CHAPTER TWO
LITERATURE REVIEW

In this chapter, relevant literatures are reviewed. It also explores the modernisation theory which is well fitted to this study.

2.1. Literature review

The inverse relationship between women’s education and fertility is well documented in most regions of the world. The effect of women’s education (as a socioeconomic factor) on fertility has come to occupy an important place in the search for causal explanations of fertility change through the proximate determinants. Education tends to affect the proximate determinants as described by various scholars in the following sections.

2.1.1. Women’s education and Age at marriage

The age at marriage at which a woman enters a marital union varies widely among countries and within them according to culture, residence and education.

Haines (1977) cited by Graff (1979), examined fertility ratios of coal miners, a group traditionally notorious for high fertility and for the female concomitants of early marriage and very low rates of labour force participation. Not surprisingly, low literacy rates were associated with these patterns, for after standardization, comparisons showed that literate parents had lower fertility than illiterate parents at all dates. The results from correlation, regression and multiple classification analysis suggested that literacy’s contribution (or illiteracy) were not direct but worked through its high interrelationships with factors as age at marriage, residence, etc.

From the World Fertility Survey (WFS) findings, Weinberger (1987) reported that the singulate mean age at marriage increases steadily with education, with the largest
difference averaging 2, 6 years occurring between those with 4-6 and those with seven or more years of education. Jejeebhoy and Cleland (1995) argued that the enhanced decision-making autonomy of educated women allows them to resist pressures for early marriage. Samara and Susheela (1996) noted that in Sub-Saharan Africa, the most educated women marry at least four years later than uneducated women. According to the analysis from a DHS conducted in 25 developing countries, Edwards (1996) noted that one of the main ways in which education affects fertility is by delaying marriage.

Maitra (2004) examined the effect of socioeconomic characteristics on the total fertility rates in Nepal using a household-level data set. He noted that postponement of marriage contributes significantly to a reduction in fertility level by shortening the total reproductive span of women. The higher age at marriage was expected to be associated with a rise in the status of women, as they entered their reproductive life with greater maturity and capabilities. An increase in age at marriage for women was also likely to reduce the age differential between husband and wife. This was likely to increase the bargaining power of the wife and reduce the power imbalance within the family. The estimated results emphasized the role of female education in reducing total fertility and increasing age at marriage. Also, the higher the education level of woman, the stronger is the effect of education on age at marriage.

Similarly, Ikamari (2005) argued that education may affect the timing of marriage in various ways. The highly educated spend many years in school and college receiving instruction and knowledge. When enrolled in school or college it is not desirable nor is it feasible for students to marry as it is disruptive and generally young people lack
the financial resources and the prospect of a stable income that would be ideal for marriage and forming a family. Therefore school enrolment is an impediment to early marriage. Furthermore, school attendance removes the girls from the domestic environment and offers literacy and exposure to new ideas and value systems that may compete with the traditional customs, values and beliefs that promote early marriage (*ibid*).

**2.1.2. Women’s education and Contraceptive use**

Women’s education can also affect fertility through its effect on contraception use. Jejeebhoy and Cleland (1995) noted that within the family, educated women, by virtue of their better knowledge and greater decision-making authority and closeness with their husbands, are better equipped to overcome costs of fertility regulation than are uneducated women. Educated women have a wider and more in-depth knowledge of contraception of at least one method of contraception.

Edwards (1996) in a study of 25 developing countries noted that education has a strong positive influence on contraceptive use. Education has the greatest influence in Latin America: In half of the countries, use of any method is more than 40 % higher among women with 10 or more years of education than among uneducated women. In Sub-Saharan Africa, the percentage-point differences in use of modern methods between the least and the most highly educated women are largest in Botswana (33%) and Zimbabwe (35 %).

Women’s education is widely acknowledged to be the most promising means of reducing fertility in developing world because it is expected to lower the number of children by imparting knowledge about successful contraceptive use, conferring
attitudes favouring small families, and increasing women’s ability to implement fertility goals. Using focus groups of adolescents and young adults in urban Ghana to explore both fertility preferences and expectations about the ability to implement these preferences, De Rose et al (2002) found that women with senior secondary school or higher education were more likely to offer knowledge of contraceptive means as a reason why educated women desired fewer children than less educated women. Their perception of the necessity of schooling for obtaining contraceptive knowledge seemed to be inflated given that 85% of all 15-19 year-olds in a nationally representative sample in the same year knew at least one modern contraceptive method.

According to Akmam (2002), there is a positive relationship between the education of women and contraceptive knowledge. Cleland and Jejeebhoy cited by Akmam, argued that the role of schooling becomes more apparent in terms of detailed knowledge: the number of methods, especially non-terminal methods, known; the correct use of a particular method; and from where a particular method can be acquired. They refer for example, to a study showing that in India, 95% of women with secondary education knew about the IUD whereas only 39% of the uneducated women had the knowledge of this method of birth control.

Weeks (2005) noted that education is the single best clue to a person’s attitude toward reproduction, and thus a clue to how responsive a person will be to changes that could lead to a lower demand for children. An increase in education (probably to a level beyond primary) is strongly associated with the kind of rational decision making implied in the supply-demand framework. Furthermore, the better-educated
members of society are most likely to be the agents of change who will encourage the diffusion of an innovation such as fertility limitation.

2.1.3. Women’s education and breastfeeding

Another proximate determinant which can affect fertility is breastfeeding. Jain et al (1981) stated that it is important to understand the relative contribution of breastfeeding and contraception in suppressing marital fertility of women with no education. Whether or not the average marital fertility of women in a country would rise with advancements in female education would depend upon the relative shifts in levels and effectiveness of these two intermediate factors. These shifts would depend, among other things, upon the accessibility to contraception, changes in infant feeding practices, and the extent to which breastfeeding is used deliberately for spacing or limiting purposes. In an analysis of breastfeeding patterns and its influence on fertility, it has been shown that in Indonesia, the average duration of breastfeeding decreases from about 20 months among women with no education to about 11 months among those with at least seven years of schooling.

Akmam (2002) argued that prolonged breastfeeding is one of the traditional practices that serves as a means of contraception. With increases in the levels of education of women, the period of breastfeeding tends to decrease. Breastfeeding practices are affected by education through knowledge, decision-making and emotional autonomy.

2.1.4. Women’s education and induced abortion

In Sub-Saharan African countries as a whole, abortion legislation is very restrictive. In over half of Sub-Saharan African countries, abortion is explicitly illegal or legal only on narrow medical grounds (pregnancy as a threat to a woman’s life). Therefore,
reliable estimates of the incidence of induced abortion in Sub-Saharan Africa are nonexistent (Acsadi et al: 1990).

Nevertheless, a study conducted in Abidjan on women consulting at health centres has been used to make a detailed analysis of the methods of fertility regulation and of the link between abortion and fertility. Despite being illegal, the practice of abortion is increasingly common, particularly among young women and from the beginning of reproductive life. Contraception and abortion are sometimes complementary, with abortion being resorted to following contraceptive failure (particularly of natural methods). In some cases it seems that the experience of an abortion leads to adoption of effective methods, although this is not systematic (Guillaume, A.:2003)

As discussed in the section of literature review, many studies on fertility analysis have been conducted in Sub-Saharan Africa and have shown the effect of women’s education on fertility. Being that there are different determinants of fertility and that these determinants vary following regions or countries, these studies have been conducted in different ways. But so far, no single study has been conducted in Rwanda and that is what makes this study worth to be conducted in this country.

2.2. Theoretical and conceptual framework

There have been theories to explain fertility dynamics in societies. These theories include economic theories, demographic transition theory and modernization theory. The economic theories of fertility assume that husbands and wives, acting as a unit, weigh the costs and benefits of children against the cost of other competing goods and subsequently arrive at desired family size that reflect their interest (Adebusoye, 2001). Obviously, this theory is appropriate for Western industrialised countries rather than to African realities. The demographic transition theory states that societies that
experience modernization, progress from a pre-modern regime of high fertility and high mortality to a post-modern one in which both are low (Dudley, 1996). This theory is criticized by the fact that it is based on European demographic history. Concerning Modernization theory, Tipps (1973) argued that this theory is taken to be multifaceted process involving changes in all areas of human thought and activity. This argument has been supported by Inkeles and Smith, cited by De Rose et al (2002) that individual involvement with modern institutions in developing countries, especially schools and factories, has been shown to change orientations toward childbearing. Modernization theory predicts that exposure to schooling reduces fertility primarily through changing attitudes, while demographic theory identifies a need for change in knowledge, attitude, practice before fertility change occurs (*ibid.*).

Furthermore, Cleland and Wilson, cited by Dudley (1998), argued that the influence of women’s education appears to be overwhelming for all aspects of childbearing: fertility preferences, contraceptive use, age at first marriage, postpartum amenorrhea and abstinence, and child survival. Although the observed differentials are undoubtedly reinforced by other elements of socioeconomic development that are associated with education, the influential role of women’s education seems undeniable, as observed in other regions of the world. Educated women have the motivation and some knowledge of how to regulate their fertility more efficiently.

Therefore among the theories of demographic and fertility interpretations as defined above, modernization theory is well fitted to this study because it stresses the effects of both structural and attitudinal consequences of socioeconomic change. In order to show the relationship between socioeconomic variables and fertility, a conceptual framework is drawn below in the form of path model.
Figure 2: A Conceptual framework to study Rwanda Fertility

Where: SES is socioeconomic variable; A is age at first marriage; C is contraceptive and F is fertility.

The figure illustrates the association socioeconomic variables and fertility using path diagram. The arrow coming from socioeconomic variables toward fertility indicates the direct effect of socioeconomic variables on fertility while arrows coming from socioeconomic variables toward fertility through intervening variables (A, B, C) indicate the indirect relationship between them. For further details I developed this model in the following chapter.