SOCIO-ECONOMIC AND DEMOGRAPHIC DETERMINANTS OF MODERN CONTRACEPTIVE UTILIZATION AMONG CURRENTLY MARRIED WOMEN IN MYANMAR

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ปัจจัยทางเศรษฐสังคมและประชากรต่อการใช้การคุมกำเนิดสมัยใหม่ในกลุ่มสตรีสมรสในประเทศเมียนมา

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การศึกษาครั้งนี้มีวัตถุประสงค์เพื่อศึกษาอิทธิพลของคุณลักษณะทางเศรษฐกิจ สังคม และประชากรศาสตร์ต่อการ
ใช้ยาคุมกำเนิดของสตรีที่กำลังสมรสในประเทศเมียนมาร์อายุ 15-49 ปี ซึ่งมีส่วนช่วยเติมเต็มช่องว่างวรรณกรรมในระดับชาติ
ของประเทศเมียนมาร์ กล่าวคือ ในงานวิจัยที่ผ่านมาทั้งหมดเป็นการศึกษาการใช้ยาคุมกำเนิดและการวางแผนครอบครัวของ
ประชากรตัวอย่างที่ไม่ครอบคลุมทั่วประเทศ สำหรับการศึกษานี้เลือกใช้การสำรวจประชากรและสุขภาพของเมียนมาร์ปี ค.ศ.
2015-16 ซึ่งเป็นชุดข้อมูลภาคตัดขวางจากการสำรวจที่เป็นตัวแทนระดับประเทศ ผลการศึกษา พบว่า ประมาณร้อยละ 51
ของสตรีที่กำลังสมรสมจำนวน 6,597 คนในประเทศเมียนม์รายงานว่า กำลังใช้วิธีการคุมกำเนิดสมัยใหม่อย่างน้อย 1 วิธี
โดยผลการวิเคราะห์ด้วยสมการถดถอยโลจิตได้แสดงให้เห็นว่า ระดับการศึกษาของสตรี สถานะการทำงานของสตรี จำนวนบุตร
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ต่อการใช้ยาคุมกำเนิดของผู้หญิง ในขณะที่อายุของสตรีและความต้องการมีบุตรเพิ่มของสตรีมีความสัมพันธ์ทางลบอย่างมี
นัยสำคัญ ข้อค้นพบสำคัญจากการศึกษานี้ คือ สตรีที่มีการการศึกษาที่สูง และกำลังทำงานมีแนวโน้มเพิ่มอัตราการใช้ยา
คุมกำเนิดสมัยใหม่ ในขณะที่การส่งเสริมการวางแผนครอบครัวและการสร้างความตระหนักรู้ควรดำเนินการผ่านทางสื่อ
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         AMONG CURRENTLY MARRIED WOMEN IN MYANMAR. Advisor:
         Asst. Prof. Ruttiya Bhula-or, Ph.D.

        The key purpose of this study is to explore socio-economic and
demographic characteristics that influence modern contraceptive use of currently
married women aged 15-49 in Myanmar. This study is contributing to fill the
literature gaps at the national level. Even though there have been a number of
studies on modern contraceptive use and family planning in Myanmar, these studies
did not represent the whole nation. This study utilizes data from the Myanmar
Demographic and Health Survey (MDHS) 2015-16, a national level cross-sectional
dataset. Based on the study, the currently married women in this study included
6,597 women in Myanmar, 51 percent of currently married women were using at
least one modern contraceptive method.

        A binary logistic regression model used in this study indicates that
women's education, women employment status, number of living children, family
planning information from TV, wealth index and husband's education were
positively significant to the women's modern contraceptive use. On the other hand,
women's age and women with the desire for more children were negatively
significant. The result of the study strongly suggested that women with the higher
education and being employed would increase the awareness of the use and benefits
of modern contraceptive. Moreover, the family planning program and awareness
program should be promoted through a TV channel.

Field of Study: Demography   Student's Signature
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LIST OF ABBREVIATIONS

WHO	World Health Organization
UNICEF	The United Nations Children's Fund
HIV	Human Immunodeficiency Virus
AIDS	Acquired Immune Deficiency Syndrome
COCs	Combined Oral Contraceptives
POPs	Progestogen-Only Pills
CIC	Combined Injectable Contraceptives
CVR	Contraceptive Vaginal Ring
IUD	Intra-Uterine Device
LAM	Lactational Amenorrhea Method
SDM	Standard Days Method
BBT	Basal Body Temperature
MDHS	Myanmar Demographic and Health Survey
MoHS	Ministry of Health and Sports
USAID	The United States Agency for International Development
HBM	The Health Belief Model
KAP	Knowledge, Attitude and Practice
SDH	Social Determinants of Health
ILPAMs	Injectable, Long-acting and Permanent Contraceptive Methods
CPR	Contraceptive Prevalence Rate
BDHS	Bangladesh Demographic and Health Survey
3MDGF	The Three Millennium Development Goal Fund
ICF	The International Coach Federation
LRA	Logistic Regression Analysis
SMEs	Small and Medium-sized Enterprises

CHAPTER I
INTRODUCTION

1.1   Motivation

According to the report of World Health Organization and the United Nations Children's Fund (2015), about 303,000 women died every year around the world during their pregnancy, childbirth, and the puerperium. The vast majority of these deaths occurred in low and middle-income countries such as Sub-Saharan Africa and South Asia (WHO & UNICEF, 2015).

Moronkola et al. (2006) revealed that women could be safe from unwanted pregnancies and could be reduced from abortion if they use modern contraceptive methods. Moreover, using modern contraception like preventing pregnancy-related health in women is one of the benefits of modern contraception, together with reducing infant mortality, preventing Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome (HIV/AIDS) by using condoms, enhancing education, reducing adolescent pregnancies, reducing maternal mortality and reducing population growth (WHO, 2018).

Using contraception can be one of the protector members for unwanted pregnancies, especially the modern contraceptive methods. Using modern contraceptive methods is rights for women and it is also crucial to protect their health. In developing countries, women would have been prevented 215,000 pregnancy-related deaths, 2.7 million infant deaths and loss of 60 million years of healthy life by the modern contraceptive methods each year in 2003 (Darroch et

al., 2008). Therefore, modern contraceptive methods are important. It should be noted that there are two types of contraception: modern and traditional methods. According to World Health Organization (2018), the modern methods of contraception are (1) Combined oral contraceptives (COCs) or "the pill", (2) Progestogen-only pills (POPs) or "the minipill", (3) Implants, (4) Progestogen only injectables, (5) Monthly injectables or combined injectable contraceptives (CIC), (6) Combined contraceptive patch and combined contraceptive vaginal ring (CVR), (7) Intrauterine device (IUD): copper-containing, (8) Intrauterine device (IUD) levonorgestrel, (9) Male condoms, (10) Female condoms, (11) Male sterilization (vasectomy), (12) Female sterilization (tubal ligation), (13) Lactational amenorrhea method (LAM), (14) Emergency contraception pills (ulipristal acetate 30 mg or levonorgestrel 1.5 mg), (15) Standard Days Method or SDM, (16) Basal Body Temperature (BBT) Method, (17) TwoDay Method and (18) Sympto-thermal Method. Traditional methods of contraception are (1) Calendar method or rhythm method and (2) Withdrawal (coitus interruptus).

While the global average of contraceptive use was 62.7 percent in 2011 (Buhling et al., 2014), the contraceptive usage was low in Myanmar. According to the Myanmar Demographic and Health Survey (MDHS) 2015-16, 52 percent of married women in Myanmar were currently using contraceptive methods. Among them, 51 percent use modern methods and only 1 percent uses traditional methods.

However, using traditional methods, such as withdrawal or periodic abstinence, are much more likely to fail than modern methods. Therefore, women's risk of having an unintended pregnancy will be higher (Darroch & Singh, 2013).

Furthermore, healthcare services that promote modern contraceptive use still weak in Myanmar. There is a serious lack of healthcare services and healthcare professionals although the health conditions have been improving (Latt et al., 2016). Therefore, it is important to study modern contraceptive utilization among currently married women in Myanmar.

Some modern contraceptive use in previous studies were conducted in a particular area in Myanmar explored the determinants of modern contraceptive use. Those studies found that women's education, women employment status, number of living children, and mothers' religion significantly determine modern contraceptive use. For example, Wai (1995) studied the determinants of modern contraceptive use in rural areas (only 8 townships) in Myanmar with a sample of 4,640 currently married women. Zar and Perngparn (2011) determined modern contraceptive use and its association with socio-demographic factors with a sample of 358 married reproductive women in Mandalay, Myanmar. Mon and Liabsuetrakul (2012) studied the predictors of modern contraceptive use among currently married youths (15-24 years) and their husband, but this study covered only one rural area of Hinthada township in Myanmar. Soe et al. (2012) explored the determinants of modern contraceptive use among Myanmar migrant women in Phang-Nga province, Thailand. Besides, Jirapongsuwan et al. (2016) studied the family planning practice in a rural area where Aunglan township, Magway region, central Myanmar with a sample of 300 reproductive age married women.

Though there have been a number of previous researches regarding on modern contraceptive use in Myanmar, those previous studies did not cover the nationwide. Thereby, this study focused on contributing to this area at the national

level; as it was gap promoting modern contraceptive use among women at the national level due to the lack of analysis. It focused on investigating socio-economic and demographic determinants of modern contraceptive use among currently married women in Myanmar. It was the most recent nationwide data, Myanmar Demographic and Health Survey (MDHS) 2015-16 conducted by Ministry of Health and Sports (MoHS) with the technical assistance of the United States Agency for International Development (USAID).

1.2   Benefits of the Thesis

As mentioned above, this thesis fills an existing gap in the analysis of determinants of modern contraceptive utilization in Myanmar, though to a limited extent. The research's results and empirical evidence shall provide policy recommendations for policymakers and planners of Myanmar to promote modern contraceptive utilization.

1.3   Research Objectives

The objectives of this study are:

- To explore the factors related to modern contraceptive utilization by currently married women of the reproductive age in Myanmar
- To offer policy recommendations in promoting modern contraceptive use

1.4   Research Question

- What are the determinants of modern contraceptive utilization among currently married women in Myanmar?

1.5   Terminology

Modern Methods of Contraception include "female and male sterilization, the intra-uterine device (IUD), the implant, injectables, oral contraceptive pills, male and female condoms, vaginal barrier methods (including the diaphragm, cervical cap and spermicidal foam, jelly, cream and sponge), the lactational amenorrhea method (LAM), emergency contraception and other modern methods not reported separately (e.g., the contraceptive patch or vaginal ring). Traditional methods of contraception include rhythm (e.g., fertility awareness-based methods, periodic abstinence), withdrawal and other traditional methods not reported separately" (United Nations, 2018).

Contraceptive Prevalence: "Proportion of women who are currently using, or whose sexual partner is currently using, at least one method of contraception, regardless of the method being used. Reported as a percentage with reference to all women of reproductive age (15-49 years)" (United Nations, 2018).

Contraceptive Services "includes the provision of contraceptive commodities, counselling to help women choose an appropriate contraceptive method and treatment for health concerns related to contraceptive use" (Darroch et al., 2008).

1.6   Scope of the Thesis

The prime focus of this thesis was to investigate the number of modern contraceptive use by percentage among currently married women of reproductive age in Myanmar and to explore factors that influence their modern contraceptive use. I used the most recent data from the Myanmar Demographic and Health Survey, conducted at the national level in 2015-16.

1.7   Outline of the Thesis

Totally five chapters were included in this study. Chapter I introduced the general background of the study, including the motivation, benefits of the thesis, research objectives, the research question, terminology and scope of the thesis. Likewise, Chapter II provided theories of the contraceptive use, conceptual framework and literature reviews of the research. Chapter III discussed the research methodology including hypothesis, data source and study sample, the variables description, and data management and data analysis. Chapter IV presented the results of the data analysis and discussion on overall findings. Finally, Chapter V summarized the thesis conclusion and recommendations based on research findings.

CHAPTER II

THEORETICAL FRAMEWORK AND LITERATURE REVIEW

In this chapter, I reviewed the theoretical framework and findings from the previous studies in order to provide an understanding of relationships between socio-economic and demographic factors and modern contraceptive use.

2.1   Theories of Modern Contraceptive Use

The **Health Belief Model (HBM)** is the most commonly used theory in health education and health promotion. It is imprecise for complex preventive and sick-role health behaviors like contraceptive behavior (Hall, 2012).

The **HBM** proved that people will obey the preventive measures of diseases or illness when they regard themselves as susceptible to a condition (perceived susceptibility), when they believe it would have potentially serious complications (perceived severity), when they believe that a particular course of action available to them would reduce the susceptibility or severity or lead to other positive outcomes (perceived benefits), and when they perceive few negative attributes related to the health action (perceived barriers) (Jones et al., 2015). According to the health belief model, the contraceptive use is associated with demographic, social and economic characteristics.

Behavioral Model implies that (1) predisposing factors, (2) enabling factors and (3) need factors are depended by the health care utilization. Predisposing factors are defined as socio-demographic and cultural factors which impact the probability of receiving to the health facilities. Enabling factors are defined as financial and

geographical factors which impact on probability/difficulty of reaching to the health facilities. Need factors as defined as particular conditions or health problem that results in the utilization of particular health services for those conditions (Andersen & Newman, 2005).

Knowledge, Attitude and Practice Model (KAP) also significantly predict the utilization of modern contraception. Knowledge means the ability to pursue and using information, and by understanding, learning experience, and identifying the studying technologies. Attitude indicates the result of making reactions in some ways in some situations and observes, and explains based on the result of a reaction or combine into one point of view. Practice indicates what knowledge and habit work together (Badran, 1995).

According to Gizaw and Regassa, the **Family Planning Services Utilization** depends on the demographic factors and socio-economic, and psychological factors. Demographic factors are age, age at first marriage, marital status and total living children. The list of socio-economic and psychological factors are migration status, ethnicity, religion, education of respondents, education of husbands, occupation, income, exposure to mass media, fear of side effects, providers approach and sex of service providers (Gizaw & Regassa, 2011).

Social Determinants of Health (SDH) can be defined as the specific features and pathways by which social conditions affect health which potentially can be altered by informed actions. Informed action is triggered by an informed decision. This refers to an action that is based on an adequate understanding of factors that can influence health status and decision to tackle unexpected health outcomes.

According to the World Health Organization definition, the social determinants of health are the conditions, in which people are born, grow, work live and age and the wider set of forces and systems that shape the conditions of daily life (Shokouh et al., 2017). Social determinants of health can be helpful to understand health and health equity (WHO, 2008). There are three components of social determinants: socio-economic determinants, psychosocial risk factors, community and social characteristics (Ansari et al., 2003). It is primarily referred to constraints and enabling conditions that may affect individuals' health outcomes. The analytical framework suggests that the individual's social circumstances, for example, economic status, class, ethnicity, gender, and sexual cultures, residence, education, employment, health care policy and the system, can become barriers or facilitators for the individuals to reach optimal health and well-being. These social environments could contribute to individuals' health-risks as well. While the health belief model explains why some individuals get a disease and others do not use individual's behaviors, this theoretical approach gives importance to social and economic constraints as well as enabling environments that may affect the individual's health outcomes (WHO, 2008).

The study applied the **SDH** that indicated that social determinants had a direct influence on contraceptive use. Moreover, the World Health Organization as a foundation to recommend three important actions to promote a population's health had used Social determinants of health. The actions are (1) to improve the people's social environments, (2) to reduce the inequitable distribution of power, money, and resources and (3) to emphasize the knowledge-based policies and interventions, as

well as to conduct capacity building among health care personnel, and to educate the public to be aware about the **SDH** (WHO, 2008).

The **HBM** indicated that the people will take medicine when they belief medicine will make good meanwhile illness. The **HBM** suggested that people will change bad behavior when they feel not very well. The **KAP model** indicated that when people have the knowledge, their attitude will be changed and they will be practiced. The family planning services utilization model indicated that people will use contraception in order to delay or stop pregnant. The social determinants of health model indicated that use of contraception is influenced by social determinants. All of those above theories revealed that use of contraception is influenced by social, economic and demographic characteristics.

Based on the above five theories which are (1) the Health Belief Model, (2) Behavioral Model, (3) the Knowledge, Attitude and Practice Model (4) the Family Planning Services Utilization and (5) Social Determinants of Health, the predictors of utilization of modern contraceptive use can be grouped into three main broad categories namely social, economic and demographic characteristics.

2.2   Conceptual Framework

For this study, the conceptual framework derived from synthesizing above theories which are related with the contraceptive use in which the use of modern contraceptive was influenced by social, economic and demographic characteristics of women in reproductive age.

Figure 1: Conceptual Framework

Independent Variables   Dependent Variable

Social Characteristics*

Women's Education

Husband's Education

Urban & Rural

Mass Media Exposure

Visited by Family Planning Workers

Economic Characteristics

Wealth Index

Women Employment

Demographic Characteristics

Women's Age

Number of Living Children

Desire for More Children

Modern Contraceptive Use
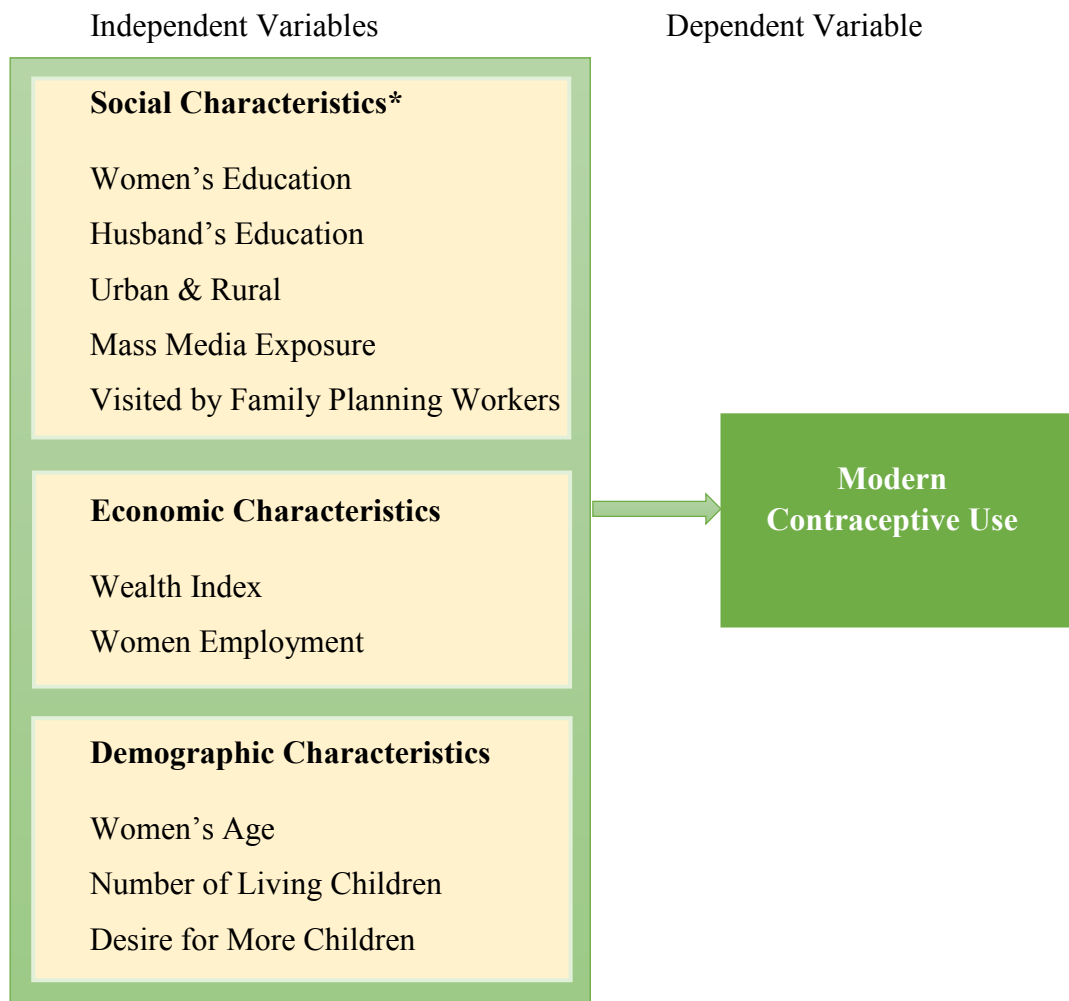
* Religion is also one of the significant variables that can affect utilization of modern contraceptive methods. However, in this study, religion is not included in data analysis. Because there is no data in MDHS 2015-16 data set although question for religion is included in the questionnaire.

2.3   Social Determinants of Modern Contraceptive Use

2.3.1   Education (Man & Woman)

Women's education significantly related to modern contraceptive use. More educated women were more likely to use modern contraceptive methods than less educated women. Women with a secondary and higher level of education were more likely to use modern contraceptive methods and injectable, long-acting and permanent contraceptive methods (ILPAMs). Moreover, husband's education also jointly associated with modern contraceptive use. When both women and spouses were more educated persons, they are more likely to use modern contraception. Those studies found that women's education jointly influences modern contraceptive use (Ali & Fatmi, 2017; Ogbe & Okezie, 2010). Solanke (2017) revealed that Nigerian women among advanced reproductive age with secondary education were more likely to use a modern contraceptive method in Nigeria.

Lasee and McCormick (1996) conducted a study in a low-income community in Pakistan and found that women's education as one of the key determinants about modern contraceptive use and like an intervention point to increase modern contraceptive use as well.

In Ethiopia, Alemayehu et al. (2012) discussed that women with primary education were 2 times as higher as using modern contraceptive method than counterpart at rural in Northern Ethiopia. Based on the Ethiopia Demographic and Health Survey (EDHS) 2011, current modern contraceptive use was increased by women's education; 22 percent of women those whom no education was reported compared with 68 percent of women those who more than secondary education by current use of any modern

methods of contraception. Additionally, women with primary education were 53 percent more likely to use a long-acting modern contraceptive method than those with no education. Meskele and Mekonnen (2014) found that women with a secondary and higher level of education were 2 and 2.8 times more likely to use long-acting and permanent modern contraceptive methods than those with no education. Similarly, Medhanyie et al. (2017) studied that women with primary education were 1.3 times more likely to use modern contraceptive methods as compared with those no education.

A study in Tanzania, Anasel and Mlinga (2014) discussed that although modern contraceptive use increased significantly by women's secondary education and higher education; whereas primary education non-significantly. Blackstone et al. (2017) posited that women's education positively influences modern contraceptive use in Sub-Saharan Africa; based on the result of 58 studies from twelve Sub-Saharan African countries.

In Uganda, Asiimwe et al. (2014) revealed that women's educational attainment influenced the likelihood of using modern contraception. The more educated the women were, the more likely to report the use of modern contraceptive method they were. Despite over one-third of women who had secondary or higher education was more like to report the use of a modern contraceptive method in each age group, those uneducated women were less likely to report the use of a modern contraceptive method. In addition, older women (age 25-34) were more likely to use a modern contraceptive method as compared with younger women (age 15-24).

Pandey and Singh (2015) studied a study in India that women's level of education promotes their chances of using modern contraception and a strong determinant governing their contraceptive behavior as well. Women with more than secondary education were 5.7 times more likely to have a chance as higher as to use modern contraception before first pregnancy than those who have no or normal education.

Adhikari (2010) found that educated women were less likely to have children ever born; just half as compared with non-educated women in Nepal. In Bangladesh, the more increased women's level of education, the more increased the likelihood of modern contraceptive use. Women with primary education and at least some secondary education were more likely to use modern contraceptive methods compared with those who had no formal education use (Mostafa & Aynul, 2010). Similarly, Kamal (2015) posited that women's education was one of the most important determinants of modern contraceptive use and method choice as well.

A study in Indonesia, Rahayu et al. (2009) resulted that women with no education were less likely to use modern contraception compared with those who with primary, secondary and higher education. Likewise, a study in Vietnam, Thang et al. (1992) found that non-educated women with no formal education were significantly less likely to use modern contraceptive methods although there were no significant differences in the use of contraceptive methods with those who were with a primary and higher educational attainment. In addition, Soe et al. (2012) posited that women's education significantly determines for using a modern contraceptive method.

Moreover, in Bangladesh, Hossain et al. (2018) revealed that husband's education was also a key factor for using modern contraceptive methods. Bhandari et al. (2013)

studied in Nepal, found that husband's level of education such as one of the significant factors associated with modern contraceptive use. Additionally, Valekar et al. (2017) studied in India, and the result revealed that both the literacy status of woman and spouse was more significant for modern contraceptive use.

2.3.2 Religion

Religion significantly influences modern contraceptive use as well as the choice of contraceptive method. According to the previous studies, the majority of women living in a rural area do not use modern contraceptive methods when compared with women living in an urban area because of religion.

The results of the studies in Bangladesh showed that religion significantly correlates with both modern contraceptive use and method choices (Hossain et al., 2018; Mostafa & Aynul, 2010). In Tanzania, Anasel and Mlinga (2014) found that religion influences modern contraceptive use. Likewise, Adhikari (2010) asserted that religion as a factor effect on fertility differentials in Nepal. Moreover, Rahayu et al. (2009) asserted in a study of Indonesia that modern contraceptive use pattern was influenced by religion. Pandey and Singh (2015) posited that religion significantly associated with modern contraceptive use before first pregnancy by women in India.

Besides, both a study of rural areas in India by Walvekar (2012) and a study in India by Valekar et al. (2017) showed that religion negatively related with modern contraceptive use among those women. Furthermore, Belda et al. (2017) conducted a study in Southeast Ethiopia to explore the relationship between modern contraceptive utilization and associated factors among married pastoralist women. They asserted

that the majority of pastoralist women do not use modern contraceptive methods because of the religious-opposition.

The religion was also one of the significant variables that affected the utilization of modern contraceptives. However, religion was not included in data analysis. Because there was no data in Myanmar Demographic and Health Survey (MDHS) 2015-16 data set although question for religion was included in the questionnaire.

2.3.3 Urban & Rural

The place of residence also influences modern contraceptive use. Women living in an urban area were more likely to use modern contraception before pregnancy than women living in a rural area. Besides, women living in the urban area were more likely to use modern contraceptive methods than as compared with their counterparts. On behalf, some studies found that women in the rural area were more significantly associated with modern contraceptive use than women in the urban area.

A study in Kenya, Magadi (2003) found a place of residence as one of the determinant factors which was correlated with modern contraceptive use. Endriyas et al. (2017) showed that residence associates with modern contraceptive utilization in Ethiopia. Moreover, Rahayu et al. (2009) revealed that women who were living in urban areas were more likely to use modern contraception than those who were living in rural areas in Indonesia. Adhikari (2010) posited that place of residence affects fertility differentials; women who were living in rural areas have higher fertility than those who were living in urban areas in Nepal. Similarly, Pandey and Singh (2015) asserted that place of residence determines on modern contraceptive use before first pregnancy in India.

In Bangladesh, the place of residence significantly influence modern contraceptive use (Hossain et al., 2018; Mostafa & Aynul, 2010). Moreover, Medhanyie et al. (2017) revealed that women living in urban areas were 2 times more likely to use modern contraceptive than their counterparts.

However, a study in Ethiopia, Musa et al. (2016) showed that rural areas were more significantly associated with modern contraceptive use before pregnancy than urban areas. A study by Workie et al. (2018) in Ethiopia, posited that the number of modern contraceptive users whose those living in rural is higher than as compared with their counterparts.

2.3.4 Mass Media Exposure

Mass media exposure for the family planning information includes listening to the radio, watching television and reading newspaper or magazine. Mass media exposure is indirectly correlated with contraceptive use of women. Women get more information about family planning through mass media exposure. Those women who can access to mass media well know about family planning and they are more likely to use modern contraception than other women who cannot access just one or two mass media (either radio or TV) and any kind of mass media as well.

Studies in Bangladesh, Kabir and Islam (2000) observed the positive relation between mass media exposure and modern contraceptive use among currently married women of reproductive age (15-49). The result showed that the radio was defined as the highest significance by percentage than others whereas TV and newspapers or magazines followed second and third place respectively. Additionally, Kamal (2015) discussed that mass media strongly influenced modern contraceptive use and method

choice. Based on the result, women who were exposed to TV were more likely to use modern contraceptive methods.

Likewise, a study of rural area in Nigeria, Ogbe and Okezie (2010) discussed those mass media messages such as one of the statistically significant roles with the use of contraceptive methods. Moreover, if mass media messages were accessed by women, the use of contraceptive methods would be increased with access to mass media messages on contraception information.

Adhikari (2010) found the result in a study of Nepal that women who could access to mass media (both radio and TV) were likely to have fewer children than others who could not access any mass media or either radio or TV among currently married women of reproductive age (15-49) and women aged (40-49).

According to the National Family Health Survey 2005-06 data analysis, Pandey and Singh (2015) concluded that mass media was also one of the significant variables. Moreover, they suggested that the family planning program's promotion should be promoted intensively through printed and electronic media among women and couples. The multiple types of mass media exposure were also important in different age group. Younger married women (age 15-24) were more likely to be interested in music which non-educative programs whereas older married women (age 25-34) were more likely to learn to listen to health-related talks from the radio (Asiimwe et al., 2014).

The internet in mass media exposure was also one of the significant variables that affected the utilization of modern contraceptives. However, the internet was not included in data analysis. Because there was no data in Myanmar Demographic and

Health Survey (MDHS) 2015-16 data set although question for the internet was included in the questionnaire.

2.3.5   Visited by Family Planning Workers

The family planning workers were one of the key preictally factors which are an influence on using modern contraception. The modern contraceptive use was increasing when the family planning workers visit at home in order to share family planning knowledge. Women who get family planning knowledge and supports as well form family planning worker were more likely to use modern contraception than women who get nothing family planning knowledge.

A study of Ethiopia, the result showed that the rate of using modern contraception became higher more and more than the past when the family planning workers visited at home (Lakew et al., 2013). Rahayu et al. (2009) revealed the result of modern contraceptive prevalence rate (CPR) between before decentralization (in 1997) and after decentralization (in 2007) in Indonesia. Based on this study, the CPR was just 4 percent increased because of the weak performance of the family planning program by family planning workers after decentralization even though it still had a positive effect.

In Bangladesh, visited by family planning workers were positively associated with the use of modern contraception (Adhikari, 2010; Islam, 2018; Kamal & Islam, 2012). They revealed the result that visited by family planning workers was also one of the important determinants of modern contraceptive use. Likewise, based on the Bangladesh Demographic and Health Survey (BDHS) 2011, visited by family planning workers emerged as the third most influential factor which might be

associated with modern contraception. Women used modern contraceptive methods when they received family planning information from the family planning workers. The more visited by family planning workers, the more increased use of modern contraception in Bangladesh.

2.4   Economic Determinant of Modern Contraceptive Use

2.4.1   Wealth Index

The wealth index is significantly associated with modern contraception. Moreover, wealth index effects on both modern contraceptive methods and injectable, long-acting and permanent methods (ILPAMs). Women in richest households are more likely to use ILPAMs than the medium rich in households and poor households.

Anasel and Mlinga (2014) found the wealth index as a determinant of modern contraceptive use among married women in Tanzania. Mutombo and Bakibinga (2014) revealed in a study of Zambia that wealth index significantly affected modern contraceptive decisions on the use of injectable, long-acting and permanent methods (ILPAMs). Women with rich households were more likely to use ILPAMs as compared with medium rich households and poor households.

In Malawi, Adebowale et al. (2014) asserted that the wealth index significantly affected on both modern contraceptive use and fertility. The total fertility rate of the poorest households was higher than the richest households. Inversely, the richest households were more likely to use modern contraceptive methods than the poorest households.

Lakew et al. (2013) revealed that in Ethiopia the wealth index was a factor which was strongly influenced the modern contraceptive use. Furthermore, Agha (2000) found that low-income significantly constrained to modern contraceptive use among the Pakistani poor. Poor women were less likely to use a modern contraceptive method as compared with rich women. However, modern contraceptive method users need to pay the expenses for using contraception in Pakistan. Similarly, Ali and Fatmi (2017) posited that the economic status was one of the predictors of modern contraceptive usage among rural women in Pakistan.

Kamal (2015) confirmed that the wealth index as an important determinant in the urban Slums in Bangladesh was significantly related to modern contraceptive use as well as method preference. Besides, Jirapongsuwan et al. (2016) conducted a study to explore the determinants of the family planning practice in rural areas of Myanmar. They found that adequacy of income was one of the determinants for family planning practice.

2.4.2   Women Employment

Employment is jointly associated with contraceptive use and method choice. Employed women are more likely to use modern contraception and method choice as well than unemployed women.

A study in Sub-Saharan Africa, Blackstone et al. (2017) explored that employment was one of the positive factors which were significantly related to modern contraceptive use. Similarly, Senarath and Gunawardena (2009) found that employment was an important factor for utilizing modern contraceptive methods in South Asia such as Nepal, Bangladesh, India, and Sri Lanka.

Kamal (2015) posited that the working status of women significantly associated with modern contraceptive use and method choice as well in urban Slums of Bangladesh. The more increase economically active women they were, the more increase the likelihood of using modern methods of contraception they were.

2.5   Demographic Determinants of Contraceptive Use

2.5.1   Women's Age

Women's age is one of the predictors of modern contraceptive use as it is significantly related to modern contraceptive use as well as method choice. According to currently women's age, modern contraceptive methods were chosen. Younger married women (under 20) are more likely to use modern contraceptive methods than older married women (over 35).

A study in Kenya demonstrated that women's age was significantly correlated with unplanned childbearing. The highest proportion of mistimed births was reported among teenagers, for whom among older women aged 35 years and above had been unwanted births (Magadi, 2003). Further, Ali and Fatmi (2017) conducted a study in rural Pakistan to examine predictors of modern contraceptive use. As a result, they found that women's age was showed as one of the important predictors of modern contraceptive use among those women. Studies in India, the results indicated that women's age was significantly related to modern contraceptive use (Pandey & Singh, 2015; Valekar et al., 2017; Walvekar, 2012).

Kamal (2015) study in urban Slums of Bangladesh, found that women's age was significantly associated with modern contraceptive use and method choice as well.

Women who married at least twice were more likely to use modern contraception than those who married only once. In addition, middle-age women (20-35) were more likely to use modern contraceptive methods than younger age women (under 20). Besides, elder women were significantly less likely to use modern contraceptive methods than their younger counterparts. Likewise, Hossain et al. (2018) also found that modern contraceptive use was influenced by women's age in Bangladesh.

A study in Indonesia, Rahayu et al. (2009) posited that women's age was one of the most important factors associated with modern contraceptive use among married women. Mon and Liabsuetrakul (2012) conducted a study to explore the predictors of modern contraceptive use among married youths and their husbands in a rural area of Myanmar, resulted that women's age (20-24) was as a factor for modern contraceptive use. Similarly, women's age (21-35) significantly influenced family planning practice among rural reproductive-age married women in Myanmar (Jirapongsuwan et al., 2016). A study in Uganda by Asiimwe et al. (2014) noted that young married women (15-24) and middle married women (25-34) were more likely to use modern contraceptive methods than older married women (over 35).

2.5.2   Number of Living Children

The number of living children significantly associated with modern contraceptive methods use as well as methods choice. Women with two or more children used modern contraceptive methods in order to delay or stop childbearing. Furthermore, women living in urban areas were more likely to use a modern contraceptive method than women living in rural areas. On the behalf, women with two or more children

living in rural areas were more likely to use modern contraceptive methods than women with under two children living in urban areas.

Lakew et al. (2013) found that the number of living children significantly influenced modern contraceptive methods use among married women in Ethiopia. Women use modern contraceptive methods when they have a higher number of living children. Bogale et al. (2011) studied that women who were living in urban areas were more likely to use modern contraceptive methods than women who were living in rural areas in order to reduce higher number of children in the Southern part of Ethiopia. Besides, Endriyas et al. (2017) conducted a study at Southern Nations and Nationalities Peoples' Region in Ethiopia to explore the situation of modern contraceptive utilization and associated factors. They found that a number of alive children and desire number of children significantly associated with modern contraceptive methods use among those women.

In India, Walvekar (2012) noted that a total number of living children associated with modern contraceptive use among residing in rural areas. Besides, Valekar et al. (2017) asserted that not only number of living children but also a number of male children significantly influenced with modern contraceptive use among rural women in the reproductive age group of India.

A study of a low-income community in Pakistan by Lasee and McCormick (1996) found that women living with three or more children were more likely to use modern contraceptive methods than women living with two or fewer children.

Kamal (2015) showed that a number of living children significantly affect on both modern contraceptive use and method choice among married women in urban Slums

of Bangladesh. Child mortality and surviving children were determined as factors associated with the modern contraceptive use as well. The similar result was confirmed by Mostafa and Aynul (2010) in Bangladesh and Soe et al. (2012) in Thailand.

A study of a low-income community in Pakistan by Lasee and McCormick (1996) found that women living with three or more children were more likely to use modern contraceptive method than women living with two or fewer children.

2.5.3 Desire for More Children

The majority of women do not use ILAPMs because they want more children. They choose short-acting modern contraceptive methods because they desire to conceive in the near future, especially for young and older women.

A study of Southeast Ethiopia showed that desire for more children significantly associated with modern contraceptive use among pastoralist women. Majority of pastoralist women did not use modern contraceptive methods (Belda et al., 2017). Similarly, in Nigeria, Solanke (2017) revealed that the majority of women did not use any modern contraceptive methods because they wanted more children.

Tibaijuka et al. (2017) conducted a study in Uganda to examine using factors influencing between long-acting and short-acting modern contraceptive methods. As a result, the study showed that only 23 percent of women used a long-acting modern contraceptive method. Majority of them did not choose a long-acting modern contraceptive method. One of the most common reasons for choosing a short-acting modern contraceptive method was the desire to conceive in the near future. Likewise, Asiimwe et al. (2014) noted that the desire for more children associated with modern

contraceptive use among young and older women in Uganda. They desired to have children after two years.

In Bangladesh, Hossain et al. (2018) revealed that the desire for more children significantly influenced modern contraceptive use. Besides, Islam (2018) also posited both desires for a child after two years and no child at all effecting modern contraceptive use among fecund young women in Bangladesh. Moreover, Mutombo and Bakibinga (2014) explored that desire for more children had a significant relationship with modern contraceptive use pattern of Indonesia.

In conclusion, independent variables as shown above will be analyzed in order to know the determinants of modern contraceptive use among currently married women in Myanmar. This study used the most recent national survey data set, the Myanmar Demographic and Health Survey (MDHS) 2015-16.

2.6 Summary

In this chapter, the results of the association between various determinants and modern contraceptive use from the previous literature are discussed. Moreover, some of the main results from the few studies on the association between the different determinants such as socio-economic and demographic characteristics and modern contraceptive use are summarized in the following Table 1.

Table 1: Summary of determinants of modern contraceptive use among currently married women in Myanmar

No.	Author	Year	Datasets	Results
1	N. Bhandari, G.K. Shrestha, and P C Thakuri	2013	Own data at Dhulikhel Municipality in Nepal	Women's education (+), Husband's education (+), Women's decision making (+), Good inter-spousal communication (+), Depo-Provera method (+)
2	MB Hossain, MHR Khan, F Ababneh and JEH Shaw	2018	BDHS 2014	Administrative division (+), Place of residence (+), Religion (+), Number of household members (+), Woman's age (+), Occupation (+), Body mass index (+), Breastfeeding practice (+), Husband's education (+), Wish for children (+), Living status with wife (+), Sexual activity in past year (+), Women amenorrheic status (+), Abstaining status (+), Number of children born in the last five years (+), Total children ever died (+)
3	C.A. Okezie, A.O. Ogbe and C. R. Okezie	2010	Own data at Ikwuano Local Government Area of Abia State, Nigeria	Mass media messages (+), Education (+), Family size (+), Information (+)
4	Bola Lukman Solanke	2017	NDHS 2008, 2013	Multiparous women (-), Women who want more children (-), Maternal education reaches secondary education (-), Women in richest households (-), Southern women (-)
5	Ashraf Lasee and Joseph B. McCormick	1996	Own data at Shirin Jinnah Colony, Karachi,	No. of living children (+), Number of surviving children (+), Women's education (+)

No.	Author	Year	Datasets	Results
			Pakistan	
6	Abdulbasit Musa, Nega Assefa, Fitsum Weldegebreal, Habtamu Mitiku, and Zelalem Tekemariam	2016	Kersa Health and Demographic Surveillance System	Injectable contraceptive (+), Oral contraceptives (+), Rural town residence (+), Muslim (-), Young mother (-)
7	Massy Mutumba, Eliud Wekesa, and Rob Stephenson	2018	DHS from 52 LMICs	Community-level education attainment (+), Gender (-), Young women (-), Mass media (-)
8	Stephen A Adebowale, Suday A Adedini, Latifat D Ibisomi, and Martin E Palauleni	2014	MDHS 2010	Wealth index (+), Modern contraceptives (+)
9	Sarah R. Blackstone, Ucheoma Nwaozuru and Juliet Iwlunmor	2017	Data at twelve Sub-Saharan African countries	Women's misconceptions of contraceptive side–effects (-), Male partner disapproval (-), Social/cultural norms (-), Education (+), employment (+), Communication with a male partner (+)
10	Leevan Tibaijuka, Robert Odongo, Emma Welikhe, Wilber Mukisa, Lilian Kugonza, Imelda Busingye, Phelomena Nabukalu, Joseph Ngonzi, Stephen B. Asiimwe, and Francis Bajunirwe	2017	Own data among reproductive-age women attending FP and ANC clinics in Uganda	Reasons for choosing LARC methods: longer protection; better child-spacing; and effectiveness. Reasons for not choosing LARC methods: requiring a client-controlled method and desiring to conceive in the near future. Reasons for choosing short-acting methods: ease of access; lower cost; privacy; perceived fewer side

No.	Author	Year	Datasets	Results
				effects; and freedom to stop using a method without involving the health provider.
11	Araya Abrha Medhanyie, Alem Desta, Mussie Alemayehu, Tesfay Gebrehiwot, Tesfu Alemu Abraha, Atakelti Abrha and Hagos Godefay	2017	Own data at 13 districts (3 urban and 10 rural) in Ethiopia	Depo-Provera method (+), Short-acting contraceptive (+), Place of residence (+)
12	Semere Sileshi Belda, Mekonnen Tegegne Haile, Abulie Takele Melku and Abdurehaman Kalu Tololu	2017	Own data at pastoralist districts of the BER, Oromia region, Southeast Ethiopia	Couple discussion (-), perceived husband's approval (-), discussion with health extension worker (-), perceived cultural acceptability (-)
13	Demeke Lakew Workie, Dereje Tesfaye Zike, Haile Mekonnen fenta and Mulusew Admasu Mekonnen	2018	Performance Monitoring and Accountability 2020, Ethiopia	Residence (+), Region (+), Facility type (+), No. of days per week family planning offered (+), No. of nurses/midwives (+), No. of medical assistants (+)
14	Anjali Pandey and K. K. Singh	2015	National Family Health Survey 2005-06	Religion (+), Caste (+), Education (+), Current age (+), Age at marriage (+), Media exposure (+), Zonal classifications (+), Place of residence (+)
15	John Bosco Asiimwe, Patricia Ndugga, John Mushomi, and James Patrick Manyenye	2014	UDHS 2011	Distance to health facility (+), Listening to the radio (+), Geographical differences (+), Desire to have children after two years (+), Education level (+)

No.	Author	Year	Datasets	Results
	Ntozi			
16	Humayun Kabir, Nirod Chandra Saha, Elizabeth Oliveras, and Rukhsana Gazi	2013	Own data at rural sub-district in Sylhet division of Bangladesh	Contraceptive prevalence rate (CPR): Distance from the residence to the nearest health facility (+), Contact with field workers (+)
17	Ramesh Adhikari	2010	NDHS 2006	Age at first marriage (+), Perceived ideal number of children (+), Place of residence (+), Literacy status (+), Religion (+), Mass media exposure (+), Use of family planning methods (+), Household leadership (+), Experience of child death (+)
18	Sumera Aziz and Zafar Fatmi	2017	Own data at Thatta district, Pakistan	Maternal age (+), Women's educational level (+), Economic status (+), Unintended pregnancy (+), Distance from FP centers (-)
19	Sohail Agha	2000	1996 Pakistan Contraceptive Demand Survey	Low income (+)
20	Ria Rahayu, Iwu Utomo, and Peter McDonald	2009	IDHS 1997 and 2007	Women's age (+), Residence (+), No. of living children (+), Women's education (+), Religion (+), Desire for more children (+), Visited by FP worker (+), Husband's view on FP (+)
21	Namuunda Mutombo and Pauline Bakibinga	2014	ZDHS 2007	Wealth index (+), Rich households > medium rich and poor households

No.	Author	Year	Datasets	Results
22	Nguyen Minh Thang, Ingrid Elizabeth Swenson, Vu Duy Mao, and Phan Trinh	1992	1988 VNDHS and 1990 Study of Accessibility of Contraceptives in Vietnam	Women's education (-), Other characteristics between urban and rural (-)
23	Mellissa H. Withers, Paula Tavrow and N. Ardika Adinata	2011	Own data at the impoverished area in East Bali composed of nineteen sub-villages	Older (+), Less education (+), More children than women who wanted more children (+)
24	Yihunie Lakew, Ayalu A Reda, Habtamu Tamene, Susan Benedict and Kebede Deribe	2013	EDHS 2011	Wealthy (+), More educated (+), Higher no. of living children (+), Monogamous relationship (+), Attending community conversation (+), Visited by health worker at home (+), Living in rural areas (-), Older age (-), Polygamous relationship (-), Witnessing one's own child's death (-)
25	Mackfallen G. Anasel and Upendo J. Mlinga	2014	TDHS 2004-05	Husband disapproval of contraceptive use (+), Husband and women approval of FP (+), Women education (+), Decision of FP with partners (+), Wealth index (+), Religion (+)
26	Md. Aminul Haque and Amir Mohammad Sayem	2009	Own data, married women aged 15 to 29 years in 2 rural unions, Bangladesh	Women's age (+), Family pressure (+)

No.	Author	Year	Datasets	Results
27	Upul Senarath and Nalika Sepali Gunawardena	2009	NDHS 2001, BDHS 2004 and the National Family Health Survey India 1998-99, SDHS 2000	Age (+), Education (+), No. of children (+)
28	Monica Akinyi Magadi	2003	KDHS 1993	Urban/rural residence (+), Region (+), Ethnicity (+), Maternal education (+), Maternal age (+), Marital status (+), Birth order (+), Length of preceding birth interval (+), Family planning practice (+), Fertility preference (+), Unmet need for FP (+), Repeatedly unplanned birth (+)
29	Maria F. Gallo and Nguyen C. Nghia	2007	Own data, women aged 14-47 receiving an abortion at 13-24 weeks of gestation in 5 health facilities in 3 provinces in Vietnam	Three broad categories: most women failed to recognize their pregnancy during the first trimester; women described structural barriers to accessing services earlier; and some women either needed time to make a decision or only decided to abort after other events had transpired
30	S. M. Mostafa Kamal and Md Aynul Islam	2010	BDHS 2004	Women's age (+), No. of living children (+), Having a male child (+), Women's education (+), Religion (+), NGO membership (+), Place of the region (+)
31	Myo Myo Mon and Tippawan Liabsuetrakul	2012	Own data in the rural area of Myanmar	Women's age (20-24) (+), Own income (+), Experience of spousal communication (+), Shorter

No.	Author	Year	Datasets	Results
				distance from home to health center (+)
32	S. M. Mostafa Kamal and Md. Aynul Islam	2012	BDHS 2007	Son preference (+), Current residence (+), Region (+), Visitations by FP workers (+)
33	S. M. Mostafa Kamal	2015	BDHS 2006	Women's age (+), Access to TV (+), No. of unions (+), NGO membership (+), Working status of women (+), No. of living children (+), Child mortality (+), Wealth index (+), Surviving children (+), Women's education (+)
34	Cuntong Wang	2011	National Conventional Statistics and Nationally Representative Sample Survey 1970-2004	Family planning policy (+), Socioeconomic and demographic factors (+)
35	Wen Ting Tong, Wah Yun Low, Yut Lin Wong, Sim Poey Choong, and Ravindran Jegasothy	2014	Own data in Penang, Malaysia in 2011	Experiences (+), Fear of side-effects (+), Contraceptive failure (+), Partner's influence (+), Lack of confidence (+), Cost (+)
36	Ann Jirapongsuwan, Kyaw Thu Latt, Sukhontha Siri, and Chokchai Munsawaengsub	2016	Own data in Aunglan township, Magway region, central Myanmar	Injection (+), Women's age (21-35) (+), Adequacy of income (+), Good attitude toward FP (+), Good support from health care providers (+), Good support from family (+), Good support from friends (+), FP practice (+)

No.	Author	Year	Datasets	Results
37	Christiana R. Titaley, Iwan Ariawan, Rita Damayanti, Amry Ismail, A. Y. Saputri, Fitra Yelda, Nugroho Soeharno, Subarkah, Sarah Harlan, Yunita Wahyuningrum and Douglas Storey	2017	Own data in Tuban, Kediri, Lumajang, Lombok Barat, Lombok Timur, and Sumbawa districts	Knowledge of family planning (+)
38	Barbara Main, Tony Lower, Ross James, and Ian Rouse	2001	Own data in Krakor, Pursat, Cambodia	Not practicing family planning (+), Lack of available services (+), Fear of side-effects (+), Community education (+)
39	Mussie Alemayehu, Aster Kalayu, Alem Desta, Hailay Gebremichael, Tesfalem Hagos and Henock Yebyo	2015	Own data at Wukro town (urban area) and Kilteawlaelo district (rural area), Ethiopia	Educational status (+), Partner's permission (+)
40	Mussie Alemayehu, Tefera Belachew and Tizta Tlahun	2012	Own data at Mekelle town, Tigray region, north Ethiopia	64% heard about ILAPM, More than half of them had negative attitude towards practicing of ILAPM, 12.3% use ILAPM, the main reason is they use another method ILAMP use: Women with high knowledge 8 > women with low knowledge, Women with two or more pregnancies 3 > women with one pregnancy

No.	Author	Year	Datasets	Results
41	Binyam Bogale, Mekitie Wondafrash, Tizta Tilahun, and Eshetu Girma	2011	Own data at Dawro Zone in Southern part of Ethiopia	In urban: Having better knowledge about MC (+), Gender equitable attitude (+), Better involvement in decisions related to children (+), Socio-cultural (+), Family relations (+) In rural: Better knowledge (-), Fear of partner's opposition or negligence (-), Involvement in decisions about the child (-), Economic affairs (-)
42	Misganu Endriyas, Akine Eshete, Emebet Mekonnen, Tebeje Misganaw, Mekonnen Shiferaw, and Sinafikish Ayele	2017	Own data at Southern Nations and Nationalities Peoples' Region, Ethiopia	Knowledge and attitude towards contraceptives (+), Age (+), Residence (+), No. of alive children (+), Experience of child death (+), Marital status (+), deciding no. of children (+), Various misconceptions (+)
43	Ahmed Zohirul Islam	2018	BDHS 2011	The desire for a child after two years (+), No child at all (+), Couples' joint decision-making power on women's health care (+), Child's health care (+), Visiting family members or Relatives emerged (+)
44	Mengistu Meskele and Wubegzier Mekonnen	2014	Own data in the public health facilities of Wolaita zone, Southern Ethiopia	38% of women had the intention to use ILAPM while nearly half of them had a negative attitude Tow-third of women held myths and misconceptions Positive attitude women 2.5 > negative attitude women

No.	Author	Year	Datasets	Results
				No myths and misconceptions women 1.7 > myths and misconceptions Women with a secondary and higher level of education 2 and 2.8 > no education
45	Padmaja Ravindra Walvekar	2012	Own data at 3 primary health center area of the rural region of Belgaum, Karnataka, India	Age of married women (+), Socio-economic status (+), Type of family (+), Age at first pregnancy (+), Duration of married life (+), Total no. of children (+), Religion (-), Education of both spouses (-), Age at married (-)
46	Htoo Htoo Kyaw Soe, Nan Nitra Than, Avneet Kaul, Senthil Kurmar and Ratana	2012	Own data at Phang-Nga Province, Thailand	Marital duration (+), Education (+), No. of living children (+), Knowledge and usage of contraception (+)
47	Valekar SS, Chawla PS, Tukaram HP, Fernandez K, and Kalra K	2017	Own data at 37 villages of Karla PHC in Pune, Maharashtra, India	Age of women (+), Age at marriage (+), Age at first child (+), No. of children (+), No. of male children (+), Literacy status of women (+), Literacy status of spouse (+), Type of family (+), Socio-economic status (-), Religion (-)
48	M. Kabir and M. Amirul Islam	2000	Own data at urban Bangladesh	Radio clients 38%, TV clients 18.5%, Newspaper clients 8.5%

CHAPTER III
RESEARCH METHODOLOGY

This chapter presented research methodology including hypothesis, data source and study sample, the variables description, and data management and data analysis.

3.1 Hypothesis

1. Women with higher education are more likely to use modern contraception than women with lower education.

2. Employed women are more likely to use modern contraception than women who are jobless.

3. Women who live in urban areas are more likely to use modern contraception than women who live in rural areas.

4. The probability of women using modern contraception is likely to increase with wealth.

5. Young women are more likely to use modern contraception than older women.

6. Women with more number of living children are more likely to use modern contraception than women with less number of living children.

7. Women who want to have more children are less likely to use modern contraception.

8. Women who can access to mass media to use modern contraception more than women cannot access to mass media.

9. Women who discussed with family planning workers use modern contraception more than women who did not discuss with family planning workers.

3.2   Data Source and Study Sample

This study utilized secondary data from the Myanmar Demographic and Health Survey (MDHS) 2015-16, the first Demographic and Health Survey in Myanmar. The survey was conducted by the Ministry of Health and Sports (MoHS) with the financial assistance of the United States Agency for International Development (USAID) and the Three Millennium Development Goal Fund (3MDGF). Moreover, the International Coach Federation (ICF) gave technological assistance. Myanmar Demographic and Health Survey was conducted from 7th December 2015 to 7th July 2016.

The DHS survey was a nationwide survey and the sampling frame was based on 2014 Myanmar Population and Housing Census and selected 30 sampling strata that were stratified by not only states and division but also urban and rural area. The sampling was two-stage which involved 442 clusters (123 urban and 319 rural) and the second-stage had 13,260 households (30 households from each cluster) using equal probability systematic sampling. All the men and women aged between 15 and 49 years who were permanent residents or visitor (stayed in the household before the survey night) of the selective households were recruited in the survey.

Out of 13,238 households, 12,780 households were occupied. Of the occupied 12,780 households, 12,500 responded to the interview, which was 98 percent of the total households. In selected households, 13,454 women were eligible to participate. Out of 13,454 women, 12,885 women were successfully interviewed accounting 96 percent of the suppled women. Out of 5,218 men, 4,737 men completed interview accountancy for a 91 percent response rate. The study population consisted of 12,885

women aged 15–49, who were either permanent residents of the selected households or visitors staying in the household at the night before the survey.

In data sample selection, there were two kinds of women who were 4,146 for never in union and 8,739 for married women with a total of 12,885 women.

Under married women 8,739, 7,870 currently women who are currently living together with spouses were chosen. After deleting the missing variables, the target of the thesis would be those who have currently married women of reproductive age (15-49) 6,597 as shown in the following Figure 2.

Figure 2: Data Sample Selection
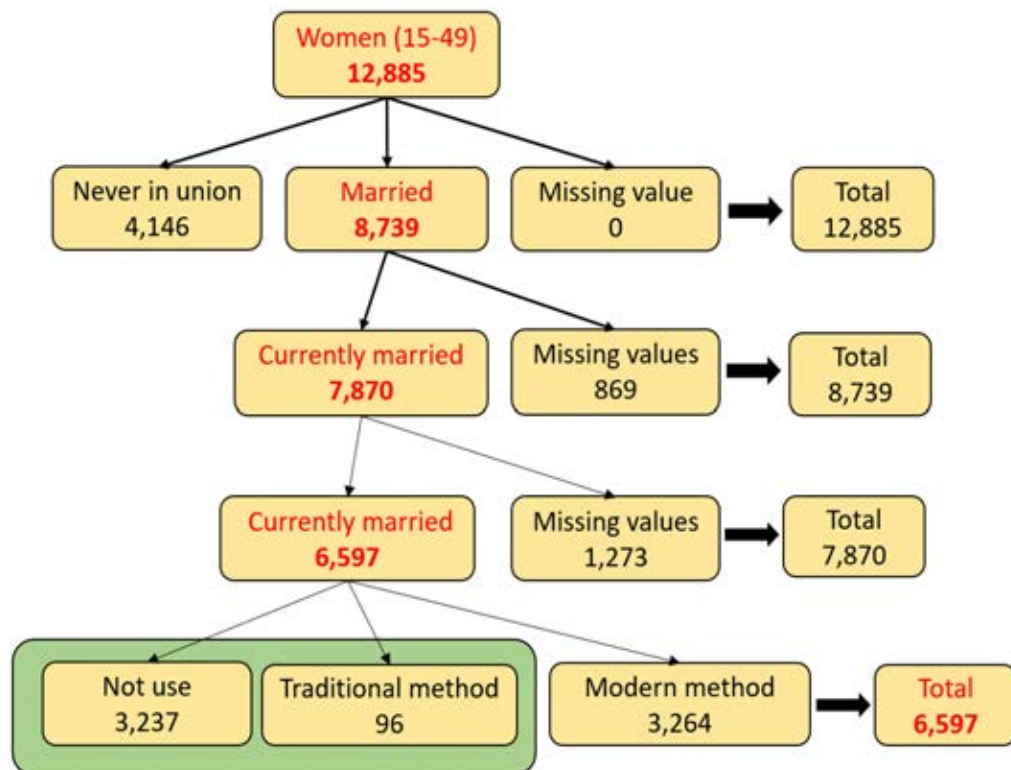
Source: MDHS 2015-16, Author's calculation

* We categorized traditional methods referred to as not-use because traditional methods are more likely to fill than modern methods.

* The currently pregnant women are excluded from this analysis.

3.3   Method of the Study

Based on literature, there were several variables that influenced modern contraceptive use including social characteristics: women's education, husband's education, religion, urban/rural, mass media exposure and visited by family planning workers, demographic characteristics: women's age, number of living children and desire for more children and some variables related with economic characteristic such as wealth index and women employment status.

As mention above, variables were categorical variables (independent variables) and the use of contraceptives methods (dependent variable) as a dichotomous variable. Thus, "Logistic Regression Analysis" (LRA) used in order to achieve the respective objectives. The LRA will be achieved when the outcome variables (predicting the probability of whether the contraceptive use or no use) are dichotomous and all the independent variables in this analysis are categorical variables. Basically, the regression model takes the following forms:

$$log\left(\frac{p(y=1)}{1-(p=1)}\right) = \beta_0 + \beta_1 X_1 + \beta_2 X_2 \dots \beta_n X_n + \varepsilon_i$$

Where Y is a dependent variable representing modern contraceptive use.

β_0 is a coefficient of the constant.

$\beta_i X_i$ is the coefficient independent variables such as individual, demographic, social and economic characteristics.

ϵ_i is the error term for the unobserved variables.

Binary logistic regression analysis will be applied to observe the effect of a set of independent variables to dichotomous dependent variables.

3.4   Variables Description

Descriptions of both the dependent variable and independent variables are shown in table 2 and 3. Moreover, the measurement scale and question numbers are added as detail.

3.4.1   Dependent Variable

The dependent variable in this study is:

Current Use of Modern Contraception – This variable refers to whether the currently married women who are currently living together with spouses among reproductive-aged 15-49 are currently using modern contraceptive methods or not.

This dependent variable is coded with two values which 0 and 1. The code 1 is represented the current use of modern contraception whereas code 0 included the use of traditional contraceptive methods and not use any modern method of contraception.

Table 2: Description, measurement scale and source of information of dependent variables

Variable	Description	Measurement Scale	Question no.	DHS Question
Modern Contraceptive Use	Whether the currently married women who are currently living together with spouses among reproductive-aged 15-49 are currently using modern contraceptive methods or not.	Not currently using modern contraceptive method = 0, Currently using modern contraceptive method = 1	WQ 303	Are you currently doing something or using any method to delay or avoid getting pregnant? (Yes/No)
			WQ 304	Which method are you using?

Source: MDHS 2015-16, Author's calculation

3.4.2 Independent Variables

The independent variables in this study are:

Education (Women & Men) – This variable refers to the highest level of education which the respondent and her husband have completed. Respondents and their husbands are categorized as: "No education", "Primary education", "Secondary and higher education".

Based on the local education system, "No education" represents those who did not attend formal education, "Primary education" represents among grade 1 to 4, "Secondary education" represents among grade 5 to grade 10 and "Higher education" represents for the universal level.

Urban & Rural – This variable refers to the urban or rural residence of respondents, coded as 0 for urban and 1 for rural.

Mass Media Exposure – There are three variables to measure whether respondents obtained the family planning messages through the particular mass media that is radio, TV and newspaper or magazine, within in the last few months to the interview. These are three categorized as: "radio", "TV" and "newspaper or magazine".

Visited by Family Planning Workers – The respondent visited by family planning worker who talked about family planning methods within 12 months, coded as 1 for yes and 0 for no.

Wealth Index – This variable refers to the respondent's wealth index quintiles or ownership of assets of the household. The data is provided by the MDHS and grouped into five categories, as follows: the "poorest" represents bottom 10 percent, the

"poorer" represents 25 percent, the "middle" represents 50 percent, the "richer" represents 75 percent and the "richest" represents 90 percent. In this study, the wealth level is divided into 3 groups: the "poor group" includes the "poor and poorer"; the "middle group" includes the "middle"; and the "rich group" includes the "richer and richest".

Women Employment − The women are classified as currently working and not working, coded as 1 for currently working, and 0 for not working.

Woman's Age – Age refers to the current age of respondent at the time of interview. Age 15 to 49 is estimated as the reproductive age for women. For analytical purpose, respondents are grouped in 5 years age group categories, namely 15-19, 20-24, 25-29, 30-34, 35-39, 40-44 and 45-49 years.

Number of Living Children − This variable refers to the total; a number of living children of the respondent at the time of interview.

Desire for More Children - Whether a woman wants a/another child or not, coded as 0 for wants no more children and 1 for wanting more children.

The independent variables included in this study are women's education, husband's education, religion, urban/rural, mass media exposure, visited by family planning workers, wealth index, women employment, women's age, number of living children and desire for more children.

Table 3: Description, measurement scale and source of information of independent variables

Variable	Description	Measurement Scale	Question no.	DHS Question
Women's Education	The highest grade of school a woman had completed	No education = 0, Primary education = 1, Secondary and higher education = 2	WQ 104 WQ 106	Have you ever attended school? What is the highest you completed?
Husband's Education	The highest grade of school a husband had completed	No education = 0, Primary education = 1, Secondary and higher education = 2	WQ 803 WQ 805	Did your (last) husband ever attend school? What was the highest grade he completed?
Urban/ Rural	A woman resides a place which rural or urban	Urban = 0, Rural = 1	WQ 115C	Was it an urban or rural area?
Media from Radio	Whether respondents obtained family planning messages through the radio within in the last few months to the interview	0 = No, 1 = Yes	WQ 714	In the last few months have you: Heard about family planning on the radio? (Yes/No)
Media from TV	Whether respondents obtained family planning messages through television within in the	TV: 0 = No,	WQ 714	In the last few months have you: Seen anything about family

Variable	Description	Measurement Scale	Question no.	DHS Question
	last few months to the interview	1 = Yes		planning on the television? (Yes/No)
Media from Newspaper	Whether respondents obtained family planning messages through newspaper or magazine within in the last few months to the interview	Newspaper or magazine: 0 = No, 1 = Yes	WQ 714	In the last few months have you: Read about family planning in a newspaper or magazine? (Yes/No)
Visited by Family Planning Workers	Respondent visited by family planning worker who talked about family planning method within 12 months.	No = 0, Yes = 1	WQ 326	In the last 12 months, were you visited by Auxiliary Midwife (AMW), Community/Village Health Worker (CHW), or Community Support Group (CSG) who talked to you about family planning? (Yes/No)
Wealth Index	Wealth index quintiles or ownership of assets of the household	Poor = 0, Middle = 1, Rich = 2	HH 110	Does your household have: Electricity? A radio? A mobile telephone? A television? A landline telephone? A refrigerator? A table? A chair? A sofa? A bed? A cupboard? An

Variable	Description	Measurement Scale	Question no.	DHS Question
				electric fan? Air conditioner? A sewing machine? A computer?
Women Employment	Whether a woman is currently working or not	No = 0, Yes = 1	WQ 807	Aside from your own housework, have you done any work in the last seven days? (Yes/No)
			WQ 808	As you know, some women take up jobs for which they are paid in cash or kind. Others sell things, have a small business or work on the family farm or in the family business. In the last seven days, have you done any of these things or any other work? (Yes/No)
			WQ 809	Although you did not work in the last seven days, do you have any job or business from which you were absent for leave, illness, vacation, maternity leave, or any other

Variable	Description	Measurement Scale	Question no.	DHS Question
				such reason? (Yes/No)
Woman's Age	Completed age of a woman who is reproductive age 15-49	0= 15-19 1= 20-24 2= 25-29 3= 30-34 4= 35-39 5= 40-44 6= 45-49	WQ 103	How old were you at your last birthday?
Number of Living Children	Number of children who are still surviving	0= No child, 1= One child 2= Two children 3= Three children and over	WQ 203 WQ 205	How many sons live with you? (Number ....) And how many daughters live with you? (Number ....) How many sons are alive but do not live with you? (Number ....) And how many daughters are alive but do not live with you?

Variable	Description	Measurement Scale	Question no.	DHS Question
				(Number ………)
Desire for More Children	Whether a woman wants a/another child or not	Wants no more = 0 Wants more children = 1 Undecided = 2	WQ 702 WQ 704	Are you currently pregnancy or not? (Yes/No) Now I have some questions about the future. Would you like to have (a/another) child, or would you prefer not to have any (more) children? (Yes/No/Undecided)

Source: MDHS 2015-16, Author's calculation

Note: (1) The religion and (2) the internet in mass media exposure were not included in data analysis. Because there were no data in the Myanmar Demographic and Health Survey (MDHS) 2015-16 data set although question for both the religion and the internet were included in the questionnaire.

3.5   Data Management and Data Analysis

The quantitative analysis in the study used a cross-sectional study. To achieve the objectives of the study, the following analyses were performed. The population of this study is the women who are currently married of reproductive age 15-49 in Myanmar.

Descriptive analysis was conducted by using means, standard deviation, and percentage distribution of each variable to investigate characteristics of the modern contraceptive use and not use.

Binary logistic regression analysis with odds ratios was conducted to examine the association of explanatory variables with the dependent variable. Having modern contraceptive use for family planning was used as the dependent variable. The dependent variable was operationalized as "not currently using the modern contraceptive method" and "currently using the modern contraceptive method" for family planning among currently married women in Myanmar.

CHAPTER IV
RESULTS AND DISCUSSION

This chapter presented findings from the data analysis of the study of socio-economic and demographic determinants of modern contraceptive utilization among currently married women in Myanmar.

4.1   Descriptive Statistics of Dependent Variable

Table 4 reported the distribution of the dependent variable. There were 6,597 observations for the current use of modern contraception, and of which, 50.5 percent of respondents did not use any method of modern contraception while 49.5 percent of respondents used modern contraception.

Table 4: Descriptive statistics for Dependent Variable (N = 6,597)

Dependent variable	Categories	Frequency	Percent
Current Use of Modern Contraception			
	Not use	3,333	50.5
	Use	3,264	49.5
	Total	6,597	100.0

Source: MDHS 2015-16, Author's calculation

Table 5 showed the distribution of the type of modern contraception among currently married women in Myanmar. There were 3,264 currently married women, and of which 15.3 percent of respondents used Pill, 3.0 percent used intrauterine device (IUD), 29.3 percent used Injections, 1.2 percent used Male condom, 1.3 percent used Implants/Norplant whereas nearly 1.0 percent used Lactational amenorrhea method (LAM) and other modern methods as shown in the following table with detailed.

Table 5: Descriptive statistics for type of modern contraception by currently married women in Myanmar (N = 3,264)

Type of Modern Contraceptive	Frequency	Percent
Pill	993	15.3
Intrauterine device (IUD)	196	3.0
Injections	1,903	29.3
Male condom	79	1.2
Implants/Norplant	86	1.3
Lactational amenorrhea (LAM)	2	.0
Other modern methods	5	.1
Total	3,264	50

Source: MDHS 2015-16, Author's calculation

4.2   Descriptive Statistics of Explanatory Variables

Explanatory variables used in this study were grouped into social characteristics, economic characteristics and demographic characteristics as discussed in Chapter 3.

Table 6, 7 and 8 described the descriptive statistics of the social characteristics, economic characteristics and demographic characteristics which were women's education, husband's education, urban/rural, mass media exposure, visited by family planning workers, wealth index, women employment, women's age, number of living children and desire for more children.

Regarding on Table 6, it included the social characteristics of respondents. The educational level of both women and their husbands were categorized into three groups; no education, primary education, and secondary and higher education. If the percentage of women and men were compared, women with no education (15.6 percent) were higher than men with no education (15.1 percent). Moreover, there were 46.5 percent of women with primary education and it was 6.6 percent higher than men if it was compared with 39.9 percent of men with primary education. But, there was

only 38.0 percent of women with secondary and higher education and it was lower than 7.1 percent of men with secondary and higher education whereas there was 45.0 percent of men with secondary and higher education.

Regarding urban and rural areas, about one-fourth (24.9 percent) of the respondents lived in urban areas and the rest (75.1 percent) lived in rural areas.

Moreover, mass media exposures were divided into two groups; yes or no and also visited by family planning workers similarly. Although 21.3 percent of the respondents accessed mass media exposures from TV in order to get the family planning information programs, near 15.0 percent of the respondents accessed from the radio and newspaper.

Besides, around one-tenth of respondents (11.3 percent) were visited by family planning workers at home and the rest (88.7 percent) were not visited by family planning workers.

Table 6: Descriptive statistics for Explanatory Variables (N = 6,597)

Independent variables	Categories	Frequency	Percent
Social Characteristics			
Women's Education			
	No education	1,027	15.6
	Primary education	3,066	46.5
	Secondary and higher education	2,504	38.0
	Total	6,597	100.0
Husband's Education			
	No education	996	15.1
	Primary education	2,631	39.9
	Secondary and higher education	2,970	45.0
	Total	6,597	100.0
Urban/Rural			
	Urban	1,640	24.9
	Rural	4,957	75.1
	Total	6,597	100.0
Media from Radio			
	No	5,671	86.0
	Yes	926	14.0
	Total	6,597	100.0
Media from TV			
	No	5,193	78.7
	Yes	1,404	21.3
	Total	6,597	100.0
Media from Newspaper			
	No	5,638	85.5
	Yes	959	14.5
	Total	6,597	100.0
Visited by Family Planning Workers			
	No	5,853	88.7
	Yes	744	11.3
	Total	6,597	100.0

Source: MDHS 2015-16, Author's calculation

Table 7 presented the economic characteristics of respondents. The wealth index was divided into poor, middle and rich quintile. About 43.1 percent of women were poor, it is the highest proportion followed by middle (20.8 percent) and the least, rich (36.2 percent).

Furthermore, women employment status was categorized into yes and no. Nearly two-thirds of respondents (62.3 percent) were employed and the rest (37.7 percent) were unemployed.

Table 7: Descriptive statistics for Explanatory Variables (N = 6,597)

Independent variables	Categories	Frequency	Percent
Economic Characteristics			
Wealth Index			
	Poor	2,842	43.1
	Middle	1,370	20.8
	Rich	2,385	36.2
	Total	6,597	100.0
Women Employment			
	No	2,487	37.7
	Yes	4,110	62.3
	Total	6,597	100.0

Source: MDHS 2015-16, Author's calculation

Regarding with demographic characteristics of respondents, the women's age was grouped such as five-years age group among 15 to 49 as shown in Table 8 with detail. According to the women's age group, the lowest contraceptive users were 15-19 year age group (2.9 percent) while the highest contraceptive users were 30-34 year age group (19.8 percent) and followed by 35-39 year age group (19.1 percent), 25-29 year age group (16.8 percent), 40-44 year age group (16.3 percent), 45-49 year age group (14.1 percent) and the least, 20-24 year age group (10.9 percent).

The number of living children was divided into one child, two children, three children and over. Among modern contraceptive users, about one-fourth of respondents (nearly 26 percent) had one or two children and followed by three children and over (39.1 percent).

Regarding with desire for more children, the percentage of women who want no more children was 58.7 percent and the women who want more children were 37.8 percent whereas the women who were undecided were 3.5 percent in this study.

Table 8: Descriptive statistics for Explanatory Variables (N = 6,597)

Independent variables	Categories	Frequency	Percent
Demographic Characteristics			
Women's Age			
	15-19	193	2.9
	20-24	717	10.9
	25-29	1,110	16.8
	30-34	1,305	19.8
	35-39	1,262	19.1
	40-44	1,077	16.3
	45-49	933	14.1
	Total	6,597	100.0
Number of Living Children			
	No child	641	9.7
	One child	1,677	25.4
	Two children	1,700	25.8
	Three children and over	2,579	39.1
	Total	6,597	100.0
Desire for More Children			
	Wants no more	3,872	58.7
	Wants more children	2,491	37.8
	Undecided	234	3.5
	Total	6,597	100.0

Source: MDHS 2015-16, Author's calculation

4.3   Results of Regression Analysis

Table 9 showed the binary logistic regression analysis of dependent variable (Current use of modern contraception) and independent variables (Socio-economic and demographic variables). Regarding women's education, compared to the reference category of no education, both those with primary education and those with secondary and higher education were 1.6 times more likely to be using modern contraception. Therefore, women with a higher level of education were more likely to be using modern contraception than women with no education (p = 0.001).

The women employment status was significantly related to use modern contraception, with those women who were working were 1.3 times more likely to be using modern contraception than those women who were not working (p = 0.001).

Regarding on women's age, the effects of different age categories on the modern contraceptive methods use were also significant except those who aged 20-24 among aged 15-49. Although there was statistically insignificant that the women who aged 20-24 used modern contraceptive methods, the women who aged 25-29 were 0.6 times, those who aged 30-34 were 0.4 times and those who aged 35-39 were 0.3 times whereas those who aged 40-44 and 45-49 with 0.1 times and 0.03 times respectively less likely to use modern contraception compared to the reference category of those who aged 15-19 (p = 0.001, p = 0.01). Thereby, there was a strong negative effect on the likely use of modern contraception. In addition, older-aged women were less likely to use modern contraception than younger-aged women.

Clearly, the respondents who want more children were 0.4 times less likely to use modern contraception than the women who want no more children whereas those who

were undecided were 0.7 times less likely to use modern contraception compared to the reference category of those who want no more children (p = 0.001 and p = 0.05, respectively).

The women with a number of living children demonstrated that there was strongly and positively significant with the use of modern contraception. The women with one child were 3.0 times, those with two children were 3.4 times, those with three children and over were 2.6 times more likely to be using modern contraception compared to the reference category of those with no child (p = 0.001).

Regarding with media exposure, the women who expose to TV media were 1.4 times more likely to use modern contraception than who was not exposed to TV (p = 0.001) as well as statistically significant in the odds of using modern contraception compared to the reference category. However, other mass media exposure variables such as radio and newspaper were insignificantly associated with modern contraceptive use.

With regard to with wealth index, the women with rich household were 1.2 times more likely to be using modern contraception compared to the reference category of poor household (p = 0.05). There was little effect of rich household on modern contraceptive use. However, there was statistically significant with rich household among those different categories in the odds of the using modern contraception compared to the reference category of a poor household.

Regarding husband's education, if it was compared to the reference category of no education, those with primary education were 1.3 times more likely to be using modern contraception and those with secondary and higher education were 1.2 times more likely to be using modern contraception (p = 0.01, p = 0.05, respectively).

Table 9: Binary logistic regression model for socio-economic and demographic characteristics and current modern contraceptive use (N = 6,597)

Variables	B	S.E.	Exp(B)	
Women's Education				
No education (Ref)				
Primary education	.444	.088	1.559	***
Secondary and higher education	.490	.101	1.632	***
Urban/Rural				
Urban (Ref)				
Rural	-.098	.075	.907	
Women Employment				
No (Ref)				
Yes	.238	.057	1.269	***
Women's Age				
15-19 (Ref)				
20-24	-.224	.178	.799	
25-29	-.598	.177	.550	**
30-34	-.990	.178	.372	***
35-39	-1.110	.182	.329	***
40-44	-2.045	.188	.129	***
45-49	-3.371	.201	.034	***
Desire for More Children				
Wants no more children (Ref)				
Wants more children	-1.039	.072	.354	***
Undecided	-.317	.151	.728	*
Number of Living Children				
No child (Ref)				
One child	1.082	.109	2.950	***
Two children	1.225	.119	3.403	***
Three children and over	.966	.125	2.629	***
Media from Radio				
No (Ref)				
Yes	-.048	.087	.953	
Media from TV				
No (Ref)				
Yes	.341	.081	1.406	***
Media from Newspaper				
No (Ref)				
Yes	-.101	.091	.904	

Variables	B	S.E.	Exp(B)	
Visited by FP Workers				
No (Ref)				
Yes	.109	.087	1.115	
Wealth Index				
Poor (Ref)				
Middle	.122	.075	1.129	
Rich	.184	.077	1.202	*
Husband's Education				
No education (Ref)				
Primary education	.300	.089	1.350	**
Secondary and higher education	.209	.096	1.233	*
Constant	-.120	.207	.887	

* = P<0.05; ** = P<0.01; *** = P<0.001; R-square = 0.174;

-2 Log likelihood = 7883.992a; N = 6,597; Ref = Reference category

Source: MDHS 2015-16, Author's calculation

4.4   Discussion

The regression results showed that women with higher education were more likely to use modern contraception than women with less education. The result was consistent with the hypothesis. It showed that women education is very important to use modern contraception, especially in developing countries. For example, in Nepal (Bhandari et al., 2013; Blackstone et al., 2017; Ogbe & Okezie, 2010; Pandey & Singh, 2015), in India (Bhandari et al., 2013; Blackstone et al., 2017; Ogbe & Okezie, 2010; Pandey & Singh, 2015; Valekar et al., 2017), in Nigeria (Bhandari et al., 2013; Blackstone et al., 2017; Ogbe & Okezie, 2010; Pandey & Singh, 2015) and in South Africa (Bhandari et al., 2013; Blackstone et al., 2017; Ogbe & Okezie, 2010; Pandey & Singh, 2015).

In this study, the women who were currently working were more likely to use modern contraceptive methods than the women who were not working. The result was consistent with the hypothesis. This finding was similar to with those previous studies

in Bangladesh (Kamal, 2015) and in Sub-Saharan Africa (Blackstone et al., 2017). The possible explanation is that the currently married women want to stay working, rather than stay to laboring and raising kids. It is very important to the currently working married women with low wealth for maternal leave.

Regarding women's age, the result showed that there was a strongly negative effect of the incidence of modern contraceptive use. The older age women (over 35) were less likely to use the modern contraception than the younger age women (under 35). The finding was consistent with the hypothesis. Moreover, the result was consistent with other previous studies in India (Valekar et al., 2017), in Indonesia (Rahayu et al., 2009), in Bangladesh (Hossain et al., 2018; Mostafa & Aynul, 2010), in Pakistan (Ali & Fatmi, 2017), and in Kenya (Magadi, 2003). The older age women (over 35) are less interested and familiar with the modern contraceptive methods than the younger age women (under 35) due to menopause onset, infrequent sex, and not having sex (Monteith et al., 1985). On the one hand, the younger age women (under 35) are more educated and more informed of various modern methods suitable for them.

The result of this study was statistically significant for women who want more children in using modern contraception. Artificially, the women who want more children and those who were undecided were less likely to use modern contraception than the women who want no more children. The finding point was consistent with the hypothesis as well as with previous studies in Indonesia (Belda et al., 2017; Islam, 2018; Rahayu et al., 2009) in Bangladesh (Belda et al., 2017; Islam, 2018; Rahayu et al., 2009) in southeast Ethiopia (Belda et al., 2017; Islam, 2018; Rahayu et al., 2009).

Regarding the number of living children, women with a higher number of living children were statistically more likely to use modern contraception than women with a lower number of living children. This result anticipated that modern contraceptive use usually increases with parity until two children. After two children, the magnitude was decreased by age of women. In addition, the women who already had more than two children were more likely to stop childbearing with a likelihood of current use of modern contraception. The finding was not consistent with the hypothesis. Similarly, a study significantly showed that women with one or two children were more likely to use modern contraceptive methods than women with three children and over (Mostafa & Aynul, 2010). The result of this study was consistent with previous studies in Thailand (Soe et al., 2012), in Indonesia (Rahayu et al., 2009), in Bangladesh (Mostafa & Aynul, 2010), in India (Valekar et al., 2017) and in Ethiopia (Lakew et al., 2013).

In Myanmar, mass media is an important means of influencing on using modern contraception. In this regression analysis, the women who can access to TV for the family planning information were more likely to use modern contraceptive methods than those who could not access to TV. In addition, it was accepted by the hypothesis. Mass media exposure was one of the most important variables which affect on modern contraceptive use in many countries (Adhikari, 2010; Pandey & Singh, 2015). However, women who were living in the urban areas in Bangladesh were more likely to use the radio (Kabir & Islam, 2000) and some were more likely to use the TV in order to get the family planning information (Kamal, 2015). It should be noted that the internet was not included in data analysis. Because there was

no data in Myanmar Demographic and Health Survey (MDHS) 2015-16 data set although question for the internet was included in the questionnaire.

Regarding the wealth index, the result of this study pointed out that there was a positive effect of the incidence of modern contraceptive use with women with rich household. Women with rich households were more likely to use modern contraception than those with poor households. The finding was consistent with the hypothesis. Moreover, the result of this study was consistent with previous studies in Nigeria (Solanke, 2017), in Pakistan (Ali & Fatmi, 2017), in Bangladesh (Kamal, 2015), in Zambia (Mutombo & Bakibinga, 2014), in Tanzania (Anasel & Mlinga, 2014) and in Ethiopia (Alemayehu et al., 2015; Bogale et al., 2011; Lakew et al., 2013).

Similar to the effects of women's education on modern contraceptive utilization, husband's education was also statistically associated with using modern contraception in this study. Women with educated spouses were more likely to use modern contraceptive methods as compared with those with uneducated spouses. The possible explanation is that education provides knowledge about modern contraceptive uses and raises awareness in family planning, thus encourages them and their counterparts to use the more effective contraception. The positive impacts of husband's education on the modern contraceptive use is consistent with other previous studies in Bangladesh (Bhandari et al., 2013; Hossain et al., 2018) and in India (Valekar et al., 2017; Walvekar, 2012).

CHAPTER V
CONCLUSION AND RECOMMENDATIONS

5.1   Conclusion

This thesis analyzed the determinants of modern contraceptive utilization between socio-economic and demographic determinants and currently using modern contraception among currently married women in Myanmar by using the most recent national survey, the MDHS 2015-16. Out of 13,238 households, 12,780 households were occupied. Of the occupied 12,780 households, 12,500 responded to the interview, which was 98 percent of the total households. In selected households, 13,454 women were eligible to participate. Out of 13,454 women, 12,885 women were successfully interviewed accounting 96 percent of the suppled women. Out of 5,218 men, 4,737 men completed interview accountancy for 91 percent response rate. The study population consisted of 12,885 women aged 15–49, who were either permanent residents of the selected households or visitors staying in the household at the night before the survey.

The aims of this thesis are to explore the factors related to modern contraceptive use by currently married women of reproductive age in Myanmar as well as to offer the policy recommendations to promote modern contraceptive use.

This thesis fills an existing gap in the analysis of determinants of modern contraceptive use in Myanmar, through to a limited extent. Because the previous studies in Myanmar did not cover nationwide although there is a number of researches regarding modern contraceptive use.

In this thesis, the dependent variable is currently the use of modern contraception whereas independent variables are social, economic and demographic characteristics. Women's education, husband's education, religion, urban/rural, mass media exposure and visited by family planning workers are under the social characteristics while women's age, number of living children and desire for more children are economic characteristics whereas wealth index and women employment are demographic characteristics. The logistic regression analysis is applied in order to currently use of modern contraception of currently married women.

The results pointed out that the exception with the place of living (urban & rural), receiving family planning information from the radio, receiving family planning information from a newspaper, and a number of visited by family planning workers, all other variables are statistically correlated with the utilization of modern contraception. Women's education, women employment status, a number of living children, receiving family planning information from TV, wealth index and husband's education had a positive correlation while women's age and desire for more children had a negative correlation with the utilization of modern contraception.

5.2 Recommendations

Based on the findings from this study, the following recommendations are proposed to enhance the utilization of modern contraception in Myanmar.

- The higher level of women education is one of the key factors affecting modern contraception. Therefore, promoting women to access higher education could promote modern contraceptive use. In addition, to get the proper knowledge, sexual and reproductive health courses should be integrated

into the middle and high school curriculum. The courses should be promoted, not only among girls but also boys. Besides the formal education, informal education should be promoted, along with the knowledge about family planning and modern contraceptive use.

- As being employed among women increase the odds ratio of using the modern contraception, promotion of employability for women should be encouraged. The public employment services and job creation in both formal and informal sectors can provide a better option for women. Given the Myanmar context in the short term, the cottage industry and Small and Medium-sized Enterprises might provide flexible work arrangement for women, yet a good working condition should also be guaranteed to rise well-being of women and of their family. However, in the long term, opportunities for decent work should be promoted to all women.

- Moreover, exposure to information about family planning through TV is also the main factor affecting the use of modern contraception. Thus, knowledge of family planning programs and awareness-raising programs should be disseminated through TV programs.

- To sum up, modern contraceptive use among women can be promoted through educational policies, public health services policies, job promotion for women, and information and accessibility of modern contraceptive use.

5.3   Limitations and Suggestions for Future Research

Religion is also one of the significant variables that can positively affect on modern contraceptive use (Adhikari, 2010; Anasel & Mlinga, 2014; Mostafa & Aynul, 2010; Pandey & Singh, 2015; Rahayu et al., 2009). Musa et al. (2016), Walvekar (2012) and Valekar et al. (2017). However, religion is not included in the data analysis of this study as the data were not available in MDHS 2015-16.

 Moreover, mass media exposure and visited by family planning workers are not covered with detailed information. For example, the question is not included how many times they use mass media exposure per week or per month and how many times visited by family planning workers per week or per months. Therefore, future research should consider collecting detailed information on mass media exposure and visited by family planning workers as well as religion.

As the mass media exposure is highly related to behavioral dynamics, the more preferable data is to include recent information about accessing to media. In the MDHS 2015-16, the question asked if one ever access the data. Better analysis can come with the associate question about the frequency as well. In addition, since the number of internet users in Myanmar significantly increased, accessing information through the internet is increasing in Myanmar. Future researches should take accessibility to information regarding family planning through internet as one of the critical issues.

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APPENDIX

Appendix A: Multicollinearity Test

	Constant	Women's Education	Urban & Rural	Women Employment	Women's Age	Desire for More Children	Number of Living Children	Media from Radio	Media from TV	Media from Newspaper	Visited by FP Workers	Wealth Index	Husband's Education
Constant	1.000												
Women's Education	-.313	1.000											
Urban & Rural	-.489	.063	1.000										
Women Employment	-.186	.033	-.039	1.000									
Women's Age	-.327	.056	-.002	-.146	1.000								
Desire for More Children	-.452	-.013	-.062	-.026	.332	1.000							
Number of Living Children	-.444	.120	-.025	.078	-.392	.303	1.000						
Media from Radio	.033	-.008	-.090	-.037	-.027	-.017	-.006	1.000					
Media from TV	-.048	-.032	.120	.029	-.061	-.013	.040	-.286	1.000				
Media from Newspaper	-.025	-.116	.096	-.012	-.008	.007	.049	-.197	-.309	1.000			
Visited by FP Workers	.014	-.028	-.065	-.025	.007	-.025	-.053	-.071	-.063	-.010	1.000		
Wealth Index	-.188	-.197	.337	-.013	-.172	.008	.116	.061	-.105	-.041	.031	1.000	
Husband's Education	-.293	-.348	.092	-.003	.010	-.003	.083	-.023	-.027	-.023	-.015	-.125	1.000

Source: MDHS 2015-16, Author's calculation

Appendix B: Myanmar Demographic and Health Survey (2015-16) Questionnaires

SECTION 1. RESPONDENT'S BACKGROUND

INTRODUCTION AND CONSENT

INFORMED CONSENT

Mingalabar. My name is _____. I am working with the Ministry of Health and Sports. We are conducting a survey about health all over Myanmar. The information we collect will help the government to plan health services. Your household was selected for the survey. The questions usually take about 30 to 60 minutes. All of the answers you give will be confidential and will not be shared with anyone other than members of our survey team. You don't have to be in the survey, but we hope you will agree to answer the questions since your views are important. If I ask you any question you don't want to answer, just let me know and I will go on to the next question or you can stop the interview at any time.

In case you need more information about the survey, you may contact the person listed on the card that has already been given to your household.
Do you have any questions? May I begin the interview now?

SIGNATURE OF INTERVIEWER: _____ DATE: _____

RESPONDENT AGREES TO BE INTERVIEWED   ... 1   RESPONDENT DOES NOT AGREE TO BE INTERVIEWED ... 2→ END

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	RECORD THE TIME.	HOUR .... [ ][ ] MINUTES................... [ ][ ]	
102	In what month and year were you born?	MONTH .... [ ][ ] DON'T KNOW MONTH .... 98 YEAR .... [ ][ ][ ][ ] DON'T KNOW YEAR 9998	
103	How old were you at your last birthday? COMPARE AND CORRECT 102 AND/OR 103 IF INCONSISTENT.	AGE IN COMPLETED YEARS [ ][ ]	
104	Have you ever attended school?	YES .... 1 NO 2	→ 106
106	What is the highest grade you completed? IF COMPLETED LESS THAN GRADE ONE, RECORD '00'.	GRADE .... [ ][ ]	
107	CHECK 106: GRADE 5 [ ] GRADE 6 [ ] OR LOWER OR HIGHER		→ 110

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP

108	Now I would like you to read this sentence to me.
	
	SHOW CARD TO RESPONDENT.
	
	IF RESPONDENT CANNOT READ WHOLE SENTENCE, PROBE:
	Can you read any part of the sentence to me?
		CANNOT READ AT ALL 1
		ABLE TO READ ONLY PARTS OF
		    SENTENCE 2
		ABLE TO READ WHOLE SENTENCE 3
		NO CARD WITH REQUIRED
		    LANGUAGE _____ 4
		               (SPECIFY LANGUAGE)
		BLIND/VISUALLY IMPAIRED 5	

109	CHECK 108:
	
	      CODE '2', '3' CODE '1' OR '5'
	        OR '4' CIRCLED
	       CIRCLED
			→ 111

110	Do you read a newspaper or magazine at least once a week, less than once a week or not at all?	AT LEAST ONCE A WEEK . . . . 1 LESS THAN ONCE A WEEK . . . . 2 NOT AT ALL 3	
111	Do you listen to the radio at least once a week, less than once a week or not at all?	AT LEAST ONCE A WEEK . . . . 1 LESS THAN ONCE A WEEK . . . . 2 NOT AT ALL 3	
112	Do you watch television at least once a week, less than once a week or not at all?	AT LEAST ONCE A WEEK . . . . 1 LESS THAN ONCE A WEEK . . . . 2 NOT AT ALL 3	
115A	Have you changed your usual place of residence compared with this time last year?	YES . . . . 1 NO 2	→ 115D
115B	Please tell me where you were living one year ago (state/region)?	STATE/REGION _____ ☐☐ OTHER COUNTRY 00	→ 201
115C	Was it an urban or rural area?	URBAN . . . . 1 RURAL 2	
115D	How many times have you moved residence in the past 5 years?	NUMBER OF TIMES . . . . ☐☐ NOT MOVED IN 5 YEARS 00	→ 201
115E	Can you tell me the other locations (state/region) you have lived in the past 5 years? PLEASE PROVIDE THE 3 MOST RECENT LOCATIONS.	STATE/REGION a. LOCATION _____ ☐☐ b. LOCATION _____ ☐☐ c. LOCATION _____ ☐☐	

SECTION 2. REPRODUCTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
201	Now I would like to ask about all the births you have had during your life. Have you ever given birth?	YES .... 1 NO 2	→ 206
202	Do you have any sons or daughters to whom you have given birth who are now living with you?	YES .... 1 NO 2	→ 204
203	How many sons live with you? And how many daughters live with you? IF NONE, RECORD '00'.	SONS AT HOME .... DAUGHTERS AT HOME	
204	Do you have any sons or daughters to whom you have given birth who are alive but do not live with you?	YES .... 1 NO 2	→ 206
205	How many sons are alive but do not live with you? And how many daughters are alive but do not live with you? IF NONE, RECORD '00'.	SONS ELSEWHERE .... DAUGHTERS ELSEWHERE	
206	Have you ever given birth to a boy or girl who was born alive but later died? IF NO, PROBE: Any baby who cried or showed signs of life but did not survive?	YES .... 1 NO 2	→ 208
207	How many boys have died? And how many girls have died? IF NONE, RECORD '00'.	BOYS DEAD .... GIRLS DEAD	
208	SUM ANSWERS TO 203, 205, AND 207, AND ENTER TOTAL. IF NONE, RECORD '00'.	TOTAL BIRTHS	
209	CHECK 208: Just to make sure that I have this right: you have had in TOTAL _____ births during your life. Is that correct? YES ☐ NO ☐ → PROBE AND CORRECT 201-208 AS NECESSARY.		
210	CHECK 208: ONE OR MORE BIRTHS ☐ NO BIRTHS ☐		→ 226

SECTION 3. CONTRACEPTION

301	Now I would like to talk about family planning - the various ways or methods that a couple can use to delay or avoid a pregnancy. Have you ever heard of (METHOD)?		
01	**Female Sterilization**. PROBE: Women can have an operation to avoid having any more children.	YES .... 1 NO 2	
02	**Male Sterilization**. PROBE: Men can have an operation to avoid having any more children.	YES .... 1 NO 2	
03	**IUD**. PROBE: Women can have a loop or coil placed inside them by a doctor or a nurse.	YES .... 1 NO 2	
04	**Injectables**. PROBE: Women can have an injection by a health provider that stops them from becoming pregnant for one or more months.	YES .... 1 NO 2	
05	**Implants**. PROBE: Women can have one or more small rods placed in their upper arm by a doctor or nurse which can prevent pregnancy for one or more years.	YES .... 1 NO 2	
06	**Pill**. PROBE: Women can take a pill every day to avoid becoming pregnant.	YES .... 1 NO 2	
07	**Condom**. PROBE: Men can put a rubber sheath on their penis before sexual intercourse.	YES .... 1 NO 2	
08	**Female Condom**. PROBE: Women can place a sheath in their vagina before sexual intercourse.	YES .... 1 NO 2	
09	**Lactational Amenorrhea Method (LAM)**.	YES .... 1 NO 2	
10	**Rhythm Method**. PROBE: To avoid pregnancy, women do not have sexual intercourse on the days of the month they think they can get pregnant.	YES .... 1 NO 2	
11	**Withdrawal**. PROBE: Men can be careful and pull out before climax.	YES .... 1 NO 2	
12	**Emergency Contraception**. PROBE: As an emergency measure, within three/five days after they have unprotected sexual intercourse, women can take special pills to prevent pregnancy.	YES .... 1 NO 2	
13	Have you heard of any other ways or methods that women or men can use to avoid pregnancy?	YES .... 1 _____ (SPECIFY) _____ (SPECIFY) NO 2	
302	CHECK 226: NOT PREGNANT ☐ PREGNANT ☐ OR UNSURE ↓		→ 311
303	Are you currently doing something or using any method to delay or avoid getting pregnant?	YES .... 1 NO 2	→ 311

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
304	Which method are you using? CIRCLE ALL MENTIONED. IF MORE THAN ONE METHOD MENTIONED, FOLLOW SKIP INSTRUCTION FOR HIGHEST METHOD IN LIST.	FEMALE STERILIZATION .... A MALE STERILIZATION .... B IUD .... C INJECTABLES .... D IMPLANTS .... E PILL .... F CONDOM .... G FEMALE CONDOM .... H DIAPHRAGM .... I FOAM/JELLY .... J LACTATIONAL AMEN. METHOD ..... K RHYTHM METHOD .... L WITHDRAWAL .... M OTHER MODERN METHOD .... X OTHER TRADITIONAL METHOD ... Y	→ 307 → 308A → 306 → 306 308A
305	What is the brand name of the pills you are using? IF DON'T KNOW THE BRAND, ASK TO SEE THE PACKAGE.	MICROGYNON .... 01 ORAL CON F .... 02 OK PILLS .... 03 FINGERS .... 04 SURE .... 05 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	→ 308A
306	What is the brand name of the condoms you are using? IF DON'T KNOW THE BRAND, ASK TO SEE THE PACKAGE.	AHPHAW .... 01 LUSOE .... 02 FEEL (FEMALE CONDOM) .... 03 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	→ 308A

307	In what facility did the sterilization take place?
	
	PROBE TO IDENTIFY THE TYPE OF SOURCE.
	
	IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE.
	
	_____
	(NAME OF PLACE)
		PUBLIC SECTOR
		  GOVT. HOSPITAL 11
		  GOVT. HEALTH CENTER (RHC) ... 12
		  FAMILY PLANNING CLINIC 13
		  MOBILE CLINIC 14
		  OTHER PUBLIC
		    SECTOR _____ 16
		      (SPECIFY)
		
		PRIVATE MEDICAL SECTOR
		  PRIVATE HOSPITAL/CLINIC 21
		  PRIVATE DOCTOR'S OFFICE 23
		  MOBILE CLINIC 24
		  OTHER PRIVATE MEDICAL
		    SECTOR _____ 26
		      (SPECIFY)
		
		OTHER _____ 96
		      (SPECIFY)
		DON'T KNOW 98	

307A	CHECK 304: CODE 'A' CODE 'A' CIRCLED □ NOT CIRCLED □ ↓ Before your sterilization operation, were you told that you would not be able to have any (more) children because of the operation? Before the sterilization operation, was your husband/partner told that he would not be able to have any (more) children because of the operation?	YES .... 1 NO .... 2 DON'T KNOW 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP

325	Where is that?
	
	Any other place?
	
	PROBE TO IDENTIFY EACH TYPE OF SOURCE.
	
	IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE.
	
	_____
	(NAME OF PLACE(S))
		PUBLIC SECTOR
		  GOVT. HOSPITAL .... A
		  GOVT. HEALTH CENTER (RHC) ... B
		  GOVT. HEALTH POST
		    (SUB-CENTER) C
		  VILLAGE HEALTH WORKER ...... D
		  MOBILE CLINIC .... E
		  UHC/MCH CENTER .... F
		  OTHER PUBLIC
		    SECTOR _____ G
		          (SPECIFY)
		
		NON-GOVERNMENT SECTOR
		  MARIE STOPES .... H
		  MYANMAR RED CROSS SOCIETY . I
		  PSI/M (SUN) .... J
		  MMA .... K
		  OTHER NGO
		    SECTOR _____ L
		          (SPECIFY)
		
		PRIVATE MEDICAL SECTOR
		  PRIVATE HOSPITAL/CLINIC ...... M
		  PHARMACY .... N
		  PRIVATE DOCTOR .... O
		  MOBILE CLINIC .... P
		  FIELDWORKER .... Q
		  OTHER PRIVATE MEDICAL
		    SECTOR _____ R
		          (SPECIFY)
		
		OTHER SOURCE
		  SHOP .... S
		  FRIEND/RELATIVE .... T
		
		OTHER _____ X
		      (SPECIFY)	

326	In the last 12 months, were you visited by AMW, CHW, or CSG who talked to you about family planning?	YES .... 1 NO 2	
327	In the last 12 months, have you visited a health facility for care for yourself (or your children)?	YES .... 1 NO 2	→ 401
328	Did any staff member at the health facility speak to you about family planning methods?	YES .... 1 NO 2	

SECTION 7. FERTILITY PREFERENCES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
701	CHECK 304: NEITHER STERILIZED ☐↓ HE OR SHE STERILIZED ☐		→ 712
702	CHECK 226: PREGNANT ☐↓ NOT PREGNANT OR UNSURE ☐		→ 704
703	Now I have some questions about the future. After the child you are expecting now, would you like to have another child, or would you prefer not to have any more children?	HAVE ANOTHER CHILD .... 1 NO MORE .... 2 UNDECIDED/DON'T KNOW 8	→ 705 → 711
704	Now I have some questions about the future. Would you like to have (a/another) child, or would you prefer not to have any (more) children?	HAVE (A/ANOTHER) CHILD .... 1 NO MORE/NONE .... 2 SAYS SHE CAN'T GET PREGNANT 3 UNDECIDED/DON'T KNOW 8	 → 707 → 712 → 710
705	CHECK 226: NOT PREGNANT OR UNSURE ☐↓ PREGNANT ☐↓ How long would you like to wait from now before the birth of (a/another) child? After the birth of the child you are expecting now, how long would you like to wait before the birth of another child?	MONTHS .... 1 ☐☐ YEARS .... 2 SOON/NOW .... 993 SAYS SHE CAN'T GET PREGNANT 994 AFTER MARRIAGE .... 995 OTHER _____ 996 (SPECIFY) DON'T KNOW 998	 → 710 → 712 → 710
706	CHECK 226: NOT PREGNANT OR UNSURE ☐↓ PREGNANT ☐		→ 711
707	CHECK 303: USING A CONTRACEPTIVE METHOD? NOT CURRENTLY USING ☐↓ CURRENTLY USING ☐		→ 712
708	CHECK 705: NOT ASKED ☐↓ 24 OR MORE MONTHS OR 02 OR MORE YEARS ☐↓ 00-23 MONTHS OR 00-01 YEAR ☐		→ 711

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
713	How many of these children would you like to be boys, how many would you like to be girls and for how many would it not matter if it's a boy or a girl?	BOYS GIRLS EITHER NUMBER [ ][ ] [ ][ ] [ ][ ] OTHER _____ 96 (SPECIFY)	
714	In the last few months have you: Heard about family planning on the radio? Seen anything about family planning on the television? Read about family planning in a newspaper or magazine? Seen or read about family planning in internet? Read about family planning in billboard?	YES NO RADIO .... 1 2 TELEVISION .... 1 2 NEWSPAPER OR MAGAZINE ... 1 2 INTERNET .... 1 2 BILLBOARD 1 2	
716	CHECK 601: YES, CURRENTLY MARRIED □↓ NO, NOT IN UNION □		→ 801
717	CHECK 303: USING A CONTRACEPTIVE METHOD? CURRENTLY USING □↓ NOT CURRENTLY USING OR NOT ASKED □		→ 720
718	Would you say that using contraception is mainly your decision, mainly your (husband's/partner's) decision, or did you both decide together?	MAINLY RESPONDENT .... 1 MAINLY HUSBAND/PARTNER ..... 2 JOINT DECISION .... 3 OTHER _____ 6 (SPECIFY)	
719	CHECK 304: NEITHER STERILIZED □↓ HE OR SHE STERILIZED □		→ 801
720	Does your (husband/partner) want the same number of children that you want, or does he want more or fewer than you want?	SAME NUMBER .... 1 MORE CHILDREN .... 2 FEWER CHILDREN .... 3 DON'T KNOW 8	

SECTION 8. HUSBAND'S BACKGROUND AND WOMAN'S WORK

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
801	CHECK 601 AND 602: CURRENTLY MARRIED ☐ FORMERLY MARRIED ☐ NEVER MARRIED ☐		→ 803 → 807
802	How old was your husband on his last birthday?	AGE IN COMPLETED YEARS ☐☐	
803	Did your (last) husband ever attend school?	YES .... 1 NO 2	→ 806
805	What was the highest grade he completed? IF COMPLETED LESS THAN GRADE ONE, RECORD '00'.	GRADE .... ☐☐ DON'T KNOW 98	
806	CHECK 801: CURRENTLY MARRIED ☐ FORMERLY MARRIED ☐ What is your husband's occupation? What was your (last) husband's occupation? That is, what kind of work does he mainly do? That is, what kind of work did he mainly do?	☐☐☐☐ _____ _____ _____	
807	Aside from your own housework, have you done any work in the last seven days?	YES .... 1 NO 2	→ 811
808	As you know, some women take up jobs for which they are paid in cash or kind. Others sell things, have a small business or work on the family farm or in the family business. In the last seven days, have you done any of these things or any other work?	YES .... 1 NO 2	→ 811
809	Although you did not work in the last seven days, do you have any job or business from which you were absent for leave, illness, vacation, maternity leave, or any other such reason?	YES .... 1 NO 2	→ 811
810	Have you done any work in the last 12 months?	YES .... 1 NO 2	→ 815
811	What is your occupation, that is, what kind of work do you mainly do?	☐☐☐☐ _____ _____ _____	
812	Do you do this work for a member of your family, for someone else, or are you self-employed?	FOR FAMILY MEMBER .... 1 FOR SOMEONE ELSE .... 2 SELF-EMPLOYED 3	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP

107	What kind of toilet facility do members of your household usually use?	FLUSH OR POUR FLUSH TOILET
		  FLUSH TO PIPED SEWER
		    SYSTEM 11
		  FLUSH TO SEPTIC TANK 12
		  FLUSH TO PIT LATRINE 13
		  FLUSH TO SOMEWHERE ELSE 14
		  FLUSH, DON'T KNOW WHERE 15
		PIT LATRINE
		  VENTILATED IMPROVED
		    PIT LATRINE 21
		  PIT LATRINE WITH SLAB 22
		  PIT LATRINE WITHOUT SLAB/
		    OPEN PIT 23
		COMPOSTING TOILET 31
		BUCKET TOILET 41
		HANGING TOILET/HANGING
		  LATRINE 51
		NO FACILITY/BUSH/FIELD 61
		
		OTHER _____ 96
		        (SPECIFY)
			→ 110

108	Do you share this toilet facility with other households?	YES .... 1 NO 2	→ 110
109	How many households in total use this toilet facility?	NO. OF HOUSEHOLDS IF LESS THAN 10 .... [0][ ] 10 OR MORE HOUSEHOLDS .... 95 DON'T KNOW 98	
110	Does your household have:		

		YES	NO
Electricity?	ELECTRICITY	1	2
A radio?	RADIO	1	2
A television?	TELEVISION	1	2
A mobile telephone?	MOBILE TELEPHONE	1	2
A landline telephone?	LANDLINE PHONE	1	2
A refrigerator?	REFRIGERATOR	1	2
A table?	TABLE	1	2
A chair?	CHAIR	1	2
A sofa?	SOFA	1	2
A bed?	BED	1	2
A cupboard?	CUPBOARD	1	2
An electric fan?	ELECTRIC FAN	1	2
Air conditioner?	AIR CONDITIONER	1	2
A sewing machine?	SEWING MACHINE	1	2
A computer?	COMPUTER	1	2

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP

111	What type of fuel does your household mainly use for cooking?	ELECTRICITY 01
		LPG 02
		NATURAL GAS 03
		BIOGAS 04
		KEROSENE 05
		COAL, LIGNITE 06
		CHARCOAL 07
		WOOD 08
		STRAW/SHRUBS/GRASS 09
		AGRICULTURAL CROP 10
		ANIMAL DUNG 11
		
		NO FOOD COOKED
		  IN HOUSEHOLD 95
		
		OTHER _____ 96
		        (SPECIFY)
			→ 114

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