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Women's Empowerment in Myanmar: An Analysis of DHS Data for Married Women Age 15-49

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**Women's Empowerment in Myanmar:
An Analysis of DHS Data for Married Women Age 15-49**

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ABSTRACT

This study investigated women's empowerment among currently married women age 15-49 in Myanmar from socioeconomic and demographic perspectives, based on data from the 2015-16 Myanmar Demographic and Health Survey (MDHS). The dimensions of women's empowerment were categorized into two parts: women's control over own earnings, and women's participation in household decision-making (decisions on major household purchases, visits to family or relatives, women's own health care, and well-being of their children). These two dimensions were converted into an index of women's empowerment. Binary logistic regression was used, by means of odds ratios, to assess the relationship between women's level of empowerment and their socioeconomic and demographic characteristics. Overall, the results found a higher empowerment level associated with women's employment, increased age, urban residence, higher educational attainment, higher wealth quintile, and lower level of husband's education. Also, women with one or two children, as well as women with three or four children, were more likely to have a high level of empowerment, compared with women with no children. About three-fourths of the women in the sample lived in rural areas. Among women in rural areas, those found to have a higher level of empowerment had more education, were employed, and had higher household income. Generating employment opportunities for women and educating women are important factors that can lead to an increase in women's income, and thus help raise levels of women's empowerment.

KEY WORDS: Women's empowerment, socioeconomic and demographic characteristics, currently married women, binary logistic regression

1 INTRODUCTION

Women are a growing part of the domestic and global workforce. Despite this, discrimination against women in the household and workforce continues to be a problem worldwide. With the focus of development now on alleviating world poverty, there is a consensus for empowering women and promoting gender equality around the world. Women's empowerment is one of the United Nations Sustainable Development Goals (SDGs). Among the 17 SDGs, with 169 targets, Goal 5—"Achieve gender equity and empower all women and girls"—is especially aimed at improving the status of females. Women's rights and issues have become a subject of serious concern among both academicians and policymakers in developed and developing countries.

The concept of women's empowerment is multidimensional, complex, and context-specific. Thus, what is valid in one county may not be valid for other counties, since sociocultural systems differ significantly from one setting to another, and even within the same country. As women are divided by heterogeneous categories based on class, lifecycle, or ethnicity, it is essential to study women's empowerment from different perspectives. This study thus aims at how socioeconomic and demographic factors shape women's empowerment in Myanmar and attempts to contribute to the government's efforts to mainstream the gender dimension into the country's development policies and programs.

1.1 Background

Women in developing countries usually take part in the production process in agriculture and in both the formal and informal sectors of the economy. In recent times women often have two jobs, within the home and outside it, but their roles are often ignored and their work is generally undervalued, and the additional burden that development imposes on women is usually unrecognized. In Myanmar, among the total population of about 51 million, 25 million are male (48%) and 27 million are female (52%), according to the 2014 Population and Housing Census. Among women, 58% are currently married, and 87% are literate, while women head 24% of households.

Traditionally, women in Myanmar have responsibilities in bringing up the children, managing household chores, and giving affection to all members of the family. But women also provide an important source of labor in the economy. The 2014 Census shows that among the population age 15-64, 67% are in the labor force. The proportion of males in the labor force is much higher (85%) than that of females (51%). The census further shows that the proportion of employed persons among persons age 15-64 is 64%. The employment-to-population ratio is much higher for males, at 82%, and lower for females, at 48% (Department of Population 2018).

The UN Human Development Report ranks Myanmar as 80th of 159 countries in the 2015 gender inequality index (UNDP 2016). The government has been striving to achieve women's empowerment and gender equality by collaborating with the UN, non-governmental organizations (NGOs), and international non-governmental organizations (INGOs). The government makes concerted efforts to promote the status of women through the National Strategic Plan for the Advancement of Women (2013-2022) by the Ministry of Social Welfare, Relief, and Resettlement.

With government encouragement for women's empowerment, many women have become senior officers in public sectors and entrepreneurs in private sectors. In 2012-13 the percentage of female executives in government ministries was 38%, increasing to 39% in 2015-16. The share of women elected Member of Parliament has risen from 6% in 2010-15 to 15% in 2016-21 at the Union Parliament. At the State and Regional level, the share of women elected Member of Parliament has increased from 3% in 2010-15 to 13% in 2016-21. Among 14 States and Regions, two female Prime Ministers have been appointed at State and Region levels in Myanmar (Ministry of Labour, Immigration and Population 2017).

It is apparent that at present the status of women in Myanmar is significant. Nevertheless, women's empowerment and equality are needed for more improvement in some areas. Although the government's commitment to women's empowerment is substantial, it is essential to explore the underlying factors determining women's empowerment. At the present time, various efforts have been made internationally to develop a comprehensive understanding of women's empowerment and gender equity from various points of view. As more evidence is seen of the link between gender equality and women's empowerment, economic growth, and sustainable development, the interest in investigating women's empowerment has grown. Thus, in this study women's empowerment is considered from the perspective of women's decision-making within the household, and from economic and social perspectives.

1.2 Conceptual Framework

Since the 1990s, women have been identified as key agents of sustainable development, with women's empowerment and equity viewed as important aspects of social and economic progress. At the UN Fourth World Conference on Women, held in Beijing in 1995, women's empowerment was introduced to an expanded audience of state actors and governments. The signatories of the conference pledged to advance women's empowerment worldwide. Their vision of women's empowerment stressed three main fundamentals:

- It was a sociopolitical process.
- Power was critical to empowerment.
- The process promoted shifts in political, social, and economic power between and across individuals and group (UN 1996).

These fundamental notions of empowerment have been incorporated into the growing literature on the conceptualization of women's empowerment. Kabeer (1999) noted that women's empowerment represented "the expansion in women's capability to make strategic life choices in a context where this capacity was formerly denied to them." Malhotra et al. (2002) proposed determining the general development of empowerment at different levels and in six dimensions: economic, sociocultural, familial/interpersonal, psychological, legal, and political. The authors defined women's empowerment as "a process of women gaining more power or security." Krishna (2003) described women's empowerment as "the process of increasing capacity to make choices and to change these choices into desired actions and outcomes." Parveen and Leonhauser (2004) identified women's empowerment as an essential precondition for the elimination of world poverty and upholding of human rights, in particular at the individual level, in that it helps build a base for social change.

The UN has also defined women's empowerment as a process whereby women become able to organize themselves to increase their own self-reliance, to assert their independent right to make choices, and to control resources, which will assist in challenging and eliminating their own subordination (Malhotra et al. 2002). Women's empowerment is a process that relates to the power of an individual to redefine her possibilities and options and to have the ability to act upon them (Eyben et al. 2008). It is also related to the influence of an individual on the social and cultural norms, informal institutions, and formal institutions in society. Women can be empowered in many dimensions—socially, economically, politically, and legally.

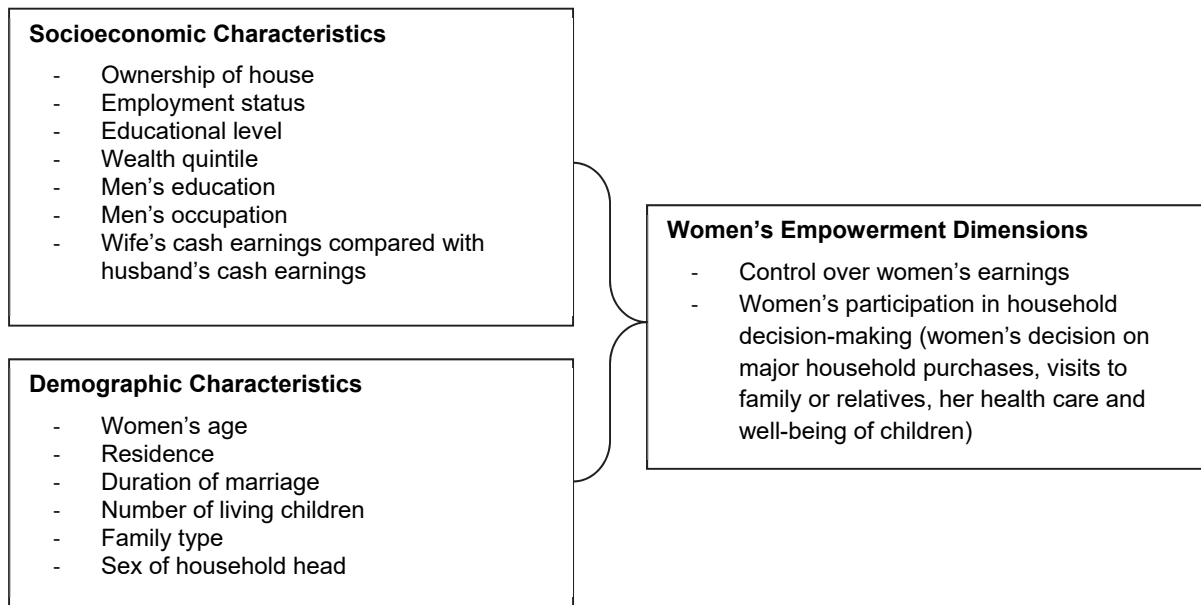
When defining women's empowerment, one of the similarities in the literature is the concept of women's decision-making power as an indicator of empowerment (Snijders 2009). In the dimension of women's empowerment, gender equality and gender equity are terminologies that are interrelated. Equality implies the condition or quantity of being equal, and equity is the equality of rights. The concept of empowerment in gender and development often means working with women at the community level, building organizational skills. Wiklander (2010) states that household-level statistics are important to investigate to be able to reflect the situation of all individuals within the household. Sharma and Shekhar (2015) also identify a positive relationship between women's empowerment and their socioeconomic and demographic characteristics. The authors observe that women's empowerment encompasses voice, mobility, decision-making power in the household, and freedom of choice.

A study in Burkina Faso showed that women's decision-making was positively associated with cash employment, formal education, and higher household wealth (Wayak Pambè et al. 2014). The study found that high levels of human capital and financial autonomy influenced women's participation in decision-making. In acceptance of traditional gender roles, neither education nor financial autonomy was sufficient to assert women's empowerment. Boateng and colleagues (2014) showed that among married women in Ghana, wealthier women were significantly more likely to be involved in decision-making on their own health care. Also, age, tertiary education, and employment significantly shaped their involvement in household decision-making. Surprisingly, married women in the Upper East region of Ghana (the second poorest) were significantly more likely relative to women in the Greater Accra region (the capital) to be involved in household decision-making, except for decisions on large household purchases.

In Nepal studies, Acharya and colleagues (2010) and Furuta and Salway (2006) reported that women's higher socioeconomic status, namely women's increasing education and participation in wage work, were positively related to women's greater decision-making in the household. An analysis of women's empowerment in Monywa Township, Myanmar, Thida Htay (2016) found that women with a high level of income were most likely to have a high level of empowerment; media exposure showed a significant relationship with women's empowerment, whereas family structure and type of residence had no impact on empowerment.

As discussed above, various scholars and organizations have offered definitions of women's empowerment and have examined women's empowerment from different perspectives. To observe women's empowerment in this study, different dimensions of women's empowerment covering a wide range of attributes are considered and their relationship with socioeconomic and demographic characteristics is investigated. Figure 1 presents the conceptual framework of this study.

Figure 1 Conceptual framework



1.3 Research Questions

The objective of this study is to investigate the relationship between women's economic, social, and demographic status and two dimensions of women's empowerment, among currently married women age 15-49 in Myanmar. To meet the research objective, the research questions are:

1. How are socioeconomic and demographic characteristics related to women's control over their earnings?
2. How are socioeconomic and demographic characteristics related to women's participation in household decision-making?
3. How are socioeconomic and demographic characteristics related to overall women's empowerment?

2 DATA AND METHODS

2.1 Data

In analyzing women's empowerment, a wide variety of political, social, and economic determinants can be used, as empowerment is a multidimensional concept. Moreover, women's empowerment can be explored at the international, national, community, and household levels. In this study, emphasis is made on women's empowerment at the national level in a household-based analysis that considers only social and economic aspects.

The analysis uses datasets from the newly available national 2015-16 Myanmar Demographic and Health Survey (MDHS), which collected 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. The MDHS data are publicly available free of charge from The DHS Program in the form of standard recode data files, at <https://www.dhsprogram.com/Data/>.

The data analysis of this study focuses only on currently married women age 15-49. Although data on 12,885 women are available from the 2015-16 MDHS, this study was limited to 7,870 currently married women age 15-49. To obtain nationally representative estimates, sampling weight was applied and the final weighted samples included 7,758 currently married women age 15-49, except for the variable on control over women cash earnings where only 5,114 married women age 15-49 who are working were considered.

2.2 Key Variables and Measurements

Table 1 shows the identification and measurement of dependent and independent variables considered for fitting six models in this study. For each of our independent variables, women are considered to exercise control over earnings or decision-making if they do so alone or jointly with their husband/partner.

Table 1 Identification of dependent and independent variables

Dependent variables	Independent variables	
Model (1) Control over women's earnings Y = 1 if woman alone and woman and husband/partner = 0 if husband/partner alone, someone else and other	Ownership of the house X ₁ = 1 if woman does not own the house = 2 if woman alone, woman jointly owns and woman alone and jointly owns	No. of living children X ₈ = 1 if no children = 2 if 1 and 2 children = 3 if 3 and 4 children = 4 if 5 children or more
Model (2) Women's own decision on major household purchases Y = 1 if woman alone and woman and husband/partner = 0 if husband/partner alone, someone else and other	Women's employment status X ₂ = 1 if woman is currently unemployed = 2 if woman is currently employed	Men's educational level X ₉ = 1 if no education = 2 if primary = 3 if secondary = 4 if higher
Model (3) Women's own decision on visits to family or relatives Y = 1 if woman alone and woman and husband/partner = 0 if husband/partner alone, someone else and other	Women's educational level X ₃ = 1 if no education = 2 if primary = 3 if secondary = 4 if higher	Men's occupation X ₁₀ = 1 if unskilled manual = 2 if skilled manual = 3 if professional/technical/managerial = 4 if agricultural (self-employed and employee) = 5 if others
Model (4) Women's own decision on health care Y = 1 if woman alone and woman and husband/partner = 0 if husband/partner alone, someone else and other	Wealth quintile X ₄ = 1 if poorer and poor = 2 if middle = 3 if richer and richest	Wife's cash earnings compared with husband's cash earnings X ₁₁ = 1 if more than him or same as him = 2 if less than him = 3 if husband/partner does not bring in money or don't know
Model (5) Women's own decision on well-being of children Y = 1 if woman alone and woman and husband/partner = 0 if husband/partner alone, someone else and other	Women's age X ₅ = 1 if 15-19 years = 2 if 20-34 years = 3 if 35-49 years	Family type X ₁₂ = 1 if nuclear family = 2 if extended family
Model (6) Overall women's empowerment Y = 1 if high level of empowerment indices (4-5 items) = 0 if low level of empowerment indices (0-3 items)	Duration of marriage X ₆ = 1 if 0-9 years = 2 if 10-19 years = 3 if 20-29 years = 4 if 30 years and above	Sex of household head X ₁₃ = 1 if male = 2 if female
	Residence X ₇ = 1 if rural = 2 if urban	

2.3 Logistic Regression

Logistic regression is used in many fields such as business and finance, engineering, marketing, economics, and medicine. Logistic regression deals with relationships among variables, with one variable being the dependent (outcome or response) variable and the others the independent (predictor or explanatory) variables. The independent variables can be continuous or categorical in nature. Logistic regression revolves around a core concept called the odds ratio. The goal of logistic regression is to predict the category of outcome for individual cases using the most parsimonious model. It uses the prediction of group membership and measures the associations and strengths among the variables.

The dependent variable in logistic regression is dichotomous—that is, the dependent variable can take the value 1 with a probability of success, $P(Y=1) = p_i$, or the value 0 with a probability of failure, $P(Y=0) = 1 - p_i$. This is called a Bernoulli or binary variable. The applications of logistic regression have been

extended to cases where the dependent variable is more than two cases, known as multinomial logistic regression.

The binary logistic regression model is

$$Y_i = E(Y_i | X_i) + \varepsilon_i \quad (1)$$

$$\text{where } E(Y_i | X_i) = p_i = \frac{1}{1 + e^{-(\beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_i X_i)}} \quad (2)$$

β_0 = the constant of the equation

β_i = the coefficient of the predictor variable i

ε_i = the error term

p_i = probability of success

$1 - p_i$ = probability of failure

$$\text{Odds ratio} = \frac{p_i}{1 - p_i} \quad (3)$$

Taking the natural log of equation (3)

$$L_i = \ln\left(\frac{p_i}{1 - p_i}\right) = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_i X_i \quad (4)$$

2.4 Statistical Analysis

For the multivariate analysis, a binary logistic regression model is used when the dependent variable is dichotomous, such as women's participation in decision-making. Using STATA Version 15.1, data analysis was carried out in multiple phases. First, by means of binary logistic regression analysis, five different models (Models 1 to 5) were fitted for one item in the control over women's own earnings, and four items in the decision-making dimensions of women's empowerment—women's own decision on major household purchases, women's own decision on visits to family or relatives, women's own decision on health care, and women's own decision on well-being of children. The independent variables used are mentioned in Table 1. Second, an overall women's empowerment index was calculated based on these five different variables. The overall women's empowerment index of 0 to 3 and 4 to 5 are considered as low and high levels, respectively. Finally, the binary logistic regression model (Model 6) for overall women's empowerment level was carried out to determine the socioeconomic and demographic factors related to women's empowerment.

3 RESULTS

3.1 Descriptive Analysis

Table 2 provides information on demographic and socioeconomic characteristics of women included in the study, as well as descriptive statistics on their participation in household decision-making. By age, the group is divided nearly equally between age 20-34 and 35-49, with only 3% age 15-19. Nearly nine women in every ten live in a household headed by a male. The vast majority of women, 74%, live in rural areas, while 47% have a primary-level education, 64% are currently employed, 41% are in the poorest or poorer wealth quintiles, and 39% have cash earnings less than their husband's.

Table 2 Percent distribution of women's participation in decision-making by socioeconomic and demographic characteristics

Characteristic	Percent	Women's control over earnings and participation in decision-making					Well-being of children	Number of women
		Control over women's earnings	Major household purchases	Visits to family or relatives	Own health care			
Ownership of house								
Woman does not own	33.4	91.1	83.2	81.9	83.2	88.9	2.593	
Woman alone and woman jointly owns	66.6	92.1	83.6	82.7	83.6	92.6	5.165	
Women's employment								
Currently unemployed	36.4	88.5	82.0	80.6	82.0	90.3	2.821	
Currently employed	63.6	92.2	84.3	83.4	84.3	92.0	4.937	
Women's education¹								
No education	15.4	90.1	81.1	80.4	81.1	89.5	1.193	
Primary	47.1	91.1	82.6	82.2	82.6	91.7	3.656	
Secondary	29.5	92.7	84.1	82.6	84.1	91.5	2.285	
Higher	8.0	96.5	90.5	87.3	90.5	92.6	621	
Women's age								
15-19 years	2.9	78.1	70.4	74.8	70.4	74.1	227	
20-34 years	46.4	90.5	83.0	81.6	83.0	90.5	3.597	
35-49 years	50.7	93.7	84.6	83.6	84.6	93.1	3.934	
Wealth quintile								
Poorest and poorer	41.3	90.2	79.9	79.1	79.9	89.6	3.207	
Middle	20.1	91.5	84.9	83.4	84.9	92.3	1.555	
Richer and richest	38.6	93.8	86.5	85.4	86.5	92.8	2.996	
Duration of marriage								
0-9 years	37.7	89.2	81.7	80.9	81.8	87.9	2.928	
10-19 years	35.2	93.5	84.1	82.6	84.1	93.3	2.729	
20-29 years	23.9	92.7	85.1	84.3	85.1	93.6	1.858	
30 years and above	3.2	95.0	83.6	83.3	83.6	93.4	243	
Residence								
Rural	73.9	91.2	81.8	80.9	81.8	91.0	5.736	
Urban	26.1	93.7	88.1	86.5	88.1	92.3	2.022	
Number of living children								
No children	11.8	87.2	74.4	74.2	74.4	75.0	916	
1-2 children	52.3	92.4	85.4	84.3	85.4	93.7	4.061	
3-4 children	27.1	92.6	84.3	82.9	84.3	94.2	2.098	
5 children and above	8.8	92.1	81.1	80.3	81.1	90.6	683	

Continued...

Table 2—Continued

Characteristic	Percent	Women's control over earnings and participation in decision-making					
		Control over women's earnings	Major household purchases	Visits to family or relatives	Own health care	Well-being of children	Number of women
Men's education¹							
No education	16.1	93.2	83.0	81.7	83.0	90.1	1,248
Primary	40.0	91.5	83.2	82.5	83.2	92.4	3,103
Secondary	37.6	91.0	83.3	82.4	83.3	90.6	2,915
Higher	6.3	94.5	86.5	84.1	86.5	92.7	490
Men's occupation²							
Unskilled manual	36.8	91.6	81.5	80.9	81.5	91.3	2,853
Skilled manual	19.4	94.5	84.8	83.5	84.8	92.5	1,508
Professional/technical/managerial	7.4	95.5	88.0	85.7	87.9	90.2	573
Agricultural	25.5	89.2	82.4	81.0	82.5	91.0	1,980
Other	9.6	91.1	87.3	87.0	87.4	91.4	745
Wife's cash earnings compared with husband's cash earnings³							
More than him or same as him	26.2	91.5	85.4	85.0	85.4	93.9	2,033
Less than him	38.7	92.1	83.1	81.8	83.1	90.6	3,003
Husband/partner doesn't bring in money and don't know	1.0	86.1	87.3	88.2	87.3	88.6	79
Family type⁴							
Nuclear family	53.1	92.3	83.9	82.8	83.9	91.6	4,119
Extended family	42.0	91.1	83.1	82.1	83.1	91.2	3,260
Sex of household head							
Male	87.1	91.9	83.2	82.1	83.2	91.7	6,759
Female	12.9	91.6	85.1	84.3	85.1	89.4	999
Total	100.0	91.8	83.4	82.4	83.4	91.3	7,758

¹ Missing data on women's education for 3 cases and on men's education for 3 cases.

² Data on men's occupation are excluded for 99 cases who were not employed in the previous 12 months.

³ Data on wife's cash earnings compared with husband's cash earnings are excluded for 2,644 cases who did not receive cash earnings for employment in the previous 12 months.

⁴ Data on family type are excluded for 379 cases with "other" family type.

3.2 Women's Participation in Decision-making

Concerning participation in decision-making, Table 2 also shows that 92% of the women participate in decisions on control over their own earnings, and 91% participate in decisions on well-being of children, while 83% participate in decisions on major household purchases, 82% decide on visits to family or relatives, and 82% make decisions on their own health care. Women with higher levels of education and women in urban areas are more likely to participate in all types of decisions, as is also true for currently employed women and women in the wealthiest household quintile. The older the woman, the more likely she is to participate in these decisions. The same is true when the wife's cash earnings are more than the husband's or the same, but not for control over women's earnings. However, women with no children are less likely to participate in all types of household decisions. Female household heads are more likely to participate in household decisions apart from control over women's earnings and well-being of children.

3.3 Multivariate Analysis

3.3.1 Model 1

Binary logistic regression model was performed on women's control over their own earnings, using the independent variables presented in Table 2. The summary results are shown in Table 3. As Table 3 shows, employment status, education level, age, duration of marriage, and number of living children are statistically significant among currently employed women and have a positive association with women's control over own earnings. In contrast, men's education level is statistically significant and has a negative association with women's control over own earnings. Men with a skilled manual occupation and men working in agriculture are statistically significant variables, but in opposite directions. Compared with women whose husbands work in unskilled manual labor, women whose husbands have a skilled manual occupation are more likely to have control over own earnings, while women whose husbands have an agricultural occupation are less likely to control their own earnings, net of other factors. Moreover, the variable on wife's cash earnings compared with husband's cash earnings is statistically significant. If women's cash earnings are less than their husband's, the women are less likely to control their own earnings than if their cash earnings are more than or the same as their husband's earnings, controlling for other factors.

Table 3 Economic, social, and demographic determinants of women's control over earnings. Summary results of logistic regression among women age 15-49.

Independent variable	Model 1 (control over earnings)	95% Confidence interval	
	Odds ratio	Lower	Upper
Constant	2.67**	1.28	5.6
Women's employment			
Currently unemployed	1		
Currently employed	1.42**	0.94	2.14
Women's education			
No education	1		
Primary	1.39**	1.01	1.92
Secondary	2.10***	1.37	3.22
Higher	3.95** *	1.67	9.34
Women's age			
15-19 years	1		
20-34 years	1.66*	0.95	2.9
35-49 years	2.61***	1.32	5.15
Duration of marriage			
0-9 years			
10-19 years	1		
20-29 years	1.52**	1.04	2.25
30 years and above			
Number of living children			
No children	1		
1-2 children	1.38*	0.97	1.96
3-4 children			
5 children and above			

Continued...

Table 3—Continued

Independent variable	Model 1 (control over earnings)	95% Confidence interval	
	Odds ratio	Lower	Upper
Men's education			
No education	1		
Primary	0.64**	0.43	0.95
Secondary	0.48***	0.31	0.73
Higher	0.44**	0.20	0.99
Men's occupation			
Unskilled manual	1		
Skilled manual	1.46*	0.96	2.22
Professional/technical/managerial			
Agricultural	0.72**	0.52	1
Other			
Wife's cash earnings compared with husband's cash earning			
More than him or same as him	1		
Less than him	0.38***	0.18	0.79
Husband/partner doesn't bring in money and don't know			

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

Only covariates with a significant association are shown.

Results are adjusted for ownership of house, women's employment, women's education, wealth quintile, men's education, men's occupation, wife's cash earnings compared to husband's, women's age, residence, duration of marriage, number of living children, family type, and sex of household head.

3.3.2 Model 2

The results of the binary logistic regression analysis on women's decision on major household purchase using the same independent variables and the summary results are presented in Table 4. The table shows that women's education level, age, duration of marriage, and number of living children are statistically significant and have a positive association with women's involvement in decisions on major household purchase. However, men's education level is statistically significant and has a negative association with women's decision on major household purchase. Men working in agriculture is a statistically significant variable and has a negative association with women's decision on major household purchase. Compared with women whose husbands work in unskilled manual labor, women whose husbands have an agricultural occupation are less likely to be involved in decisions on major household purchase, net of other factors. Moreover, the variable on wife's cash earnings compared with husband's cash earnings is statistically significant. If women's cash earnings are less than their husband's, and if a husband doesn't bring in money and don't know, the women are less likely to be involved in decisions on major household purchase than if their cash earnings are more than or the same as their husband's earnings, controlling for other factors.

3.3.3 Model 3

The results of binary logistic regression analysis for women's decision on visits to family or relatives, using the same independent variables, are shown in Table 4. Women's employment status has a positive association and is statistically significant. Women's decision on visits to family or relatives is higher among currently employed women than unemployed women. Women's wealth quintile has a positive association and is significant. The higher the wealth quintile, the higher women's decision-making power is on visits

to family or relatives. The number of living children has a positive association and is statistically significant. Women's decision on visits to family or relatives among women with one or two children and three or four children is higher than among women with no children. Men's education level has a negative association and is statistically significant. When their husbands have secondary and higher levels of educational, women are less likely to make their own decisions on visits to family or relatives than when their husbands are uneducated.

Table 4 Economic, social, and demographic determinants of women's decision-making (four items). Summary results of regressions among women age 15-49.

Independent variable	Model 2 (decisions on major household purchases)	Model 3 (decisions on visits to family)	Model 4 (decisions on own health care)	Model 5 (decisions on well-being of children)
	Odds ratio (95% CI)	Odds ratio (95% CI)	Odds ratio (95% CI)	Odds ratio (95% CI)
Constant	1.78** (1.02-3.13)	2.27** (1.19-4.30)	1.66 (0.86-3.23)	2.11** (1.00-4.66)
Women's employment				
Currently unemployed		1	1	
Currently employed		1.35** (1.03-1.76)	1.38** (1.06-1.81)	
Women's education				
No education			1	
Primary	1.33** (1.03-1.73)			
Secondary	1.54*** (1.15-2.07)		1.76** (0.99-3.12)	
Higher				
Wealth quintile				
Poorest and poorer		1	1	1
		1.36**	1.45***	1.51**
Middle		(1.05-1.77)	(1.11-1.88)	(1.07-2.13)
		1.50***	1.52**	1.57**
Richer and richest		(1.14-1.98)	(1.15-2.00)	(1.10-2.25)
Woman's age				
15-19	1			
20-34	1.79** (1.14-2.81)			
35-49	2.15*** (1.34-3.45)			
Duration of marriage				
0-9 years	1			
10-19 years	1.24* (0.97-1.57)			
Residence				
Rural			1	
Urban			1.35** (0.99-1.84)	
Number of living children				
No children	1	1	1	1
1-2 children	1.34** (1.04-1.72)	1.55** (1.18-2.06)	1.86*** (1.42-2.44)	5.11*** (3.57-7.30)
3-4 children		1.36* (0.95-1.95)	1.67*** (1.18-2.35)	6.00*** (3.73-9.64)
5 children and above			1.66** (1.02-2.69)	3.09*** (1.65-5.77)

Continued...

Table 4—Continued

Independent variable	Model 2 (decisions on major household purchases)	Model 3 (decisions on visits to family)	Model 4 (decisions on own health care)	Model 5 (decisions on well-being of children)
	Odds ratio (95% CI)	Odds ratio (95% CI)	Odds ratio (95% CI)	Odds ratio (95% CI)
Men's education				
No education	1	1	1	1
Primary	0.68*** (0.52-0.88)			
Secondary	0.52*** (0.40-0.69)	0.73* (0.53-1.02)	0.64*** (0.46-0.89)	0.66* (0.42-1.02)
Higher	0.67* (0.41-1.08)	0.44*** (0.25-0.77)	0.40*** (0.23-0.69)	
Men's occupation				
Unskilled manual	1			1
Agricultural	0.74*** (0.60-0.93)			0.57** (0.35-0.93)
Wife's cash earnings compared with husband's cash earning				
More than him or same as him	1			1
Less than him	0.62*** (0.51-0.76)			0.62*** (0.48-0.81)
Husband/partner doesn't bring in money and don't know	0.44** (0.21-0.92)			0.30*** (0.14-0.68)
Sex of household head				
Male			1	
Female			1.30* (0.96-1.77)	

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

Only covariates with a significant association are shown.

Results are adjusted for ownership of house, women's employment, women's education, wealth quintile, men's education, men's occupation, wife's cash earnings compared to husband's, women's age, residence, duration of marriage, number of living children, family type, and sex of household head.

3.3.4 Model 4

Binary logistic regression model was performed for women's decision-making about their own health care, using the same independent variables. The summary results are displayed in Table 4. Women's employment status has a positive association and is statistically significant. Women's decision-making about their own health care is higher among currently employed women compared with unemployed women. Women's high education level has a positive association and is statistically significant. Women's decision-making about their own health care is higher among women with more education compared with uneducated women, controlling for other factors. Women in the middle, richer, or richest wealth quintiles show a positive statistically significant association with control over own health care. The higher a woman's wealth quintile, the more likely she is to make the decisions on her own health care. Residence has a positive and statistically significant association. Women's decision-making power on their own health care is greater among urban than rural women. The number of living children has a positive association and is statistically significant. Women's decision-making about their own health care is higher among women with children than women with no children. However, men's education level has a statistically significant negative association. Women's decision-making about their own health care is lower when their husbands have a secondary or

higher education compared with no education. Sex of household head is statistically significant. Women's decision-making over their own health care is higher for female household heads than when the household head is male.

3.3.5 Model 5

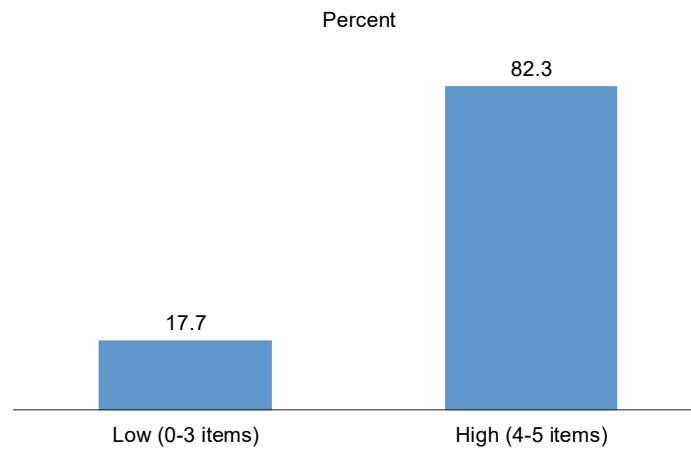
The results of binary logistic regression analysis for women's decision-making on well-being of children, using the same independent variables, are shown in Table 4. Wealth quintile has a positive association and is statistically significant. The higher the wealth quintile, the greater the women's decision-making on the well-being of their children. The number of living children also has a positive association and is statistically significant. Women's own decision-making on the well-being of children is higher for women with children than for women without children. Men's secondary education level is statistically significant. Women's own decision-making on well-being of children when men have a secondary education is lower than when men are uneducated, controlling for other factors. Men's occupation is statistically significant. Women's decision-making on well-being of children is less likely when men's occupation is "other"—clerical, sales, household and domestic, and services—compared with unskilled manual labor, controlling for other factors. Women's cash earning is also statistically significant. When a wife's cash earnings are less than her husband's, her decision-making power on well-being of children is lower, which is also true when her husband or partner does not bring in money (and for "don't know" responses), controlling for other factors.

To sum up, the different models show different significant variables. Among independent variables included in the conceptual framework, number of living children is significant for all types of women's decisions, while women's employment status is significant except for well-being of children, and women's wealth quintile is significant apart from control over women's own earnings. Surprisingly, ownership of household and family type do not have any association with women's empowerment in the models.

3.3.6 Model 6

An overall women's empowerment index was computed based on five variables, including: women's own control over their earnings; own decision on major household purchases; own decision on visits to family or relatives; own decision on their health care; and own decision on well-being of children. As mentioned, a score of 0-3 variables on the index was considered as a low level of women's empowerment, while 4-5 was considered as a high level. According to this index, 82% of currently married women age 15-49 in Myanmar have a high level of women's empowerment (Figure 2).

Figure 2 Levels of overall women’s empowerment among married women age 15-49



Again, binary logistic regression model was performed for overall women’s empowerment level, using the same independent variables. A summary of results for significant independent variables is shown in Table 5. As the table shows, women’s employment status has a positive association and is statistically significant at the 1% level. The odds ratio indicates that currently employed women are 1.43 times more likely to have a high women’s empowerment level compared with currently unemployed women, controlling for other factors.

Table 5 Economic, social, and demographic determinants of women's overall empowerment. Summary results of logistic regression among women age 15-49.

Independent variables		Odds ratio	95% Confidence interval	
			Lower	Upper
Constant		0.88	0.48	1.59
Women's employment	Unemployed (ref) Employed	1.43***	1.12	1.84
Women's education level	No education (ref) Higher	1.47**	0.89	2.43
Wealth quintile	Poor (ref) Richer or richest	1.49***	1.15	1.93
Women's age	15-19 years (ref)			
	20-34 years	1.85**	1.11	3.07
	35-49 years	2.16***	1.24	3.75
Residence	Rural (ref) Urban	1.26*	0.95	1.66
Living children	No children (ref)			
	1-2 children	1.72***	1.34	2.22
	3-4 children	1.45***	1.04	2.02
Men's education	No education (ref)			
	Middle	0.68**	0.50	0.93
	Higher	0.44***	0.27	0.79

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

Only covariates with a significant association are shown.

Results are adjusted for ownership of house, women's employment, women's education, wealth quintile, men's education, men's occupation, wife's cash earnings compared to husband's, women's age, residence, duration of marriage, number of living children, family type, and sex of household head.

Overall women's empowerment is based on an additive index composed of five items: control over earnings, decision-making on major household purchases, visits to family/relatives, own health care, and children's well-being; and separated into high empowerment (4-5 items) and low empowerment (0-3 items).

Women's higher education level has a positive association and is statistically significant at the 5% level. Women with higher education are 1.47 times more likely to have a high women's empowerment level than uneducated women, controlling for other factors. Women's wealth quintile of richer or richest has a positive association and is statistically significant at the 1% level. Women in the richer or richest quintiles are 1.49 times more likely to have a high empowerment level compared with poor or poorer women, controlling for other factors.

Women's ages of 20-34 and 35-49 have positive associations and are statistically significant at the 5% and 1% levels, respectively. The odds ratios indicate that women age 20-34 and 35-49 are 1.85 and 2.16 times more likely, respectively, to have a high empowerment level compared with women age 15-19, controlling for other factors. Residence has a positive and statistically significant association, at the 10% level. Urban women are 1.26 times more likely than rural women to have a high empowerment level, controlling for other factors.

The number of living children (1-2) and (3-4) has a positive association and is statistically significant at the 1% and 5% levels, respectively. Compared with women with no children, women with one or two children are 1.72 times more likely to have a high empowerment level, and women with three or four children are 1.45 times more likely, controlling for other factors.

Men's educations of secondary and higher levels are statistically significant at the 5% and 1% levels, respectively. Women whose husbands have an education at the secondary or higher levels are 0.32 and 0.56 times less likely, respectively, to have a high empowerment level compared with women whose husbands are uneducated, controlling for other factors.

The analysis did not find ownership of household and family type to be associated with the overall level of women's empowerment, as measured by the index of five variables.

4 DISCUSSION AND CONCLUSIONS

Women's empowerment is one of the central concepts in the development agenda. There is widespread agreement that women must be empowered to play an effective part in national development. In recent years women's empowerment has been the burning issue in Myanmar, as it has been shown to be essential for sustainable development and economic growth. It is evident that gender equality is important for economic growth, poverty reduction, and enhanced human well-being of a country. Women's lack of power over resources and decision-making has caught the attention of academicians and policymakers. It is essential to analyze the determinants of women's empowerment to inform policies for national development. Thus, this study explored the socioeconomic and demographic factors related to women's empowerment in Myanmar.

Our investigation of the relationship between women's empowerment and their socioeconomic and demographic characteristics revealed the following points:

- Women who are employed, educated, in a high wealth quintile, residing in an urban area, and whose husbands have a lower level of education show a higher level of participation in decision-making.
- Women with one or two children tend to have a higher level of women's empowerment than women without any children, while the level for women with three or four children is slightly lower than for women with one or two children.

Based on the findings of this study, the key areas of policy priority are:

- Increasing the number of women in the workforce
- Increasing the number of female high-level officials and political representatives
- Reducing gender bias in the labor market
- Developing rural areas
- Continuing to remove gender differences in education

By showing that high levels of education, employment status, wealth quintile, and residence significantly influence women's participation in decision-making, our analysis is consistent with previous studies on women's decision-making in other countries (Wayak Pambè et al. 2014; Boateng et al. 2014; Acharya et al. 2010). While our study raises many questions, it provides answers regarding the relationship between women's socioeconomic and demographic characteristics. Our study also supports the relationship of husband's education level and number of living children with women's empowerment. Moreover, our study is consistent with the findings of a study by Thida Htay (2016), which focused on Monywa Township, Myanmar, in terms of the significant impact on women's empowerment of household wealth, place of residence, and the lack of significance of family structure.

While this study enhances an insight into the understanding of women's empowerment in Myanmar, it has a number of limitations. It cannot show a causal relationship between the dependent and independent variables because the 2015-16 MDHS is a cross-sectional survey. Also, while the MDHS response rate was high, missing data may affect the findings of the study. Though the ownership of land by women was considered an independent variable, multicollinearity was found and thus this variable was omitted in the data analysis. Due to data availability, this study highlights only women's empowerment at the household level and emphasizes only socioeconomic and demographic characteristics. Hence, women's empowerment in the workplace should be investigated as a further study. In addition, a significant aspect, the psychological dimension, should be considered as a further study. Furthermore, an analysis is needed from the point of view of traditional cultural norms, spousal relationships, and community gender attitudes, as religion and cultural experiences play vital roles in shaping women's empowerment in some countries.

Despite these limitations, our study has important implications. The major determinants for women's empowerment are employment status, age, residence, education level, wealth quintile, husband's education, and number of living children. On the whole, our findings confirm the major role that these factors play in women's empowerment in terms of participation in household decision-making. It demonstrates the importance of gender equity in higher education and employment opportunities. The national policies for rural development and programs aiming to improve women's status in Myanmar should foster gender equity.

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