-	-	-	-	1	0.3
3500001-4000000	23	7.9	-	-	1	0.3	1	0.3
≥ 4000001	6	2.0	-	-	-	-	1	0.3
Total	293	100	293	100	293	100	293	100
Mean	3376133.11							
Minimum	850000							
Maximum	24600000							
Standard Deviation	2245166.935							

Source: Survey Data, 2020

As shown in the table, expenditure is studied in four different types of expenditure, food, clothing, education and others. Others are health, social affairs and so on. When studying the expenditure for food, it is found that 28.7% of the sample households spend between 1500001 kyats and 2000000 kyats, 23.5% of them spend between 2000001 kyats and 2500000 kyats and 23.2% of sample households spend between 1000001 kyats and 1500000 kyats. Food cover basic commodities such as rice, edible oil, salt, curry and snacks. When studying the expenditure for clothing, it is found that 75.4% of the sample sizes spend less than 5 lakh (kyats). So, it can be said that they don't spend much money on clothing. When studying the expenditure for education, it is found that 74.1 % of sample households spend less than 5 lakh (kyats). So,

education expenditure of the sample households is fair. Other expenditure includes health, social affairs, maintenance cost which is less than 5 lakh (kyats). In short, health, social affairs, maintenance cost is greater than clothing and education.

Based on the survey data, the annually mean expenditure of sample households was 3376133.11 kyats with a range of 850000 kyats to 24600000 kyats and standard deviation of 2245166.935kyats.

Results of Regression Analysis

Table (3.16) Results of Regression Analysis

Variable	Coefficient	Std. error		T test	Significant
Constant	916195.72	115557.50		7.93	.000
Expenditure	0.52	0.01		27.25	.000
R			0.848		
Adj R Square			0.717		
R Square			0.718		
DW			1.836		
F Statistics			742.327		0.000

Source: Survey Data, 2020

- a. Predictors: (Constant), income (per year)
- b. Dependent Variable: Expenditure (per year)

The estimated simple linear regression model can be described as follows:

$$Y = 916195.72 + 0.52 X$$

T-statistics (27.25)

$$R=0.848, R^2=0.718, \text{Adj } R^2=0.717, \text{SE}=115557.50, \text{DW}=1.836$$

According to the table (3.16), show that the constant is significant at the 1% level. The coefficient for X_i (0.52) is statistically significant using alpha of 0.05 because its p-value is 0.000 which is smaller than 0.05 between annually income and annually expenditure of sample households.. The Y intercept 916195.72 kyat indicates that when the sample households does not apply for the annually expenditure. The forecasted annually expenditure is 916195.72 kyats. The slope indicates that for the more of each one kyat in the annually income the estimated change in the annually expenditure is 0.52. the annually expenditure of the sample households is estimated

to grow by a average of 0.52 kyat for the more of each one kyat in the annually expenditure of sample households. The value of R^2 is 0.718 that it is a strong correlation. The value of calculated Durbin Watson was 1.836. The regression coefficient between annually income and annually expenditure is 0.52 ($t=27.25$, $p=0.000<0.01$, see table (3.16). There is a direct relationship between annually income and annually expenditure of sample households.

And the F -value in the ANOVA model revealed a significant main effect for variables, $F_{(1,291)} = 742.327$, $p<0.05$ that is shown in Table 3.16. The p -value associated with this F -value is less than 0.05. Therefore, the independent variables(annually income) can be used to reliably predict the dependent variable(annually expenditure).

Descriptive Statistics and Correlation Matrix Variable

Table (3.17) Descriptive Statistics and Correlation Matrix Variable

Variables	mean	Standard deviation	1	2
Annual income	4855479.522	3422197.699	1	0.557**
Annual Expenditure	3376133.11	2245166.935	0.557**	1

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

Pearson correlation was used to analyze the strength of relationship between two variables. According to (Evans, 1996), the size of the value of Pearson correlations (r) can range from -1.00 to 1.00. Therefore, $r=0.00$ to 0.19 assume “very weak”, $r=0.20$ to 0.39 assume “weak”, $r=0.40$ to 0.59 assume ‘moderate”, $r=0.60$ to 0.79 ” assume “strong” and $r=0.80$ to 1.00 assume “very strong”. The data concerning research of independent variables (annually income) and dependent variable (annually expenditure) are statistically analyzed by the correlation analysis model. The correlation analysis was used to test the research hypotheses. There is a statistically significance with $p<0.01$, and R is 0.557. So, there is a moderate correlation.

4. Conclusion

The findings of socioeconomic situations of 293 households of Mingohn village, Hlegu Township, Yangon region are expressed as below.

When studying the population of the sample households in Mingohn village, most of the males and females are found in the middle age grouped people. As sex ratio is 87.2%, there are 88 males per 100 females. The number of females is more than that males. As regards the dependency rate is 30.56%, there are 31 dependents each for 100 working people. The young dependency rate and elder dependency rate are 23.22% and 7.34% respectively. So, the number of working people is greater than that of dependents.

Regarding child woman rate is too low, as the ratio is 116,16%. In addition the family size is neither too big nor too small because there are average 5 members in a family. When studying the married status, it is found that 75.1% sample household heads are married and domesticity is the greatest.

Concerning the education, it is found that, most of them attain higher education and a few of them are in monastic level and illiterate. Concerning the social, it is also found most of houses in Mingohn village are wooden houses with zinc roofing and brick pillars. Electricity is used for the light and for operation electronic goods. So, the living standard is supposed to be light. In transportation and communication, it is found that sample household members in Mingohn village enjoy smooth transportation and better communication as it is just in a convenient location. Any mean of transport such as near motor way can be used to go to other towns and cities. So, it can be said that the village develops not only in transportation and communication but also in economic situation. In health, all sample households use fly-proof Latrine and so 100% of sample households in Mingohn village use fly-proof Latrine.

Regarding the annual income and expenditure of the sample households, it is also found that the average annual income of sample households is 4855479.522 kyats and the average annual expenditure is 3376133.11 kyats, the maximum annual income of the sample households is about 360 lakh (kyats) and then annual expenditure is about 246 lakh (kyats). So, it can be said that sample households can save extra income.

The constant is significant at the 1% level. The coefficient for X_i (0.52) is statistically significant using alpha of 0.05 because its p-value is 0.000 which is smaller than 0.05 between annual income and annual expenditure of sample households. The estimated simple linear regression equation is $\hat{Y}_i = 916195.72 + 0.52X_i$. There is a very strong relationship between annual income and annual expenditure of sample households. The correlation analysis was used to test the research hypotheses. There is a significance statistically with $p < 0.01$, and R is 0.557. So, there is a moderate correlation.

Taking all these points into conclusion, it can be assessed that people of Mingohn village enjoy fair living standard with temperature population.

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References

- George W.Bohrnstedt, David Knoke , Statistics for Social Analysis (Third Edition)2002, F.E. Peacock Publishers,INC,Itasca, illions, USA.
- George W. Snedecoe, Willliam G. Cochran, Statistical Methods (Seven Edition) 1982, The Iowa State University Press, USA.
- Jacob S.Siegel, David A.Swanson,The Methods and Materials of Demography,(Second Edition)2004. Elsevier Academic Press, California, USA.
- Mark L. Berenson, David M. Levine, Timothy C. Krehbiel, David F. Stephan-Basic Business Statistics - Concepts and Applications (Twelfth Edition) - Pearson (2011), San Francisco, New York.
- Robert Ho, (Handbook of Univariate and Multivariate Data Analysis with IBM SPSS (Second Edition) 2014, Taylor & Francis Group, London, New York.