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Myanmar and Korea have many similarities and are complementary relationship. Therefore, we believe that research exchange will expand mutual understanding between Myanmar and Korea, and will be the cornerstone for mutual development.

KOMYRA and YUE have co-published The Myanmar Journal since August 2014. So far, many scholars have published numerous papers through the journal, and We are sure that this journal has helped many people understand Myanmar and Korea more clearly and closely.

The Myanmar Journal covers various issues in Myanmar and Korea. It covers various topics that can promote bilateral development and mutual understanding, not limited to specific topics such as economy, industry, society, education, welfare, culture, energy, engineering, healthcare, and agriculture.

We hope that this journal will continue to promote understanding of the current status and potential capabilities of Myanmar and South Korea and promote in-depth international exchange and cooperation.

We would like to express our deepest gratitude to the editorial board and YUE and KOMYRA for their valuable support in The Myanmar Journal publication.

February 28, 2022

Youngjun Choi *yj choi*

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The Myanmar Journal (ISSN 2383-6563) is the official international journal co-published by Yangon University of Economics (YUE) and Korea Myanmar Research Institute (KOMYRA).

This journal aims to promote the mutual cooperation and development of Myanmar and Korea through intensive researches in the entire field of society, economy, culture, and industry.

It will cover all general academic and industrial issues, and share ideas, problems and solution for development of Myanmar.

Articles for publication will be on-line released twice a year at the end of February and August every year on the Myanmar Journal webpage (http://www.komyra.com/bbs/board.php?bo_table=articles).

POVERTY STATUS OF EVER MARRIED WOMAN AGED (15-49) YEARS IN MYANMAR

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Yangon University of Economics

ABSTRACT : Poverty can be defined in various ways. It means as a situation when the total income is insufficient to obtain the minimum necessities for the maintenance of merely physical efficiency. According to World Development Report (1990), poverty defines as the inability to attain a minimum standard of living. Poverty may be both sociological and economic phenomena. The present study examines the association between poverty status and socioeconomic-demographic characteristics of ever married women aged (15-49) years in Myanmar. The study is based on Cross-tabulation, Chi-square test and Binary Logistic Regression Model. The study found that demographic and socioeconomic variables such as age of women, marital status, number of living children, type of place of residence, states/regions, education level of women and their husbands and occupation of women's husbands have a significant impact on poverty status of ever married women. The older married women have reduced poverty status. Women in rural areas are more poverty as compared with women in urban areas. And more educated women and their husband have more chance to reduce poverty. Therefore, government and policy makers should be more taken to multi-faceted rural development, enhancement of women's education programs, and gender equality for Myanmar.

Key words : *Poverty status, Ever married women, Chi-square test, Binary Logistic Regression Model*

I. Introduction

Poverty is being the most undesirable socio-economic problem of a nation. Poverty describes a condition in which a person or community lacks the financial

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resources and essentials for a minimum standard of living. Poverty defines that the income level from employment is so low that basic human needs can't be met. According to the World Bank, about 9.2% of the world or 689 million people live in extreme poverty on less than \$1.90 a day in 2019. In the United States, 10.5% of the population or 34 million people live in poverty as of 2019. For an individual in the United States, the poverty line to be \$12,880 a year or about \$35.28 per day.

Poverty is a complex and multidimensional problem in both the national and international domains. The multidimensional poverty uses beyond income to measure a person's healthcare, education, and living standards to determine poverty levels. The Beijing Declaration and Platform for Action described that poverty is closely related to gender as the risk of falling into poverty is much greater for women than for men. In the developed countries, the female-headed households such as single mother families, unmarried women, widows, divorcees and elderly women were identified as poor women (Goldberg and Kremen, 1990; Gelpi, et al, 1986; Northrop, 1994; Thomas, 1994). Bastos et al. (2009) have noted that poverty is not a gender-neutral condition, as its scene is greater among women than men; moreover, the poverty experience of men and women are in distinctive ways. According to a new report issued by the ILO in Myanmar, women have been involved in the important role of current and future growth. Nowadays, about hundreds thousands of women are working in Myanmar's garment industry and they are making an essential contribution to the country's development efforts.

In Myanmar, 24.8% of 53.38 million populations were below the national poverty line and poverty rate for 2017 was 54.30% according to the data of Asian Development Bank (ADB). About one percent is the proportion of employed population below \$1.90 purchasing power parity a day in 2019. National plan is prior to health care, educational development, increasing living standard, welfare and promoting infrastructures. One of 17 global goals for sustainable development in Myanmar is to end poverty. According to the poverty dynamics report in Myanmar (2019-2010), the main reasons for entry into poverty are predominantly the effects of family size, storms, floods and stagnant water, extreme weather, such as Cyclone Nargis and the lack of, loss of, or inability to work because of a loss of markets or job. In Myanmar, the workforce is relatively under-educated and low skilled. Based on a UNDP 2007 analysis, the poorest states and region in Myanmar are Kayah, Rakhine, Shan, Kachin and Chin.

II. Literature Review

Kamuzora (2001) discussed an analysis of the relation of poverty level with household size by using possession index, quality of housing and sanitation. And then, the secondary dataset obtained from the country-wide Demographic and Health Surveys (DHS) of the 1990's; 10 countries from eastern and southern Africa and 11 from the western region. This paper was looking out for varying patterns thereof, but taking into account the correlates of poverty is made. First simple bivariate patterns of percent less poor by household size will be looked at and country poverty levels across Africa will also be observed. Second, analysis of these patterns is done by logistic regression: controlling for intervening factors of poverty, contrast of poverty level by household size with the largest is made. The result indicated that households headed by older females, or any headed by an older person with higher education, to be less poor. Based on this result, it is both a life cycle buildup of wealth and perhaps emergence of a female economy.

Hashmi et al. (2008) examined to look into rural poverty trends and determinants of rural poverty in two selected districts. This study applied in a unique five year panel data set together with the sub-sample of PRHS by using logit model from the late 1980s to 2002. The main purpose of this study was to explain the relationship between the agriculture growth and magnitude of rural poverty and the factors determined the poverty status. Over the periods of 16 years, the incidence of poverty became increasing the trends of rural poverty in panel. According to the results, it showed to increase the chance of a household being poor due to its household size, dependency ratio and residential district. It is higher for a household living in Attock. This study found that "the greater number of adults male and female members of households, the less probability of being poor". It meant that the more adult members make the poverty less. Moreover, it showed that the male and female with the primary and secondary education also had very strong negative relationship in regard of poverty.

Achia et al. (2010) examined the determinants of poverty in Kenya. The paper used the data on income, expenditure and consumption which was obtained from the Demographic and Health Surveys (DHS). It used the Logistic regression and SES which includes poor and non-poor as the dependent variable and a set of demographic variables as the independent variables. As the result, educational attainment has negative relationship with household being poor. The household living in either rural or urban area is related to the probability to be poor. However, usual township is also significantly related with poverty. Besides, household head's age, religion, region and ethnicity are the other demographic factors which increase the

probability of being poor. In addition, size of household head is also significantly associated with poverty.

Rahman (2013) focused to identify the factors explained their relative effect on poverty of the household. To determine the extent to which the factors influence the probability of a household being poor, the standard econometric method of logistic regression technique has been used in this paper. It is based on data obtained from a sample survey conducted in Bangladesh during 2008-09. A multi-stage stratified random sampling technique without replacement was used to select sample locations and respondents. Based on these findings, poverty was significantly associated in households with young household heads, low-level education of the household heads, female heads, disability of household members, larger size, a predominance of female members, excessive dependency burden or a high proportion of female workers.

Farah (2015) mentioned that a poverty line using demographic and household data of Bangladesh. An asset index has been developed by using Principal Component Analysis (PCA) following Achia, Wangombe and Khadioli (2010) from asset ownership variables in the Bangladesh Demographic and Health Survey (2011). In this paper, a poverty line applied to identify the poor and non-poor households. To identify the key determinants of poverty in Bangladesh, a logistic regression analysis has been done finally. Based on the result, the educational level impacted on the probability of a household being non-poor increased. Achieving higher education can guide a household from being poor to non-poor. The regression result found that a rural family has a high probability of being poor. The rural/urban variable is statistically significant and this variable can be the reason of a household being poor.

Garza-Rodriguez et al. (2015) explained to analyze the dynamics of chronic and transient poverty in Mexico by using a multinomial logistic regression model based on panel data from the Mexican Family Life Survey. It was found that there were 36% of households being poor chronically and 64% transiently poor. It also found that the variables as an ethnic group, living in a rural area, a large family size, having a high percentage of older adults and children in the household and having a female household head are directly related with chronic poverty. This model was conducted to investigate various socioeconomic and demographic variables affected on the dynamics of household poverty. The result showed that female-headed household head is positively associated with falling into chronic poverty, and inversely related to the probability of the household being non-poor. It was also found that the greater the level of education of the household head, the lower the probability of reducing poverty, and also the greater the probability that the household being out of poverty.

Garza-Rodriguez et al. (2021) explained in the determinants of poverty for Mexican households. The study used a probit model and a quantile regression model

by using data from the Mexican National Household Income and Expenditure Survey (2018). According to both models, it suggested that female-headed households with more than one member are more likely to be poor. The result by the quantile regression analysis can show the better and useful information for the design and application of policies to combat poverty by identifying the factors having a greater effect on each group of poor people throughout the income distribution among the poor.

OBJECTIVES OF THE STUDY

The objectives of the study are:

- (i) To investigate the poverty status of ever married women aged (15-49) years in Myanmar.
- (ii) To examine the association between poverty status and demographic and socioeconomic characteristics of ever married women aged (15-49) years in Myanmar.
- (iii) To analyze the effects of demographic and socioeconomic characteristics of ever married women aged (15-49) years on poverty status in Myanmar.

III. Data and Method

In this paper, the secondary data for child ever born to married women of age 15-49 data were obtained from Myanmar Demographic and Health Survey (MDHS) 2015-2016. MDHS organized data for multiple indicators of demographic and health information (Ministry of Health and Sports and ICF 2017). Approval was obtained from Myanmar Ministry of Health and Sports and the DHS Program to use the datasets for this study. In MDHS (2015-2016), only 8739 ever married women from 12,885 women age (15-49) years are used for this study.

1. Description of Variables

The requirement of dependent and independent variables for fitting models is shown in below. In this paper, the dependent variable is poverty status of ever married women aged (15-49) years.

$$Y = 1, \text{ if poor} \\ = 0, \text{ if non-poor}$$

Independent Variables are demographic characteristics such as age and marital

status of ever married women, the number of living children, types of place of residence, and states/ regions.

Women's Age:

- X1 = 1, if 15-19
- = 2, if 20-24
- = 3, if 25-29
- = 4, if 30-34
- = 5, if 35-39
- = 6, if 40-44
- = 7, if 45-49

Women's Marital Status:

- X2 = 1, if women are married
- = 2, if women are widowed
- = 3, if women are divorced/ separated

Number of Living Children:

- X3 = 1, if women have no children
- = 2, if women have 1 to 3 children
- = 3, if women have 4 children and above

Types of Place of Residence:

- X4 = 1, if rural
- = 2, if urban

States/ Regions:

- X5 = 1, if women live in Rakhine
- = 2, if women live in Ayeyarwady
- = 3, if women live in Chin
- = 4, if women live in Tanintharyi
- = 5, if women live in Kachin
- = 6, if women live in Bago
- = 7, if women live in Naypyidaw
- = 8, if women live in Mon
- = 9, if women live in Magway
- = 10, if women live in Kayin
- = 11, if women live in Yangon
- = 12, if women live in Sagaing
- = 13, if women live in Kayah
- = 14, if women live in Mandalay
- = 15, if women live in Shan

And socioeconomic characteristics such as education of women, women's occupation, and currently working status of women, husband's education and

husband's occupation are used in the study.

Women's Education Level:

- X6 = 1, if women's education level is no education
- = 2, if women's education level is primary
- = 3, if women's education level is secondary
- = 4, if women's education level is higher

Women's Currently Working Status:

- X7 = 1, if women are not working
- = 2, if women are working

Husband's Education Level:

- X8 = 1, if husband's education level is no education
- = 2, if husband's education level is primary
- = 3, if husband's education level is secondary
- = 4, if husband's education level is higher

Husband's Occupation:

- X9 = 1, if husband's occupation is not working
- = 2, if husband's occupation is unskilled
- = 3, if husband's occupation is agricultural
- = 4, if husband's occupation is skilled
- = 5, if husband's occupation is professional
- = 6, if husband's occupation is others (clerical, sales, household and domestic and Services)

2. Statistical Modelling and Data Analysis

For the purpose of this paper, descriptive statistics is based on to interpret the demographic and socioeconomic situation of ever married women aged 15 to 49 years of Myanmar. Secondly, the relationship between demographic and socioeconomic characteristics and poverty status is explored by Chi-square test. For the multivariate analysis, a binary logistic regression model is finally used to determine demographic and socioeconomic characteristics related to poverty status of ever married women aged (15-49) years in Myanmar. And then binary logistic regression model is analyzed by using STATA, data analysis was carried out in multiple phases.

IV. Results

Appendix Table 1 describes the descriptive statistics of demographic and socioeconomic characteristics. And the association between poverty status and demographic-socioeconomic characteristics is investigated by Cross-tabulation and Chi-square test. The demographic characteristics are age of women, marital status of women, number of living children, types of place of residence and states/regions. The socioeconomic characteristics are education level of women, currently working status of women, education levels and occupation of their husbands.

Regarding to age of ever married women, it can be seen that 1,615 (18.48%) of the women are age groups of 35 to 39 years and 256 (2.93%) of the women are age groups of 15 to 19 years. About ninety percent of women are married women, 448 (5.13%) of women are divorced and separated women and 421 (4.82%) of all women are widowed. And then concerning with living children in the family members, 1009(11.55%) of women have no children, 5850 (66.94%) of women have one to three living children, 1880 (21.51%) of women have four children and above. About seventy-three percent of women are living in rural areas and 27% of women are living in urban areas. According to the data, the most women (7.7%) are living in Sagaing region. Although the most ever married women (46.06%) attained primary education level, 15.66% of women have no education and fewer women (7.53%) attained higher education. Regarding currently working status of women, most of women (62.3%) have job and 37.7% of women have no job. And then the fewer husbands of those women (6.09%) have higher education. Although the fewer husbands of ever married women (8.35%) are professional workers, the most husbands of those women (37.56%) have unskilled occupation.

According to results of chi-square test, the association between women's poverty status and the age of women, number of living children, types of place of residence, states and regions, women's education level, women's currently working status, husbands' education and husbands' occupation are significance at 1% level. According to results of cross-tabulation, the poverty of married women group of age 25 to 29 years is the most and married women group of age 45 to 49 years is less poor than the other age groups. In women's marital status, it is found that divorced women 43.75% are highest poor, followed by widowed women and married women. Regarding the number of living children, women who have no children 33.40% are lowest and women who have 4 children and above 56.54% are highest in poverty. In the type of place of residence, most of women living in rural areas (53.53%) are highest in poor. Among fifteen states and regions, 19.14% of women living in Yangon are lowest poverty and 73.96% of women living in Rakhine are the highest

in poor. According to women's education level, 69.01% of women with no education are the highest poverty and followed by women with primary, secondary and higher education. In women's currently working status, 40.97% of women who are working are the less poverty and 44.02% of women who are not working are highest poverty. Regarding husband's education, most of their husband with higher education level (3.20%) are lowest in poor and their husband with no education (64.93%) are highest in poor. Concerning their husband's occupation, 58.59% of their husband with unskilled occupation is highest in poor and most of their husband with professional and others occupations (clerical, sales, household and domestic and services) are the lowest poverty status.

The overall model evaluation criteria of binary logistic regression model for poverty status of ever married women aged (15-49) years in Myanmar are described in Appendix Table 2. According to the result of table, the value of Chi-Square statistics is 3571.05 and it can be concluded that the model is significant at the 1% level. Therefore, this model can be explained the association of poverty and women's age, women's marital status, number of living children, types of place of residence, states/ regions, women's education level, women's currently working status, husband's education level and husband's occupation. Pseudo R-square, Cox & Snell R-square, and Nagelkerke R-square values are 0.303, 0.338 and 0.455 respectively, suggesting that 30.3%, 33.8%, and 45.5% of the variation in poverty can be explained by the independent variables used in this model.

The parameter estimates of binary logistic regression model for poverty status of ever married women aged (15-49) years in Myanmar are investigated in Appendix Table 3. By the result of Appendix Table 3, age of women has negative effect on poverty status. Ever married women with 30-34 years, 35-39 years, 40-44 years and 45-49 years are about 0.28 times, 0.51 times, 0.66 times and 0.86 times less respectively to be poor as compared to ever married women with age 15-19 years. This study finds that poverty status has decreased the older married women. While comparing widowed women with married women, widowed women are 1.47 times poorer than married women. Because widowed women earn only own income and they cannot get husband salary. The number of living children in household has positive effect on poverty status. When comparing to married women have no children, married women have 1 to 3 children and married women have 4 children and above are about 1.43 times and 2.34 times more to be poor. In addition, women live in urban areas are 0.78 times reduce poverty as compared with those live-in rural areas. States and regions have negative effect on poverty status. Ever married women live in Chin, Tanintharyi, Kachin, Bago, Naypyidaw, Mon, Magway, Kayin, Yangon, Sagaing, Kayah, Mandalay and Shan are about 0.4 times, 0.69 times, 0.69 times, 0.66 times, 0.64 times, 0.74 times, 0.73 times, 0.79 times, 0.78 times, 0.86

times, 0.86 times, 0.86 times and 0.88 times less respectively to be poor as compared to ever married women live in Rakhine. It might be due to the developed transportation, economics and facilities of these thirteen status and regions.

Education levels of ever married women have negative effect on poverty status. In comparing women have no education, women with primary, secondary and higher education levels are about 0.49 times, 0.78 times and 0.96 times less likely to be poor. This study finds that poverty status has decreased ever married women with higher education level. Because more educated women have more chance to get a job with high salary. In addition, education levels of their husband have negative effect of poverty status. Husband with primary, secondary and higher education are about 0.26 times, 0.6 times and 0.83 times less likely to be poor as compared with husband with no education. It finds that poverty has decreased women's husband with all education levels. Occupation of women's husband has negative effect on poverty status. While comparing women who have husband with unskilled occupation, women who have husband with agricultural, skilled, professional and others (clerical, sales, households and domestic and services) are about 0.42 times, 0.57 times, 0.75 times and 0.74 times less likely to be poor. Therefore, women's husband with higher education can get a job with high salary.

V. CONCLUSION, DISCUSSIONS AND RECOMMENDATIONS

Ending poverty has been the vital point in Myanmar, as it has been shown to be essential for sustainable development goals. In Myanmar, 24.8% of the population lives below the national poverty line in 2017. The study described determinants of poverty status of ever married women aged (15-49) years in Myanmar. An analysis was done using 8739 ever married women aged (15-49) years from MDHS data. In this study, descriptive analysis, Chi-square test and binary logistic regression model are used. According to the results of Chi-square test, demographic characteristics such as women's age, number of living children, types of place of residence and states/ regions are significant predictors of poverty status. And also, socioeconomic characteristics such as education levels of women, currently working status of women, education levels and occupations of their husbands are significant effect on poverty status.

The analysis of the association between poverty status and demographic and socioeconomic characteristics of ever married women aged (15-49) years revealed the following points:

- (i) Young aged married women, having more living children and widowed women

increase the risk of poverty.

- 9ii) Women live in rural areas are more poverty than those in urban areas. Women living in Rakhine are compared with women living in another thirteen states and regions shows increasing the risk of poverty. It might be due to the less developed transportation, economics and facilities of Rakhine regions.
- (iii) Married women and their husbands with higher education level have more chance to decrease the risk of poverty.
- (iv) The risk of entering poverty is found to be high for household head with unskilled occupations.

The involvements of those findings for policy development are immense particularly for a nation such as Myanmar where poor workers constitute in an overwhelming portion of the total labor force. Therefore, the government and policy makers should be recommended development projects such as employment guarantee scheme to protect the workers. And this finding showed that education was an important factor to eliminate poverty of the nation. Based on the finding of the results, the main areas of policy priority to reduce poverty in the country are:

- (i) Enhancing education and employment opportunities of women,
- (ii) Empowering of women,
- (iii) Developing transportation and growth of economics for states and regions and
- (iv) Multi-faceted developing in rural areas.

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REFERENCES

- Achia TN, Wangombe A, Khadioli N. 2010. A Logistic Regression Model to Identify Key Determinants of Poverty Using Demographic and Health Survey Data. *European Journal of Social Sciences* 13(1): 38-45.
- Alam D, Abusaad M, Israr Khan M. 2021. Determinants of Poverty in India: An ARDL Analysis. *Research Gate XII(I)*: 422-437
- Asia Development Bank. 2018. RRP: Detailed Poverty and Social Impact Analysis.
- Asia Development Bank. 2021. Poverty: Myanmar.
- Bastos A. 2009. Women and Poverty: A Gender-Sensitive Approach. *Journal of Socio-Economics* 38(5): 764-778.
- Garza-Rodriguez J, Ayala-Diaz G, Coronado-Saucedo G, Garza-Garza E, Ovando-Martinez O. 2021. Determinants of Poverty in Mexico: A Quantile Regression Analysis. *Economies* 9(2): 60.
- Garza-Rodriguez J, Fernández-Ramos J, García-Guerra A, Morales-Ramirez G. 2015. The dynamics of poverty in Mexico: A multinomial logistic regression analysis. *International Journal of Social Economics* 43(11): 1082-1095.
- Ghosh DN. 1993. *Population Economics: An Analysis of Human Resources Development*. DEEP & DEEP PUBLICATIONS, New Delhi, India.
- Gujarati DN, Porter DC. 1995. *Basic Econometric*. fourth ed. Mc Graw-Hill, New York.
- Hashmi AA, Sial M, Hashmi M. 2008. Trends and Determinants of Rural Poverty: A Logistic Regression Analysis of Selected Districts of Punjab. *The Pakistan development Review* 47(4): 909-923.
- Kamuzora CL. 2001. POVERTY AND FAMILY SIZE PATTERNS: Comparison Across African Countries. *Research on Poverty Alleviation (REPOA)*.
- Nusrat F. 2015. Impact of Household and Demographic Characteristics on Poverty in Bangladesh: A Logistic Regression Analysis. 2015 Awards for Excellence in Student Research and Creative Activity, 3.
- Ministry of Health and Sport. 2017. Myanmar Demographic and Health Survey 2015-16. The DHS Program, Nay Pyi Taw, Myanmar.
- Ministry of National Planning and Economic Development. 2011. Integrated Household Living Conditions Survey in Myanmar (2009-2010): Poverty Dynamics Report. Ministry of National Planning and Economic Development and UNDP, Nay Pyi Taw, Myanmar.
- Rahman MA. 2013. Household Characteristics and Poverty: A Logistic Regression Analysis. *The Journal of Developing Areas* 47(1): 303-317.
- Swe TD. 2019. Analysis of Health Status and Socio-Economic Characteristics of Households in Hlaing Thar Yar Township. Master Thesis. Yangon University of Economics, Department of Statistics. Myanmar.
- Thin LY. 2021. Determinants of Wealth Index of Ever Married Women Aged (15-49) Years in Myanmar. Master Thesis. Yangon University of Economics, Department of Statistics. Myanmar.

Appendix

Table 1. Percent distribution and association between poverty status and Demographic and socioeconomic characteristics of ever married women in Myanmar

Demographic and Socioeconomic Characteristics	Classification	Number	Percent	Percent of Poverty Status		Chi-Square	P-value
				Poor	Non-poor		
Women's age	15 to 19	256	2.93	46.48	53.52	68.489***	0.000
	20 to 24	926	10.6	46.44	53.56		
	25 to 29	1,399	16.01	46.82	53.18		
	30 to 34	1,591	18.21	45.13	54.87		
	35 to 39	1,615	18.48	41.98	58.02		
	40 to 44	1,520	17.39	38.55	61.45		
	45 to 49	1,432	16.39	34.64	65.36		
Women's Marital status	Married	7,870	90.06	41.99	58.01	0.6697	0.715
	Widowed	421	4.82	42.99	57.01		
	Divorced/Separated	448	5.13	43.75	56.25		
Number of living children	No children	1,009	11.55	33.40	66.60	215.095***	0.000
	1-3 children	5,850	66.94	39.01	60.99		
	4 children and above	1,880	21.51	56.54	43.46		
Types of place of residence	Rural	6,408	73.33	53.53	46.47	1.3e+03***	0.000
	Urban	2,331	26.67	10.81	89.19		
States/ Regions	Rakhine	626	7.16	73.96	26.04	711.0869** *	0.000
	Ayeyarwady	660	7.55	65.45	34.55		
	Chin	545	6.24	51.74	48.26		
	Tanintharyi	480	5.49	48.13	51.88		
	Kachin	567	6.49	31.57	68.43		
	Bago	637	7.29	42.07	57.93		
	Naypyidaw	544	6.22	43.75	56.25		
	Mon	513	5.87	41.33	58.67		
	Magway	616	7.05	41.56	58.44		
	Kayin	549	6.28	41.53	58.47		
	Yangon	648	7.42	19.14	80.86		
	Sagaing	673	7.70	30.16	69.84		
	Kayah	519	5.94	33.91	66.09		
	Mandalay	585	6.69	27.18	72.82		
Shan	577	6.60	40.03	59.97			
Women's education	No education	1,368	15.66	69.01	30.99	1.3e+03***	0.000
	Primary	4,024	46.06	51.62	48.38		
	Secondary	2,687	30.75	24.04	75.96		
	Higher	658	7.53	2.28	97.72		

Women's currently working status	No	3,294	37.70	44.02	55.98	7.8272***	0.005
	Yes	5,443	62.30	40.97	59.03		
Husband's education	No education	1,494	17.10	64.93	35.07	1.1e+03***	0.000
	Primary	3,319	37.99	52.70	47.30		
	Secondary	3,392	38.82	27.89	72.11		
	Higher	532	6.09	3.20	96.80		
Husband's occupation	Unskilled	3,248	37.56	58.59	41.41	1.1e+03***	0.000
	Agricultural	2,247	25.98	50.73	49.27		
	Skilled	1,683	19.46	23.77	76.23		
	Professional	722	8.35	13.99	86.01		
	Others	748	8.65	13.77	86.23		

Note: *, **, *** represent 10%, 5% and 1% level of significance, respectively.

Data Source: MDHS (2015-16).

Table 2. Binary logistic regression model fitting information for poverty status

Model Fitting Criteria	Chi-square value	D.f	p-value
-2 Log Likelihood	3571.05***	36	0.0000
Pseudo R-square	0.303		
Cox & Snell R-square	0.338		
Nagelkerke R-square	0.455		

Note: *, **, *** represent 10%, 5% and 1% level of significance, respectively.

Data Source: MDHS (2015-16).

Table 3. Parameter estimations of binary logistic regression model for poverty status

Demographic and Socioeconomic Characteristics	Classification	Coefficients	Odds Ratio	P-value
Constant		3.303	27.189***	0.000
Women's age	15 to 19 (ref)			
	20 to 24	-0.003	0.997	0.986
	25 to 29	-0.065	0.937	0.709
	30 to 34	-0.334	0.716**	0.054
	35 to 39	-0.71	0.492***	0.000
	40 to 44	-1.088	0.337***	0.000
Women's Marital status	45 to 49	-1.445	0.236***	0.000
	Married (ref)			
	Widowed	.386	1.472***	0.004
Number of living children	Divorced/Separated	.157	1.170	0.213
	No children (ref)			
	1-3 children	.355	1.426***	0.000
	4 children and above	.851	2.342***	0.000

Types of place of residence	Rural (ref)			
	Urban	-1.518	0.219***	0.000
States/ Regions	Rakhine (ref)			
	Ayeyarwady	-0.036	0.965*	0.0819
	Chin	-0.512	0.599***	0.001
	Tanintharyi	-1.158	0.314***	0.000
	Kachin	-1.169	0.311***	0.000
	Bago	-1.065	0.345***	0.000
	Naypyidaw	-1.035	0.355***	0.000
	Mon	-1.346	0.260***	0.000
	Magway	-1.314	0.269***	0.000
	Kayin	-1.575	0.207***	0.000
	Yangon	-1.508	0.221***	0.000
	Sagaing	-1.956	0.141***	0.000
	Kayah	-1.974	0.139***	0.000
Mandalay	-1.989	0.137***	0.000	
Shan	-2.082	0.125***	0.000	
W o m e n ' s education	No education (ref)			
	Primary	-0.664	0.515***	0.000
	Secondary	-1.5	0.223***	0.000
	Higher	-3.140	0.043***	0.000
Women's currently working status	No (ref)			
	Yes	-0.0715	0.931	0.227
H u s b a n d ' s education	No education (ref)			
	Primary	-0.299	0.742***	0.000
	Secondary	-0.909	0.403***	0.000
	Higher	-1.76	0.172***	0.000
H u s b a n d ' s occupation	Unskilled (ref)			
	Agricultural	-0.544	0.580***	0.000
	Skilled	-0.850	0.427***	0.000
	Professional	-1.380	0.252***	0.000
	O t h e r s (clerical, sales, household and domestic and services)	-1.351	0.259***	0.000

Note: *, **, *** represent 10%, 5% and 1% level of significance, respectively.
 Data Source: MDHS (2015-16).

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