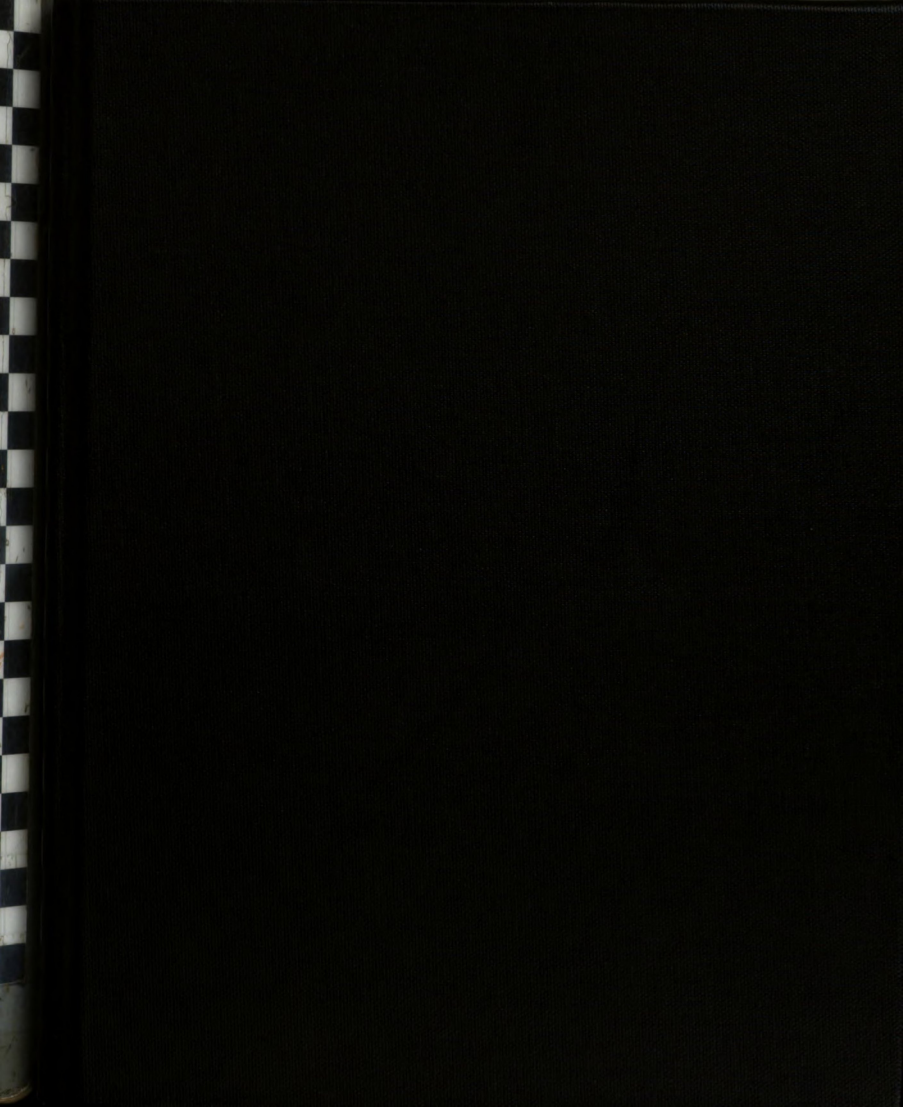






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THE CASE OF PWANI AND MBEYA REGIONS IN TANZANIA

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**THE EFFECTS OF CULTURAL FACTORS ON CONTRACEPTIVE USE:
THE CASE OF PWANI AND MBEYA REGIONS IN TANZANIA**

VOLUME I

By

Mary Damase Nkuyu Kitula

A DISSERTATION

**Submitted to
Michigan State University
in partial fulfillment of the requirements
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DOCTOR OF PHILOSOPHY

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ABSTRACT

THE EFFECTS OF CULTURAL FACTORS ON CONTRACEPTIVE USE: THE CASE OF PWANI AND MBEYA REGIONS IN TANZANIA

By

Mary Damase Nkuyu Kitula

This study investigated the effect of cultural factors on contraceptive use in Tanzania in two regions, Pwani and Mbeya where two ethnic groups, the Wazaramo and Wanyakyusa, respectively, were involved. Tanzania, like most Sub-Sahara African countries, faces the problem of poor economic growth, a result of a combination of various factors such as over-use and poor management of resources, rapid population growth, and unequal trade exchange in world markets. Poor economic growth has led to poverty, hunger and an overall poor quality of life of the people. Reducing population growth rate is one way of tackling the problem. Contraceptive use is one mechanism to reduce fertility and hence, rapid population growth. However, contraceptive use in Tanzania is still low, 23 percent, despite a high percentage of knowledge; 79.8 percent know about contraceptives, and 70.5 percent have knowledge of the source of contraceptive services. Cultural factors are believed to be one of the barriers to contraceptive use. This study investigated the impact of these factors on contraceptive use.

A sample of 1290 respondents from 1290 different households was involved. Multi-cluster together with random sampling were used to identify the Wazaramo and Wanyakyusa households both in urban and rural areas to be earmarked for the study. Focus group discussion was used to collect information to revise the interview schedule. Face-to-face interview method was used to collect data. One researcher, one assistant researcher and two interviewers were involved.

The study had three research questions to address. These were centered on the effects of customs (inheritance, sex preference, prestige, old age care, and family economy), beliefs (barrenness, contraception and fecundity impairment, children and marital relationship, and pro-natalistic religious teachings), women's status (women's education, employment, decision-making, financial resources and division of labor), and attitudes and opinions of people on contraceptive use. Analysis of the data involved frequency percentages, factor analysis, bivariate analysis and chi square tests, and logistic regression.

The findings were that eight cultural variables had the strongest influence on contraceptive use, fifteen were significant in the bivariate analysis and some in the first phase of logistic regression, and eight were not significant.

It is recommended that efforts be made to raise contraceptive use by removing cultural barriers. It is also recommended that this study be extended to other regions within the country and also to other countries in Sub-Saharan Africa.

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DEDICATION

This work is dedicated to my children,
Irene Mayeji, John-Paul Mbupu, Maximillian Nshimba, and Deogratius Makoye,
whose patience has enabled me to achieve this goal.

ACKNOWLEDGMENTS

This project would not have been completed without the help of many people who contributed materially, morally, skills, time, and advice; and I'm sincerely grateful.

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morally. David was a good mentor during this period. And I thank him for the role he played. Last, I thank Dr. Harry Schwarzweller for his advice and for being on my academic advisory committee.

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CHAPTER ONE

INTRODUCTION

General Statement and the Problem

Population growth in Tanzania has remained consistently high, above an annual growth rate of three percent for the last 30 years as a result of high fertility. For the past 20, years the national Total Fertility Rate (TFR) has also remained more or less stable at a little above 6.5 percent; hence the Crude Birth Rate (CBR) likewise has remained high, above 45 per thousand according to the censuses between 1948 and 1988.

The economy, on the other hand, has not been growing fast enough to support the rapidly growing population. From the mid-1970s to the 1980s, the economy grew at an annual rate of 2.2 percent. In the late 1980s it grew at a rate of 2.5 percent. The population growth rate out-paced the economic growth throughout these years. The imbalance between population and economic growth, together with unequal terms of trade and conditions set by donors on aid, has caused pressure on natural resources and social services. Environmental degradation and deterioration of social services have led to low quality of life of the people and perpetual poverty.

There are few signs of fertility decline (Beegle, 1994; Mauldin & Ross, 1993); therefore' the trend of growth is unlikely to change in the near future. This is because

contraceptive prevalence among women in the childbearing period, has remained low, about 23 percent for both traditional and modern methods as indicated by the Demographic and Health Survey (DHS, 1992).

While Tanzania's population growth remained high, out-pacing economic growth, the circumstances were aggravated by external factors such as drought, terms of trade, and donors' aid terms, which strained the ability of the government to provide social services adequately as well as protect the environment from degradation. Both natural resources such as land, water, and forests, as well as social resources such as housing, education and health, available per capita declined by between 7.5 and 10 percent from 1980 to 1985 and continued to decline by 1 percent annually from 1985 to 1991 (UN Secretariat and UDSM Demographic Unit, 1993). The consequences have thus been felt acutely in areas of housing, especially in towns and cities; and in the health and education sectors; as well as in other resources like land, water and forests. Improvement of social services and utilization of resources sustainably will only be achieved through two changes: one is to control childbearing which will lead to the lowering of the population growth rate, and the second is to strive for the sustainable development of available resources with the goal of achieving a better quality of life for the people of Tanzania.

One of the mechanisms of controlling childbearing (fertility) is to increase the use of contraceptives. The government of Tanzania, together with non governmental organizations like the Family Planning Association of Tanzania and donors like the United Nations Fund for Population Activities (UNFPA), have worked hard to address the problem of population growth by investing in the Family Planning Program (FPP).

The target is to improve its services, make services available and accessible to women in the child-bearing period, and provide such services free. Furthermore, sensitization programs through the mass media, literacy classes for adults, and education sessions for pregnant and breast-feeding mothers at maternal and child health (MCH) clinics were launched. All these efforts are aimed at making men and women understand and appreciate the need to control childbearing and raise knowledge and awareness of the existence of contraceptive services.

The DHS evaluation report indicated a high percentage of women in the childbearing period who had knowledge of contraceptive methods: about 79.8 percent had knowledge of general contraceptive methods which includes both traditional as well as modern methods, 77.1 percent had knowledge of modern contraceptive methods, and 70.5 percent knew of facilities where they could acquire a method of contraception. Yet, while the percentage of women with knowledge of contraceptive methods is high, only 23 percent of them use such methods.

The DHS report of 1992, Beegle's report of 1994 as well as Mauldin and Ross's report of 1993 have all indicated low contraceptive use of about 23 percent despite the high rate of awareness of up to 79.8 percent among women in the childbearing age. Therefore, they conclude that signs of declining fertility in Tanzania are insignificant. There are various reasons which may contribute to the low use of contraceptives. These could be the economy of a country, the education level of the population, the level of provision of health services, mortality levels (especially of infants), environment and culture. There is a rich literature on most of these factors. However, there seems to be a

lack of knowledge on the influence of culture on contraceptive use, hence, on fertility.

This study has thus undertaken the challenge to investigate closely the role of cultural factors in the low use of contraceptives which perpetuates high fertility in Tanzania.

As contraceptive use has remained low, fertility levels have remained high, therefore, the population growth rate has remained high. These factors together with the worsening social and economic situation, have adversely affected the provision and quality of social services offered and have contributed greatly to natural resource degradation. Given the low quality of life, the high level of contraception awareness of women in the childbearing period and the fact that there are high level of accessibility, availability and affordability as the services are free, it remains a paradox as to why contraceptive use to control fertility remains so low.

The World Fertility Survey (WFS, 1983), and Caldwell (1987), indicated that cultural factors, which are ill-understood, might be the cause for high fertility persistence in Africa, and they appealed for closer investigation of these factors. Van de Walle and Foster (1990) also indicated the need to investigate the role of cultural context in the effectiveness of Family Planning Programs (FPP) on contraceptive use in Africa south of the Sahara.

The purpose of the study was to identify cultural factors such as customs, beliefs, the status of women, and attitudes and opinions about rapid population growth, that influence the use of contraceptives and to assess the effects of these factors on the use of contraceptives. The study involved respondents of different education, income, ethnicity,

religion and location (rural and urban) in two regions: Mbeya, where the Wanyakyusa ethnic group live, and Pwani, where the Wazaramo ethnic group live. Mbeya's Wanyakyusa tribe has considerably higher fertility than the Pwani and has a strong pro-natalistic approach. On the other hand, Pwani's Wazaramo people have relatively low fertility and are less pro-natalistic.

This presentation begins with the background to the problem and the description of the population. Literature review and conceptual framework is presented as Chapter Two. Research design and Methods are presented as Chapter Three. This is followed by Chapter Four on the description and analysis of the Control Factors, Chapter Five on Customs and Beliefs Analysis, Chapter Six on women's Status Analysis, Chapter Seven on Attitudes and Opinions about Rapid Population Growth Analysis, and lastly, Chapter Eight on Summary of Findings and Suggestions.

Background

About Tanzania

Tanzania, the largest country in East Africa, is 945,234 sq. km. About 61495 sq. km are covered by the inland waters of the great lakes of Africa which include, Lake Victoria, Tanganyika and Nyasa. Also, about 2460 sq. km are the Zanzibar islands in the Indian Ocean. The country lies between 1 and 12 degrees south of the Equator, and 20 and 41 degrees east, sharing boundaries with Kenya, Uganda, Rwanda, Burundi, The Democratic Republic of Congo, Zambia, Malawi and Mozambique. Tanzania is called the country of Kilimanjaro, the highest mountain in Africa, located in the north-north eastern

part with a height of 5,895 m. The country has game parks with the richest animal reserves in the world such as the Serengeti, Lake Manyara, Ngorongoro, and Mikumi, just to mention a few.

There are more than 126 tribes (ethnic groups); some speak similar languages. However all tribes speak the same national language, Kiswahili, 90 percent of whose words are of Bantu origin. The remaining 10 percent is a combination of Arabic and English words.

About 80 percent of the population lives in rural areas. Urbanization is taking place slowly. Data from censuses indicate that urbanites were 6.4 percent in 1967, 13.8 percent in 1978 and 18.3 percent in 1988. The population distribution is uneven. Concentration is in areas of fertile land and reliable rainfall, in industrialized areas such as in towns and cities, at mining sites and along major communication networks. As a result, 24 percent of the total land endowed with such features accommodates 54 percent of the population. The overall population density is 26.2 persons per sq. km (Census, 1988).

The Economy

The Tanzanian economy is basically agrarian and is dependent on peasant agriculture which is, in most cases, mixed. Small farmer landholders raise livestock and grow both cash and subsistence crops. Agriculture contributes the largest share (62.3 percent) to the gross national product (GNP). Other sectors like commerce contribute 14.3 percent, transport 7.2 percent, construction 4.4 percent and manufacturing 3.2

percent. The major agricultural cash crops are coffee, cotton, tea, tobacco, sisal, cloves and cashew nuts. As previously mentioned, the economy is growing slowly, with growth rates of 2.5 percent in 1985, 3.9 percent in 1987, 4.4 percent in 1989, 3.6 percent in 1993 and 3.9 percent in 1995 (Development Plan, 1995, 1990, 1985 economic reports)

The Population

In 1992 the population of Tanzania was estimated at 25 million (Bureau of Statistics, 1992), an increase of two million people, from the 1988 census. According to the censuses of 1948, 1958, 1967, 1978 and 1988, the population has always been young with high fertility, high crude birth rates and rapid population growth rates, as the table below shows.

Table 1.1: Indicators of the Nature of Population of Tanzania

Indicators	Census Year and Rates in %				
Year	1948	1958	1967	1978	1988
Population	7.7	9.1	12.3	17.5	23.1
Population growth rate	-	1.8	3.1	3.2	2.8
Total fertility rate	-	-	6.6	6.9	6.5
Crude birth rate	-	-	47	49	46
Density	-	-	14	19	26.2

Source: TDHS report 1991/92 pg.2

The sign (-) in the table refers 'to data not available'

The Environment

Tanzania is endowed with a variety of resources, some of which are yet to be tapped while some are being over used. The resources range from natural and planted forests; good arable land; water bodies; minerals such as gold, diamond, mica, iron, coal, phosphate, and tanzanite; natural gas and petroleum. Most of these have not been tapped. A variety of mammal species, birds and various plant species are found in Tanzania.

The natural forests covered about 44.3 million ha or 50 percent of the total land area in 1938, but by 1987 this had been reduced to 38.1 million ha or 43 percent of the total land area. The annual deforestation rate was estimated at 0.5 percent between 1976 and 1980. Consumption of fuel wood increased by 35 percent from 1961 through 1983. The consumption of firewood and charcoal was about 30.5 million cubic m. This rose to 44.5 million cubic m. in 1986 and to 45 million cubic m in 1993 due to added use of solid wood for tobacco curing and brick burning (Misana & Nyaki, 1993). By 1986 desertification had affected about 33 percent of the land area. Arable land in 1986 covered 45 percent of the total area and by then only 15 percent was under agriculture. Rainfall probability is 90 percent, and over 20 percent of the country receives an annual rainfall of over 750 mm (UN Secretariat and UDSM, Demographic Unit, 1993). Generally, it can be said that Tanzania has the capacity to develop if the resources available in its environment are tapped and used appropriately for sustainable development.

Tanzanian Societies and Their Culture

The majority of Tanzania's societies are strongly patriarchal, although there are some ethnic groups, especially along the Eastern coast, which are matrilineal. Among the patriarchal ethnic groups, men make the decisions and own the property of households (Kamm, 1976). Roles and responsibilities are divided on the basis of gender and are influenced by traditional/cultural values that assign women domestic roles. Women's status is generally low (Ministry of Community Development, 1988). Rules of patrilineal descent mandate that men inherit land while cultural norms dictate that women and children, who form the source of labor on land, are controlled by men, the property owners. According to the Marriage Act of 1971, three types of marriage are recognized: traditional, Christian and Islamic marriages. All three types of marriages share one feature, bride price. The groom's family pays wealth in kind or cash to the bride's family as 'gift'. This 'gift', however, affects the relationship between husband and wife; the husband assumes a superior position to the wife in the family (Rwezaura, 1978).

Tanzanian societies esteem large families (TFR was 6.5 in 1988), and barrenness is considered to be a punishment from God or a curse from ancestors. Children are seen as gifts from God. Parents of large families command respect and prestige in society. Costs for raising children and even education were traditionally, and continue to be, shared among close relatives and older siblings. The more children you have, the more sure you are of care at old age (Reynolds, 1975)

Parents will continue child bearing until they acquire sons for two reasons. First, inheritance occurs through the male line. The wife therefore makes sure she has sons to

inherit property in case the husband dies, while the husband wants the sons for inheritance and perpetuation of family name. Second, it is traditional that in their old age, parents stay with their first born son's family, although the rest of their children (males and females) provide them with funds and material support like clothing and food. Parents, therefore, make sure they have a sufficient number of sons in order to ensure that some survive infancy and childhood to care for them at old age, inherit property and perpetuate the family name.

On the other hand, in matrilineal societies, women do have rights of inheritance of their families' property and the property of their own parents. The traditional law allows a woman to be the sole heir to her parents' property (Lewis, 1966). However, a male relative is appointed to be the guardian of the heir for the property she inherited. In regard to marriages, mothers by traditional law have rights to bride price claims. The mother's brother leads in all marriage rituals and ceremonies. Without him, nothing can take place despite the presence of the father.

Upon marriage, the woman remains in the neighborhood of her own family thus she gets support from her folks. She and her own children have a right to the land (Swantz, 1967). However, with time, the men are gaining some power. Lewis (1966), attributes this to the emergence of a new faith, Islam, which promotes men's power over women. They are moving towards bilateral societies, that is, mothers and fathers having equal rights in terms of privileges, respect and obligations.

Although women have higher status in matrilineal societies than in patrilineal ones, child bearing is still considered important although the pressure for having sons for

inheritance is less, because women can inherit family property. Bride price just as it is in patrilineal societies, but who takes it makes the difference. These differences in the customs or approach of the two systems will be discussed later in relation to their attitudes towards fertility and birth control.

Problem Setting

The trend of rapid population growth generates more demand for resources which leads to rapid degradation of the environment, revealed in various aspects like deforestation, pollution, soil erosion, and desertification. This occurs, first, because people are the major agents of resource depletion through their day to day activities in search of the essential requirements for their livelihood. More trees are cut for firewood, and more land is cleared for agriculture. More timber is needed for various uses such as construction, paper production and fuel. Second, rapid population growth has out-paced the economic growth rate and has caused serious problems in social services such as housing, education, health, water, and transport and communication systems.

In the case of education, for example, the proportion of the costs of education that are covered by government has declined from 15 percent in 1974 to seven percent in 1990 despite the increase in primary education enrollment from two million in 1976 to 3.5 million in 1980 to 3.9 million in 1995 (BEST, 1996). This imbalance of growing enrollment in basic education along with the dwindling funds which sustain it has created lack of facilities such as desks, audio teaching aids, books, and stationery, as well as low

morale among teachers due to low pay, poor teaching materials and a poor classroom environment. Such problems threaten the quality of education.

In regard to health, the proportion of total costs covered by government expenditure, likewise, has been declining despite the increasing demand for services. The fraction covered by government expenditure has declined from seven percent in 1977 to 4.9 percent in 1990. Despite the decline, the government has given priority to the rural health infrastructure so as to make services available, accessible, efficient and free. By 1990, about 72 percent of the population lived within five km of health facilities and 93 percent lived within 10 km. Nevertheless, it is estimated that in the coming 30 years, the government will be able to provide only 60 percent of the facilities needed, assuming that the population growth rate will remain the same. The quality of health services will decline and personnel expertise will become limited due to the inability of the nation to finance such projects (PPU, BS & NFPP, 1995).

Housing is another sector where population pressure hits hard. This is felt more in towns and cities. Dar es Salaam, for example, where the annual population growth rate is 4.7 percent and the density is 976.9 persons per sq. km (Census, 1988), does not have enough plots to provide its growing population with construction sites. What is available is one plot out of 2000 needed. This has caused about 70 to 80 percent of its population to settle in unplanned squatter/ghetto areas. With an ever-expanding unplanned housing system in the city due to consistently increasing population, the situation will worsen thus placing the city at high risk of infectious diseases, unplanned housing system, poor

hygiene, insecurity, pollution, stress among the people and overall environmental degradation and social services deterioration.

It is, therefore, seen that rapid population growth contributes to the poor quality of life of the people. Pressure is exerted on social services and overall infrastructure, rendering them insufficient to meet the demands of the rapidly growing population. On the other hand, the population cannot produce enough to feed itself. This is because the proportion of dependants (over 50 percent of the population), consisting of 46 percent of ages 0-15 and 4.3 percent of ages 65 and above, poses a burden on producers who must feed and take care of over two people in a country of low technology and low productivity. The accessibility of resources is severely limited and therefore overused. Furthermore, the country suffers from a general lack of capital which could open up new resources and/or invest in those in use to maintain sustainability. Hence, they are at risk of degradation and depletion as the population continue to use them endlessly in the struggle to survive. As Bongaarts said:

"The very rapid growth leads to deterioration of the environment which is seen as inevitable due to a pressing need to improve living standards" (1993, p 1).

The vicious circle of poverty which exists can be broken by embarking on various development strategies. It is difficult for economic growth to take place if the resources available are heading for depletion due to high demand for them by domestic and/or foreign population. Economic growth is facilitated by a sustainable use of resources and capital to invest in various development projects. Sustainable use of resources and the generation of savings can enable re-investment in development projects. In order for a

nation to have such savings, consumption should be lower than production, and better terms of trade should exist in the international market. From the population's point of view, controlling consumption can be achieved by means of controlling population growth. And to control population growth, mechanisms to lower fertility have to be applied. One such mechanism is the use of contraceptives.

What Has Been Done

In an effort to deal with the problem of rapid population growth and its related effects, the government of Tanzania introduced a population policy with an objective to reinforce national development through developing available resources in order to improve the people's quality of life. The emphasis was laid on regulating the population growth rate and enhancing quality of life. To do so, mechanisms such as information, education and communication; maternal and child health/family planning and safe motherhood Initiative; expanded program on immunization; family planning program; family life education in schools; nutrition program; and special groups program must be used. Of the mechanisms identified, one of them, the family planning program, is a proximate factor which has a direct influence on fertility levels when applied; the rest of the programs are underlying factors with an indirect influence on fertility (Planning Commission, 1992).

The family planning program began its activities long before the population policy was instituted. Family Planning Association of Tanzania began its activities in 1959, but its services were limited to urban areas only. The government started providing

such services in maternal and child health clinics in 1974. However, contraceptive use remained very low; as a result the government embarked on the National Child Spacing Program in 1984 which also was not very successful. In 1989 the government began another project, the National Family Planning Program (NFPP) with donor support from the United Nations Fund for Population Activities (UNFPA). The major objectives were to improve the health of mothers; raise awareness; and improve the quality of services by training service providers, enhancing availability, improving accessibility, and maintaining affordability (TDHS, 1992). The efforts of the government have resulted in better establishment of Family Planning Activities in Tanzania in terms of accessibility, availability and affordability as the services are free to all users in public clinics. In terms of distance to such clinics, it has been a success in the sense that Tanzanian rural women have more access to rural clinics than their counterparts in Togo, Nigeria and Uganda. Further, the distance to the nearest accessible facility providing FP services in Tanzania is closer than that in Zimbabwe where contraceptive use is higher (Beegle, 1994). Yet, contraceptive use is still as low as 23 percent in Tanzania.

Education is considered to be one of the most effective underlying factors which has laid the base for the use of contraceptives and, hence, the timing of fertility decline (Caldwell, 1980; Mason, 1985). Education has been used substantially in Tanzania. More than 90 percent of the population is literate; that is, in general, people can read, write, and do arithmetic (National Literacy Evaluation Committee, 1988).

According to the demographic transition theory, most of the conditions necessary and sufficient for the timing of fertility decline exist in Tanzania, as was the case in

Western Europe (Caldwell, 1980; Mason, 1985; Beegle, 1994; Goldscheider, 1971); yet, there is no significant use of contraceptives as a means to control fertility. Nor is there a significant sign of fertility decline. This suggests that there are other factors that bar the use of contraceptives and perpetuate high fertility. One of these factors is assumed to be culture, which affects attitudes of people concerning contraceptive use. The World Fertility Survey (WFS) has indicated that:

“very little so far is known with certainty about the determinants of fertility decline in Africa and ... it appears, fertility is determined more by ill-understood cultural factors than any objectively ascertainable indicators” (1983, p16)

Likewise, Caldwell and Caldwell (1987) acknowledged the effect of culture on fertility in Africa with an example of the South African case study:

“Development alone cannot explain the underachievement of African countries in fertility decline... cultural factors must be invoked” (1987, p27).

Furthermore, demographers and sociologists concerned with fertility in Africa have argued that to understand the persistence of high levels of fertility in Africa, first, there is a need to investigate closely the role of cultural factors specific to African countries. Second, there is a need to look into the effectiveness of contraceptive distribution and use programs to ascertain whether there is political will and administrative capacity to implement them (Van de Walle & Foster, 1990). As indicated above, Tanzania has the political and administrative capacity to use such programs. This is revealed in the government's willingness to establish a population policy; to educate the people through the media, schools, clinics and literacy classes; to establish the National Family Planning Program

(NFPP); and to create contracts with donors to fund such a program and ensure that such services are accessible, available, affordable and free in all rural and urban clinics, health centers and hospitals. And, yet, only 23 percent of the target group use contraceptives. This shows that there is a problem which has yet to be tackled; namely, the lack of the people's desire to use contraceptives, an attitudinal factor which has to do with the cultural norms and values of the people. Culture, therefore, remains one of the most likely explanations for the low use of contraceptives. This research embarked on the investigation of these factors, to help understand the roles they play to influence contraceptive use, and thus enable policy makers to devise better means of dealing with the problem.

The study looked into cultural factors as independent variables and contraceptive use as dependent variable. While studying these factors, it took note of various intervening variables such as religion of the people, their education, ethnicity, income, and location.

About the Research Target Groups (the Wanyakyusa and the Wazaramo)

Two ethnic groups were selected for this research. The Wanyakyusa and the Wazaramo. The Wanyakyusa tribe live in the Mbeya region, about 1100 km south west of Dar-es-Salaam, the capital city of Tanzania; while the Wazaramo live in the Pwani region along the coast, sharing a boundary with the Dar-es-Salaam region. The Wanyakyusa are a patrilineal society as are the majority of the tribes in the interior land, while the

Wazaramo are a matrilineal society as are most of the societies living along the coastal areas of Tanzania.

The Wanyakyusa

About the Region

Mbeya is about 1,100 km from the capital city in the southwestern part of the country. It has an area of 60,350 sq. km (6.8 percent of the country's total area) and a population of 1,476,261 (6.4 percent of the total population). The total density of the population is 24.5 per sq. km while the population growth rate was 3.3 percent between 1967 and 1978 and 3.1 percent between 1978 and 1988, above the national average. The crude birth rate is 51 per thousand and the TFR is 6.5 (Census, 1988).

Economically, the Mbeya region makes the third largest contribution among the 20 regions to the national GDP with an average percentage of 6.7 from 1980 to 1994. The Wanyakyusa are mainly mixed farmers. They produce both food crops and cash crops. The major food crops are maize, rice, potatoes and plantains, while the major cash crops are cotton, coffee, tea and tobacco. It is one of the "big four" regions in the country called the granary of the nation, as most of the food crops come from there. Their good harvest, depend on rain and the will of God (Kyala). Recently, economic activities have been taking a different shape. The young generation is turning to trading activity, buying goods from farmers and selling them to consumers.

History

The Wanyakyusa are Bantu, and are said to have migrated from the east, from Mahenge in the Morogoro region, to Mbeya. They were governed through chiefs, not centralized but rather in small clans. The clans would unite to fight their enemies. The chiefs were usually descendants of heroic people. The chief was advised by a group of elders called the “Amafumu”; in addition, the village leaders and traditional medicine men were also a part of the advisory group. Their coordination brought about a balance of power. The male youth were also organized in village groups who would carry out various community activities as a group.

Their Culture

The Wanyakyusa are a patrilineal society, strongly patriarchal, with a great emphasis on maintaining their cultural tradition. Their way of life is highly institutionalized. Elders command respect and have the final say in matters concerning all aspects of life. The young of both sexes and women of all ages have to respect them and show obedience to them (Foster, 1995). Traditional law and customs are strictly followed. Ignoring them, whether secretly or openly, is punishable, as misfortunes follow in a chain affecting the whole family (Meyer, 1993).

The Wanyakyusa traditional belief is that to be assured of a good life on earth and after death, one has to get married and bear as many children as God brings them. Those with many children are assured of a good life at old age and after death as their children will always remember them. The more children they have, the more sacrifices and

offerings will be performed for their dead parents; that is considered good. To have many children is thus considered prestigious. Parents with many children are given special names, “Ubukake” for the father, and “Unkabe” for the mother.

Division of labor is strictly on gender basis, stereotyping domestic chores, childbearing and food production of women’s responsibilities. Men clear the land, take care of live stock and plant plantain trees. As a result, the children are trained to take up responsibilities based on their gender. Girls are trained to master women’s responsibilities, while the boys are prepared for manhood.

Marriages are still arranged by families. Traditionally, marriages were arranged without the consent of the girls who were not expected to object. Sometimes such arrangements were done even before the child was born. Bride price was paid in advance to book for a girl born in that family, to be married to the son of the paying family. The marriage agreement was not made by the couple to be. Family friends with sons and daughters arranged for their sons and daughters to get married.

Currently a girl’s consent is sought by her parents, in most cases girls have to agree with the boy before the parents are informed about the plan. From that stage, parents take up the matter. Bride price is paid both in cash and livestock, but usually in livestock. Bride price is accepted by Wanyakyusa women because they feel that there is no respect for a woman who gets married without bride price being paid for her. As one Nyakyusa woman from Rungwe district, quoted by Bryceson, said:

“If a person tries to evade paying bride price, we disapprove. Even if it is true that bride price imprisons women, it is the only way we get respect. When a person is married by bride wealth they say, that is his real wife” (1995, p 57)

Child bearing as hinted above is compulsory. A delay in conceiving signals action. The mother in-law takes the girl to a herbalist to check if she has a curse or if she is being punished by God or is bewitched or if her umbilical cord fell on her secret parts when she was an infant. She is given medicine to remove the witchcraft or sacrifices are carried out to remove the curse or punishment and plead for mercy so that the man who paid bride price should be given the right to have children from the woman. If these efforts are not successful, the girl could be divorced or kept in the house, but the man may marry another wife who could be a sister to the barren girl to keep bride price from being returned. Polygamy among Wanyakyusa people is more or less expected.

Inheritance among the Wanyakyusa people is highly institutionalized. All property belongs to men. So when a father dies, the law of inheritance called “Ubukulu” is strictly followed. “Ubukulu” specifies that an overseer of inheritance be identified by the kin on the fifth day after the burial of the deceased. This should be the first son of the first wife. In absence of such a son, then the son of the second wife can take over as can a brother or a close relative. The “Unkulu” (the one who inherits) inherits all the property, the children and wives of the deceased. If it is the son who inherits, then he does not inherit his own mother, but he inherits his father’s other wives. However, there is room for the wives to remain in the household without getting married or they may opt to get married to another relative of the deceased. The “Unkulu” has to be well behaved, a person with good character, with respect and credibility. If not, another relative is given the responsibility despite the birth status criteria. The personality of the “Unkulu” is considered important because he is the person who has to keep the family integrated.

Women have no right to inherit or own property. However, girls are important for bride price. They bring wealth to the family through marriage. Their contribution in the production of subsistence crops and their performance in domestic chores, all necessitates the preference of female children in the family.

The Wanyakyusa have various taboos and beliefs which are also strictly adhered to. A member of the society is punished for misbehaving or misfortunes could befall the person and his/her family members. Taboos that are related to fertility, are closely observed were as follows: a pregnant woman is not allowed to eat meat to avoid breaking bones in the meat she is eating; this is because it is believed that if she break bones while eating meat she will injure the baby in her womb. A pregnant woman is not allowed to eat eggs because it is believed that if she did, her baby would be bald. A woman should not get pregnant before her sibling have started walking because it is feared the sibling could die. If a couple violates this rule, it is isolated from the community as a punishment for the act, which is seen as an intention to kill the sibling. It is also a taboo for the umbilical cord of the baby to fall on the secret parts of the baby; it was believed that if it does the baby will be impotent if it is a boy and barren if it is a girl. It is a misfortune to bear twins. The couple is isolated from the village for two months. The two months isolation allows the couple to undergo rituals that are believed to remove any bad omens from the couple before they came in contact with the rest of the people. However, the woman remains isolated in many ways until she bears a single child. It is also forbidden for a barren woman to carry a newly born baby, because it was believed that the child will be infertile.

The Wazaramo

About the Region

Pwani region is along the east coast of the country. It shares a boundary with the Dar-es-Salaam region on its central east part, while the rest of its east boundary touches the Indian Ocean. Pwani has an area of 52,517 or 3.7 percent of the total national area; its population is 639,182 or 2.8 percent of the national total population. The population density is 19.6 per sq. km, with a population growth rate of 1.7 percent from 1967 to 1978 and 2.1 percent from 1978 to 1988. The crude birth rate was 33 per thousand and TFR was 5 (Census, 1988).

Economically, the Pwani region is generally poor. Among all the regions, it contributes the least to the national GDP. The average annual contribution has remained one percent from 1980 to 1994. The economic activities of the people are farming and fishing. The major crops they produce for sale are coconuts and cashew nuts. Rice and cassava are produced mainly for subsistence. Fruit and vegetable production is becoming lucrative for the ready market in Dar-es-Salaam city. Off-farm economic activities are also becoming important. The younger generation is going into trade in commodities they buy from farmers and sell in the capital city market.

History

The Wazaramo are said to have originated from the Ulugulu Mountains and to have moved towards the east and southwards, occupying the coast areas from Bagamoyo in the north to Kisiju in the south. Their neighboring Kwere, Kutu, Luguru, Mwera,

Zigua, Ndengereko and Doe are closely related in language and culture (Swartz, 1967).

Their tradition starts with chief Pazi whose sister is said to have been very powerful. She had urged her brother to fight neighboring Kamba; if he would not, she would go to fight herself. Pazi obeyed his sister and they were victorious when they fought their enemy.

The Zaramo people came into contact with Arab traders many years back. It is through this contact that they became Moslems.

Their Culture

The Wazaramo, like their neighboring Kutu, Kwere, Luguru, Mwera, Doe, Ndengereko and Zigua, are a matrilineal society wherein women's status is higher than in patrilineal societies. They strongly adhere to their traditions despite early contact with the Arabs. They have maintained their initiation rites which are known as "Jando" for boys and "Unyago" for girls. Traditional law allows women to be the sole heir of their parents' property (although a male person is appointed to be the guardian). Mothers have the right to bride price claims; mothers as well as their children have the right to the land. Their places are secure even after marriage because they remain in the neighborhood of their kin where they easily get support (Lewis, 1966).

The women's relatively high status among the Wazaramo people is also revealed in the roles they play in society. Women have strong influence in decision-making. For example, the sister of chief Pazi demanded that he fight his enemies; the Chief obeyed. It is also seen that women play a major role in the spiritual cult of the Wazaramo people.

"Kinyamkera, a spirit" is a woman, and the guardian of peace of the Wazaramo area

“Dibibi” is a woman. Women have instrumental roles in various life cycles of both men and women too. Such roles are in connection with pregnancy, childbirth, circumcision of boys, menarche rites of girls, spirit possession rituals, and marriages (Swantz, 1970).

The Wazaramo, like other matrilineal societies, highly value initiation ceremonies for both girls and boys (“Jando na Unyago”). This is so strongly embedded in their culture that it has become a barrier, especially to girls to continue with schooling. This is because they have to stay in seclusion for a period of three to six months and up to five years upon reaching menarche. A girl stays in seclusion until she gets a husband. She then goes through the initiation ceremony and thereafter goes to her husband. The seclusion period is a taboo. They believe that seclusion is a time for them to gain fertility and keep the procreative line of ancestors. Ancestors demand these rituals be perpetuated (Swantz, 1967). While in seclusion, girls are given a wooden or calabash doll to take care of for fertility revitalization and training in childcare.

Families make marriage arrangements. Girls’ consent is sought before any arrangements for marriage are made. As the mother has the right to bride price claim, the brother of the mother has to be there to ensure the mother’s interests are taken care of. He is the key person in such matters, and without him nothing can take place, including wedding ceremonies.

Procreation is vital among Zaramo people. Children are considered as gifts from God, so couples try hard to get them. This also has an influence on the relationship between the parents and children. Children are trained to respect and obey their parents, and parents are not supposed to be too hard nor too soft on their children. The initiation

ceremonies that take place are all directed to procreation. As one of the teachings to the new couple at the wedding ceremony says:

"... our children, see this harvest, it has come from mother land's womb (they are shown some crops). Mother land is generous ... The key thing is to receive the presents you get with happiness. Don't let such harvest get destroyed in the farm" (Pambe, 1984, vol. II, p 12).

Initiation ceremonies of the Wazaramo act as a bridge or rite of passage from one stage of life to another through which special messages are given to the initiates. This is done through dramatization, poems, parables, songs and symbols (Shorter, vol. III, 1984). However, unlike patrilineal societies, the matrilineal Wazaramo women do not face the pressure of having sons for inheritance. Bride price is low. Traditionally a cock or pieces of wrappers for the mother, father, uncle and grandma could suffice for bride prize. Currently, whatever wealth is paid as bride price is divided among many people including the couple to start a life with.

Definition of Culture

The generic meaning of the word culture has its history from the German and Latin words of 'Kultur' and 'Cultura', respectively. Kultur in Germany referred to the distinctive higher values or enlightenment of a society, while Cultura in Latin referred to tending or cultivation or becoming cultured (Kroeber and Kluckhohn, 1952). The meaning of the word culture has been expanding; hence, many definitions attached to the word have been provided from various field perspectives.

Culture, according to anthropologists and sociologists, is the total pattern or complex whole of human behavior and its products embodied in thoughts, speech, action, and artifacts dependent upon man's capacity for learning and transmitting knowledge to succeeding generations through the use of tools, language and systems of abstract thought. This total pattern of human behavior and its products includes customary beliefs, social forms and material traits which constitute a distinct complex of traditions of a society, a race, a religious group, or a social group. It also includes knowledge, morals, laws, customs, opinions, religion, superstitions, and artifacts. This forms a typical way of behaving, thinking, believing, talking, and a typical type of art,.

This meaning seems to address different angles of the word culture. It is descriptive as it enumerates the content; it is historical as it touches on the social heritage of traditions; it is normative as it addresses the issue of customs and law; it touches on the psychological part as it mentions morals, beliefs, and superstitions; it mentions habitual behavior and considers generic factors which refer to the products of population groups such as the art, symbols, and organization (Kroeber and Kluckhohn, 1952; Webster Third New International Dictionary, 1971). This definition, therefore, represents the orientation of my thinking on the interpretation of the word culture and thus is adopted as a basis for the meaning of the word in this dissertation.

My study has addressed cultural factors that can be deduced from the anthropological/sociological definition. These are customs; beliefs wherein superstition, religion, and moral variables are embodied; the status of women, which could be part of customs, but for the purpose of giving the variable a special attention, is treated as a

separate variable; and attitude and opinions of the people. The details of these cultural factors are provided in Chapter Two.

CHAPTER TWO

LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

Introduction

Sub-Sahara Africa in general and Tanzania in particular are faced with the problem of rapid population growth, a result of high fertility. Contraceptive use, one of the mechanisms to control fertility, is still low, and the reasons for its remaining low are still unclear. Much of this part of the African continent lacks coverage in demographic research, leading to a paucity of such literature. However, the limited research that has been done, especially on the assessment of contraception awareness and prevalence in Botswana (Rutenberg & Diamond, 1993), Black South Africa (Caldwell & Caldwell, 1994); Kenya (Robinson, 1992), Zimbabwe (Thomas & Muvand, 1994), and Tanzania (TDHS, 1992), has indicated that a high percentage of women are aware of contraceptives, but the prevalence of use is low. For example, women's awareness of contraceptives in Botswana is over 90 percent but only 33 percent use them; in Zimbabwe, 100 percent are aware, but only 43 percent use them; in Kenya, 90 percent are aware, but only 27 percent use them; and in Tanzania, 79.8 percent are aware and only 23 percent use them. Even among the educated in Africa, fertility levels are higher than

hose in other developing countries in Asia and Latin America, despite having the same levels of education (WFS, 1983). Such differences are associated with cultural factors which are strongly embedded in the norms and beliefs of African people and which are still poorly understood by demographers (WFS, 1983; Caldwell & Caldwell, 1987; Van de Walle & Foster, 1990).

This chapter looks into what is said about contraception, fertility levels, decline determinants, cultural factors and how they are believed to have influence on contraceptive use, as indicated in the findings of various studies.

Determinants of Fertility

A discussion of the theoretical framework about contraceptive use and cultural factors that influence its use has to examine fertility levels and the determinants' framework where conception variables are.

Fertility is determined by a complex interaction of social, cultural, economic and environmental factors on the one hand and biological factors on the other. Together with modernization and urbanization processes, these affect the level of supply and demand for children.

The biological factors are those which Bongaarts' model (1982) refers to as intermediate variables. These are important for controlling fertility among couples and society as a whole. These are the proportion of those married among females, contraceptive use and effectiveness, prevalence of induced abortion, and duration of

postpartum infecundability. The four variables in Bongaarts' model are part of what is known as the proximate determinants of fertility (Bongaarts & Potter, 1983). They affect fertility directly. The social cultural, economic and environmental factors are called the underlying determinants, and they influence fertility indirectly, as can be seen in Figure 1 on the structural framework of the determinants and how they influence fertility.

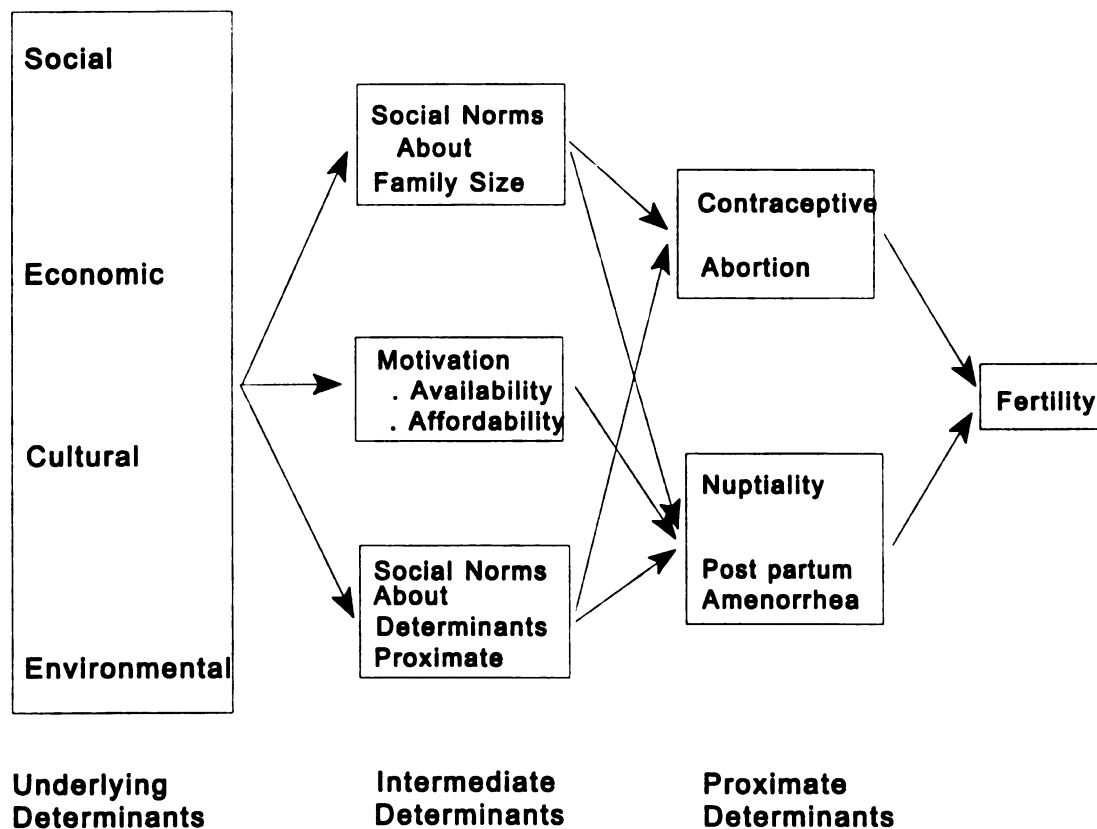


Figure 1: A Framework for Interrelationships of Underlying, Proximate, Contraception, and Fertility Levels

Fertility determinants were first identified by Davis and Blake (1956) who called them intermediate variables. They grouped their eleven identified variables into three

categories, namely, intercourse, conception and gestation. Bongaarts and Potter (1983) compressed these variables into seven for easy analysis within the Bongaarts' model variables for controlling fertility performance. These are postpartum infecundability, breast feeding and postpartum amenorrhea, waiting time to conception and fecundability, frequency of intercourse, duration of fertility period, spontaneous intra-uterine mortality and prevalence of permanent sterility.

The proportion of those married among women becomes important when the level of formation of marriages is high. In such a situation, there is pressure for early marriages which expose women to child bearing for a long period, and the number of these women exposed to child bearing is also high. Late marriage and low proportion of married women on the other hand has an opposite effect on the supply of children. Nuptiality patterns may also influence fertility. This is because they have an effect on exposure to sexual intercourse which is necessary for conception and childbearing.

Contraceptive use may prevent conception and child bearing. But this can be effective only when couples are able to use contraceptives after their need and advantages are perceived. Induced abortion prevalence may depend greatly on the policies of each individual country, social and psychological factors, and availability of the services. The duration of postpartum infecundability may depend on an individual woman's biological factors and her frequency and duration of breast feeding.

Social, cultural, economic and environmental factors, on the other hand, may motivate and facilitate or prevent and impede supply and demand for children. The

mechanisms whereby these factors influence supply and demand for children are still debatable. However, there have been various theories advanced concerning education, economic status, and culture by various people such as Becker (1960), Easterlin (1966, 1968, 1975, 1978, 1980), Caldwell (1980, 1982, 1987), and Davidson and Jacard (1975, 1976, 1979).

Educational level, especially of women, is believed to have an influence on fertility (Caldwell 1980; Mason 1985; Eberstadt 1981). Caldwell argues that mass education changes family morality by shifting the intergenerational wealth flow. Schools require children's time being spent in school thus undermining their economic value in the family economy. Children going to school also means that parents have to meet the costs for education, thus changing the direction of wealth flow. The learning process undermines established family morality and the traditional norms and values towards reproduction and associated factors. Therefore, the attitudes and perceptions of learners toward these issues are changed. Rationality becomes more important than family morality. Mason (1985) and Eberstadt (1981) emphasize the importance of women's education which leads to their empowerment in terms of employment, decision-making, autonomy and property ownership. This facilitates access to information, acquisition of new ideas, and change of attitudes and tastes about family size; hence, it influences the level of supply and demand for children.

The economic situation of a family, community or nation at large, it is argued, may facilitate better health status, hence, reduce infant and child mortality through better

food, shelter, and education. It may also change the overall living standard attitudes and tastes for children, thus affecting demand and supply. The theory states, according to Becker (1960), that demand is assumed to be negatively related to the price of the commodity itself and is assumed to be positively related to income, taste for the commodity, and prices of other commodities. And because consumers are said to be rational in their decision-making, they will always allocate their limited resources so as to maximize satisfaction. Children are considered commodities in the economic theory. The desire for children is thus subjected to the economic laws of demand. Therefore, households would be rational in their reproductive decision-making and thus the demand for children would decrease as household income, taste for quality of life for children, or price of other household goods increase. In addition to this, Easterlin (1966, 1980) argues that desire for children is determined largely by consumption behavior. The higher the parents' income, the higher will be their adult children's aspirations for material goods. These higher aspirations for material goods will reduce the adult children's relative desire for children and, therefore, reduce their demand for children.

The value of children theory emphasizes the positive benefits children may render to prospective parents and the negative costs children may impose on potential parents. These positive and negative values, when combined, form a net worth or value for a couple. The net value of children, therefore, has a direct effect on the couple's decision on the supply of and demand for children. The higher the net value of children, the more likely a couple is to have another child (Anold, 1973, 1975; Hoffman 1973) as it can be

seen below in the study findings by Knodel et al. (1992) in their study in Thailand and in Da Vanzo and Rahman (1993) in their study in Matlab, Bangladesh.

In Thailand, as in many other societies, children are responsible for care of the aged parents. The study findings found that 80 percent of parents over 65 years of age were living with their sons' families. Those with many children were more comfortable in terms of material well-being than were those with few children. The amount of support and comfort the elderly received depended on the number of living children. High fertility, therefore, becomes rational when couples think that smaller family size resulting from fertility decline leads to the provision of less support to parents later in life; hence, contraception programs might not be very successful in communities with such attitudes.

The motivation to have sons for inheritance makes the net value for children higher. This leads to parents bearing more and more children. Da Vanzo and Rahman (1993) showed this in their research report. The findings of the research carried out in Matlab, Bangladesh, show that sons were preferred for four reasons: their presence in the family raised the social status of the parents and ensured their support in old age; they inherited the family property and perpetuated family name. Because of the values attached to sons, couples are likely to continue childbearing until they produce the desired number of sons. The reasoned action theory emphasizes cultural role as it shapes people's behavior, a result of the beliefs of people. The theory states that a person's behavioral and normative beliefs about some behavior jointly determine the person's intention to perform the behavior. This behavioral intention is the direct determinant of the behavior

itself. The more positive the behavioral and normative beliefs, the greater the intention and the more likely the behavior is to be performed (Davidson & Jacard, 1975, 1976, 1979, 1980). The behavioral belief in this theory is the sum of expectations of consequences that are assumed to occur from the performance of a given behavior and the evaluations of those consequences if they do occur. The normative belief is considered more of a person's perception of significant others' evaluations of the behavior and the person's motivation to comply with these others. It is a more attitudinal part of the consideration and its psychic effects.

The theory becomes relevant in the sense that there are consequences for both contraception and reproduction which are a result of persons' behavior and beliefs and subsequently influence their contraceptive and reproductive intentions and behavior.

The reasoned action theory can be seen in examples of research findings from India by Mamdani (1972) , by Robinson (1990) in Kenya, and by Caldwell and Caldwell (1994) in Black South Africa.

High motivation in couples to have many children is a result of societal customs and belief forces that oblige a couple to have children for religious rites, inheritance, prestige, and honor; for help in both economic and domestic work; and for old age security. This was indicated by Mamdani (1972) in his report of the Khana study in Manupur village, Ludhuana district, in Punjab State, India. The report indicated non use of contraceptives by the villagers who were not using the pills provided to them despite availability, accessibility, affordability and high awareness and knowledge of

contraceptive usefulness. This was because the social reality of the villagers motivated against from using contraceptives.

People considered children as gifts from God. Contraception was seen as against the “smiles” of children, as some villagers said. People believed children were a source of happiness, pride, security, prestige, prosperity, peace and honor. Women who were barren were seen as bad omens or witches and were denied privileges such as celebration of the birth of children. A barren woman was divorced or her barrenness became a warrant for the man to marry a second wife. It was a religious ‘Dharma’ and social obligation to bear children. A family was an economic unit. A couple with no children was insecure, especially at old age, dishonored and disrespected. Such a couple would curse themselves for not having children.

Such a strong motivation in the couple to have children acted as a strong force not to accept contraceptives. Although some wives wanted to limit the number of births or to space them adequately, social penalties for barrenness were sufficiently severe to stop even the most determined women from doing so. Contraception was, therefore, scoffed at. Most people expected providers of contraceptives to provide medicine to barren women to enable them to have children. This was the only problem the villagers felt they had in society. They never saw having many children in a family as a problem. This is exactly what is thought to be happening in the societies of the developing countries. Contraceptives are not readily accepted by the targeted people because they don’t see a problem in having many children in a family; rather, they see barren women as a societal

problem. Contraceptive providers do have strong feeling about reducing the number of children in a family, feelings not necessarily shared by the targeted people. Local people do not hold that view.

The strong desire for children felt by Kenyan men has culminated in low contraception receptivity among Kenyan women, despite high awareness of contraceptive methods. This was indicated by Robinson's (1992) research report. It was found that Kenyan men were still expressing many traditional pro-fertility cultural attitudes and opinions. Large families were said to be desired and were seen as a source of prestige to males and the family as a whole. For this reason, the men interviewed said they had never used contraceptives, and they viewed contraception as a woman's business.

The Kenyan reproduction level demonstrates the African cultural rationality of higher fertility prevalence. It shows that African culture is remarkably and perhaps uniquely pro-natalist as compared to other regions. This is marked by the universality of girls' entry in sexual unions at an early age, the perpetuation of polygamy, generally permissive sexual mores and high coital frequency, all which contribute to the prevalence of high fertility and large families, a deeply African, if not necessarily rational cultural pattern.

Fear of infertility, pathological childlessness and fecundity impairment due to the use of contraceptives erodes motivation for women to use contraceptives. This was shown by Caldwell and Caldwell (1992) in black South Africa. Women expressed a fear of being infertile and showed no concern over having many children. Traditional

medicines were believed to be used widely to cure infecundity. The use of modern contraceptives is feared not only for being perceived as infertile among women who use them, but also their use is believed to impair fecundity. It is further believed that a woman who is not married at all or who was married and divorced and has no children will be doubly lonely and insecure if she does not have a child for company and care in her later age. So childbearing was universal and a pattern of life. In a situation like this, therefore, contraception could hardly be accepted easily.

Pro-natalist religious teachings can influence the use of contraceptives. African ancestral religion advocates high fertility, disapproves of limiting fecundity, and regards children as God's gifts and barrenness as God's punishment or a curse by ancestors (Caldwell & Caldwell, 1992); hence, the taboo that fecundity of those who use contraceptives is impaired and the fear that barrenness is a punishment from God or a curse from ancestors.

The fertility of Filipino Muslims is higher than other Filipino women because the Islamic pro-natalist teachings discourage them from using contraceptives (Alphonso et al., 1980). This has led to large family size among Muslim families and low acceptance of contraceptive use.

Determinants of Fertility Decline

Fertility decline is determined by changes in both proximate and underlying variables. One or more underlying variables may work through one or more proximate variables to create a situation necessary and sufficient for fertility decline.

The conditions necessary and sufficient for fertility decline vary depending on the society, its location, its culture, its socio-economic situation, its environmental status, and the availability and accessibility of mechanisms that can be used to control fertility. Hence, the conditions that were necessary and sufficient for fertility decline in the now developed countries are said not to apply wholly in other parts of the world, especially in developing countries and particularly in Africa.

It is argued that fertility in Western countries declined as a result of multiple pressures on the urban population where new ideals for small family size were developed (Notestein, 1953). The population in these countries was growing rapidly. This necessitated social and economic improvement. Urbanization, accompanied by modernization, facilitated the withering of the props that kept fertility high.

The costs of living in urban areas stripped families of their produce and earnings through consumption, recreation and education. Rapid technological development necessitated skills in the urban population in order to get employed; thus, training, education, and rational reasoning became increasingly important. Women had changed their roles; they were now engaged in non-domestic economic roles. Furthermore, young families were separated from their kinship families due to orientation of urban

employment, and, therefore, lived far apart from them. This life pattern threatened and weakened kinship ties which resulted in loss of family morality. On the other hand, children had to go to school, and the economic importance of children in the family economy lessened. Therefore, the economic pressures of urban life, the lessened importance of children in the family economy and withered kinship ties and family morality are said to have been some of the necessary and sufficient factors that led to the change from the desire for large families to new ideal of small family size. The availability of birth control methods facilitated the development of strong motivation in spouses' use of birth control methods to achieve the desired small family size (Notestein, 1953; Goldscheider, 1971; Coale, 1973;). The changing roles of women and women's education is believed to be another facilitator to the use of contraceptives. Couples began to make a 'calculus conscious choice' on family size in the way they saw it advantageous (Coale, 1973). The concept of number of children in the family or 'numeracy in children' (Van de Walle, 1992) became important.

Coale (1973) elaborates on the preconditions for decline in fertility by saying that once couples begin to see reduced fertility as advantageous, they begin to give conscious consideration to and make choices about the number of children to have in order to give them better care. Their conscious choice is facilitated by the availability of effective techniques of contraception. When the three conditions, (perceived advantage, numeracy, and potential efficacy) are fulfilled, the numeracy in children concept is thus effected; hence the decline.

However, in Western countries, the practice of contraception was not uniformly adopted, despite the existence of the preconditions indicated above. Also, in most cases contraception was practiced in the absence of these preconditions. This makes the main stream of thought concerning fertility decline in Western countries a topic of great debate. Contraception was practiced in France and Germany as early as 1710, and fertility was low. This was not a result of education or urban life pressures or weakened kinship ties and erosion of family morality. On the other hand, in England and Wales fertility remained high until the second half of the 19th century despite the existence of the suggested preconditions for fertility decline. In Ireland fertility is still high. This shows that the determinants of fertility decline and contraceptive use which are said to have brought down fertility are not exhaustive; hence, the anomalies which occurred in Europe (Knodel & Van de Walle, 1975). The same trend is being observed in developing countries where the trickle down theory was expected to work, wherein contraception technology from Western countries was expected to be adopted without much difficulty (Simmons, 1990). But in most developing countries, particularly Africa and parts of South Asia, fertility is still high and contraceptive methods are not being used. Hence, the call for more investigation on the issue of culture as a determinant of fertility decline and a barrier to the use of contraceptives, which is still ill-understood (WFS, 1983; Van de Walle & Foster, 1990; Caldwell & Caldwell, 1988).

Contraception and Culture

Contraception

Contraception is a function of (a) the perceived need by the couple to limit the number of children they have, as they see it is advantageous to do so; (b) motivation (a result of availability, affordability and effectiveness of birth control method); and (c) absence of social and psychological barriers (cultural factors).

Assuming that contraceptives are available, accessible, and affordable, contraception is a function of the motivation of couples to use it, level of pressure for the need for children by both the couple and the extended family, and social, cultural and psychological factors to control birth. In this respect then, contraception techniques, when applied effectively and efficacy is observed, can determine fertility decline.

When a couple decides to control birth, the decision reflects their perception of the advantage to do so. As a result they seek birth control methods. The availability and affordability of the method, makes it easy for women to use them and should ensure prevalent use of contraceptives.

Women's education is another factor which facilitates women's use of contraceptives. It is through education that women are exposed to information on contraceptives. This is because they can read various forms of information on the subject. It is also believed that educated women have some degree of independence in terms of making decisions and in venturing into something new. Educated women are also likely

to be able to afford the cost of contraceptives, if any, because they are likely to be employed and, therefore, they have money they earn as wages.

Pressures in the cost of living, especially in urban areas may also generate a felt need to use contraceptives. This is because there is a high cost of living in urban areas, and children become costly due to costs of education. The mass media, public rallies which center on the issue for the need to control births and the means to do so raise awareness and can stimulate people to use contraceptives. However, there are barriers to such motivation. These include cultural factors such as customs, beliefs, status of women, and attitudes and opinions of people. Such barriers, when strongly embedded in people's minds, may have psychological effects on contraceptive use and, thus, affect decisions about contraception.

It is, therefore, assumed that when people see the need and advantage to reduce their number of children, that is, when the barriers that keep fertility high are eroded, the norms that create psychological effects are removed, and facilitative factors like accessibility and availability of contraceptives are there, it is likely that those people will adopt contraceptives and, therefore, fertility will decline.

Evaluating the quality and availability of FP services in Tanzania, Beegle (1994) reports that there has been a strong start of FPP; that is, the services are available free to all in the public clinics and hospitals. However Beegle concludes that despite efforts at the national level to promote FP services by the government, the fertility rate in Tanzania

has not shown a significant decline. The issue of culture as a barrier to contraceptive use has not been studied; hence, the need for this research in Tanzania.

Culture

Culture is a learned set of behaviors, values, norms and beliefs. Instructions based on these factors are transmitted within the social group and form the behavioral thinking pattern of its members. Members of such a social group develop and extend themselves through the culture by identifying with it and thereby fulfilling their human potential in a manner that would not be possible outside their cultural framework.

Culture is learned through inculcation of values passed on by the social group to the younger generation, by parents over successive generations, and repeated over time to ensure acquisition of such variables collectively. Thus it involves the ideation process so that the recipients adopt and conceptualize them as ideal patterns of behavior. Such norms remain ideal to the social group as long as they are satisfying (Kroeber & Kluckhohn, 1952).

The family is the key body which socializes the younger generation to take up its responsibility to socialize the next generation. The family possesses the characteristics conducive for inculcation of cultural variables to the younger generation; that is, established ties, parental intimacy, dominance by parents over children, and living together in same house (Goode, 1964). It is through this socialization process that one's thinking is shaped.

Modern contraception may be viewed as a new norm to the people. Adopting its use may be seen as a behavior not congruent to the cultural framework. This might, therefore, be the reason for people not being responsive to the use of contraceptives, a behavior which is suggested in the theory of reasoned action discussed earlier.

Culture as one of the crucial determinants of reproductive behavior, and contraceptive use, has been underestimated. The established theories for fertility decline in Western countries emphasize economic and education factors, the pressures of urban living, and the availability of birth control methods. Yet in other countries like France, fertility declined before such determinants existed while Ireland's fertility is still generally high despite the existence of such determinants. But culture was not examined until recently when Knodel and Van de Walle (1979) reviewed historical data from Western Europe and found that, aside from the status of women, the single factor reliably influencing the timing of fertility transition was culture. This shows that there is a need to identify the cultural indicators that reflect receptivity to family limitations. This is because culture is still a black box of unknowns. Cultural factors and their implications on contraception and reproduction are largely unexamined.

Cultural factors can cease to be barriers to contraceptive use when taboos, customs and beliefs related to childbearing are removed through the weakening of institutions that perpetuate them. The weakening of family morality occurs through education by removing children from family economy participation and by instilling values that change their attitudes, thinking and beliefs on reproduction and contraception

(Caldwell, 1987); the weakening of kinship ties through economic changes which entail moving of individuals from their traditional locations to urban areas for employment; changes in the status and roles of women who now have to work and take other responsibilities besides domestic chores; and pressures of urbanization on individual families' costs, patterns and quality of living (Notestein, 1953; Goldscheider, 1971; Coale, 1973; Caldwell, 1980; Mason, 1985; Eberstadt, 1981).

In the midst of such changes, couples and the society at large begin to see fertility to be within the 'calculus of conscious choice,' reduced fertility as advantageous, and fertility reduction techniques as a necessity (Coale, 1973). Numeracy in children becomes compulsory. This, then, necessitates use of contraceptives (Van de Walle, 1990), which leads to fertility decline.

Customs, beliefs, status of women, and attitudes and opinions are the sets of cultural factors addressed in this dissertation and are defined below to provide an insight of what they mean and the scope of their use within the study.

Custom has many meanings which range from dues or rent in money, kind or service that a tenant was bound to pay to his Lord; duties or tolls imposed by the sovereign law; or practice of performance according to personal order. The word custom in this study is considered to be a course of action characteristically repeated under circumstances common to many. It is a course of action usually established, continued, peaceable, reasonable, certain, and constant practice which may not be written as law but has a long continuance with a binding force.

Belief as a terminology is a state of mind in which trust, confidence or reliance is placed in some person, thing or teaching; for example, something believed through a body of statements held by advocates of the ideas such as religious doctrine. It is a conviction of some phenomenon based on examination of grounds for accepting it as true on the basis whereby one is willing to act in a certain manner under appropriate conditions. Beliefs may include taboos and superstitions (Webster New International Dictionary, 1971).

Opinion as used in this study refers to the view held by people, whether right or wrong, about something. It is an overall stream of thinking and views that a social or religious group or community have on something.

Women's Status

Women's status as a concept is difficult to define due to differences in terms of social settings that exist in various societies. However, attempts to define the concept have been approached from different angles by associating status to education, employment self-esteem, equal rights, confidence, decision-making, and autonomy. Dixon (1976) as quoted by Mason (1985), attempted to define status of women to be the degree of women's access to and control over material resources (such as land, income, and other resources of wealth); and social resources (including knowledge, power, and prestige within the family, the community, and the society at large). It is believed that women with education tend to get more information about their welfare as they are able

to read various articles and are easily exposed to various information. Educated women can get employment and, therefore, have their own wages. These two factors give women autonomy which enables them to make decisions. Autonomy is defined by Dyson and Moore (1984) as the capacity of women to manipulate their environment, that is, the technical, social and psychological know how, to obtain information and to use it as the basis for making decisions.

Women's status in many societies in Africa, and in Tanzania specifically, is low as a result of the African society's patriarchal institutional mechanisms which serve to limit women's autonomy relative to men's. Kinship customs of patri-local marriage contribute to women's low status due to the associated regulations. Other customary regulations related to inheritance, power, ownership and division of labor perpetuate low status of women. Religious regulations such as those related to Islam render women to serve men while men are considered bread earners, and division of labor is clearly based on gender and in favor of men, sanctioning male dominance and the suppression of women.

The low status of women, therefore, denies women autonomy and implies the lack of any possibility for women to participate in decision-making regarding their fertility and other related family issues. Decision-making remains a men's business. High status of women is perceived to contribute to women's acquisition of autonomy. This quality enables women to manipulate what surrounds them for their benefit. It gives them the ability to participate in decision-making on family issues and their own welfare. It is,

therefore, the patriarchal institutional arrangement, part of the societal culture, that plays a role in perpetuating the low status of women.

Emphasizing women's status in a society where women have high status, it is likely that child bearing is lowered through use of contraceptives. This is because such women are likely to participate in decision-making regarding marriage and family issues. They have a high likelihood of exposure to new ideas, and they have economic power which enables them to acquire better means of controlling births. Working women face time constraints in terms of time for their jobs and childbearing. As a result of this plus other pressures of achieving quality of life, quantity of children is traded for quality of children, hence, the numeracy in children. This was proved right by Basu (1992) in his research.

This research tried to show how women of low status differ from those with higher status in terms of making decisions on their welfare especially fertility. He found out that women's lack of participation in decision-making limits contraceptive use and promotes high fertility. On the other hand, women's participation in decision-making promotes use of contraceptives. Basu (1992) indicated this in his study in India among two groups of women with different status, the Uttar Pradesh and Tamil Nadu. The Tamil Nadu women in North India have no say in their affairs and their status is relatively low compared to Uttar Pradesh women in the South whose status is high and who participate in decision-making to some extent. When comparing the two groups of women, Basu found that they have different levels of fertility. The pace of their marital fertility was

measured and it was found that the fertility of the Tamil Nadu was higher than that of the Uttar Pradesh women. The means that numbers of birth in the first five years of marriage for the Tamil group was four times higher than that for the Uttar Pradesh women.

Cultural Attitudes and Opinions on Rapid Population Growth and Contraceptives

The attitudes and opinions a population may have on population growth affect their behavior towards contraceptive use and, hence, fertility as a whole. When people esteem large families and believe that no matter how fast they increase they are not going to affect the environment in which they live, they are likely to continue bearing as many children as they wish until they feel satisfied and gratified. Unless people start understanding social constructs (Redcift, 1992), the environment will continue being perceived as an inert object which cannot be affected by population.

Population is an element of a social system as it is environment (Duncan, 1969, as quoted by Hodge, 1990). A change in population can have a significant impact on the other elements in the system, especially the environment. The attitude and opinion of people to have large families and their lack of perception on the connection between population and environment may facilitate a significant change in the population, resulting in a tremendous effect on environment. Such attitudes and opinions are rooted in the culture of that society and what they believe in terms of population increase (Milbrath, 1989).

Because of the attitudes and opinions of people on rapid population growth, which are rooted in their culture and beliefs on family size and the way they perceive the connection between population and environment, there is concern about contraceptive use, hence, its importance in this study.

Objectives of the Study

- .to assess effects of customs on contraceptive use
- .to assess the effects of beliefs on contraceptive use
- .to show the effects of women's status on contraceptive use
- .to show the effects of people's attitudes and opinions about rapid population growth on decisions to use contraceptives

Research Questions

The questions which were used to collect information that address the study objectives are as follows:

- 1a. What is the effect of customs on contraceptive use?
- 1b. What is the effect of beliefs on contraceptive use?
2. What is the effect of the level of women's status on contraceptive use?
3. What is the effect of people's attitudes and opinions about rapid population growth on decisions to use contraceptives.

CHAPTER THREE

RESEARCH DESIGN AND METHODS

Introduction

Having laid down the problem of the study and its background, the model for the study, related literature, the objectives, and the questions to be used in order to obtain information that addresses the objectives, this chapter presents the procedures used to design the field work activities.

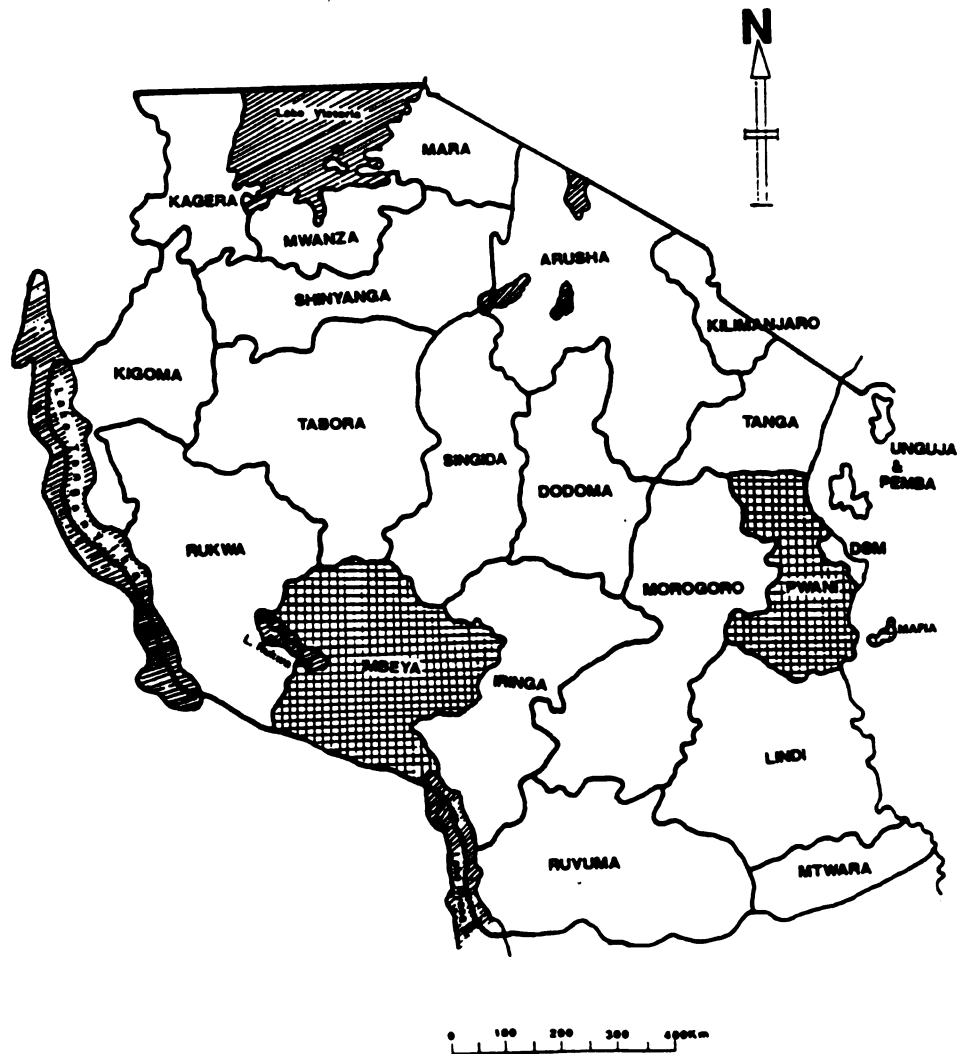
Research field work was done in two of the twenty administrative regions of Mainland Tanzania. Each region is divided into districts which are divided into wards. The wards are broken down into villages in the case of rural areas and into mitaas (neighborhood) in the case of urban areas. This level of local administration is further divided into hamlets for the villages and sub-mitaas for the mitaas. The hamlets and sub-mitaas are the lowest administrative structure. From this level, then, follows the households.

The criteria used for selecting the two regions were based on three factors. These are fertility levels, accessibility and societal structural differences. First, Mbeya was selected from those regions having high fertility levels, while Pwani was selected from

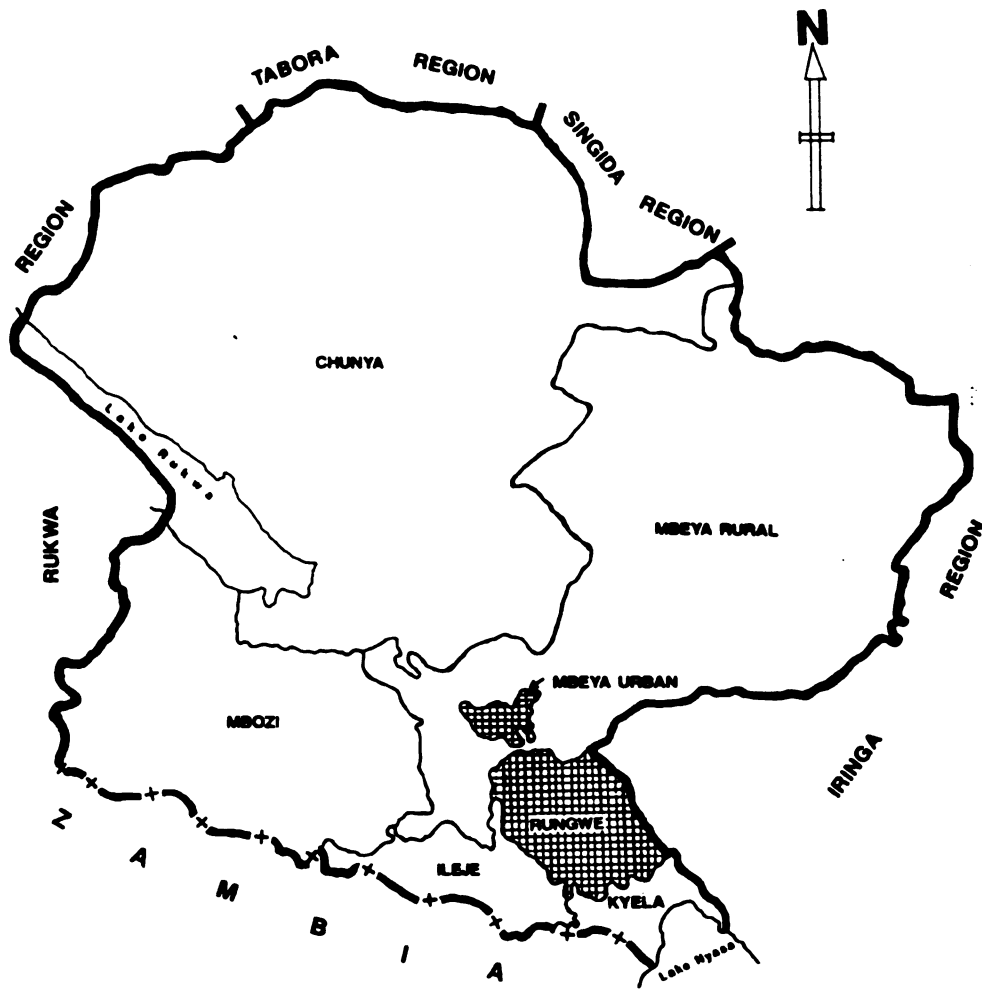
regions with relatively low fertility levels. Secondly, regions were selected on the basis of accessibility. It was important to consider accessibility to facilitate movement from one area of research to another and minimize costs for transport to adhere to budget. Societal structural differences such as patrilineal (Mbeya) Wanyakyusa, and matrilineal (Pwani) Wazaramo was a third factor considered in the selection. This was intended to get an insight on the responses of the two different ethnic groups towards contraceptive use. Such a consideration was made on ethnic grouping with respect to their relative differences in terms of attitudes toward family size. The Wanyakyusa tribe in Mbeya region are said to have strong pro-natalistic values while the Wazaramo of Pwani region have relatively weak pro-natalistic values.

One district was selected in each of the regions for rural respondents. The selection was based on criteria which were guided by the history and original locality of the ethnic group of interest. Rungwe and Kyela districts in Mbeya region are historically known as the districts where the Wanyakyusa live. However Kyela was not selected because of flooding problems. Movement within the district would have been restricted due to heavy rains and flooding, the natural features of the district. Rungwe was the best choice for the research. Kibaha, Kisarawe, and Bagamoyo districts in Pwani region are historically known as places for the Wazaramo. However, Bagamoyo and Kisarawe were avoided for reasons of accessibility problems. Hence Kibaha was selected for the research.

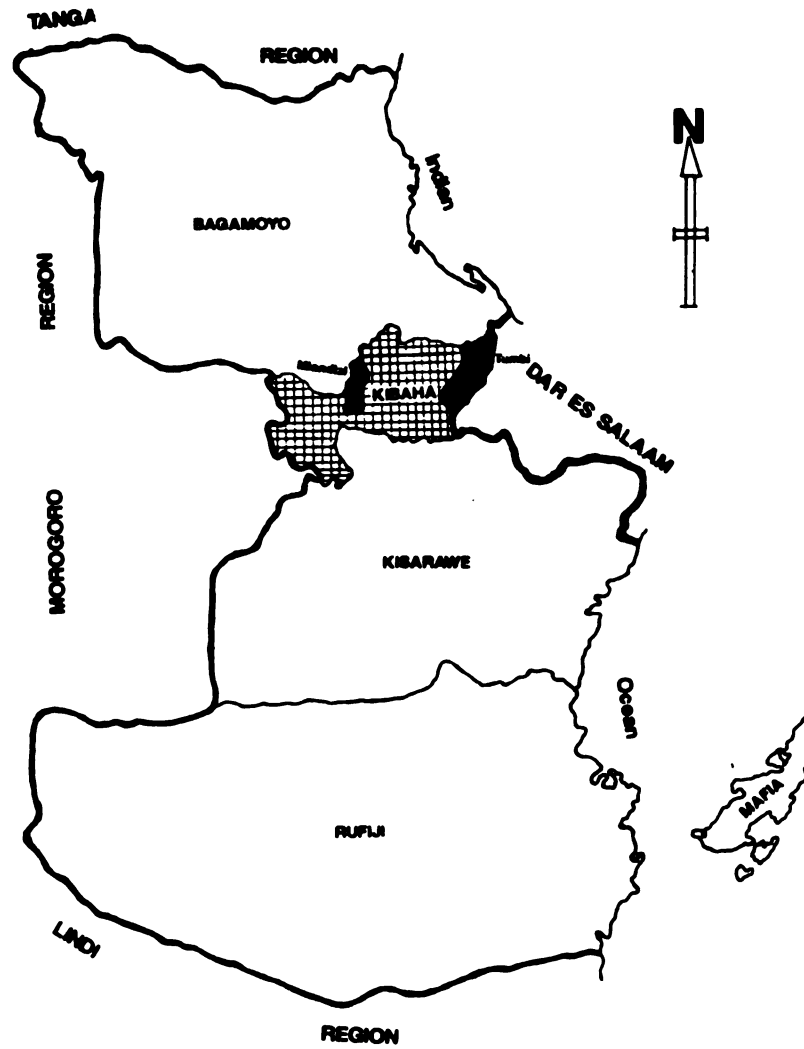
For urban respondents, the regional headquarters were selected. Mbeya municipal town in Mbeya region and Tumbi and its suburban areas such as Maili moja and Picha ya ndege in Pwani region were involved in the research. Their locations can be seen on the following maps showing Tanzania's regional boundaries, and the maps of Mbeya and Pwani regions.

LOCATION OF RESEARCH AREAS IN TANZANIA MBEYA AND PWANI REGIONS.

LOCATION OF RESEARCH DISTRICT AND TOWN IN MBEYA REGION



Scale 1:1,250,000.

LOCATION OF RESEARCH DISTRICT AND TOWN IN PWANI REGION**Scale 1:1,660,000**

The Selected Regions

Mbeya region is located in the South western part of the country, while Pwani is located in the Eastern part of Tanzania. Mbeya has a total of seven districts known as Mbeya urban, Mbeya rural, Chunya and Mbozi which shares boundary with Zambia, Ileje and Kyela which share boundary with Malawi, and Rungwe. Pwani, on the other hand, is divided into five districts: Bagamoyo, Kibaha, Kisarawe, Rufiji and Mafia.

Population and Sample Size

Population

As indicated in Chapter One, the population for the research was all the Wanyakyusa in Mbeya region and all the Wazaramo in Pwani region. The originally targeted sample size was 1600, but the actual field research ended up with about 1290 respondents. The population was all women ranging in age from 15 to 50 and all men ranging in age from 25 to 59. The age ranges are deliberately chosen to include as many as possible of the men and women who currently have to make decisions concerning their fertility.

Sampling

This survey was basically cross sectional. Sampling, therefore, considered various groups which are homogeneous for selection as sample sub-populations. Sampling also had to be done carefully so as to select a sample which is representative of the target

group. Careful criteria for sampling were, therefore, needed to get homogeneous groups while avoiding conscious or unconscious bias (Babbie, 1990). The basic principle that was kept in mind while selecting the sample was that all members of the population have an equal chance of being selected in the sample. That is, each element in the population is given a known non-zero probability of being selected into the sample (Rossi, Wright & Anderson, 1983). The sample size also had to follow the principle which provides the basis for estimates of population parameters and error. The theory provides a formula to estimate how far a sample value can be from the true value. The basic principle is that the larger the sample size, the smaller the deviation from the true value; therefore, the closer it is to the true population value.

The study, therefore, opted for a larger sample size of 1600 respondents for purposes of minimizing standard error and, hence, achieving closer representation of the population represented. The sampling procedure followed was complex because of the complexity of the target population and the desire to get a representative sample of the population.

Ideally, the sample was composed of two ethnic groups, the matrilineal Wazaramo of Pwani region and the patrilineal Wanyakyusa of Mbeya, both from rural and urban areas. The aim was to identify and select households of these people of interest. Furthermore, it was planned that these people be identified and selected based on their level of income, education, gender, and religious affiliation. To identify and select the households, it was necessary to follow a process that had to begin at the regional

office of each of the two regions, to the district and urban authority offices, to the wards, to the villages in rural areas and mitaas in urban areas, and down to the hamlets and sub mitaas respectively. At this level, households of the ethnic groups in question were identified. Identification of districts, wards, and villages/mitaas on the basis of education, income, and religious affiliation was based on oral explanation by the officials at regional, district and ward offices, as well as on 1988 census reports which provided information on the characteristics of populations in different localities. The table below presents the planned sample selection.

Table 3.1: The Intended Sample Size for the Study

	Mbeya				Pwani			
	Urban		Rural		Urban		Rural	
	Low edu	High edu	Low edu	High edu	Low edu	High edu	Low edu	High edu
Low Income	100	100	100	100	100	100	100	100
High Income	100	100	100	100	100	100	100	100
Total	400		400		400		400	

However, the actual sampling in the field could not come out with the type of characteristics of the intended population sample. First, it was noted that income could not be used distinctively as a criteria for sampling areas. This is because of the homogeneity of income among the population, especially in the rural areas. Second, education as a criteria became problematic, especially in the rural areas, because the majority have seven years, or less education. Very few have education of over seven years and these are mostly found in urban areas.

Despite all the shortcomings, identification and selection of households of the target group were done. Where the criteria intended to be used were possible to apply, they were followed; otherwise, selection was done based on location, ethnicity, gender, and age.

Multi-cluster sampling was chosen which involved the repetition of two basic steps of listing and sampling. The sampled population had to be obtained from the rural areas of each of the regions (Kibaha in Pwani and Rungwe in Mbeya), and from the urban areas (the headquarters of the regions). Basically, the idea was to obtain 800 respondents from each region, 400 from urban and 400 from rural. The total was supposed to be 800 rural respondents and 800 urban respondents.

The complex cluster sampling process began by the identification of districts and urban areas for the survey. As the interest was on the ethnic target groups, census reports were used to identify districts that constituted the majority of the people in the target ethnic groups.

A list of wards was obtained for both urban and rural targeted areas. Wards were selected based on the above mentioned criteria and information regarding these wards at our disposal. Six wards were selected in Kibaha district for both rural and urban study, and eleven wards were selected both in Mbeya urban and Rungwe for the study.

A list was obtained for the villages and mitaas for each of the selected wards. Villages and mitaas were selected basing on the criteria mentioned earlier. Twenty-four villages and mitaas were selected for the study in Mbeya region. That is, twelve were

villages for the rural areas and twelve were mitaas for the urban areas. Seventeen villages and mitaas were selected in Pwani region. Twelve were villages and seven were mitaas as can be observed in Appendix A.

As mentioned earlier, villages are divided into hamlets and mitaas are divided into sub-mitaas. A list of them was obtained for each of the selected villages and mitaas.

Using the same procedure as above, hamlets and sub-mitaas were identified and selected.

Upon having a list of the hamlets and sub-mitaas selected for each selected village/mitaa, a number one or two was allocated to each of them; the number one meant only men would be interviewed in that hamlet/sub-mitaa, while a number two meant only women would be interviewed in that hamlet/sub-mitaa. This was done to avoid having two adults in the same household being interviewed which might have affected the response as they may have the chance to discuss the interview schedule questions if one of them was interviewed earlier, and also to have independent units of analysis.

A list of households was obtained for all selected hamlets and sub-mitaas. Under the wards executive officers' supervision, the village/mitaa and hamlets/sub-mitaas chairpersons or secretaries identified households of the Wazaramo in Pwani and Wanyakyusa in Mbeya. The estimated number of the sample for each of the village was 20 percent. In the case where 20 percent was not reached, what was normally done was to add one or two hamlets/sub-mitaas within the selected villages or mitaas. In case the households were slightly above the 20 percent, all the households were included on the assumption that not all respondents would be present on the day of the interview. In a

case where the households of the targeted ethnic groups are too far above the 20 percent, random sampling of the households was done. However, this only occurred in few places, most of them in rural areas where most of the households were of the ethnic groups of interest.

The sample selected was, therefore, purely of Wanyakyusa and Wazaramo people as intended. An appointment was made for each hamlet and sub-mitaa for the visits. Below is the administrative structure (Figure 2) showing the stages the researcher had to follow before reaching the targeted respondents in their households.

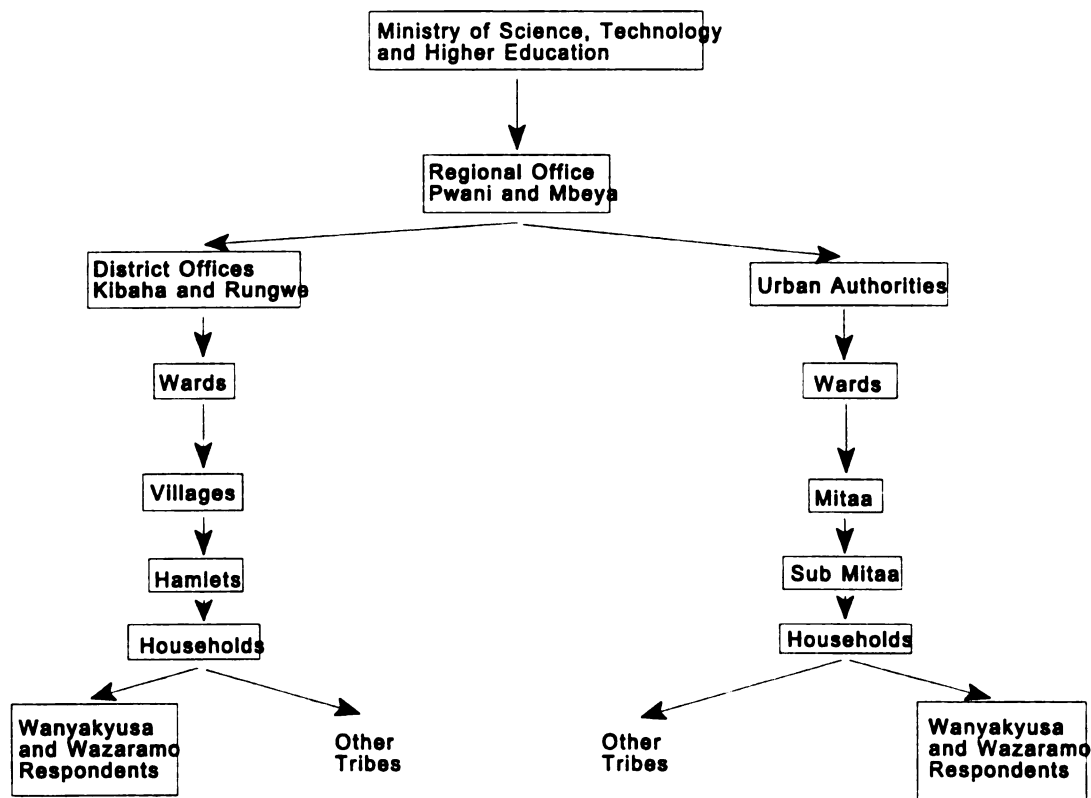


Figure 2: An Administrative Structure Involved in the Regions While Preparing for Data Collection

The actual number of respondents interviewed in the survey (second phase) was 1290. In Pwani region, 695 respondents representing 53.9 percent were interviewed, while in Mbeya, 595 respondents representing 46.1 percent were interviewed. Based on rural urban criteria, 641 rural respondents were interviewed representing 49.7 percent and 649 urban respondents representing 50.3 percent were interviewed. Basing on sex criteria, 542 males representing 42 percent were interviewed, and 748 females representing 58 percent, were interviewed, as can be seen in the tables below.

Table 3.2: Respondents Interviewed by Region and Gender

Gender	Pwani		Mbeya	
	Respondents	Percent	Respondents	Percent
Males	262	20.3	280	21.7
Females	433	33.6	315	24.4
Total	695	53.9	595	46.1

Table 3.3: Respondents Interviewed by Region and Location

Location	Regions		Total
	Pwani	Mbeya	
Rural	26.3	23.4	49.7 n=641
Urban	27.6	22.7	50.3 n=649

Table 3.4: Respondents Interviewed in Percentage by Region, Location and Gender

Location	Gender	Regions		Total
		Pwani	Mbeya	
Rural	Male	25.0	25.3	50.2 n=322
	Female	27.9	21.8	49.8 n=319
	Total	52.9 n=339	47.1 n=302	100.0 n=641
Urban	Male	15.7	18.2	33.9 n=220
	Female	39.1	27.0	66.1 n=429
	Total	54.9 n=356	45.1 n=293	100.0 n=649

Secondary Data

Reading documents as secondary data was done before the real field work. This facilitated better understanding of the research areas in terms of their history, population trends, economy, accessibility, and an insight of people's culture in the regions.

Secondary data were collected from the population planning unit (PPU) under the Planning Commission, the national family planning office under the Ministry of Health, the census office under the bureau of statistics, the national museum under the Ministry of Education, all government offices. The NGO offices visited were the Family Planning Association of Tanzania (UMATI), the United Nations Population Fund Office, the Population Council and the Demographic Unit of the University of Dar es Salaam.

Focus Group Discussion

Selection of participants for the focus group discussion in phase one of the study followed the administrative structure from regions, districts, wards, and villages/mitaas and eventually to hamlets/sub-mitaas where households of the targeted ethnic groups were identified and selected to participate in the discussion. An effort was made to include participants with different religious affiliations, income levels and gender. The selection of youth participants was made in high schools; for those out of school chairpersons/secretaries of villages/mitaas were asked to identify them from the households. The selection procedure for youth, especially those out of school, followed

more or less that which was used to select the adult participants. Each of the groups identified for the discussion included both males and females.

The total number of groups obtained for discussion was 26; researchers had discussion with each of them for a minimum of one and a half hours. The groups included four of Catholics from both rural and urban areas, four of Protestants, four of low income and two of high income, four of Muslims, four of youth in schools and four of youth out of school. These together made a total of 26 groups. The sizes of the groups ranged from 8 to 14 people. Two groups of youths were of 14 participants; the lowest of 8 people was that of the urban men's elite group as it can be seen in the table below.

Table 3.5: Focus Group Discussion Participating Groups

Categories	Pwani				Mbeya				Total
	Rural		Urban		Rural		Urban		
	M	F	M	F	M	F	M	F	
Catholics					1	1	1	1	4
Protestants				1	1	1	1		4
Muslims	1	1	1					1	4
Low Income	1			1	1			1	4
High Income							1	1	2
Youth out of school	1	1			1		1		4
Youth in school	1	1					1	1	4

m' refers to males and 'f ' refers to females; 'Cthlic' refers to Catholic, 'Prot' refers to Protestant, and 'Mslm' refers to Muslim

Methods

Focus group discussion was used during the first phase of exploratory data collection because there was a need to obtain general background information about the influence of culture on contraceptive use and to refine the concepts which had been developed in the research question.

Focus group discussion data is said to be helpful in giving insight on the theme for purposes of refining questionnaires for survey and facilitating the interpretation of quantitative results (Stewart & Shamdasani, 1990); its use in this phase of field research was aimed at achieving these same purposes. Information from the discussion is believed to be helpful in developing the interview schedule and questionnaire. It also facilitates the generation of hypotheses based on informants' insights and what respondents say about the phenomena of interest (Morgan, 1990). Indeed, the method helped to improve the interview schedule which was used in the second phase. It also helped in shaping this re searcher's thinking towards issues of concern in the survey and therefore also shaped her expectations of the survey outcome.

Instrumentation

About 12 guide questions were prepared for the focus group discussion, as can be seen in Appendix B. Their detail is provided later in this chapter. Two audio tape recorders were used to collect information through taping the discussion. Moderators for group discussions were prepared and used to lead discussions.

Personnel Recruitment and Training

Information to recruit moderators was distributed to the regional administrative office and to churches and mosques. Those interested in the exercise had interviews with the principal researcher so she was able to select the right people for the work. There

were certain qualities desired. A moderator needed to have a skill in leadership, to be knowledgeable and diplomatic, to have the ability to organize and control a group, and to be tolerant. The first phase of the field work was explorative, as earlier indicated. Thus the goal was to learn something new from participants. It was then important to let participants speak for themselves what they knew, felt and wanted. For this reason, the moderator had to be non-directive, one who could avoid imposition of what appeared to him/her the most interesting thought (Morgan, 1990). To let participants provide knowledge, opinions and feelings concerning issues of interest, the moderator besides being non- directive, had to be tactful enough to gently draw participants into the discussion, be able to let the discussion assume its own natural course, and direct the discussion diplomatically while maintaining an authoritative and non-judgmental position (Stewart et al., 1990). Because of these special qualities for moderators, an effort was made to recruit people who were knowledgeable in the theme for research, those who were used to talking with people, those who commanded credibility. Two moderators were selected for each region. One was for urban areas, the other for rural areas.

Training

The moderators selected to lead the discussions were trained to moderate using interviewers as participants of the focus discussion group.

Pretesting

For the focus group discussion, four groups, two from urban and two from rural areas were used for pretesting the guide questions. Each urban population of the two regions and each rural population from each of the two regions was represented.

Pretesting of the guide questions was necessary for the purpose of ensuring clarity, relevance and simplicity of the questions. It also provided further training for the moderators to become more acquainted with the guide questions. The findings from the pretesting experience facilitated the improvement of the interview schedule in combination with the information obtained from phase one of the research, the focus group discussion. Pretesting is said to be effective when it is done to people who are representative of the target group.

The Survey

The method used was the face-to-face personal interview. This method was selected for use in this survey basically because it was the only reliable method to obtain information from respondents, knowing that neither the telephone nor the questionnaire administering methods could work due to the lack of a telephone network or an efficient postage system. Although the method is time consuming and costly to use, it was the only reliable and efficient method at the researcher's disposal.

Instrumentation

For the survey, a fifteen-page interview schedule was prepared for use with each respondent. These were filled in by the interviewers following respondent's responses. The interview schedule can be seen in Appendix C, and its details are provided later in this chapter.

Personnel Recruitment and Training

Recruitment of research personnel began by advertisement which was circulated through churches and mosques and regional and district offices in the two regions. Responses were directed to the regional administrative officers who were the contact persons. Personal interviews were used to screen needed personnel. This method was preferred because it is a better way of obtaining those who are able to express themselves clearly with good command of language and to check on their gestures and appearances. These traits are important in data collection as they communicate the credibility of the interviewers to the people being interviewed. Other criteria used were level of education, age, sex, experience, personality and motivation toward the work.

Two interviewers and one research assistant were selected in each region. Selection of different interviewers for each region was done for two reasons; one was to minimize transport costs, and the second was to get people of the same ethnicity to interview respondents who were unable to speak Kiswahili fluently.

The Training

The purpose of training interviewers was to impart skills to them on how to use the interview schedule and other tools in the field. They also acquired the techniques of the interviewing profession such as properly reading the questions to respondents, creating an environment conducive for productive interviews, probing for more information, and filling in the interview schedule according to what the respondents' responses. The interviewers assumed their roles by behaving like interviewers especially with regard to appearance, gestures and attitudes. They learned their roles as interviewers in the survey training process (Rossi et al., 1983).

The interviewers selected were trained for two days in each region. The training involved presentations on the nature and purpose of the research and their roles as interviewers. There was also a discussion of professional ethics such as confidentiality, anonymity and objectivity. Furthermore, they were given explanations of their role to help respondents to answer questions, how to set the atmosphere for an interview, the importance of following the instructions indicated in the interview schedule; how to read questions to respondents (that is, the tone, pace, and gestures to use); how to record answers, and the importance of cooperation among themselves as well as between them and the local leaders who would guide them from one household to another.

The second stage of training was to take them through the interview schedule, explaining what the questions meant and the intended nature of responses. Interviewers were requested to ask questions concerning the interview schedule for clarification.

The third part of training was to conduct mock interviews (role playing). Each interviewer had to interview three people and was also interviewed three times. These experiences enabled them to acquire the skill of interviewing, to become acquainted with the interview schedule, and to get an idea of the type of questions they should expect from the respondents. Probing was a skill emphasized in the role playing. Critiquing each other's performance in terms of tone, pace, gestures, how they set the environment for each interview and how they recorded the answers enabled each of them to improve his/her performance by the third round of mock interviews. On top of what they learned as interviewers, the research assistants were instructed on how to be assistants to the researcher.

Pretesting

Pretesting of the interview schedule was necessary for the purpose of ensuring clarity, relevance and simplicity of the questions. It was also a further training for the interviewers to become better acquainted with the interview schedule.

Findings from pretesting facilitated the improvement of the interview schedule in combination with the information obtained from phase one of the research, the focus group discussion. Pretesting is said to be effective when it is done to people who are representative of the target group.

Two groups each of ten people were derived from urban areas of the two regions, and two groups each of ten people were obtained from rural areas of the two regions. A

total of forty people were involved in the pretesting, twenty from Pwani region and twenty from Mbeya.

Preparation for Data Collection

Both secondary and primary data were to be collected. The primary data were to be obtained through focus group discussion and the survey. Secondary data were to be obtained from both government and NGOs offices.

Setting the Environment for Field Data Collection

This involved obtaining permission from the heads of the two regions to conduct research there. A letter from the researcher's workplace was sent to the heads of the two research areas to introduce the researcher and indicate the purpose for the research. Thereafter, there was a chain of letters to relay this message from the regional head offices to the districts concerned and to urban authorities, to ward executive officers , to village and mitaa leaders, to hamlets and sub mitaas and to the households. It followed the administrative structure earlier indicated.

Data Collection

In the first phase of the study in which focus group discussion was used, participants were asked to describe the opinion of the community in which they live, pursuant to customs, values, norms, and beliefs regarding the number of children families

preferred to have, whether there was an attempt traditionally to control birth, and who had the upper hand in making decisions on matters regarding childbearing, marriage, bride price, and birth control. Participants also were asked to describe traditional regulations related to fertility, size and inheritance. They were asked to give their opinion on the assumed problem of rapid population growth in their community or other communities they knew of, or in the country generally, as well as signs that signalled the problem. Further, they were asked to give their views on the advantages and disadvantages, if any, of planning for childbearing, spacing children and limiting their number. They were asked to indicate whether they were aware or had knowledge of family planning program, and, if so, how they knew about it, and its importance.

Furthermore, participants were asked to describe marriage procedures in their communities, who decides on the marriage of a couple, the ages at which girls and boys marry, and whether they prefer that such traditions continue. They were also asked to give their opinions on whether women should own property, be employment, and inherit property. Finally, they were asked to give their opinions on what the government and the Family Planning Program should do to help people understand issues of fertility in relation to quality of life to convince/motivate them to plan their family size.

For the phase two survey study, information to be collected was based on the variables identified, categorized as control/intervening variables, the independent variables and dependent variables as can be seen in Figure 3 below.

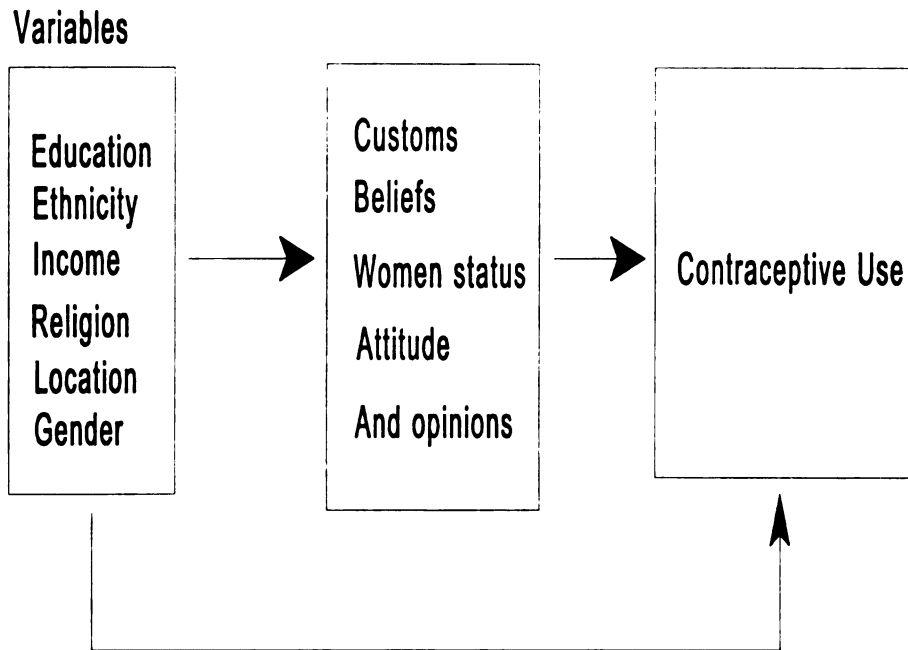


Figure 3: Categories of Factors/Variables on Which Data Were Collected

Information collected on control and intervening variables included years of education of each respondent and spouse; their residential location; their religion and if their religiosity were very strong, moderate or weak; their monthly income recorded in Tanzanian shillings in three categories; and the property they owned recorded in terms of houses, livestock and farms, cars, and businesses.

How close they were to clinics which provide contraceptives and the availability of contraceptives and the clinics' related services were also asked. Further, respondents were asked whether there was a clinic or health center which provides such services in their location, if they get the services and if not, why?

Information on independent variables was collected by asking questions on customs: These centered on variables such as inheritance, sex preference, prestige, old age care and family economy. A Likert scale and closed-ended questions were used in obtaining such information. Concerning beliefs, questions centered on barrenness, contraception and fecundity impairment, marital relationship and religious teachings. Questions used to obtain information on these variables were both open- and closed-ended.

Status of women was measured through educational level, property ownership and financial resources, decision-making participation, employment, and division of labor: Questions asked centered on number of years education of women, employment by wage or self employment. Both open and closed-ended questions on decision-making participation were asked. These questions were directed to issues of decision-making on their marriages, on the number of children to bear, on the use of contraception, and on the use of their income. Property ownership and financial resources centered on collecting information on livestock, houses, farms, and having monetary accounts in banks. The questions used were both open and closed-ended. Likert items were used to collect information on the division of labor between women and men to see who does most of the work.

People's attitudes and opinions on the causes of rapid population growth which affect decisions on contraceptive use were asked through Likert items. The questions were geared to check on people's opinions concerning the impact of their fertility on their

quality of life, the congested state of classes in schools, lack of teaching materials, poor health services, overall poverty in the country, deforestation, changing weather, acute housing problem, fertile land acquisition problems, and overall poor infrastructure.

Modus Operandi for Data Collection.

As hinted earlier, the levels of administrative structure from which the researchers received day-to-day assistance after going through the hierarchical structure from regional to district/urban authority and down to the grassroots were wards, villages/mitaa and hamlets/sub mitaa officials. It was through working closely with these people that the researcher was able to draw a daily schedule for interviews indicating time and a venue for everyday meetings as can be seen in Appendix A.

The appointment for each location, either for focus group discussion or interviews, followed more or less the same procedure. The selected wards, villages/mitaa, hamlets and sub-mitaa were visited to set the date, time and venue for the interview visits in identified households. This procedure was applied everywhere both in Pwani and Mbeya, both in rural and urban areas. A typed copy of the schedule for the visits was given to wards' executive officers to keep them informed on the days their wards were to be visited and which village/mitaa, and hamlets/sub mitaas were involved in their wards for research activities. The interview usually took place from 9 a.m. to 6 p.m., with one hour for lunch break. The interview lasted from 30 to 45 minutes. It was done privately; that is, no other person listened to the conversation. And it was always done at the

respondent's house, either inside the house or outside under a tree within the household compound.

As men and women were involved in the study, the sampled hamlets/sub mitaas were grouped into two categories; those where only women were to be interviewed and those where only men were to be interviewed. The number of respondents interviewed was meant to be proportional. However, in some cases, respondents, despite having information, were not at home. This was especially common in the case of men as will be explained later in this chapter. For the focus group discussion, the venues were always village or mitaa community centers or village primary schools.

Most Saturdays were working days for the interviewers, especially in urban areas in order to access the employed respondents who were expected to be at home on Saturdays. Sundays were spent reviewing completed interview schedules. Both the researcher and the interviewers reviewed the interview schedule forms they had used during the week's interview work.

Time Spent for Preparation.

Preparation for field work and collection of secondary data took about two months. Pretesting, recruiting process, and training of research personnel took about a month. The focus group discussion in phase I of the field work took about two months, and the survey phase II field work took six months, while the data entry took about one month.

Data Collection Experience

The field work had both exciting and disappointing experiences. The exciting part was the educative interaction between interviewers and respondents. This was especially experienced in focus group discussions, as well as in the face-to-face interviews. The new ideas obtained from discussions in the groups and interviews have enriched the researcher's understanding on how traditions work on people's attitudes, thinking, behavior and the way they perceive issues such as fertility and modern contraception.

The disappointing part had to do with the unavailability of some of the respondents, especially men, the employed men. Many of these people were not at home on the scheduled day for the interview, despite information passed on to them, reminders by their local leaders, avoiding visitation on working days, and punctuality of the interviewers at the venues.

Timing of the field research was another problem. Collection of data in Pwani region was done during cultivation and planting season. People were busy in their fields despite careful choices of time for the interview in the day. A change could have been made to do the research in Mbeya, but this was the time when Mbeya was having heavy rainfall, almost throughout day and night from February through April.

Data collection in Mbeya was done at a time when people were harvesting, especially rice. Rice is cultivated in distant places specifically allocated by government for that purpose (Mbalali in Usangu plains). People, therefore, move temporary homes at

the rice fields for over two months for harvesting. This accounted for the absence of most respondents sampled for the interview in Mbeya.

Limitations

Most of the sampled respondents who were absent from their homes could not be followed up due to limitations of time. Making a follow up of absent respondents would have involved making new appointments for visitation and, therefore, spending more time. The costs of transportation were another issue which posed limitations.

Transportation costs have gone up tremendously. Also the poorly maintained roads create places that are not easily accessible despite short distances, causing the car owners to raise hiring costs to cover costs of repair in case the car developed mechanical problems due to bad roads. This limited the ability of the researcher to make second or more visits to sampled households where respondents were not present for the first interview visit.

These two reasons are the contributing factors for not achieving the intended sample size of 1600 and thus lowering it to 1290. However, according to Babbie's estimation of an accepted standard of response rate in a survey research of between 80 and 85 percent, the research's response was in good standing because the response was about 81 percent.

Analysis

The analysis procedure started with obtaining frequencies both in numerical figures and percentages to get an overall picture of the nature of the data. This was followed by factor analysis carried out to extract fewer factors to represent the many items used to collect information on each variable being investigated. The principal component and Oblimin or Equamax methods were applied for extraction and rotation, respectively, to get the factors that represent the rest of the items and the factor loading scores for each factor extracted. Cross- tabulations were run between the factors of each variable (the independent variables) by contraceptive use (the dependent variable); this was run together with the Pearson chi square test to obtain results of the association of the variables. The last stage of analysis was the logit regression which indicated the most important variables that have influence on contraceptive use.

CHAPTER FOUR

DESCRIPTION AND ANALYSIS OF CONTROL FACTORS

Introduction

The data analyzed were derived from a sample of 1290 respondents, both males and females, in two regions, Pwani and Mbeya, wherein two ethnic groups, the Wazaramo and the Wanyakyusa, respectively, were involved. Further, the sample was derived from both rural and urban areas within the regions.

The purpose for the above-mentioned considerations was to obtain a sample constituting such stated characteristics for analysis. As has been explained earlier, cultural factors are among many other underlying factors that determine contraceptive use and, hence, fertility. Among these other factors are education, location (rural and urban), religion, gender, ethnicity, and income. When analyzing the effects of cultural factors on contraceptive use, these factors have to be held constant or controlled; hence, the importance of collecting data from a sample that varies based on these characteristics.

The Sample Characteristics

The characteristics of the sample to be briefly discussed here are education, ethnicity, religion, income, location and gender. The presentation of the description of the characteristics is as follows.

Ethnicity

The two ethnic groups involved in the study were the Wazaramo of Pwani and the Wanyakyusa of Mbeya. The ethnic groups differ in that the Wazaramo are a matrilineal society, while the Wanyakyusa are patrilineal and highly patriarchal as was indicated earlier in Chapter One. All of the Wazaramo (53.9 percent of the sample) live in Pwani; all of the Wanyakyusa (46.1 percent of the sample) live in Mbeya.

Location

This refers to rural and urban areas. The urban areas selected for the study were the headquarters of the two regions, Pwani and Mbeya. Comparing the sizes of the two regional headquarters selected for the study, Mbeya is far bigger than Tumbi, the headquarters of Pwani region. The population of Mbeya urban area was around 150,000 people in the 1988 census, while Tumbi was around 45,000 people. Most of the villages in Mbeya and Pwani regions which were selected for the study were not very far from passable roads.

Information on location was collected through the process of sampling. The sample was designed in such a way as to draw half of its population from urban areas and the other half from rural areas. Further, the interview schedule required the interviewer to indicate on each respondent's information form his or her locale, street or village, district and town along with the respondent's name. The purpose for obtaining Wazaramo and Wanyakyusa respondents from both the rural and urban areas was to see whether location has an effect on these ethnic groups in terms of their attitudes, opinions and behavior towards contraceptive use. Table 4.1 below shows the percentage of respondents by their location and ethnicity.

Table 4.1: Respondents by Location and Ethnicity

Location	Ethnicity		Total %
	Wazaramo	Wanyakyusa	
Rural	48.8	50.8	49.7
Urban	51.2	49.2	50.3
Total	53.9	46.1	100.0 n=1290

Gender

Information on gender was obtained through a sampling procedure, an interview schedule, designed to collect information from both male and female respondents and

requiring interviewers to indicate the sex of each respondent. It was intended to draw half of the sample as females and the other half as males.

The purpose of obtaining respondents by gender from the ethnic groups was to determine differences in terms of behavior towards contraceptive use by ethnicity and gender in order to infer whether status of women has any influence on the use of contraceptives. The two ethnic groups differed in terms of cultural structure. The Wazaramo are a matrilineal society wherein women have rights to inherit and to participate in decision-making in matters that concern the family, implying that Wazaramo women have some higher status in society than Wanyakyusa women. The Wanyakyusa are a patrilineal society, and inheritance is only by males. Table 4.2 below shows the respondents by gender and ethnicity.

Table 4.2: Respondents by Ethnicity and Gender

Ethnicity	Gender		Total
	Males	Females	
Wazaramo	37.7	62.3	53.9
Wanyakyusa	47.1	52.9	46.1
Total %	42.0	58.0	100.0 n=1290

The frequency results indicate that females were 58 percent of the sample, while males were 42 percent, as indicated in Table 4.2 above.

Education

Information on education was collected through asking respondents the years of formal education they had completed. About 30 percent of the sample has no formal education, 24.7 percent has less than seven years of education, 37.8 percent has seven years of formal education, while 7.3 percent has over seven years of formal education. Table 4.3 below shows this.

Table 4.3: Respondents by Regions, Ethnicity, and Education

Education Categories	Pwani (Wazaramo)	Mbeya (Wanyakyusa)	Total
0 years	39.4	19.3	30.2
Less than 7 years	21.7	28.2	24.7
7 years	34.0	42.4	37.8
Over 7 years	4.9	10.1	7.3
Total	53.9	46.1	100.0 n=1290

Comparing the two regions (Pwani and Mbeya) in the table, there is a difference in education between the two ethnic groups. The Wanyakyusa ethnic group in general has more years of education than do the Wazaramo. Likewise, more Wanyakyusa have education than do Wazaramo.

Education was also cross-tabulated by region/ethnicity and gender. Considering differences based on gender, results showed that both the Wanyakyusa women and men

have more education than the Wazaramo women and men in terms of number of years and levels, as can be seen in Table 4.4 below.

Table 4.4: Education by Region, Ethnicity and Gender

Education	Regions				Total	
	Pwani (Wazaramo)		Mbeya (Wanyakyusa)		Males	Females
	Males	Females	Males	Females		
0 years of education	27.1	46.9	12.1	25.7	19.4	38.0
Less than 7 years of education	30.9	16.2	32.1	24.8	31.5	19.8
7 years of education	33.2	34.4	38.9	45.4	36.2	39.0
Over 7 years of education	8.8	2.5	16.8	4.1	12.9	3.2
Total	48.3	57.9	51.7	42.1	100.0 n=542	100.0 n=748

Information was also collected on the auspices of the schools attended by the respondents (private, public, religious) and on type of schools attended (day, boarding). The type of respondents sampled (women and men of child bearing age) had gone to school at a time when most of these schools were publicly-owned; therefore, those who indicated having attended private schools were only 1.3 percent, while those who had

attended boarding schools were only 6.2 percent and those who indicated having attended religious schools were 3.1 percent. Because of the small number of respondents on these factors, the information could not be used for analysis.

Income

Income is said to affect both demand for and supply of children (Becker 1969; Easterlin 1966, 1980). It is argued that as income increases, couples tend to think of quality of children as their life style changes towards a more affluent type; hence, the preference for a few children and, therefore, the tendency to practice contraception as described at length in Chapter Two.

Information on income was collected by asking what individual respondents earn on a monthly basis. About 90 percent of Wazaramo people earn Tshs 30,000 or less while the Wanyakyusa in this group were about 76 percent. Comparatively therefore the figures show that the Wanyakyusa earn more than the Wazaramo as displayed in Table 4.5 below.

Table 4.5: Respondents by Ethnicity and Income and Gender

Income Categories	Pwani (Wazaramo)		Mbeya (Wanyakyusa)		Total	
	Male	Female	Male	Female	Male	Female
Up to Tshs 30,000	54.3	59.3	45.7	40.7	72.3	90.9
Tshs 30,000-60,000	28.6	38.7	71.4	61.3	25.6	8.6
Tshs 60,001-90,000	54.5	25.0	45.5	75.0	2.1	0.6
Total	47.7	57.4	52.3	42.6	100.0 n=520	100.0 n=725

Respondents were also asked about their spouse's income; the frequencies for this was as follows:

Table 4.6: Respondents by Spouse's Income, Gender and Ethnicity

Income	Pwani (Wazaramo)		Mbeya (Wanyakyusa)		Total	
	Male	Female	Male	Female	Male	Female
Up to Tshs 30,000	58.0	46.3	42.0	53.7	57.1	90.6
Tshs 30,001-60,000	51.9	24.4	48.1	75.6	39.3	9.0
Tshs 60,001-90,000	52.6	0.0	47.4	100.0	3.5	0.2
Tshs Over 90,000	0.0	100.0	100.0	0.0	0.2	0.2
Total	55.3	44.3	44.7	55.7	100.0 n=458	100.0 n=550

The responses on spouse's income also indicate the majority, about 72 percent, earn Tsh 30,000 or less. Only 0.2 percent earn over Tshs 90,000, while two percent earn between Tshs 60,000 and Tshs 90,000, and the remaining 25 percent earn between Tshs 30,000 and Tshs 60,000.

Respondents also reported how many they owned of each of several types of animals. Wealth from animals owned by respondents was estimated by calculating the estimated price for each type of animal and was presented in terms of money. The estimated frequencies in percent were as follows:

Table 4.7: Respondents by Ethnicity, Gender, and Animal Wealth

Income Categories in Tshs	Pwani (Wazaramo)		Mbeya (Wanyakyusa)		Total	
	Male	Female	Male	Female	Male	Female
0	78.1	70.4	21.9	29.6	64.5	75.8
1-30,000	47.4	30.8	52.6	69.2	8.7	5.4
30,001-60,000	25.0	9.7	75.0	90.3	2.7	4.3
60,001-90,000	0.0	0.0	100.0	100.0	3.0	1.1
90001-120000	11.1	6.9	88.9	93.1	4.1	4.0
Over 120,000	0.0	10.1	100.0	89.9	17.1	9.5
Total	55.6	70.5	44.4	43.3	100.0 n=439	100.0 n=727

The frequency results on animal income show generally that the majority of the Wazaramo, both males and females (78 and 70 percent, respectively), do not own

animals. Furthermore, the Wanyakyusa, both men and women own animals worth between Tshs 90.000 and 120.000. Therefore, the Wanyakyusa have more livestock than the Wazaramo.

Respondents were further asked about other property they owned, such as houses, farms, vehicles and businesses like companies. The response frequencies in percent are as follows.

Table 4.8: Response by Property Owned, Ethnicity, and Gender

Number of Properties	Pwani (Wazaramo)		Mbeya (Wanyakyusa)		Total	
	Male	Female	Male	Female	Male	Female
0 (no property)	64.7	60.1	35.3	39.9	7.9	21.8
1 (farm)	67.0	65.9	33.0	34.1	24.5	24.3
2 (farm and house)	52.1	51.7	47.9	48.3	66.7	53.1
3 (farm, house and vehicle)	0.0	16.7	100.0	83.3	0.9	0.8
Total	56.3	56.7	43.8	43.3	100.0 n=432	100.0 n=725

The frequency results indicate that the majority of those who do not own any type of property are the Wazaramo, both men and women, with 67 and 65.9 percent,

respectively. The majority of those who own all three types of properties (house, farm, and vehicles), are the Wanyakyusa, as can be seen in the table above.

An index including all the four income and wealth variables was computed. A correlation was computed with respondents income, and their correlation level was very low, 0.132. An index was then used in a bivariate analysis and a logistic regression. However, the results indicated that it was not significantly related to contraceptive use either in bivariate analysis with a significance level of 0.454 or in multivariate analysis with a significance level of 0.709. Therefore, respondents' income, which is cash income, was retained as an indicator of socio-economic status. It has to be noted, therefore, that the income variable which was used as a control factor was obtained from the respondents' cash income due to the circumstances explained above.

Religion

Religious teachings influence followers' attitudes, opinions and behaviors (Caldwell & Caldwell 1994; Alphonso, Layo, & Bulatao, 1980). Two religions, Islam and Catholicism, are said to have pro-natalistic teachings. Such teachings would be expected to influence their affiliates to refrain from contraception.

Information on this factor was collected through asking respondents their religious affiliations. About three percent of the sample were traditional religion affiliates, 7.4 percent were Catholics, 3.6 were Born Again, 52.4 percent were Muslims, 30.1 percent were Protestants, and 3.6 percent were Seventh Day Adventist (SDA).

Comparing the two regions, Pwani of the Wazaramo ethnic group and Mbeya of the Wanyakyusa ethnic group, the Muslims are 98.2 percent Wazaramo, while the Protestants are 98.7 percent Wanyakyusa. Similarly, it can be said that the Wazaramo are mostly Muslims (95.7 percent) while the Wanyakyusa are mostly Christians (80.8 percent), as can be seen in Table 4.9 below.

Table 4.9: Respondents by Regions, Ethnicity and Religion

Categories		Regions		Total in %
		Pwani (Wazaramo)	Mbeya (Wanyakyusa)	
Religion	Traditional	0.1	6.6	3.0
	Catholics	3.3	12.9	7.6
	Born Again	0.0	8.2	3.7
	Muslims	95.7	1.7	53.7
	Protestants	0.9	67.9	30.8
	SDA	0.0	2.7	1.2
	Total	54.1	45.9	100.0 n=1250

In addition, other information on religiosity was collected. The type of information obtained was on the current interest in religion asked in item q16, the

frequency of going to church or mosque asked through item q17, and the frequency of their engagement in religious activities asked through items q18 a, b, and c. The responses to these questions were as follows.

On current interest in religion (q16), the responses can be seen in Table 4.10 below.

Table 4.10: Respondents' Current Interest in Religion by Ethnicity and Gender

Interest in Religion	Pwani (Wazaramo)		Mbeya (Wanyakyusa)		Total	
	Male	Female	Male	Female	Male	Female
Not interested	75.5	93.0	24.5	7.0	9.9	15.3
Slightly interested	78.9	78.7	21.1	21.3	7.1	12.7
Moderately interested	34.3	54.1	65.7	45.9	19.1	24.4
Very interested	46.0	43.8	54.0	56.2	63.9	47.6
Total	49.1	58.3	50.9	41.7	100.0 n=534	100.0 n=743

The frequency results indicate that 54.4 percent of the respondents were very interested in their religions, 22.2 percent were moderately interested, 10.3 percent were slightly interested and 13.1 percent were not interested.

On the frequency of going to church or mosque in item q17, the results can be seen in Table 4.11 below.

Table 4.11: Respondents Response to the Question on How Many Times They Go to Church or Mosque by Ethnicity and Gender

Frequency of Going to Church or Mosque	Pwani (Wazaramo)		Mbeya (Wanyakyusa)		Total	
	Male	Female	Male	Female	Male	Female
Do not go to church or mosque	68.4	87.3	31.6	12.7	15.3	19.5
Rarely go to church or mosque	83.3	96.7	16.7	3.3	1.2	4.1
Go to church or mosque once a month	64.3	80.8	35.7	19.2	5.4	7.1
Go to church or mosque once a week	33.9	54.4	66.1	45.6	43.2	39.4
Go to church or mosque over once a week	50.2	32.3	49.8	67.7	34.2	29.8
Total	48.5	57.8	51.5	42.2	100.0 n=517	100.0 n=728

The response frequency indicate that the majority, about 73 percent, go to church or mosque at least once in a week. Those who do not attend represent 17.8 percent of the sample, 6.4 attend once a month and 2.9 rarely go.

Results of item q18a on how often respondents read the Bible or Koran, are seen in Table 4.12 below.

Table 4.12: Responses to the Item on How Often They Read the Bible or Koran by

Ethnicity and Gender

How Often They Read the Bible or Koran.	Pwani (Wazaramo)		Mbeya (Wanyakyusa)		Total	
	Male	Female	Male	Female	Male	Female
Don't read	79.0	75.7	21.0	24.3	39.0	62.4
Rarely read (twice in a week)	41.1	30.5	58.9	69.5	17.1	14.4
Often read (up to 5 times a week)	34.0	48.6	66.0	51.4	9.5	9.6
Every day	25.6	16.0	74.4	84.0	34.3	13.7
Total	49.9	58.4	50.1	41.6	100.0 n=525	100.0 n=731

The results indicated that about 53 percent of the respondents don't read the Bible or Koran. About 22 indicated they read everyday, 15.5 percent rarely read and 9.6 percent often read.

On praying, item 18b, results are indicated in Table 4.13 below.

Table 4.13: Responses on Praying by Ethnicity and Gender

How Often They Pray	Pwani (Wazaramo)		Mbeya (Wanyakyusa)		Total	
	Male	Female	Male	Female	Male	Female
Don't pray	75.3	84.5	24.7	15.5	14.0	25.6
Rarely pray (twice a week)	65.8	66.9	34.2	33.1	14.0	17.8
Pray everyday	44.1	68.2	55.9	31.8	11.3	15.1
Often pray (up to five times a day)	40.6	35.3	59.4	64.7	60.6	41.5
Total	49.4	58.5	50.6	41.5	100.0 n=520	100.0 n=730

The results indicate that about 49 percent of the respondents pray everyday, about 21 percent don't pray at all, 16.2 rarely pray, and 13.5 often pray.

On church or mosque religious activities asked through q18c, the results can be seen in Table 4.14

Table 4.14: Responses on Participation on Church or Mosque Voluntary Activities by Ethnicity and Gender

Participation in Religious Activities	Pwani (Wazaramo)		Mbeya (Wanyakyusa)		Total	
	Male	Female	Male	Female	Male	Female
Don't participate	63.6	76.1	36.4	23.9	19.1	28.6
Sometimes they participate	56.2	61.6	43.8	38.4	31.3	37.8
Participate often	40.2	37.1	59.8	62.9	49.5	33.5
Total	49.7	57.5	50.3	42.5	100.0 n=517	100.0 n=716

The results indicate that about 40 percent of the respondents often participate in church or mosque voluntary activities. About 25 percent don't participate at all, and 35.1 percent participate sometimes.

It should be noted that in this study, religiosity data was not used in the analysis. It is religious self-identification data which was used. The importance of using religiosity to show believers' attitudinal and behavioral differences is recognized. However, it was felt that the data for religiosity was not properly collected, and therefore, was not used.

Contraceptive Use

The concern in this study is the low use of contraceptives as mentioned earlier in Chapters One and Two. Knowledge about methods and awareness of a source of contraceptives are high in Tanzania, yet use of contraceptives is low as TDHS (1993) and

Beegle (1994) have shown. Respondents were asked to indicate whether they have ever used any method of birth control, either traditional or modern. They were, required to answer either yes or no.

As indicated in Chapter One, the TDHS report of 1993 showed that only 23 percent use contraceptives despite a 79.8 percent incidence of knowledge about any contraceptive method and a 77.1 percent incidence of knowledge about a source of contraceptives. This study recorded that 40.6 percent of the sample have ever used a contraceptive method, and 59.4 percent have never used a birth control method.

The difference in the results of this study from the TDHS study which was done in 1991 in Tanzania could be explained by the fact that the intensive campaign to use condoms to prevent HIV infection might be succeeding and, therefore, has raised the percentage of use of contraceptives in the last five years from 1991 when TDHS survey was conducted to 1996 when these data were collected. The issue here is whether to decide to use condoms for health safety or to stick to one's beliefs and risk life. The possible answer is that people have opted to use condoms to safeguard their lives by preventing the possibility of being infected by HIV. Even though the purpose of using the condom might have been avoiding a sexually transmitted disease, the respondent might, nevertheless, report it as the use of birth control.

A comparison made on the average use percentage of the popular contraceptive methods (condom, the pill, IUD, traditional, and rhythm) in the two regions during the period 1991/1992 when the TDHS carried out their survey and 1996 when this study was

done indicates that condom use has increased by 5.2 times, from 3.6 percent use in 1991 to 18.6 percent use in 1996. This is followed by the pill method which has increased 2.1 times from 10.8 percent use in 1991 to 22.2 percent use in 1996; while the rest of the methods increased at around one time or below one, except for traditional and rhythm methods which show a decline, probably due to the difficulties in using them thus proving them unreliable, and possibly because of the availability of more reliable and easier to use methods, as indicated in table 4.15 below. However, the doubling of use of the pill from 1991 to 1996 has nothing to do with AIDS prevention.

Table 4.15: Percentage Use Increase of the Popularly Used Birth Control Methods in Pwani and Mbeya Between 1991/92 and 1996

Contraceptive Method	TDHS 1991/1992	1996 study
	Average % Use -Pwani & Mbeya	Average % Use- Pwani & Mbeya
Condom	3.6	18.6
Pill	10.8	22.2
IUD	1.2	1.8
Traditional	13.6	1.2
Rhythm	6.5	4.2

Non- Response to Contraceptive Use Question

Those who did not respond to the question on contraceptive use were 130. These are primarily Wazaramo, who are about 82 percent, and Muslims (76.9). The females are about 56 percent while those who stay in rural areas are 59.2 percent. The majority of this

group, about 83 percent, earn an income of Tshs. 30,000 or less and about 63 percent have less than 7 years of education as can be seen in the Table 16 below.

Table 4.16: Respondents Who Did Not Answer the Question on Contraception

Characteristics	Count	% of non-respondents	Total sample
Ethnicity			
Wazaramo	106	81.5	53.9
Wanyakyusa	24	18.5	46.1
Location			
Rural	77	59.2	49.7
Urban	53	40.8	50.3
Gender			
Males	57	43.8	42.0
Females	73	56.2	58.0
Education			
0 years	45	34.6	30.2
Less than 7 years	37	28.5	24.7
7 years	42	32.3	37.8
Over 7 years	4	4.6	7.3
Religion			
Catholics	8	6.2	7.4
Born Again	3	2.3	3.6
Muslims	100	76.9	52.4
Protestants	19	14.6	30.1
Income (Tshs)			
Up to Tshs 30,000	107	87.7	83.1
Tshs 30,001-60,000	12	9.8	22.9
Tshs 60,001-90,000	3	2.5	1.4

As explained above, the majority (82 percent) of those who did not answer the question are the Wazaramo. The group is also mainly Muslims (80 percent) as indicated Table 4.16 above. Female non-respondents were not different from the total sample. These results are contrary to expectation because the Wazaramo in the focus group discussion were more open and willing to discuss their contraception practice than the Wanyakyusa. Yet they are the ones who constitute the majority of respondents who did not answer the contraception question. The possible reason could be religious influence as indicated earlier. Since Islam is against contraception, Muslims respondents would be reluctant to report a behavior which violated their religious doctrines.

The Analysis

The procedure for analysis of the relationship between control factors and contraceptive use included frequency percentages, factor analysis, bivariate analysis which involved cross-tabulation and testing for significance of association, and logistic regression. As the interest is on non-use of contraceptives, discussion is based on the results in percentages of non-use of contraceptives. The details of each of the procedures follows.

Frequencies

The frequencies were run first for purposes of obtaining general knowledge about the response trend and to provide the first impression of the results. Percentages are used to present the frequency results.

Factor Analysis

The second stage was the factor analysis. This was used for purposes of extracting a few factors from a set of items used to collect information on a variable. According to Kim and Muller (1978), factor analysis refers to statistical techniques whose objective is to represent a set of variables in a small number of hypothetical variables or factors. The unobservable variables (hypothetical) are thus identified and constructed by statistically combining directly observable independent items (variables) that are correlated. The idea is that these independent variables are correlated because they share a set of underlying common factors.

There are two approaches to factor analysis. One is exploratory factor analysis which assesses data to find the minimum number of factors which can explain observed correlations, and no attempt is made to specify the underlying structure within the data set. It simply helps to see how the observed variables load and then uses a certain degree of subjective judgment to determine if the factors are relevant.

The second is confirmatory factor analysis which aims at testing the common factors extracted and calculating their loading scores. The procedure for factor analysis

begins with testing the correlation among the items used in the field to warrant a factor analysis. This is indicated by the Barlett's test of sphericity. A value of 0.000 indicated by the test means a best fit combination of the items. If they are correlated, factor extraction automatically takes place. This is done either through the principal component or unweighted or weighted least squares or the maximum likelihood. Either Kaiser or Eigenvalue is provided which, as a rule of thumb, has to be one or greater than one.

From this stage, a rotation is automatically run depending on which type of rotation method is indicated. It could be a quartimax, varimax, equamax, or oblimin. Rotation then produces a rotated factor matrix which is reviewed to calculate loading scores for each of the items used. As Kim and Muller (1978) have indicated, the matrix transformation does not alter in any way the amount of covariance explained by the factors or change the goodness of fit for the factor structure to the sample data set. Rotation just simplifies the results of the analysis by clarifying the relationships between the factors and individual variables. This stage thus simplifies the interpretation of the factors as loading scores are produced and calculations are enabled to obtain values for each factor.

For beginners, Kim and Muller (1978) advise using the commonly available methods of rotation such as varimax if orthogonal rotation is sought or direct oblimin if oblique rotation is used.

This study used the second type of factor analysis. The Barlett's test of sphericity was used to check on the significance of the item correlation, the principal component

method for extraction of the factors, and the direct oblimin method for rotation. In two cases, the equamax rotation was used.

The results of the calculated loadings for each of the items are used to indicate the relationship of each to the extracted factor; only those with high loadings are picked to calculate values for each of the factors. The procedure used to obtain the value from the loading scores is computing the values of each item, (that is, the value of the original observed independent variables where factor scores coefficients are generated in the rotation process) times its loading score, plus each of all the items that have higher loading scores for each factor. The summation of all these scores of items and the values of original observed variables create the factor's values. The computed values for these factors are then recoded into their original categories for purposes of presentation and bivariate analysis.

Bivariate Analysis

The third stage of analysis is the bivariate. This involved cross-tabulation of the dependent variable by the independent variables. The second stage was to cross-tabulate the dependent variable with the independent variables while controlling or holding constant exogenous variables which include education, ethnicity, location, gender, religion, and income. For each stage of this process, a Pearsons chi square test was run to see the significance of the association of the variables. The significance criterion level

was set at 0.100 for all the tests. These first three processes of analysis were done to all the variables which were under study.

Logistic Regression

This model was used for identifying the variables that were likely to have an effect on the dependent variable. This helped to affirm and complement the findings of the bivariate analysis with the Pearsons chi square test.

Logistic regression was selected for use in this analysis instead of least square regression because it is specifically a model for analyzing relationships whose dependent variable is dichotomous. The model uses the maximum likelihood estimator which predicts what set of parameters would most likely generate the observed data and eventually calculates the parameters. The maximum likelihood estimator is a good predictor in the sense that it is consistent and efficient (Norusis, 1993).

Logistic regression, however, has its shortcomings. It is said to be susceptible to mis-specification errors; for example, an irrelevant independent variable can be entered in the model, or an explanatory variable can be omitted. Such an error can, consequently, lead to an unexpected result. It was, therefore, deemed necessary to complement it with the factor analysis and bivariate analysis with the Pearsons chi square test.

The logistic regression was run in groups of variables under each research question to affirm the results of the bivariate analysis and to complement the factor

analysis and bivariate analysis in the process of trying to get valid results. The significance criterion level for the regression results was set at 0.10.

The Questions to Be Answered in the Analysis

Three research questions were to be answered in this study. They are as follows:

- .what effects do customs and beliefs have on contraceptive use?
- .what is the effect of women's status on contraceptive use?
- .what effects do attitudes and opinions about rapid population growth have on the decision to use contraceptives?

As explained earlier, cultural factors whose effects on contraceptive use were being investigated are not the only factors that have an effect on the use of contraceptives. Education, ethnicity, location, religion, gender, and income are believed also to have an effect on contraceptive use. To find out the effect of cultural factors on contraceptive use, these exogenous factors had to be held constant or controlled. However, before these control factors were used in the analysis, it was necessary to find the significance of their association with contraceptive use so that they can be used as controls in the analysis of the effects of the independent variables (the cultural factors) on the dependent variable (contraceptive use) in the study.

The Control (Exogenous) Factors

Ethnicity

The two regions involved in the study, Pwani and Mbeya, represent the two ethnic groups studied, the Wazaramo in Pwani and the Wanyakyusa in Mbeya. As indicated earlier, the Wazaramo are a matrilineal society wherein inheritance is in the line of the mother, while the Wanyakyusa are a patrilineal and strongly patriarchal society and inheritance follows the line of the father; hence the interest to have such different ethnic groups for comparison purposes.

Literature has indicated that women with some status in society are more likely to make decisions on their fertility. These are the women who are more likely to use contraceptives than women who have no control of their fertility (Basu, 1992; Mason, 1985). This is likely to be so because a woman who makes decisions is empowered with some rights and, therefore, can decide to do what she deems right for her, including making decisions to control her fertility for purposes of spacing and/or limiting the number of children she bears by use of contraceptives. The women among the Wazaramo ethnic group are said to have higher status (Swantz, 1976) compared to women in patrilineal societies such as the Wanyakyusa (Meyers, 1993). It is, therefore, expected that this study will witness a higher percentage of non-use of contraceptives among the Wanyakyusa than in the Wazaramo.

When contraception was cross-tabulated by ethnicity, the results indicated a higher percentage of non-use of contraception among the Wanyakyusa ethnic group (66.9

percent) compared to the Pwani Wazaramo who recorded a 52.1 percent non-use of contraceptives. The Pearsons chi square test indicated a significance level of 0.000 as can be seen in Table 4.17 below.

Table 4.17: Contraception by Ethnicity

Ethnic Groups	Contraception in %		Total
	Don't use	Use	
Wazaramo of Pwani	52.1	47.9	50.8
Wanyakyusa of Mbeya	66.9	33.1	49.2
Total	59.4	40.6	100.0 n=1160
Significance p=0.000			

The results show a difference between the two ethnic groups in terms of non-use of contraceptives. The Wanyakyusa seem not to be using contraceptives as much as the Wazaramo are, as shown above. This shows that ethnicity has an effect on contraceptive use. The results are similar to the findings in the 1993 TDHS report and the 1994 population census of Tanzania analytical report which showed higher use of both traditional and modern contraceptives among the Wazaramo of Pwani than among the Wanyakyusa of Mbeya.

Location

Location refers to rural and urban respondents . Literature has indicated that an urban population tends to use more contraceptives than a rural population. This has to do with the pressures of living which the urban population encounters, erosion of traditional norms and values, and the absence of kinship forces as their kin members may be too far away to exert pressure. The tendency for the urban population is, therefore, to adopt a conscious choice for family size and, hence, the concept of numeracy in children (Notestein 1973; Coale 1973; Van de Walle 1992).

Location becomes an issue in this study because the literature has always indicated differentials in fertility behavior between rural and urban populations. The urban areas in Tanzania have been seen to have lower fertility levels compared to the rural population (Tanzania Census, 1988). The explanation for such differences is that the urban population faces pressures and high demands including high costs of living. Such a life obliges couples, or individuals with their partners, to control their fertility to cope with the type of life they lead. On the other hand, the rural family economy demands more children to participate in family income-generating activities. Hence, in rural areas many children are economically viable. Therefore, rural areas tend to have higher fertility levels than urban areas, as detailed in Chapter One (Notestein, 1973; Caldwell, Arubuloye, & Caldwell, 1992).

When contraception was cross-tabulated by location, the results showed a slight difference in percentage of non-use of contraceptives between rural and urban

respondents. The rural respondents' percentage among the Wazaramo is 52.0 percent non-use of contraceptives, while the Wazaramo urban respondents indicated a 52.2 percent non-use of contraception. The Wanyakyusa on the other hand recorded 70.3 percent non-use of contraceptives and the Wanyakyusa urban respondents recorded 63.3 percent non-use of contraceptives. The Pearsons chi square test indicated a significance of 0.516 as can be seen in Table 4.18 below.

Table 4.18: Contraception by Location and Ethnicity

Location	Contraception in %		Total %	
	Wazaramo (Don't use)	Wanyakyusa (Don't use)		
Rural	52.0	70.3	46.0	51.3
Urban	52.2	63.3	54.0	48.7
Total	52.1	66.9	100.0 n=589	100.0 n=571
Significance p=0.516				

The results indicate no significant association between the variables despite various literature indicating differences in fertility practices between rural and urban populations.

Gender

Women are said to be concerned with fertility issues more than men. This is because women are the ones who bear and take care of children, and their reproductive health is affected by uncontrolled fertility. Yet, it is men who make the decisions about women's fertility (Sen, 1994). Despite men making the decision on women's fertility, it is believed that women are more involved in contraception than men. The interest is, therefore, to see if this is true among the ethnic groups under study.

The literature indicates more willingness by females to practice contraception than males (Caldwell, Arubuloye, & Caldwell, 1992). It was deemed necessary in this study, therefore, to include data from a sample composed of both males and females so as to understand more the two groups' behavioral tendencies towards contraceptive use. When contraception was cross-tabulated by gender, the results indicated a 46.9 percent non-use of contraceptives among males Wazaramo and 55.1 percent non-use among the female Wazaramo. The male Wanyakyusa recorded a 71.3 percent non-use of contraceptives while the female Wanyakyusa recorded 62.9 percent non-use of contraceptives. The Wazaramo males show higher contraceptive use than the females while among the Wanyakyusa, more men don't use contraceptives compared to men. A significance level of 0.473 was observed as per Pearson's chi square tests as can be seen in Table 4.19 below.

Table 4.19: Contraception by Gender and Ethnicity

Gender	Contraception in %		Total %	
	Wazaramo (Don't use)	Wanyakyusa (Don't use)	Wazaramo	Wanyakyusa
Males	46.9	71.3	36.2	47.6
Females	55.1	62.9	63.8	52.4
Total	52.1	66.9	100.0 n=589	100.0 n=571
Significance p=0.473				

The factor has no significant association with the dependent variable.

Education

Education has been presented in literature as one of the major catalysts for use of contraceptives for purposes of spacing and limiting the number of children (Caldwell, 1980). The factor is, therefore, believed to have an effect on contraceptive use.

When contraception was cross-tabulated by education, the Wazaramo who have no formal education recorded higher percentage of non-use of contraceptives than any to the groups with 61.2 percent. And among the Wanyakyusa, the group with no formal education, recorded scores higher than that of the similar group among the Wazaramo, with 83 percent. The lowest percentage of non-use of contraceptives was among those with over 7 years of education for both ethnic groups, 32.1 percent among the Wazaramo

and 48.3 percent among the Wanyakyusa. A significance level of 0.000 was observed as per Pearsons chi square test as can be seen in Table 4.20.

Table 4.20: Contraception in Percentages by Years of Education and Ethnicity

Education	Contraception in %		Total %	
	Wazaramo (Don't use)	Wanyakyusa (Don't use)	Wazaramo	Wanyakyusa
0 years of education	61.2	83.0	39.4	19.6
Less than seven years of education	48.4	68.4	21.1	27.7
Seven years of education	46.8	63.1	34.8	42.2
Over seven years of education	32.1	48.3	4.8	10.5
Total	52.1	66.9	100.0 n=589	100.0 n=571
Significance p=0.000				

Education has been shown to influence contraceptive use. This is indicated by the trend of non-use. The percentage of non-use of contraceptives decreases as the number of years of education increases, as Table 4.20 above shows. This shows an inverse relationship; that is, the more the years of formal education one has, the lower the percentage of non-use of contraceptives. This tallies with the literature by Caldwell (1980), Eberstadt (1973), and Mason (1985).

Religion

Religious teachings which are pro-natalistic are expected to influence followers to refrain from using contraceptives as was suggested above. As indicated earlier, Catholicism and Islam are religions which are said to advocate the concept of bearing children as they come because they are gifts from God and to teach that preventing them from coming is a sinful act.

Muslims

Islamic classical religious doctrine on birth control states that limiting reproduction is contrary to the law of God, nature, and human reason. Likewise, abortion after the quickening of the embryo is religiously forbidden and legally punishable (Abdi al Afi, 1977; Al Misri, 1991). Islam advocates marriage and multiplication which is deemed obligatory (Umoja wa vyama vya Kiislam Tanga, 1989). It is said that a call to stop child-bearing is a destructive call. It is forbidden in Islam to prevent pregnancy. The Koran further indicates that Muslims should not kill their children because of poverty; God will always provide for their souls (Al an am as quoted by Al Misri, 1989). To kill them is a big sin (Ban Ismail as quoted by Al Misri, 1989). Both birth control and abortion among Muslims are, therefore, unlawful except when the mother is endangered healthwise or the child to be born will inherit diseases from one or both of the parents.

Catholics

The teachings of the Catholic church are also said to be pro-natalistic. Such teachings can influence its followers negatively towards contraceptive use. The Pontifical Council for Pastoral Assistance to Health states that, "...recourse to contraceptive use practice is illicit,...it is frequently asserted that contraception, if made safe and available to all is a ... remedy against abortion...this objection is clearly unfounded ...pro-abortion culture and contraception are rejected" (1995: p. 18). It is further stated in the *Evangelium vitae* of Pope John Paul II that "...God alone is the Lord of life from beginning until its end, no one can in any circumstances claim for himself the right to destroy directly an innocent human being...Precisely for this reason, God will severely judge every violation of the commandment, you shall not kill..." (1995, p.79). This, it says, is because God has made human life sacred and inviolable.

With such teachings, followers of this religion will hesitate to use contraceptives or to abort in case pregnancy occurred unexpectedly. The Church advocates natural methods only which are considered to be keeping with the meaning of conjugal love which gives direction to the life of the couple, thereby accepting dialogue, reciprocal respect, shared responsibilities and self-control.

Other Religious Groups (Protestants, Seventh Day Adventist Church-SDA, Born Again) and Traditional

As far as these religious groups in Tanzania are concerned, literature was not available which talks about the basic principles of their religion with regard to

contraception. They seem to be silent on this issue, either because they don't see it as an issue of concern or because they have not paid attention to it or both. On the other hand, they might have seen the importance of the issue and paid attention to it, but such concerns have not been documented. As for traditional religious groups, these follow traditional norms and values for children, that is, large families are esteemed.

When contraceptive use was cross-tabulated by religion, results indicated the highest percentage of non-use of contraceptives among the traditional affiliates with 91.9 percent non-use among the Wanyakyusa. These were followed by the Born Again with 74.4 percent non-use. Among the Wazaramo, the group which recorded higher percentage of non-use of contraceptives is Protestants with 60.0 percent. The Wazaramo Muslims recorded lowest among all the groups. And generally it can be said that the percentage non-use of contraceptives is lower among the Wazaramo religious groups compared to the Wanyakyusa religious groups. It can further be said that the effect of religion on contraceptive use among the Wazaramo does not feature as much as is the case among the Wanyakyusa.

It is perhaps worth recalling here that Muslims constituted the majority of the Pwani Wazaramo ethnic group. The results under ethnicity indicated that the Wazaramo showed less non-use of contraceptives when compared to the Wanyakyusa. Further, the Wazaramo are a matrilineal society whose women have some degree of rights to decision making and property ownership. This could have an influence on the results with regard

to Muslims who are predominantly Wazaramo in the sample. A significance of 0.026 was recorded as per Pearsons chi square test as Table 4.21 indicates.

Table 4.21: Contraception by Religious Affiliation and Ethnicity

Type of Religion	Contraception in %		Total %	
	Wazaramo (Don't use)	Wanyakyusa (Don't use)	Wazaramo	Wanyakyusa
Traditional	-	91.9	0.2	6.9
Born Again	-	74.4	-	8.1
Protestants	60.0	64.8	0.9	67.6
Catholics	55.6	65.2	3.1	12.9
SDAs	-	60.0	-	2.8
Muslims	52.1	66.7	95.9	1.7
Total	52.2	67.4	100.0 n=586	100.0 n=534
Significance p=0.026				

The results do not show what the literature talks about. That is, the pattern described in the literature is that Catholics and Muslims are expected to have higher percentage of non-use of contraceptive compared to other religious branches. The overall results, however, indicate significant association of the two variables, implying that

religion as a factor has an influence on contraceptive use. The religious group which recorded highest percentage of non-use of contraceptives is the traditional religious group, followed by the Born Again and Protestants. Catholics and the Muslims follow fourth and sixth, respectively. This shows how much cultural norms and values of the ethnic groups have influence on the practice of contraception.

A further cross-tabulation was run on ethnicity, religion, and contraceptive use. The results showed that the Wanyakyusa religious groups have higher percentages of non-use of contraceptives compared to the same religious groups among the Wazaramo. Five religious groups, Catholics, Traditionalists, Born Again, Protestants and SDA, are more likely not to contracept among the Wanyakyusa than among the Wazaramo. The Wanyakyusa Catholics, for example, recorded 65.2 percent non-use compared to the Wazaramo Catholics with 55.6 percent; the Wanyakyusa Muslims recorded 66.7 percent, while the Wazaramo Muslims recorded 52.1 percent; and the Wanyakyusa Protestants recorded 64.8 percent, while the Wazaramo Protestants recorded 60.0 percent, as Table 4.22 below indicates.

Table 4.22: Contraception by Ethnicity and Religion

Religion	Ethnicity		
	Wazaramo	Wanyakyusa	Total (Don't use)
	contraception in % (Don't use)	Contraception in % (Don't use)	
Traditional	0.0	89.5	89.5
Born again	--	74.4	74.4
Protestant	60.0	64.8	64.8
Catholics	55.6	65.2	63.2
SDA	0.0	60.0	60.0
Muslims	52.1	66.7	52.4

Income.

Easterlin (1966, 1980) and Becker (1960) say that income makes people buy more commodities to better their lives, and they think about quality for children rather than quantity of children. It is, therefore, expected that people with higher incomes tend to contracept much more than those with lower incomes.

When contraception was cross-tabulated by income, the results indicated a higher percentage of non-use of contraceptives among those who earn less than Tshs 30,000 for both the Wazaramo, with 53.8 percent and the Wanyakyusa with 70.5 percent. Those who earn between Tshs 30,001 - 60,000 recorded the lowest percentage of non-use. A significance level of 0.013 was observed, as Table 4.23 shows below.

The higher percentage of non-use by those who earn over Tshs 60,000 compared to those who earn between Tshs 30,000-60,000 could possibly be a result of the small number of respondents on the group which earn Tshs between 30,000-60,000. This, therefore, has produced the unexpected results.

Table 4.23: Contraception by Income Levels and Ethnicity

Income Levels	Contraception in %		Total in %	
	Wazaramo (Don't use)	Wanyakyusa (Don't use)	Wazaramo	Wanyakyusa
Less than Tshs 30,000	53.8	70.5	89.4	75.8
Tshs 30,001-60,000	31.5	57.4	9.6	23.1
Over Tshs 60,000	50.0	66.7	1.1	1.1
Total	51.6	67.4	100.0 n=564	100.0 n=559
Significance $p=0.020$				

According to the results, income showed significant results and, therefore, the variable has influence on contraceptive use.

Logistic Regression for Control Factors

The analysis started with the control factors (exogenous variables): ethnicity, education, religion, and income. When the logistic regression model was run, results of

the Wald statistic significance using a 0.100 significance level indicated that ethnicity, education, religion and income are important variables in influencing the dependent variable, contraceptive use. However, when the regression was first run, results indicated religion as not important. When religion was run categorically, only traditional religion recorded significance levels. This necessitated the creation of dummy variables for each religious group and regression was run again. The results were as shown below in Table 4.24.

Table 4.24: Logistic Regression for Ethnicity, Education, Religion, and Income Covariates by Contraceptives Use.

Covariates	B	Wald	Sig	R
Education	0.2255	14.7248	0.0001	0.0933
Income	0.3819	5.6205	0.0178	0.0498
Ethnicity (Wanyakyusa)	-0.8277	4.4574	0.0348	-0.0467
Traditional	-1.6702	4.2792	0.0386	-0.0395
Catholics	-0.1682	0.0822	0.7744	0.0000
Born again	-0.5457	0.7175	0.3970	0.0000
Muslims	-0.1745	0.0691	0.7927	0.0000
Protestants	-0.1181	0.5466	0.8289	0.0000

The parameters used to show the results of the regression as can be seen in the table are the 'B', the 'Wald' statistic, the 'Sig' and the 'R'. The Wald statistic which has a chi square distribution is just the square of the ratio of the coefficient (B) to its standard error (SE) when there is a single degree of freedom (df). The significance level for the wald statistic is shown in the column headed (Sig). A statistic used to look at the partial correlation between the dependent variable and each of the independent variables is the (R) statistic which ranges from -1 to + 1. A positive value indicates that as the variable increases in value, so does the likelihood of the event is (contraception) occurring. If R is negative, the likelihood of the event is for the opposite direction and 0 value means no correlation and, therefore, not an important variable in influencing the dependent variable.

Parameter B contains the estimated coefficients of the independent variables. Unlike the least squares regression, logistic regression B parameters cannot be directly interpreted. That is, a change in the value of the independent variable does not imply a change in the dependent variable corresponding to the value of the parameter B; rather the change depends on change in the value of the variable and the value of other independent variables. However, the parameter is still useful because it can be used to interpret the direction of relationship between the variables whether it is negative or positive.

The parameters for the logistic regression results used in the table above will be used in all the following tables for logistic regression model results.

The results above show that education is the most important factor in influencing contraceptive use, followed in order by income, ethnicity, and lastly Traditional religion.

The positive B and R values for both education and income mean that the higher the education and income one has, the more likely will be the use of contraceptives while the negative values for ethnicity indicate that the Wanyakyusa are less likely than the Wazaramo to use contraceptives. Likewise, the lesser the adherence to traditional religious beliefs, the higher the use of contraceptives.

The classification table in the model indicates that about 62 percent of the respondents included in this analysis were correctly predicted. This shows that the logistic regression model has correctly classified the observed data. Furthermore, the don't use group was predicted better than the use group. This is because the purpose of the study was to understand the don't use group, the data were geared to analyze the don't use group as Table 4.25 below shows.

Table 4.25: Logistic Regression Model Classification for Contraception and Control Variables

Observed	Predicted		Percent correct
	Don't use	Use	
Don't use	533	113	82.5
Use	299	139	31.7
Total	n=1084		62.0

Conclusion

The Bivariate analysis has shown that ethnicity, education, religion, and income have an association with dependent variable-contraceptive use. This implies that they have an influence on contraceptive use. Logistic regression results also confirmed that ethnicity, education, and income are important in influencing contraceptive use. As for religion, only the traditional religious group is indicated to be important in influencing contraceptive use. These factors, therefore, will be used as control factors in the analysis.

However, it has to be noted that religion and ethnicity are inseparable. Nevertheless, they are statistically treated separately in this study to acknowledge that the groups being analyzed in the study vary in culture, religion and geographical location. Furthermore, weighting of the data for rural and urban areas was not done because location was not significant, and therefore, was dropped from being used as a control

factor. It has to be noted also that the income variable which was used in the analysis constituted cash income earned by the respondents on monthly basis either from wage or from sell of crops or businesses.

CHAPTER FIVE

CULTURAL FACTORS ANALYSIS: CUSTOMS AND BELIEFS

Introduction

The independent variables to be analyzed are customs and beliefs which are reflected in Research Question One mentioned both in Chapter Four and and Chapter Two. The customs's variables include inheritance, sex preference, prestige, old age care, and family economy. The beliefs' variables include barrenness, contraceptives and fecundity impairment, marital relationship, and pro-natalistic religious beliefs.

The second set of variables are those on the status of women. These include variables such as education, employment, decision-making, property ownership, and division of labor. These are presented as Research Question Two.

The last set of variables analyzed are those that investigate the influence of people's attitudes and opinions about rapid population growth on their decisions to use or not use contraceptives. These are analyzed as Research Question Three.

Research Question One: What is the effect of customs and beliefs on contraceptive use?

Customs' factors are grouped as Research Question 1a and beliefs' factors as Research Question 1b. As indicated earlier in Chapter Two, custom as a concept in this

study refers to a course of action - a usually established, constant practice which may not be written as a law but which has a long continuance with a binding force. Belief, on the other hand, refers to a state of mind in which trust, confidence or reliance is placed in some person or things or a body of statements held by advocates of ideas such as religious doctrines. Such a conviction is based on an examination of the grounds for accepting it as true on a basis whereby one is willing to act in a certain manner under appropriate conditions. These two sets of factors are analyzed separately as follows

Customs

Established customary norms and values such as high esteem for large families, sons for inheritance of family property and perpetuation of family name, and care for aged parents are customs that persist. They are hypothesized to be a barrier to contraceptive use.

In light of pro-natal customary norms and values that exist, parents would hesitate to delay or limit the number of children. Any request to use contraceptives would be deemed as contrary to these customary norms and values. Therefore, according to this perspective, the variables are expected to have a negative effect on contraceptive use. This is because the act leads to limiting the number of children which is against customary norms and values on children, family size and fertility issues in general.

Variables under customs as mentioned earlier are inheritance, sex preference, prestige, old age care, and family economy. Each of the variables will be analyzed separately as follows.

Inheritance

As indicated earlier, parents may feel that they need sons for the inheritance of family property. According to customary law, only sons can inherit. Therefore, without many sons for some to survive to assume such responsibilities, parents will continue to bear children, hoping to get sons.

Information on this variable was collected by the use of eight items asked of the respondents. Six of the items were on a Likert scale which ran from Strongly Disagree (SD) and Disagree (D) to Agree (A) and Strongly Agree (SA). The responses to the items in percent are presented below.

Table 5.1: Responses to Items on Inheritance

Question Number	Statement of the Item	%SD	%D	%A	%SA	Valid #
Q45s	In absence of sons it is to deny rights to daughters and the widow when the husband dies and a male relative inherits property	34.0	56.0	7.7	2.3	1284
Q45r	The wife should inherit family property if husband dies	27.4	53.8	13.8	5.0	1280
Q45n	Many children are needed for inheritance especially sons	12.7	8.1	34.4	44.8	1279
Q51b	Many children ensures some to survive for inheritance	8.8	17.4	35.8	37.9	1284
Q45q	Girls can inherit family property if there are no sons	8.7	14.7	53.8	22.8	1284
Q45t	Females should inherit family property	2.7	5.6	59.7	32.0	1281

The results of frequency percentages give the impression that respondents do not feel widows have the right to inherit family property. This is indicated by their 81.2 percent disagreement on the view that the wife should inherit family property if the husband dies (item q45r) and 90 percent disagreement on the view that it is to deny rights to daughters and widows when husband dies and a male relative inherit family

property (item q45s). The view that many children are needed for inheritance is supported by 79.2 percent (item q45n), and the view that many children ensures that some will survive for inheritance, with 73.7 percent (item on q51b). However, many respondents also feel that if there are no sons, daughters in the family can inherit. This is indicated in their responses which show a score of 76.6 percent on the view that girls can inherit property if there are no sons (item q45q) and the the view that females can inherit family property, with 91.7 percent (item q45t).

Two of the items were not on the Likert scale but the answers were ordered in such a way that they followed the direction of the answers of the Likert scale from strongly negative through moderate to strongly positive; these are as indicated below. Item q46a: what do you think should be done to the widow when the husband dies. The responses for this item are as indicated below.

Table 5.2: Responses for Item Q46a on Inheritance

Q46a: what should be done to widow when husband dies?	Responses
Widow should be kicked out of the home if she refuses to be inherited	13.3
Widow should go to parents	2.2
Male relative should inherit her and the property	45.0
Widow should stay in the home and take care of the children	39.5
Total	100.0 n=1290

About 45 percent of the respondents indicated that male relatives should inherit when the husband dies and no son exists or the eldest son is still too young to inherit family property. About 40 percent had the opinion that the widow has to inherit and care for the children, while 15 percent felt that the widow should be kicked out of the home if she refuses to be inherited by the male relative who inherits the family property.

The second item asked was q46b which states: who should take care of the children and inherit property when the husband dies?. The responses were as indicated below in Table 5.3.

Table 5.3: Responses for Item Q46b on Who Takes Care of the Children and Inherits Family Property When the Husband Dies.

Q46b:Who Should Take Care of Children and Property When Husband Dies	Responses
Male relative	5.3
Grand parents	0.6
The first son	53.9
The widow	40.2
Total	100.0 n=1290

About 54 percent felt that the first son should inherit, while 40.2 felt that the widow should inherit.

A factor analysis was run to extract a few factors that would represent the set of the items. The principal component and the oblimin methods were used for extraction and rotation, respectively. Three factors were extracted. Their loading scores were as follows:

Table 5.4: Loading Scores for Factors Extracted From the Items Used on Inheritance

Question Number	Factor 1	Factor 2	Factor 3
Q45r-wife to inherit	.78639		
Q45s-daughters and widows get rights to inherit	.85480		
Q45t-females to inherit	.87562		
Q45n-sons for inheritance		.75943	
Q51b-many children for some to survive for inheritance		.74717	
Q46a-widow's destiny after death of husband			.74190
Q46b-children's destiny after death of the father			.64227

The factor analysis results indicated item q45q had low loading score in each of the hypothetical factors extracted. The loading score was below 0.5 on each of the factors. The item was, therefore, not included in any of the three factors, but instead was treated as a separate item.

The themes of the factors were as follows:

Factor One: females should inherit family property

Factor Two: many children are needed, especially sons to inherit family property

Factor Three: widows should inherit property when husband dies

Factor One: Females Should Inherit Family Property

In African societies, especially patrilineal societies which are the majority, inheritance is only by sons or male relatives. Females are not allowed to inherit by customary law (Reynolds, 1975; Rwezaura, 1978). For that reason, couples will continue childbearing to obtain sons for inheritance if they have girls only. The study intended to get respondents' views on the idea of females being given the right to inherit family property and to test the relationship of their views to their contraceptive use.

The proposition is that those who disagree with the viewpoint that females should inherit are expected to show a higher percentage of non-use of contraceptives than those who indicated support for the viewpoint. This is because those who disagree with the statement still adhere to the customary norms and values that only men can inherit, and therefore, in the absence of sons, such parents will refrain from using contraceptives in order to obtain sons for inheritance.

About 82 percent of the respondents disagreed with the viewpoint that females should inherit family property. When contraception was cross-tabulated by Factor One,

results were not significant. A significance level of 0.791 was observed as per Pearsons chi square test, as can be seen in Table 5.5 below.

Table 5.5: Contraception by Support for the Viewpoint that Females Should Inherit Family Property.

Support	Contraception in %		Total %
	Don't use	Use	
SD	61.6	38.4	6.4
D	59.2	40.8	75.9
A	59.3	40.7	17.9
SA	80.0	20.0	0.4
Total	59.5	40.5	100.0 n=1150
Significance p=0.791			

Note: (SD, D, A, SA):¹

When contraception was cross-tabulated by Factor One while controlling for ethnicity, education, religion, and income, no significant relationship between the factor and contraceptive use was observed. This shows that the view that females should inherit

¹ SD- Strongly disagree; D- Disagree; A-Agree; AS- Strongly disagree

The abbreviations and their meanings indicated above are used in all tables of analysis throughout this chapter.

family property has no association with contraceptive use among any of the subgroups within the sample. This means that it has no influence on contraceptive use.

Factor Two: Many Children are Needed, Especially Sons to Inherit Family Property

As discussed earlier, inheritance among many African societies is by sons or male relatives if sons are not there. It is likely, therefore, that parents with no sons would try as much as possible to bear children with the hope of obtaining sons for inheritance. It is because of parents' desire to bear sons for inheritance that contraceptives are likely to be avoided.

It is proposed here, therefore, that those who agreed with the view are expected to show higher percentage of non-use of contraceptives than those who disagreed with the statement. This is because those who supported the viewpoint are not likely to entertain the idea of limiting the number of children since they show a pro-natalistic opinion.

About 91 percent agreed with the view that many children are needed especially sons to inherit family property. When contraception was cross-tabulated by Factor Two, the results showed a higher percentage for non-use of contraceptives by the agree group with 61.1 percent. The strongly disagree group results are not considered, due to a small number of respondents, as can be seen in Table 5.6 below.

The reason for the higher percentage of non-use of contraceptives by the agree group than the strongly agree group, the opposite of what was expected, cannot be explained in this study. All subgroups of the sample showed a distribution of responses in

line with the the bivariate results in Table 5.6. A further investigation of the results is needed.

Table 5.6: Contraception by Support for the Viewpoint That Many Children are Needed Especially Sons to Inherit Family Property.

Support	Contraception in %		Total %
	Don't use	Use	
SD	100.0	0.00	0.2
D	58.5	41.5	9.2
A	61.1	38.9	73.8
SA	52.3	47.7	16.8
Total	59.5	40.5	100.0 n=1147
Significance $p=0.092$			

When contraception was cross-tabulated by Factor Two while controlling for ethnicity, education, religion, and income, results indicated a significant relationship between the Wanyakyusa and Protestants and contraceptive use as can be observed in Tables 5.7 and 5.8. As has been indicated in the earlier results, the strongly agree show a lower percentage of non-use of contraceptives than the agree group contrary to what is expected. The reason for this cannot be given in this study. There is need for further investigation.

Table 5.7: Contraception by Support for the Viewpoint and Ethnicity.

Support	Wazaramo of Pwani			Wanyakyusa of Mbeya		
	Contraception in %		Total %	Contraception in %		Total
	Don't use	Use		Don't use	Use	
SD	-	-	0.0	100.0	0.00	0.4
D	39.3	60.7	4.8	65.4	34.6	13.8
A	52.1	47.9	81.6	72.6	27.4	65.7
SA	58.2	41.8	13.6	48.2	51.8	20.1
Total	52.3	47.7	100.0 n=581	66.8	33.2	100.0 n=566
Significance p=0.221				Significance p=0.000		

Table 5.8: Contraception by Support for the Viewpoint and Religion

Support	Muslims		Protestants		Catholics		Born again	
	contraception %		Contraception %		Contraception %		Contraception %	
	Don't use	Total %	Don't use	Total %	Don't use	Total %	Don't use	Total
SD	-	0.0	100.0	0.06	-	0.0	-	0.0
D	40.7	4.8	64.6	13.3	42.9	8.10	66.7	14.3
A	52.4	81.2	69.2	66.3	68.9	70.9	82.1	66.7
SA	57.0	14.0	48.6	19.9	55.6	20.9	50.0	19.0
Total	52.5	100.0 n=564	64.6	100.0 n=362	64.0	100.0 n=86	73.8	100.0 n=42
Sig.	P=0.345		P=0.010		P=0.281		p=0.173	

The Wanyakyusa and Protestants of the agree group record the highest among the groups, demonstrating support to the proposition that those who agreed were likely to record higher percentage of non-use of contraceptives than those who disagreed. As for the strongly agree which show lower percentage of non-use than the agree group, such results have been observed in most of the earlier analysis, and reasons for such a result cannot be given in this study.

Factor Three: Widows Should Inherit Family Property When Husbands Die

Traditionally, especially among patrilineal societies, when a husband dies, family property is inherited by either sons or a male relative of the deceased, but not the widow. The study asked about the views of respondents on the idea of widows having the right to inherit family property when husbands die. The views of the respondents were then related to their behavior towards contraception.

The proposition made here is that those who disagreed with the statement are likely to show higher percentage of non-use of contraceptives than those who agreed. This is because those who disagreed show traditionalist views that only males can inherit and are likely to try to have many male children. Therefore, they are expected to record higher percentage of non-use of contraceptives.

About 67 percent of the respondents disagreed with the statement that widows should inherit property when the husbands die. When contraception was cross-tabulated by Factor Three, the results indicated higher percentage of non-use of contraceptives

among the strongly agree group with 66.1 percent and lowest among the strongly disagree group with 46.3 percent. A Pearson chi square significance level of 0.047 was observed as Table 5.9 indicates below. The results show no support for the propositions although there is significant association between the two variables. The possible reason will be discussed below after the analysis of the controlled groups.

Table 5.9: Contraception by Support for the Viewpoint That Widows Should Inherit Family Property When Husbands Die.

Support	Contraception in %		Total %
	Don't use	Use	
SD	46.3	53.7	4.1
D	58.2	41.8	62.6
A	65.1	34.9	27.5
SA	66.1	33.9	5.8
Total	60.1	39.9	100.0 n=1010
Significance p=0.047			

When contraception was cross-tabulated by the viewpoint while controlling for ethnicity, education, religion, and income, results were all insignificant except for two categories, the Wazaramo and Muslims ethnic groups. Significance levels of 0.004 and 0.015 were observed, respectively. Among the Wazaramo ethnic group, those who agreed

with the statement indicated a higher percentage of non-use of contraceptives with 69.1 percent. As for the percentage of non-use among those in the Muslim category, those who agreed with the statement indicated a higher percentage of non-use of contraceptives with 67.7 percent, as Table 5.10 shows. The results for the Wazaramo and Muslims seem to be contrary to the proposition, possibly because of the Islamic influence on their behavior. Although the Wazaramo are matrilineal and, therefore, would be expected to support the viewpoint and would not be likely to record a higher percentage of non-use of contraceptives, they seem to record higher non-use of contraceptives. The possible reason for such results will be discussed below.

Table 5.10: Contraception by Support for the Viewpoint and Ethnicity

Support	Wazaramo of Pwani			Wanyakyusa of Mbeya		
	Contraception in %		Total %	Contraception in %		Total %
	Don't use	Use		Don't use	Use	
SD	34.8	65.2	4.7	61.1	38.9	3.5
D	50.0	50.0	76.0	70.2	29.8	49.8
A	69.1	30.9	13.8	63.8	36.2	40.5
SA	66.7	33.3	5.5	65.6	34.4	6.2
Total	52.8	47.2	100.0 n=492	67.0	33.0	100.0 n=518
Significance level $p=0.004$				$p=0.487$		

Table 5.11: Contraception by Support for the Viewpoint and Religion

Support	Muslims		Protestants		Catholics		Born Again	
	Contraception %		Contraception %		Contraception %		Contraception %	
	Don't use	Total %	Don't use	Total %	Don't use	Total %	Don't use	Total
SD	34.8	3.1	54.5	3.3	100.0	2.5	100.0	5.1
D	50.5	75.7	68.1	49.4	64.3	52.5	75.0	51.3
A	67.7	13.5	61.4	42.4	63.6	41.2	73.3	38.5
SA	62.1	6.0	68.8	4.8	66.7	3.8	50.0	5.1
Total	52.8	100.0 n=481	64.8	100.0 n=330	65.0	100.0 n=80	74.4	100.0 n=39
Sig.	p=0.015		p=0.553		p=0.773		p=0.723	

As indicated earlier, the Wazaramo are both matrilineal and Muslim. These two features have contradicting philosophies in terms of contraception. As detailed earlier, in matrilineal societies, women have some degree of status as inheritance is through the mother. They have some rights in decision-making, especially in matters that concern the family and themselves. Because of this, women in matrilineal communities use contraceptives more than their counterparts in patrilineal communities. This study has indicated so earlier in this same chapter and in Chapter One where the TDHS results of 1991/92 are discussed. Muslim philosophy is against the use of contraceptives to prevent children from being born; it is sinful. It is likely, therefore, that the Wazaramo people

would say something contrary to matrilineal philosophy to appear in line with Islam philosophy, while their behavior is in line with matrilineal philosophy. And this is what was observed in the results. Such results are likely to re-appear again and again in this study as we analyze the variables in the other research questions.

Daughters' Inheritance in Absence of Sons

The prevailing custom in most African societies, particularly in patrilineal societies, is that inheritance is by sons as has been detailed earlier in this chapter. It is this view of denying daughters the right to inherit family property that is considered as a barrier to contraceptive use (Mason, 1985). This means, therefore, that, in the absence of sons in the family, couples will continue childbearing, hoping to get sons for inheritance of family property.

The purpose of collecting information on daughters' inheritance is to gather people's views on the idea of giving daughters rights to inherit family property when sons are not there and to relate their views with their contraceptive behavior. The proposition here is that those who disagree with the statement are likely to record a higher percentage of non-use of contraceptives. This is because if they disagree that daughters can inherit family property, it is assumed that they carry the view that only sons can inherit family property. In light of this, in the absence of sons, such people would continue childbearing and, thus, would not be using contraceptives.

Only one item, q45q, was used to collect information on daughters' inheritance. About 75 percent supported that daughters can inherit family property in the absence of sons in the family. When contraception was cross-tabulated by the viewpoint, results showed a higher percentage of non-use of contraception among the disagree group with 67.8 percent. However, the strongly disagree group recorded a lower percent compared to the disagree group, contrary to expectation. The reason for the results cannot be given in this study. A significance level of 0.002 was observed as Table 5.12 below indicates.

Table 5.12: Contraception by Support for the Viewpoint That Daughters Can Inherit Family Property in Absence of Sons

Support	Contraception in %		Total %
	Don't use	Use	
SD	55.6	44.4	9.4
D	67.8	32.2	15.6
A	61.3	38.7	53.0
SA	50.4	49.6	22.0
Total	59.4	40.6	100.0 n=1155
Significance p=0.002			

When contraception was cross-tabulated by the viewpoint while controlling for ethnicity, education, religion, and income results were similar to that indicated in Table 5.12 above.

The analysis results showed that Factor Two on son's inheritance and the item on daughters' inheritance in absence of sons have association with contraceptive use and support the proposition. Factor Three on widows inheritance also has an association with contraceptive use, but does not support the proposition. Factor One on female inheritance has no association with contraceptive use.

Sex Preference

Parents in African societies and Tanzania in particular would continue to bear children as long as their needs have not been met to get boys for inheritance, for old age care, and for the perpetuation of family name. It is a customary law that sons in the family are available for the purposes of fulfilling the above-mentioned responsibilities. On the other hand, girls also are preferred for the wealth accrued from their marriages. Further, mothers would like to have many girls to help in subsistence crop production and domestic chores. Thinking this way, therefore, parents would hesitate to use contraceptives for limiting the number of their children.

Information on this variable was collected by use of eight items in the interview schedule. The distribution of responses to the five Likert items is presented below:

Table 5.13: Response to Items on Sex Preference

Question #	Statement	%SD	%D	%A	%SA	Valid #
Q45p	There is no need for couples to continue with child bearing just because they have boys or girls only	16.4	63.8	14.1	5.7	1278
Q51f	Many daughters in the family help their mother in subsistence crop production and in domestic chores	6.0	35.3	43.3	15.4	1286
Q45g	Children have to come especially girls because parents earn wealth through their daughters marriages	7.7	41.4	38.0	12.9	1287
Q45o	A child is a child whether it is a girl or a boy	11.5	27.7	42.5	18.3	1283
Q51e	Many daughters in the family bring wealth	11.4	11.2	48.3	29.1	1285

Results of frequencies indicate about 51 percent support that many daughters' should be born because they are beneficial for the wealth accrued through their marriages as indicated in item q45g and q51e with 77.4 percent, while about 68.7 percent supported the statement that many daughters should be born to help their mothers in domestic chores and subsistence crop production as indicated in item q51f. This gives the impression that although sons are preferred most, girls are also preferred for specific purposes. This is also supported by item q45o with a 60.8 percent in favor of the idea that a child is a child whether it is a girl or a boy; each has its importance in the family. The

idea of discouraging couples to continue bearing children because they have only boys or girls is not supported, as indicated in item q45p with 80.2 percent disagreement. As such there seems to be preference for both sexes.

Two other items asked on sex preference but not under Likert items stated as follows: the first was Item q46c which asked: How would you feel if you have daughters without sons or sons without daughters? Alternative answers were provided to select as can be seen below.

Table 5.14: Responses by Item Q46c on How They Would Feel When They Had Only Daughters Without Sons or Sons Without Daughters

Item q46c on How They Would Feel if They Have Only Daughters or Only Sons	Frequencies
I'll be very disappointed	18.5
I won't be satisfied	46.9
It is God who provide them, no need to complain	9.1
I'll feel ok	26.5
Total	100.0 n=1265

The percentages indicate that respondents would like to have children of both sexes. This is indicated in their responses as they recorded 46.9 percent that they will not be satisfied. About 19 percent indicated they will be very disappointed, thus making a 65.4 percent who would not be satisfied to have only one sex for their children though at different levels of dissatisfaction.

The sex preference of children by parents was obtained by calculating the desired sex composition of the family's children (demand and supply) and a ratio was calculated. A negative number was for the male preference, a zero was for no preference, and a positive value was for the female. Below are the frequencies in percent.

Table 5.15: Responses by 'Desired Sex of Children'

Desired sex of children	Frequency
Prefer female	33.5
No preference	39.8
Prefer male	26.7
Total	100.0 n=1129

Results indicate that 39.8 percent of the respondents have no preference for the sex of their children, 33.5 preferred females more, and 26.7 percent preferred males more.

A factor analysis was run by use of the principal component and the equamax methods for extraction and rotation respectively in order to obtain a few factors to represent the set of items. Three factors were extracted. The factor loading scores were as follows.

Table 5.16: Loading Scores for Factors Extracted to Represent Items Used to Collect Information on Sex Preference

Question #	Factor 1	Factor 2	Factor 3
Q51e-daughters for wealth	.57463		
Q51f-daughters help mothers in their workload	.70627		
Q45g-many daughters generate wealth	.73630		
Q46c-feelings about having children of the same sex		.83125	
Q45o-a child is a child		.79494	
Desired sex of a child			.98405

The equamax rotational loading indicated item q45p had a low score, below 0.4, on each of the factors extracted. This analysis has set 0.5 to be the cutting limit for the loading score for an item to be included in the factor. Item q45p was, therefore, not included in any of the factors, but instead was treated as a separate item.

The themes of the factors are as follows:

Factor One: Daughters are preferred for the wealth accrued through their marriage

Factor Two: A child is a child whether a boy or a girl

Factor Three: The sex of the child preferred in the family

Factor One: Daughters are Preferred for the Wealth Accrued Through Their Marriages

Marriage of daughters brings bride wealth to the families. The groom has to pay bride price as a sign of appreciation to the parents for raising their daughter, his wife to be, and as an expression of love for the girl. The wealth accrued through daughters' marriages is a significant income contribution to the family economy (Bryceson, 1995; Meyers, 1993). For this reason, daughters are desired.

The proposition here is that those who agreed with the viewpoint that daughters are preferred, are expected to record a higher percentage of non-use of contraceptives than the group which disagreed with the view-point. About 74.7 percent of the respondents both moderately and strongly agreed with the statement that daughters are preferred. When contraception was cross-tabulated by the viewpoint, results indicated a higher percentage of non-use of contraceptives among those who agreed with the viewpoint with 61.8 percent non-use of contraceptives among the agree group. Only 0.1 percent of the respondents represented the strongly disagree group. This was too small a number to consider its percentage of contraceptive use. However, the strongly agree group which was expected to have the highest percentage of non-use of contraceptives, recorded 54.2 percent. The reason for this result cannot be given here. A further investigation is needed to provide the answer to this. A significance level of 0.028 was observed, indicating a significant relationship between the variables as table 5.17. shows below.

Table 5.17: Contraception by Support for the Viewpoint that Daughters Are Preferred for the Wealth Accrued from Their Marriages

Support	Contraception in %		Total %
	Don't use	Use	
SD	100.0	0.00	0.1
D	52.2	47.8	25.2
A	61.8	38.2	72.6
SA	54.2	45.8	2.1
Total	59.3	40.7	100.0 n=1147
Significance P=0.028			

When contraception was cross-tabulated by the view-point while controlling for ethnicity, education, religion, and income, results were similar to those shown in Table 5.17.

The results supported the proposition that those who agreed with the viewpoint that daughters are preferred are likely to record a higher percentage of non-use of contraceptives. The results also indicate the viewpoint has an association with contraceptive use. That is, the viewpoint that daughters are preferred in the family for the wealth accrued from their marriages is likely to affect the use of contraceptives.

Factor Two: A Child Is a Child Whether It Is a Boy or a Girl

This viewpoint intended to indicate whether respondents would be satisfied if they had only male or female children. Both sons and daughters are crucial in the family. The interest was, therefore, to see if respondents felt the same way, that both sons and daughters are important in the family.

It is proposed that those who disagreed with the viewpoint are likely to record a higher percentage of non-use of contraceptives than those who agreed. This is because disagreeing with the statement means the respondents prefers a certain sex of a child. This implies that if couples do not have the sex of the children they prefer, they will continue child bearing.

About 64.5 percent agreed with the viewpoint that a child is a child whether it is a boy or a girl. When contraception was cross-tabulated by the viewpoint, the results indicated a higher non-use of contraceptives by the disagree group with 65.6 percent non-use of contraceptives. The lowest percent of non-use of contraceptives was recorded by the strongly agree group with 47.9 percent. A significance of 0.010 was observed, indicating that there is a significant relationship between the variables as Table 5.18 indicates below.

Table 5.18: Contraception by Support for the Viewpoint That a Child is a Child Whether It Is a Boy or a Girl.

Support	Contraception in %		Total %
	Don't use	Use	
SD	64.3	35.7	1.2
D	65.6	34.4	34.3
A	56.5	43.5	60.3
SA	47.9	52.1	4.2
Total	59.4	40.6	100.0 n=1152
Significance P=0.010			

When contraception was cross-tabulated by the viewpoint while controlling for ethnicity, education, religion, and income, results similar to those in Table 5.18 were observed.

From the results, it can be said that the proposition has been proved right that those who disagreed with the view that a child is a child whether it is a boy or a girl are likely to record higher percentage of non-use of contraceptives than those who support the viewpoint. Therefore, it can be said that those who prefer a certain sex of children will continue to bear children to achieve their desires, no matter the number of children they already have, just because they are of the same sex. Furthermore, such people will avoid use of contraceptives as their desires for the sex of children they want is not yet met.

Factor Three: The Sex of the Child Preferred in the Family

The viewpoint on the type of sex of the child preferred in the family aimed at finding out what the respondents preferred most, daughters, sons, or either. There were, therefore, three alternative choices the respondents were required to indicate either preference for daughters or sons or both.

The proposition made is that those who indicated they prefer either daughters or sons have a sex preference and, therefore, are likely to record higher percentage of non-use of contraceptives than those who don't show a preference for the sex of a child.

About 27.1 percent indicated they prefer sons, 34.5 percent indicated they prefer daughters, and 38.4 percent indicated to have no preference for sex of their children.

When contraception was cross-tabulated by the viewpoint, results indicated a significance of 0.403, implying that there is no association between the variable and contraceptive use as Table 5.19 shows below.

Table 5.19: Contraception by Support for the Viewpoint on Sex of the Child Preferred in the Family

Support	Contraception in %		Total %
	Don't use	Use	
Prefer females	56.8	43.2	34.5
No sex preference	59.7	40.3	38.4
Prefer males	62.1	37.9	27.1
Total	59.4	40.6	100.0 n=1021
Significance $p=0.403$			

When contraception was cross-tabulated by the view point while controlling for ethnicity, education, religion and income, the results were similar to that indicated in Table 5.19.

The results therefore show no significant relationship between the viewpoint and contraceptive use. This, therefore, dictates dropping this factor from further investigation.

There is No Need for Couples to Bear Children Just Because They Have Only Boys or Girls

Literature has indicated the sex of a child as important, especially when only girls or only boys are born in a family (Mamdani, 1972). The purpose for asking respondents to give their opinion on this viewpoint was to get peoples' views on the subject as to whether couples should continue childbearing just because they have only boys or girls.

The proposition here is that those who disagree with the statement that there is no need for couples to continue childbearing just because they only have boys or girls, are likely to record higher percentage of non-use of contraceptives than those who agree.

Only one item, q45p, was used to collect information on the viewpoint. About 81 percent disagreed with the viewpoint. When contraception was cross-tabulated by the viewpoint, results indicated a higher percentage of non-use of contraceptives among the disagree group with 62.4 percent. The strongly disagree group recorded lower scores than the disagree group with 54 percent non-use of contraceptives contrary to expectation. As earlier indicated in results of variables discussed, the reasons for such a result cannot be given in this study. A significance level of 0.028 was observed, as can be seen in Table 5.20 below.

Table 5.20: Contraception by Support for the viewpoint that there Is No Need for Couples to Continue Childbearing Just Because They Have Only Boys or Girls

Support	Contraception in %		Total %
	Don't use	Use	
SD	54.0	46.0	16.3
D	62.4	37.6	64.3
A	57.5	42.5	13.3
SA	47.9	52.1	6.2
Total	59.5	40.5	100.0 n=1150
Significance p=0.028			

When contraception was cross-tabulated by the viewpoint while controlling for ethnicity, education, religion, and income, results indicated that the Wanyakyusa ethnic group, the Protestants and the SDA religious groups have significant association with contraceptive use as Tables 5.21 and 5.22 indicate below. The significance levels of 0.000 for the Wanyakyusa, 0.001 for the Protestants, and 0.092 for SDA were observed. This tallies with the earlier indicated pro-natalist orientation of the Wanyakyusa ethnic group who are also predominantly Protestants and SDA.

Table 5.21: Contraception by Support for the Viewpoint by Ethnicity

Support	Wazaramo of Pwani			Wanyakyusa of Mbeya		
	Contraception in %		Total %	Contraception in %		Total %
	Don't use	Use		Don't use	Use	
SD	51.6	48.4	10.6	55.2	44.8	22.1
D	53.7	46.3	78.8	76.7	23.3	49.3
A	40.0	60.0	10.3	68.8	31.2	16.4
SA	100.0	0.0	0.3	46.4	53.6	12.2
Total	52.2	47.8	100.0 n=584	67.0	33.0	100.0 n=566
Significance level p=0.120				p=0.000		

Table 5.22: Contraception by Support for the Viewpoint by Religious Groups

Support	Muslims		Protestants		Catholics		SDA	
	contraception %		Contraception %		Contraception %		Contraception %	
	Don't use	Total %	Don't use	Total %	Don't use	Total %	Don't use	Total
SD	50.0	10.9	57.8	22.9	53.3	17.4	0.0	20.0
D	54.0	78.7	73.3	48.6	70.6	59.3	77.8	60.0
A	41.1	9.9	65.5	16.1	69.2	15.1	50.2	13.3
SA	66.7	0.5	44.4	12.4	28.6	8.2	100.0	6.7
Total	52.4	100.0 n=567	64.9	100.0 n=362	64.0	100.0 n=86	60.0	100.0 n=15
Sig.	p=0.290		p=0.001		p=0.129		p=0.092	

Results from the analysis showed that Factor One on the viewpoint that daughters are preferred for the wealth accrued through their marriage, and Factor Two on the viewpoint that a child is a child whether it is a boy or a girl have been shown to have association with contraceptive use. Furthermore, the viewpoint that there is no need for couples to continue childbearing just because they have only boys or girls has an association with contraceptive use. On the other hand, Factor Three on opinion in relation to the sex of the child preferred in the family was shown to have no association with contraceptive use.

Prestige

The variable refers to parents having honor, reputation or esteem for having many children, a quality which is in the community's general opinion. Most African societies and Tanzania in particular hold large families in esteem. It is seen as prestigious for a family to have many children. Parents command respect for having many children and in some ethnic groups like the Wanyakyusa, such parents are given a special title as indicated earlier in Chapter One (Meyer, 1993). Many children in a family are seen as a security force in the family in particular and community at large (Mamdani, 1972).

Having many children means wealth to the family because when girls get married and bride wealth is paid, and when sons get jobs or become self-employed, the family is thus assured of a flow of wealth from these children. In this way the family feels prestigious to have so many children.

The more children a family has, the more respect it commands from the community (Mamdani, 1972). Women who only have children to own, feel more prestigious and raise their status in the community if they have many children (Bryceson, 1995). It is on this perspective then that parents with such norms and values strongly embedded in them would show unwillingness to use contraceptives for limiting the number of their children.

Information on prestige was collected through four items. The responses to the three Likert questions can be seen below.

Table 5.23: Responses for Items on Prestige

Item Question	Statement	Responses of contraception in %				Total #
		SD	D	A	SA	
Q45a	Couples like to have many children for prestige	9.4	33.3	40.1	17.2	1274
Q45e	It is prestigious to have many children	6.3	43.3	34.5	15.9	1206
Q45k	Women bear as many children as possible to gain status in society	13.0	37.1	39.3	10.7	1284

Results in the table above indicate that respondents' views are split equally between support and disagreement. There is no definite direction as whether respondents support the viewpoint that they like to have many children for prestige. This is shown by the percentages of their support responses which are 57.3 percent (item q45a) on the view that couples like to have many children for prestige; 50.4 percent (item q45e) on the view that it is prestigious to have many children; and 50.0 percent (item q45k) on the view that women bear as many children as possible to gain status in society. This is an indication that respondents have mixed feelings about this viewpoint.

An additional item q48 was used to collect information on prestige; this required the respondents to give an opinion on whom they think was more respected in society with regard to the number of children they have. The distribution of responses to the question was as follows.

Table 5.24: Responses by Item Q48 on Prestige

Item Q48 on Who is Respected More in Terms of Number of Children	Responses
1- A couple with no children	0.9
2- A couple with 1-2 children	13.3
3- A couple with 3-5 children	38.2
4- A couple with over 5 children	47.6
Total	100.0 n=1230

The results indicate that couples with over five children are more respected compared to those with fewer. A couple with no children seems to have the least respect in society. And respect of a couple in the society increases as the number of children increases, as is indicated in the table above.

A factor analysis was run to extract factors to represent the set of items. The principal component and oblimin methods were applied for extraction and rotation of the factors respectively. One factor consisting of one variable, q45a, was extracted. This was deemed not representative of the set of the items. An attempt to form a scale was made. A mean value was computed for the four items. The mean values obtained formed a new variable which was used for the analysis. The theme is: Many children are needed for parents' prestige.

Many Children Are Needed for Parents' Prestige

The proposition made here is that those who agreed with the viewpoint that many children are needed for parents' prestige are expected to record higher percentage of non-use of contraceptives.

About 55 percent of the respondents agreed with the viewpoint that many children are needed for parents' prestige. When contraception was cross-tabulated by prestige, the results indicated a higher percentage of contraceptive use among the agree with 63.8 percent. However, the strongly agree group recorded a lower percentage of non-use of contraceptives than the agree group, which was contrary to what was expected. As indicated earlier in analysis of other variables where such results were observed, the reason for such a result cannot be established in this study. A significance level of 0.014 was observed as per Pearsons chi square test, as can be seen in Table 5.25 below.

Table 5.25: Contraception by Support for the Viewpoint That Many Children Are Needed for Parents' Prestige

Support	Contraception in %		Total %
	Don't use	Use	
SD	25.0	75.0	0.4
D	54.7	45.3	44.2
A	63.8	36.2	48.5
SA	54.3	45.7	6.8
Total	59.0	41.0	100.0 n=1024
Significance P=0.014			

When contraception was cross-tabulated by the viewpoint while controlling for ethnicity, education, religion, and income, results showed significance among the Wanyakyusa and the Protestants with levels of significance of 0.000 and 0.044, respectively, as can be seen in Tables 5.26 and Table 5.27, and the trend of results was similar to that indicated in Table 5.25. The Wanyakyusa and Protestants in the first place are the same group; the Protestants are mostly Wanyakyusa as was seen earlier in this Chapter. Further, the Wanyakyusa, are pro-natalist; therefore, the results tally with their cultural orientation. And as the Wanyakyusa are predominantly Protestants, their results are likely to be similar, as can be observed in the tables below.

Table 5.26 Contraception by Support for the Viewpoint and Ethnicity

Ethnicity							
Wazaramo of Pwani				Wanyakyusa of Mbeya			
Support	Contraception in %		Total %	Support	Contraception in %		Total %
	Don't use	Use			Don't use	Use	
SD	100.0	0.0	0.2	SD	0.0	100.0	0.6
D	51.2	48.8	53.7	D	61.3	38.8	33.5
A	53.2	46.8	45.8	A	74.5	25.5	51.7
SA	50.0	50.0	0.4	SA	54.4	45.6	14.2
Total	52.2	47.8	100.0 n=546	Total	66.7	33.3	100.0 n=478
Significance p= 0.768				Significance p= 0.000			

Table 5.27: Contraception by Support for the Viewpoint and Religion

Support	Religion							
	Muslims		Protestants		Catholics		SDA	
	contraception %		Contraception %		Contraception %		Contraception %	
	Don't use	Total %	Don't use	Total %	Don't use	Total %	Don't use	Total
SD	100.0	0.2	0.0	0.6	-	-	-	-
D	51.6	53.3	62.1	33.0	67.7	39.7	50.0	53.3
A	53.9	46.1	71.2	52.2	70.6	43.6	66.7	40.0
SA	0.0	0.4	56.8	14.1	38.5	16.7	100.0	6.7
Total	52.5	100.0 n=531	65.7	100.0 n=312	64.1	100.0 n=78	60.0	100.0 n=15
Sig.	p=0.335		p=0.044		p=0.105		p=0.574	

Prestige has been indicated to have an association with contraceptive use. As groups were controlled, those groups which indicated significant results were the Wanyakyusa and the Protestants.

Old Age Care

In almost all African societies, and Tanzania in particular, old age care for parents is solely a responsibility of children, especially sons, as they are the ones who inherit family property and perpetuate the family name. Daughters get married to sons of other families, and generally go to live with the families of their husbands or establish their

own new homes. Therefore, they are not expected to take care of their parents except in extreme cases of lack of sons in their family. However, daughters are expected to provide material and moral support to their elderly parents who, in most cases, stay with their sons. Therefore, parents with many sons and daughters are assured of a better old age life due to the material support they expect to get from their many children (Knodel, Chayoran & Siriboon, 1992).

Given these beliefs, parents would hesitate to limit the number of children if they seriously consider the issue of old age care. Contraceptive use is likely to be avoided by such persons.

Information on this variable was collected by the use of three items in the interview schedule. The responses to the questions were as presented below.

Table 5.28: Responses by Old Age Care

Question #	Statement	Response in %				Total #
		SD	D	A	SA	
Q45b	Couples like to have many children to ensure some for survival	0.9	21.2	56.4	21.5	1283
Q45i	Many children are needed by parents for old age care	2.3	28.8	50.7	18.2	1283
Q51d	Many children ensure parents of comfortable life at old age because of their contribution to them	6.9	32.2	41.0	19.9	1284

The frequency results indicate that many children are needed for old age care and parents were assured of better life at old age because many children means abundant contribution materially to the parents' at old age. This is indicated in all the three items in the above table which support the concept. Item q45b on the view that couples like to have many children to ensure some for survival is supported with 78.1 percent (item q45i), that many children are needed by parents for old age care, is supported with 68.9 percent (item q51d), that many children ensure parents of comfortable life at old age is supported with 60.9 percent.

A factor analysis was run using the principle component and the oblimin method for extraction and rotation respectively. Only one factor was extracted with high loading on only one item. This was considered not representative. An attempt was made to check the reliability of a scale composed of the three items. An alpha of 0.7130 was indicated. An average value for the three items was thus calculated. A new variable was derived which was used to analyze association of old age care and contraceptive use. The theme of the variable is : many children are needed for some to survive for parents' old age care .

Many Children Are Needed for Some to Survive for Parents' Old Age Care

The proposition is that those who agreed with the viewpoint were expected to record higher percentage of non-use of contraceptives. About 72 percent of respondents agreed with the statement that many children are needed for parents' better old age care.

When contraception was cross-tabulated by the viewpoint, results showed a higher percentage of non-use of contraceptives among those who agreed with the viewpoint, with 68.0 percent. The strongly agree group was expected to record the highest percentage of non-use of contraceptives; instead, the agree group was highest. A similar result had been noted earlier on the sons and inheritance variable. As this study is unable to provide an answer to the type of result observed, a further study on the issue could be of help. A significance level of 0.000 was observed as can be seen in Table 5.29 below.

Table 5.29: Contraception by Support for the Viewpoint That Many Children are Needed for Some to Survive for Parents' Old Age Care

Support	Contraception in %		Total %
	Don't use	Use	
SD	50.0	50.0	0.3
D	45.9	54.1	27.8
A	68.0	32.0	57.2
SA	51.2	48.8	14.7
Total	59.4	40.6	100.0 n=1144
Significance P=0.000			

When contraception was cross-tabulated by viewpoint while controlling for ethnicity, education, religion, and income, the trend of results was similar to that shown in Table 5.29 above.

The results which have indicated significant associations of the variables have supported the proposition that those who agreed with the viewpoint were likely to record higher percentage of non-use of contraceptives. This implies that parents prefer to have many children to ensure better old age care. Therefore, the desire to have many children for old age care affects use of contraceptives.

Family Economy

In African societies and Tanzania in particular, children are economically valuable in the sense that they participate in family income-generating activities (Caldwell & Caldwell, 1987). Second, daughters bring wealth to the families through their marriages; third, the elder siblings, once they are independent, remit material support to parents, grandparents, and young siblings to meet their various needs. However, in the changing economic situation where children have to go to school, children can be a burden to parents and thus undermine quality of life of the family. Nevertheless, in African societies where children are considered as belonging to the kin, any member of the kinship who might be more wealthy can help to educate children of the kin members. The burden is thus not strongly felt (Mamdani, 1972).

Because of this, parents desire large families to ensure that the family economy is strengthened for a better life of the whole family. Contraception in this respect would always be seen as against the wish to have large families and, therefore, be perceived as an act intended to undermine family economy.

Information for this variable was collected through the use of 14 items which are presented below.

Table 5.30: Responses by Items on Family Economy

Question #	Statement	SD	D	A	SA	Valid #
Q51e	Many daughters in the family bring wealth through bride price	11.4	11.2	48.3	29.1	1286
Q51 l	Few children in a family are more likely to get better health services	32.0	44.9	15.0	8.1	1285
Q51j	Few children in the family are more likely to live a better life	31.2	44.2	16.0	8.6	1285
Q51c	Many children help each other in footing education costs	4.7	34.1	39.6	21.6	1286
Q51d	Many children ensure parents of comfortable life at old age because of their material and moral contribution	6.9	32.2	41.0	19.9	1284
Q51f	Many daughters in the family help the mother in subsistence crop production and in domestic chores	6.0	35.3	43.3	15.4	1286
Q51g	Many children drain family income through education	19.2	39.2	25.2	16.4	1286
Q51a	Many children are an asset because they contribute to family economy	13.5	35.7	37.7	13.2	1285
Q45k	Women bear as many children as possible to cement marriage relationship	10.6	39.2	37.1	13.1	1287
Q51i	Many children in the family cause deterioration in quality of life	19.4	16.2	25.2	39.2	1285
Q51h	Many children in family cause food inadequacy	0.0	34.4	44.1	21.5	1138
Q45h	Children are needed for labor in the family economy	21.4	61.2	15.6	1.8	1285
Q29b	Couples should limit the number of children for their better health	4.6	12.4	40.5	42.5	1279
Q29c	Couples who do not limit the number of children will not be able to support effectively a big family	4.5	11.7	40.3	43.5	1279

The frequency percentages show that children are seen as important in family economy. This is indicated by 77.4 percent response on the view that many daughters in the family bring wealth (q51e); 76.9 percent on the view that few children in a family are more likely to get better health services (q51l); 75.4 percent on the view that few children in the family are more likely to live a better life (q51j); 61.2 percent on the view that many children help each other in footing education costs 61.2 percent (q51c); 60.9 percent on the view that many children ensure parents of comfortable old age (q51d); 58.7 percent on the view that many daughters in the family help the mother in of subsistence crop production (q51f); 58.4 percent on the view that many children drain family income through education (q51g); and 50.9 percent on the view that many children contribute greatly to family economy (q51a).

There is also a recognition of the disadvantages of having many children. This is indicated by 64.4 percent of responses in agreement with the view that many children cause deterioration in quality of life (q51i); with 65.6 percent on the view that many children in family cause food inadequacy (q51h); 83 percent on the view that couples should limit number of children for better health (q29b); and 83.8 percent on the view that couples who do not limit the number of children will not be able to support effectively a big family (q29c). Therefore, this group do not agree with the statement that children are needed for labor in the family economy with 62.6 percent as is indicated in item q45h.

A factor analysis was run by use of the principal component and the equamax methods of extraction and rotation, respectively, to extract a few factors to represent the set of 14 items. Three factors were extracted and rotation of the factors indicated the following factor loading scores.

Table 5.31: Loading Scores for Factors Extracted to Represent Items Used to Collect Information on Family Economy

Question #	Factor 1	Factor 2	Factor 3
Q51g-# of children and education costs	.90327		
Q51h-# of children and food adequacy	.88035		
Q51i-# of children and quality of life	.91847		
Q51j-few children and better life	.91096		
Q51l-few children better health care	.91882		
Q45h-children as assets		.70012	
Q45k-children and marriage relationship		.56680	
Q51a-children and family economy		.68200	
Q51c-elder siblings help the young ones		.74426	
Q51d-many children and better old age care		.79773	
Q51e-many daughters and bride wealth		.70999	
Q51f-many daughters and domestic chores		.78531	
Q29b-# of children and better health			.89940
Q29c-# of children and their support			.90040

The themes for the factors are:

Factor one: many children less benefits

Factor two: many children, contribute greatly to family economy

Factor three: few children, better quality life of family

Factor One: Many Children, Less Benefits

This viewpoint investigates whether parents relate the number of children with related benefits. Societies which esteem large family size are assumed not to understand the disadvantages of having many children in their lives and the lives of those children.

The proposition put forward is that those who disagreed with the viewpoint are likely to record a higher percentage of non-use of contraceptives, compared to those who support the viewpoint. About 58 percent of the respondents disagreed with the viewpoint that many children undermine the quality of life in the family. When contraception was cross-tabulated by the viewpoint, results indicated a higher percentage of non-use of contraceptives by the disagree group with 65.6 percent non-use among the disagree moderately and 50.5 percent non-use among the strongly disagree group. As on the higher percentage of non-use of contraceptive among the disagree group compared to the strongly disagree group, just as has been pointed out in earlier similar results, the answer to such a result cannot be given in this study. Another investigation since this study is unable to provide the reason. A significance of 0.003 was observed as presented below in Table 5.32.

Table 5.32. Contraception by Support for the Viewpoint that Many Children Undermine the Quality of Life in the Family

Support	Contraception in %		Total %
	Don't use	Use	
SD	50.5	49.5	20.5
D	65.6	34.4	37.1
A	59.2	40.8	27.5
SA	54.9	45.1	14.9
Total	59.2	40.8	100.0 n=1026
Significance p=0.003			

When contraception was cross-tabulated by the viewpoint while controlling for ethnicity, education, religion, and income, results were similar to that indicated in Table 5.32

The results showed significant association between the variables and supported the proposition that those who disagreed with the viewpoint are likely to record a higher percentage of non-use of contraceptives. This implies that parents still see large families as beneficial for the family economy; for this reason, they refrain from using contraceptives.

Factor Two: Many Children Contribute Greatly to Family Economy

Despite the need for them to go to school, children in African societies are still considered economically beneficial when they participate in economic activities of the family after school hours and during vacation. Further, their contribution to the extended family, especially when they are grown up and are employed for wages or self-employed is still considered beneficial to the whole family. Limiting the number of children as a concept might not be a welcome idea to such parents.

The proposition put forward here is that those who supported the viewpoint are likely to record a higher percentage of non-use of contraceptives compared to those who disagreed. About 58 percent of the respondents agreed with the viewpoint that many children contributed greatly to family economy.

When contraception was cross-tabulated by the viewpoint, results indicated a higher percentage of non-use of contraceptives among the agree group with 67.2 percent non-use, while the strongly agree group recorded 56.0 percent contrary to expectation. The group, according to the proposition, was expected to record the highest percentage of non-use of contraceptives. The lower percentage of non-use of contraceptives for the strongly agree, as already indicated earlier on other three results, similar to such a result, needs a further investigation. None of the subgroups showed a distribution of responses different from the proposition. A significance level of 0.000 was observed indicating strong relationship between the variable as is indicated in Table 5.33 below.

Table 5.33: Contraception by Support for the Viewpoint That Many Children Contribute Greatly to Family Economy

Support	Contraception in %		Total %
	Don't use	Use	
SD	33.3	66.7	2.9
D	52.9	47.1	39.3
A	67.2	32.8	47.7
SA	56.0	44.0	10.1
Total	59.4	40.6	100.0 n=1154
Significance P=0.000			

When contraception was cross-tabulated by the viewpoint while controlling for ethnicity, education, religion, and income, results were similar to that indicated in Table 5.33.

The results has shown that the viewpoint; many children in the family contribute greatly to family economy has an association with contraceptive use.

Factor Three: Few Children, Better Quality Life of the Family

This viewpoint was intended to represent the opinion of the respondents on the concept of fewer children, better quality of life of the family, and how the concept affects their contraception behavior. The concept of few children and quality of life of the family is not perceived as two factors that are positively related among people in African

societies, hence the continued childbearing without being sensitive to 'numeracy in children concepts'.

The proposition made here is that those who disagreed with the viewpoint were likely to record a higher percentage of non-use of contraceptives compared to those who agreed. About 89 percent of the respondents agreed with the viewpoint that few children, better quality of life in the family. When contraception was cross-tabulated by the viewpoint, the results indicated a higher percentage of non-use of contraceptives among the disagree and strongly disagree groups with 91.9 percent and 88.0 percent non-use, respectively. The strongly disagree group had a slightly lower percentage compared to the disagree group contrary to expectation; however, the difference was very small, so it will not be regarded as significant. A significance level of 0.000 was observed indicating a strong relationship between the variables as can be seen in Table 5.34 below.

Table 5.34: Contraception by Support for the Viewpoint That Few Children, Better Quality Life of the Family.

Support	Contraception in %		Total %
	Don't use	Use	
SD	88.0	12.0	8.0
D	91.9	8.1	3.2
A	59.1	40.9	43.0
SA	52.0	48.0	45.8
Total	59.2	40.8	100.0 n=1150
Significance $p=0.000$			

When contraception was cross-tabulated by the view point while controlling for ethnicity, education, religion, and income, results were similar to that indicated in Table 5.34.

The results supports the proposition that those who disagreed with the viewpoint were likely to record a higher percentage of contraceptive use compared to those who agreed.

The three factors have shown significant association to the dependent variable, contraceptive use. This implies that family economy has a significant effect on contraceptive use.

Summary of Results on Customs Variables

The bivariate analysis and the Pearsons chi square tests have indicated the following.

Inheritance

Three factors extracted from factor analysis and a fourth item were analyzed under inheritance variable. Two factors on the viewpoint that many children are needed for inheritance especially sons and widows inheritance; showed significant association with contraceptive use. Also the item analyzed separately on the viewpoint that daughters should inherit in the absence of sons showed significant association with contraceptive use. The viewpoint that females should inherit family property was not significant.

The implication of the results are that inheritance is an important issue in African societies. Children especially sons are basically needed for inheritance despite other functions and responsibilities in the societies. The issue of only males have the right to inherit still features out strongly. This is likely, therefore, to affect contraceptive use as couples may continue bearing children to get sons. however, there seem to be positive feelings about inheritance of family property by widows when husbands die. However, respondents show unwillingness on rights of women to inherit family property.

On Sex Preference

Three factors extracted from factor analysis were on sex preference. The bivariate analysis indicated two of the factors to have significant association with contraceptive use. The factors were on the viewpoint that daughters are preferred for the wealth accrued through their marriage and a child is a child whether it is a boy or a girl. These results imply that bride price has an effect on couples' preference on female children besides the need for sons for inheritance. On the other hand, there is a recognition for both sexes of children as important. Couples, therefore, would want more children because they would like to have children of both sex. All these have negative effect on contraceptive use.

On Prestige

Prestige has association with contraceptive use. However, only two controlled groups, the Wanyakyusa and the Protestants indicated significant relationship with the dependent variable, contraceptive use. Having many children among the Wanyakyusa who are also Protestant, is prestigious. Such couples command respect and are bestowed certain status in society. Such respect and status the couples get is likely to motivate them into bearing many children and avoid using contraceptives to control birth.

Old Age Care

The variable has association with the dependent variable, contraceptive use. This implies that old age care influence the use of contraceptives. This is likely to happen

because parents would want many children to assure themselves of better old age care. Having many children means having many material wealth that are contributed by the siblings for their old parents. Thinking in this line, therefore, parents would want to make sure they have many children thus undermining the use of contraceptives.

Family Economy

Three factors analyzed under this variable had significant association with contraceptive use. The three factors were on the viewpoints that many children means less benefits, children contribute greatly to family economy; and few children means better quality life of the family.

The results show that children counts much in family economy. This may mean when they participate physically or contribute materially to their parents when they are grown up and can generate income of their own. There is also a recognition of the fact that having too many children is disadvantageous while a few children has more advantages.

Logistic Regression

To give the model ample information for better results, it was decided that all the variables under customs which have indicated significance in the bivariate analysis be run together. The results are as can be seen in the table below.

Table 5.35: Logistic Regression of Contraceptive Use on Custom Variables Significant in Bivariate Analysis

Model 1

Covariate Name	B	Wald	Sig	R
Old age care	-0.4226	8.3756	0.0038	-0.0740
Children and economy (Efactor1e)	0.1577	7.9839	0.0047	0.0717
Prestige	-0.1855	3.1252	0.0771	-0.0311
Sons inheritance (factor 2)	0.1457	2.9156	0.0877	0.0281
Daughters preference (Sfactor 1)	-0.1059	1.3916	0.2381	0.0000
Children and benefits (Efactor1b)	-0.0077	0.1032	0.7481	0.0000
Children and quality of life (Efactor1q)	-0.0309	0.3629	0.5469	0.0000
Childbearing and sex of children (q45p)	0.763	0.4202	0.5168	0.0000
Daughters inheritance (q45p)	0.0151	0.0260	0.8719	0.0000

Four variables are important in influencing contraceptive use. The variables are listed below according to their importance, as observed in Table 5.35 with their significance in brackets: old age care (0.0038), children and economy (0.0047), prestige (0.0771), and sons' inheritance (0.0877).

The classification table in the model indicates that about 62.3 percent of the respondents included in this analysis were correctly predicted. This shows that the logistic regression model has correctly classified the observed data. Furthermore, the don't use group was predicted better than the use group for reasons indicated in the customs classification model. Table 5.36 below shows the prediction percentages.

Table 5.36: Logistic Regression Model 1 Classification for Contraception and Customs Variables

Observed	Predicted		Percentage Correct
	Don't Use	Use	
Don't use	444	78	85.1
Use	249	97	28.0
Total	n=868		62.3

Table 5.37: Logistic Regression of Contraceptive Use on Customs Variables Which Were Significant in Model 1 and Control Variables

Model 2

Covariate name	B	Wald	Sig	R
Children and economy (Efactor1e)	0.1500	4.8463	0.0277	0.0509
Prestige	-0.2266	4.1805	0.0409	-0.0446
Old age care	-0.3079	3.9221	0.0477	-0.0419
Sons inheritance (Factor2)	0.1615	3.6786	0.0551	0.0391
Ethnicity (Wanyakyusa)	-0.6970	2.0952	0.1478	-0.0093
Education	0.2100	6.7768	0.0092	0.0607
Tradition	-1.7352	4.3573	0.0369	-0.0427
Catholics	-0.5415	0.7575	0.3841	0.0000
Born Again	-0.5953	0.7464	0.3876	0.0000
Muslims	-0.0866	0.0139	0.9060	0.0000
Protestants	-0.4003	0.4876	0.4850	0.0000
Income	0.3491	3.3394	0.0676	0.0349

The table above which includes all the customs variables which were significant in the logistic regression and the control variables indicated the following variables as important in influencing contraceptive use. These are sons' inheritance, prestige, old age care, and the viewpoint that many children are needed for family economy. However, ethnicity as a control variable loses its significance level from 0.0348 when run among control variables to 0.1478 when run with the customs variables. This could be a result of some of the customs factors like prestige, the viewpoints - children for family economy, and sons for inheritance which, when regressed together, may reduce the significance levels of such variables as ethnicity on contraceptive use. Education also loses its significance level, though it remain significance from 0.0001 to 0.0163. Likewise, income loses though is still significant, from a significance level of 0.0178 to 0.0676.

Some customs variables gain significance as they are regressed with control variables, for example, sons' inheritance which has a significance of 0.0877 in Model One and 0.0551 in Model Two. Some variables lose their significance levels, for example, old age care loses its significance level from 0.0038 to 0.0419.

The classification table in the regression model indicates that 64.9 percent of the respondents included in this analysis were correctly predicted. This shows that the logistic regression model has well classified the observed data as the classification table of the model shows below. Furthermore, the model indicates better prediction of the don't use than the use group for reasons explained earlier in the customs classification table. Therefore, the don't use group was well predicted by the model as expected.

Table 5.38: Logistic Regression Model Classification for Contraception and Customs Variables

Observed	Predicted		Percent correct
	Don't use	Use	
Don't use	401	92	81.3
Use	195	129	39.
Total		n=817	64.9

Beliefs

Beliefs can influence the behavior of a person. This is because it is the beliefs of an individual or family members or a society that shapes their thinking, their way of perceiving things and, hence, their behavior. It is, therefore, proposed that the beliefs of an individual or a couple about contraceptives and issues of fertility as a whole can have an influence on their behavior, the use of contraceptives.

Belief variables in this study are measured in the areas of impairment of fecundity through contraception, barrenness, marital relationship, and pro-natalistic religious teachings. Each of the variables is analyzed separately.

Contraception Impairs Fecundity

Some people in Tanzania believe that the use of contraceptives impairs fecundity. Fecundity impairment is of big concern among people in the child-bearing period and the extended family, as has been indicated earlier. It is because of this belief that the targeted group for contraception may refrain from using contraceptives for fear of impairing their fecundity.

Information on this variable was collected by asking respondents five items in the interview. The response frequencies in percent are presented below.

Table 5.39: Fecundity impairment

Question #	Statement	No	Yes	Valid #
Q 42l	Preventive methods have side effects	4.5	95.5	601
Q 43e	Contraceptives can cause health problems	6.5	93.5	601
Q 42c	Preventive methods impair fecundity	7.7	92.3	601
Q 50e	Women don't use contraceptives because their husbands fear that contraceptives impair fecundity	36.9	63.1	1259
Q 50b	Target groups don't use contraceptives because they fear side effects	44.5	55.5	1259

The results above show that people generally have the feeling that contraceptives are feared for the health and reproduction problems they cause to users. This is shown in all the frequencies results in all the items asked on this variable as indicated in the table above.

The first three items, q42l, q42c, and q43e, were not used for analysis because they were all derived from filtered questions. Items q42c and q42l were responses to why contraceptives had never been used; item q43e was a response to why contraception was discontinued. The fact that all three items came from respondents whose contraception behavior was negative may explain the highly skewed responses. Therefore, these three items were dropped, and only items q50b and q50e were used for the analysis.

A mean value for the two items was computed. One variable was derived. The theme for the variable computed is: contraceptives impair fecundity. Combining the two

items generated three groups: those who said 'Yes' to the two items, those who said 'No' to one item and 'Yes' to the other, and those who said 'No' to both the items.

Contraceptives Impair Fecundity

The proposition suggested here is that those who said 'Yes' to the viewpoint that contraceptives impair fecundity were likely to record a higher percentage of non-use of contraceptives than those who said 'Yes' and 'No' and those who said 'No'. About 39 percent of the respondents said 'Yes' to the viewpoint. When contraception was cross-tabulated by the viewpoint, the result indicated a higher percentage of non-use of contraception among those who said 'Yes' with 61.5 percent, while 59.4 percent non-use of contraceptive was recorded among the group which said 'Yes' and 'No.' The group which said 'No' recorded a 54.9 percent non-use of contraceptives. A significance level of 0.281 was recorded. The result of the percentage of non-use of contraceptives indicated support to the proposition; however, the association of the variables is not significant as can be seen in Table 5.40 below.

Table 5.40: Contraception by Support for the Viewpoint That Contraceptives Impair Fecundity

Support	Contraception in %		Total
	Don't Use	Use	
No	54.9	45.1	18.2
No and Yes	59.4	40.6	43.3
Yes	61.5	38.5	38.5
Total	59.4	40.6	100.0 n=1132
Significance p=0.281			

When contraception was cross-tabulated by viewpoint while controlling for ethnicity, education, religion, and income, the results were similar to that indicated in Table 5.40 above.

The results have indicated no significant association between the two variables. This means that the belief among people that fecundity of those who use contraceptives, is impaired, does not significantly influence their behavior towards contraception practice.

Barrenness

Literature indicates that in African societies in general and Tanzanian societies in particular, barrenness is perceived as a punishment of some sort either, from one's ancestors or God or a curse which could have been caused by witchcraft (Meyer, 1993). As such barrenness is a cause for scorn, a barren woman has no respect in the community. She is denied some social privileges due to her barrenness (Mamdani 1972). For example, a barren woman among the Wanyakyusa is not allowed to touch a newly born baby or to attend baby showers. Also when she dies, certain rituals are performed so that her curses do not remain with any member in the family (Meyer, 1993). Such a situation is feared by both couples and individuals. An act to prevent childbearing such as the use of contraceptives, therefore, will be avoided for fear of being considered barren.

Beliefs about being perceived as barrenness as punishment or a curse, were measured by two items which the respondents were asked. The two items were Q49 and Q50a.

Item Q49: Barrenness Is a Punishment or a Curse

Barrenness is perceived as a punishment or a curse because it is believed that children are gifts from God. Ancestors are also happy when children are allowed to replace them in the kinship. Barrenness, therefore, is considered a punishment or a curse as it is implied that God who provides them as gifts to the couple is not happy with them- they wronged Him, that's why they cannot bear the children.

Respondents were asked to indicate whether barrenness is a punishment, a curse or the work of witchcraft. They were required to say 'Yes' or 'No' to the statement. Responses to the question follow.

Table 5.41: Barrenness is a Punishment, Curse, or Witchcraft

Response	Frequencies in %
No	84.2
Yes	15.8
Total	100.0 n=1117

The results indicated that many respondents, about 84 percent, say no to the viewpoint that barrenness is a punishment, a curse or the work of witchcraft.

The second item for the variable was q50a which required respondents to say 'Yes' or 'No' to the viewpoint that people do not use contraceptives because they fear to be considered barren. The response to the statement were as follows:

Table 5.42: People Do not Use Contraceptives for Fear of Being Considered Barren

Response	Frequencies
No	59.8
Yes	40.2
Total	100.0 n=1290

The responses indicated that about 60 percent said 'No' to the statement that people don't use contraceptives because they fear side effects such as barrenness.

The two items were combined by computing the mean value of the two. A new variable was obtained which was used to run the bivariate analysis for barrenness variable. The theme for barrenness variable is: people do not use contraceptives for fear of being considered barren.

People Do Not Use Contraceptives for Fear of Being Considered Barren

The proposition is that those who said 'Yes' to the statement demonstrated their support to the idea that people do not use contraceptives for fear of being considered barren. They are therefore likely to record higher percentages of non-use of contraceptives than those who said 'No'.

About 47.6 percent indicated 'No' in one of the items and 'Yes' in the other item, 46.3 percent said 'No' to both items and 6.1 percent said 'Yes' to both items. This generated a three-point index for the viewpoint that people do not use contraceptives for

fear of being considered barren. When contraception was cross-tabulated by the viewpoint, those who said 'No' to the viewpoint recorded 64.6 percent non-use of contraceptives, and those who said 'No' and 'Yes' recorded 60.4 percent non-use of contraceptives, while those who said 'Yes' to the viewpoint recorded 47.5 percent of non-use of contraceptives. A significance level of 0.027 was observed.

The results on percentage of non-use of contraceptives do not support the proposition although the association of the variables is significant as Table 5.43 shows below. The possible explanation could be the problem of lack of a measure that could have been used to collect information on beliefs that contraception causes perception of barrenness.

Table 5.43: Contraception by Support for the Viewpoint That People Who Do not Use Contraceptives Fear to Be Considered Barren

Support	Contraception in %		Total %
	Don't use	Use	
No	64.6	35.4	46.3
No and Yes	60.4	39.6	47.6
Yes	47.5	52.5	6.1
Total	61.6	38.4	100.0 n=1012
Significance p=0.027			

When contraception was cross-tabulated by the viewpoint while controlling for ethnicity, education, religion, and income, results were similar to those indicated in Table 5.43.

Barrenness has association with contraception use. However, the results do not support the proposition that those who said 'Yes' to the viewpoint were expected to record higher percentage of contraceptives. What can be deduced here is that barrenness has an effect on contraceptive use, but the fear of being considered barren is not important.

Contraceptive Use and Marital Relationship

There is a belief that women hesitate to use contraceptives because their partners do not want them to, or because continued child-bearing will cement the marital relationship. They, therefore, feel they would rather abide by their partners' wishes so as to maintain their marital relationships.

Information on this variable was collected by the use of three items which the respondents were asked. Their responses are indicated in Table 5.44 below in percentages.

Table 5.44: Beliefs About Fertility and Marital Relationship

Question #	Statement	SD	D	A	SA	Valid #
Q45l	Women bear many children against their will to abide by their husbands and in-laws demands	3.4	17.2	47.1	32.3	1250
Q45j	Women bear as many children as possible to keep marriage relationship	7.2	35.3	42.5	15.0	1282
Q45m	Women bear many children because their husbands refuse them to use contraceptives	8.8	44.4	28.8	18.0	1280

The results indicate that women end up bearing many children because their husbands and in-laws want them to do so. This is indicated by 79.4 percent of the response on the viewpoint that women bear many children to abide by their husbands and in-laws' demands (q45l), and 57.9 percent on the view that women bear many children to keep marriage relationship (item q45j). About 53 percent disagreed with the viewpoint that women bear many children because their husbands refuse to allow them to use contraceptives (q45m).

A factor analysis was run by use of the principal component and oblimin methods for extraction and rotation, respectively, to obtain a few factors that will represent the set of the items. Two factors were extracted. The loading scores for each factor are as follows.

Table 5.45: Loadings for the Factors Extracted to Represent Contraceptive Use and Marital Relationship

Question #	Factor 1	Factor 2
Q45j-number of children and marriage relationship	.78918	
Q45m-husbands refuse wives to use contraceptives	.87184	
Q45l-wives bear many children for husbands and in-laws satisfaction		.59502

The theme for each of the factors is:

Factor One: Women bear many children by women to keep marriage relationship

Factor Two: Women bear many for husbands and in-laws satisfaction

Factor One: Women Bear Many Children to Keep Marriage Relationship

As indicated above, women abide by their partners' wishes to refrain from contraceptive use and, therefore, bear as many children as their partners want. The proposition is that those who agreed with the viewpoint are assumed to support large family size and would be unwilling to prevent child bearing. It is expected that this group which agreed would show a higher percentage of non-use of contraception than the group which disagreed with the statement.

About 79 percent agreed with the viewpoint that women bear many children to keep the marriage relationship. When contraception was cross-tabulated by the viewpoint, the results indicated a higher non-use of contraceptives among the agree group with 68.4 percent. The strongly agree group recorded 47.1 percent which is lower than the agree

group, contrary to what was expected. As has been noted earlier, the answer to this type of result cannot be provided in this study. A significance level of 0.000 was observed as can be seen in Table 5.46.

Table 5.46: Contraception by Support for the Viewpoint That Women Bear Many Children to Keep Marital Relationship

Support	Contraception in %		Total %
	Don't Use	Use	
SD	65.8	34.2	3.3
D	57.1	42.9	17.8
A	68.4	31.6	46.2
SA	47.1	52.9	32.7
Total	59.3	40.7	100.0 n=1145
Significance p=0.000			

When contraception was cross-tabulated by the viewpoint while controlling for ethnicity, education, religion, and income, the results were similar to that shown in Table 5.46.

The results indicated that the viewpoint that women bear many children in order to keep marriage relationship has association with contraceptive use. The results also support the proposition.

Factor Two: Women Bear Many Children For Husbands' and 'In-Laws' Satisfaction

It is common in African societies and Tanzania in particular for the relatives especially in-laws, to pressure couples to let children come (to bear them) without controlling birth for reasons mentioned earlier. Therefore, women are faced with the dilemma of either having many children to satisfy their husbands and in-laws, or bearing few children by using contraceptives to prevent conception and, therefore, facing the problem of undermining their relationships with their husbands and in-laws. Most women abide by the demands of their husbands and in-laws, and they are likely to avoid using contraceptives.

The proposition is that those who agreed with the viewpoint were expected to record a higher percentage of non-use of contraceptives. About 50 percent of the respondents agreed with the viewpoint that women bear many children to satisfy their husbands and in-laws. When contraception was cross-tabulated by the viewpoint, results indicated a higher percentage of non-use of contraceptives among the agree group with 66.7 percent. The strongly agree group recorded 51.8 percent non-use of contraceptives, which is lower than the agree group, contrary to what was expected. As noted in other

variables with similar results, the answer to it cannot be provided in this study. A significance level of 0.000 was observed as can be seen in Table 5.47.

Table 5.47: Contraception by Support for the Viewpoint That Women Bear Many Children to Abide by Husbands' and In-Laws' Satisfaction

Support	Contraception in %		Total %
	Don't use	Use	
SD	59.0	41.0	3.5
D	48.2	51.8	46.7
A	66.7	33.3	32.4
SA	51.8	48.2	17.4
Total	58.4	41.6	100.0 n=1122
Significance $p=0.000$			

When contraception was cross-tabulated by viewpoint while controlling for ethnicity, education, religion, and income; similar results as that described in Table 5.47 were observed.

The two factors under the variable have significant association with contraceptive use. The results also support the propositions.

Pro-Natalistic Religious Teachings

Religious teachings that bar followers from using contraceptives to control birth because it is considered as sinful act influence followers from using them as has been detailed earlier in this chapter and the research findings from the Philippines by Alphonso, Layo and Bulatao (1980), cited in Chapter Two.

Information on this variable was collected by the use of three items in the interview schedule. The response frequencies in percentages are presented below in Table 5.48.

Table 5.48: Pro-Natalistic Religious Teachings

Question #	Statement	SD	D	A	SA	Valid #
Q45c	Children have to come because they are a gift from God	4.7	20.2	58.5	16.6	1286
Q45d	Couples have to have as many children as God can provide them	5.9	23.4	55.7	15.0	1283
Q45f	Religious teaching does not allow the use of contraceptives	26.2	10.6	51.1	12.1	1285

There is a general feeling among respondents that children are God-given, so they should be allowed to be born as God provides them. This is shown by 75.1 percent response on the view that children have to come because they are gifts from God (item q45c); and 70.7 percent on the view that couples have to have many children as God can

provide them (item q45d). About 63 percent of the respondents indicated that their religious teachings do not allow the use of contraceptives in item q45f.

A scale formed from the three items had a reliability coefficient of 0.7728. A mean value was computed from the three items used to collect information on this variable. The theme for the computed mean variable is: children are a gift from God; they should be allowed to come.

Children Are a Gift from God; They Should Be Allowed to Come

The proposition is that those who supported the viewpoint are proponents of large family size. They were, therefore, expected to record higher percentage of non-use of contraceptives compared to those who disagreed.

About 62 percent of the respondents agreed both strongly and moderately that children should be allowed to be born because they are a gift from God. When contraception was cross-tabulated by the viewpoint, results indicated a higher percentage non-use of contraceptives among those who agreed with the viewpoint with 68.4 percent as can be seen in Table 5.49. However, the strongly agree recorded a lower percent compared to the agree group with 48.3 percent, contrary to the expectation. The reason for this cannot be explained in this study, as indicated earlier. The Pearson chi square test indicated a significance of 0.000 as indicated in Table 5.49.

Table 5.49: Contraception by Support for the Viewpoint That Children are a Gift From God, They Should Be Allowed To Come

Support	Contraception in %		Total %
	Don't Use	Use	
SD	43.5	56.5	4.0
D	50.8	49.2	34.1
A	68.4	31.6	51.7
SA	48.3	51.7	10.3
Total	59.3	40.7	100.0 n=1150
Significance p=0.000			

When contraception was cross-tabulated by the viewpoint while controlling for ethnicity, education, religion, and income, the results indicated a similar trend of percentage of non-use of contraception like that described above and indicated in Table 5.49.

The results indicated that pro-natalist religious teachings have significant association with contraceptive use. The results also support the proposition.

Summary of Results on Beliefs' Variables

The bivariate analysis and the Pearsons chi square test have shown the following results on belief variables.

Barrenness

On barrenness, the viewpoint that people do not use contraceptives because of fear of being considered barren has significant association with contraceptive use. However, the results did not support the proposition. The implication for the significant association is that barrenness is a barrier to contraceptive use. People fear to use contraceptives since the consequences for not having children have great impact on the couple and the extended family. Because of such consequences couples refrain from using contraceptives. The non supporting results to the proposition is a result of the Wazaramo people who are both Muslims and matrilineal. They live with two philosophies which are contradictory. Islam forbid birth control while matrilineality allows women some autonomy and therefore are likely to contracept more. They might have therefore indicated barrenness as not being an issue with respect to contraception. This might have affected the results.

Contraception and Marital Relationship

Factor One on the viewpoint that women bear many children to keep marriage relationship and Factor Two on the viewpoint that women bear many children for husbands and in-laws' satisfaction, have significant association with contraceptive use. The results also supported the proposition. The variables indicate how important children are in women marriage lives. A wife with no children is likely to be divorced. However, a man can marry a second wife who can bear children for him and keep the barren wife in

his house. The children besides cementing marriage relationships, they are for inheritance, old age care and are insurance for the mother for her access to family property in case the father dies as has been detailed earlier in customs variables analysis.

Pro-Natalistic Religious Teachings

The viewpoint that children are a gift from God, they should be allowed to come; has significant association with the dependent variable. The results also supported the proposition. The implication here is that religious teaching has impact on the behavior of people. Contraceptives are likely to be avoided as religious teachings indicate it is wrong to prevent children from being born.

Contraception and Fecundity Impairment

Beliefs about the negative effect of contraception on fecundity have no significant association with contraceptive use.

Logistic Regression

Logistic regression was used to regress contraception on the belief variables which showed significant association with the dependent variable. The results are as shown in the table below. Two models are presented. Model 1 presents the logistic regression results of belief variables which were indicated in the bivariate analysis to have significant association with contraceptive use, and Model 2 presents results of the

belief variables which showed significant results in Model 1 regressed together with control variables.

Table 5.50: Logistic Regression of Contraceptive Use on Belief Variables Significant in Bivariate Analysis.

Model 1

Covariate	B	Wald	Sig	R
Many children to satisfy husband and in-laws demands	-0.5057	36.1141	0.0000	-0.1598
Barrenness	0.6935	8.9642	0.0028	0.0722
Children are gifts from God	-0.2782	7.9628	0.0048	-0.0668
Children and marital relationship	0.1011	2.1817	0.1397	0.0117

Model One results show that barrenness, children as gifts from God and many children by women to satisfy husbands and in-laws' demands are important in influencing contraceptive use. The viewpoint that women bear many children to cement their marital relationship was indicated as not important in influencing contraceptive use.

The classification table in the regression model indicates that about 62 percent of the respondents included in the analysis were correctly predicted. Also, the don't use group in the model was better predicted than the use group for reasons explained earlier under the customs's prediction table. This shows that the logistic regression model has well classified the observed data as the classification table below shows.

Table 5.51: Logistic Regression Classification for Contraception and Beliefs Variables

Observed	Predicted		Percentage Correct
	Don't Use	Use	
Don't use	597	10	98.4
Use	367	17	4.4
Total	n=991		61.9

Table 5.52: Logistic regression of contraceptive use on the belief variables significant in Model 1 and the control variables

Model 2

Covariate Name	B	Wald	Sig	R
Many children to satisfy husbands and in-laws demands	-0.5274	381574	0.0000	-0.1708
Barrenness	0.6869	7.5645	0.0060	0.0670
Children and marital relationship	0.1699	4.9343	0.0263	0.0487
Ethnicity	-1.0974	41.5661	0.0000	-0.1787
Education	0.3978	20.7243	0.0000	0.1229
Traditional religion	-1.4639	5.4854	0.0192	-0.0530
Income	0.4683	6.6060	0.0102	0.0610

Model Two results show that when the belief variables are regressed with the control variables, the children are gifts from God variable becomes unimportant. On the

other hand, children and marital relationship variable becomes important, while in Model One it was unimportant. The variability in significance levels in the two variables is possibly due to the influence of the control variables when they are regressed together with the belief variables. The other possibility could be the influence of multi-collinearity of the two variables. An attempt to check on their correlation was made; a correlation of 0.568 with a Pearson significant level of 0.000 was recorded. This showed that the two variables are correlated, hence, their influence to each other.

The variables which are, therefore, considered as important under beliefs variables are barrenness, women bear many children for marital relationship, women bear many children to satisfy husbands and in-laws' demands, and children are gifts from God; they should be allowed to come..

The classification table in the regression model indicates that about 67.8 percent of the respondents included in this analysis were correctly predicted. This shows that the logistic regression model has well classified the observed data as the classification table shows below.

Table 5.53: Logistic Regression Model Classification for Contraception and Beliefs Variables

Observed	Predicted		Percent correct
	Don't Use	Use	
Don't use	469	105	81.7
Use	195	162	45.4
Total	n=931		67.8

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**THE EFFECTS OF CULTURAL FACTORS ON CONTRACEPTIVE USE:
THE CASE OF PWANI AND MBEYA REGIONS IN TANZANIA**

VOLUME II

By

Mary Damase Nkuyu Kitula

A DISSERTATION

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CHAPTER SIX

WOMEN'S STATUS

Introduction

The literature indicates that in many societies of the world, women's status is low (Mason, 1985). The major exception appears to be in developed countries where some women have gained autonomy over their own lives. In Tanzania, especially among the patrilineal societies where patriarchy is strong, the status of women is very low (Bryceson, 1995; Mascarenhas, 1983; Mugaya, 1977; Meghji, 1976).

Women's status in simple terms refers to indicators such as women's power to participate in decision-making, own property, inherit, participate in wage employment, have purchasing power, and to decide on their reproductive health (Basu, 1992; Swantz, 1967; Willy, 1967; Sen, 1994; Mason, 1985). The words 'status of women' denote a complex concept. This is because different societies have different levels of interpreting the concept, depending on how strongly patriarchy is entrenched in the respective societies. However, Dixon (1976), as quoted by Mason (1985), defines status of women as the degree of women's access to and control over material resources (such as land, income and other sources of wealth) and social resources (including knowledge, power,

and prestige within the family, the community and society at large). Indicators used for status of women are education, employment, self-esteem, confidence, decision-making and equality.

Empowered women are those who possess some of the indicators for higher status such as education and employment. Women with such empowerment factors are believed to have acquired autonomy, self-esteem and confidence; therefore, they can participate in decision-making, can plan for their fertility and are capable of meeting the costs that are involved in the whole process of contraception. Such empowered women are not appendages to men; as a result they are not afraid to make decisions that are beneficial for their welfare, including their reproductive health (Mason, 1985; Sen, 1994). They do not worry about old age care as they are capable of owning property and planning for their retirement. It is, therefore, believed that empowered women are likely to use contraceptives more than low status; unempowered women.

This study intends to investigate whether women's empowerment makes any difference in terms of contraception in Tanzania. The study identified five empowerment indicators. These are education, women's employment status, decision-making participation, property ownership, and division of labor. These indicators were analyzed to see if there were differences among the women with or without these empowerment values in terms of contraceptive use. In other words, this section will deal with questions such as: Do Tanzanian women who are educated and/or employed, who participate in

decision-making, who are able to own property and who share responsibilities with spouses contracept more than those without these characteristics?

This chapter, therefore, will analyze responses of women only. The purpose of analyzing information only from women on this research question is to present women's real experience. Women's standpoint is more considered here so as to get their personal experience and, hence, to be able to talk with certainty about how they feel about their status and how much they are affected in terms of deciding on their fertility matters. Further, information from women themselves is considered more reliable compared to information provided by men about women, as such considering information which has been given by men about women is likely to be unreliable. Therefore, only women's information on this research question was considered.

Education of Women

Women with higher education are expected to have access to information about contraception. Women with higher education in most cases are employed. Therefore, they can afford to buy magazines or other materials that are a source of information to know about their reproductive health; they can also afford to pay for the costs of contraceptives. Women with education, are believed to have autonomy and are able to participate in decision-making, especially in matters that involve their reproduction. It is, therefore, assumed that women with education are capable of controlling their fertility through the use of contraceptives.

Information on education was collected through asking respondents the years of education they have. Table 6.1 below shows the respondents's responses in percentages.

Table 6.1: Education of Women

Education in Years	Responses %
0 years of education	38.0
Less than 7 years of education	19.8
7 years of education	39.0
Over 7 years of education	3.8
Total	100.0 n=748

The responses to women's education in years indicate that only 3.8 percent of the women interviewed had over seven years of education, about 38 percent had zero years of education, 40 percent had completed seven years of education, and 19.4 percent had less than seven years of education. That is, less than half of the women in the sample have completed primary education.

The proposition made for this variable is that women with no education, and those with less than seven years of education had a higher percentage of non-use of contraceptives compared to those with seven years of education and those with over seven years of education.

When contraception was cross-tabulated by education, the results showed a higher percentage of non-use of contraception among those women with no education with 68

percent non-use. The less than seven years of education recorded 54.2 percent non-use of contraceptives, and the seven years and the over seven years groups recorded 52.4 percent and 52.2 percent non-use of contraceptives, respectively. A significance level of 0.001 was observed as can be seen in Table 6.2. This thus shows an inverse relationship, that is, as education rises, the percentage of non-use drops down as the table below shows.

Table 6.2: Contraception by Level of Education of Women

Education in years	Contraception in %		Total %
	Don't Use	Use	
0 years of education	68.0	32.0	37.5
Less than 7 years of education	54.2	45.8	19.4
7 years of education	52.4	47.8	40.0
Over 7 years of education	52.2	47.6	3.1
Total	58.5	41.5	100.0 n=675
Significance p=0.001			

When contraception was cross-tabulated by education while controlling for ethnicity, religion and income, results were similar to that indicated above in Table 6.2.

The results show that women's education has significant association with contraceptive use. It is further indicated that as years of education increase, the percentage non-use of contraceptives decreases. The results support the proposition.

Employment

Employment is one of the indicators of women's empowerment. Employed women are exposed to new ideas through interactions with people and information networks. The wages they get raise their purchasing power; hence, they can afford to meet the costs for contraception services. Their jobs automatically restrict them from bearing children from time to time; hence, they are obliged to contracept.

Information for this variable was collected through the use of three items. The first item q19a required respondents to indicate whether they were employed for wages, self-employed, or not employed. The responses were as shown in Table 6.3 below.

Table 6.3: Employment of Women

Employment	Response in %
Not employed	59.1
Self-employment	38.6
Employed for wage	2.3
Total	100.0 n=748

The percentages show that less than half of the women are employed for wages. Those employed, account for only 2.3 percent, while 59.1 percent are not employed. Those who are self-employed account for 38.6 percent. Most women, although they are not employed, they do participate in small income-generating activities such as selling farm and garden produce, hand craft materials, small scale hair dressing activities, and selling local beer which they brew. Those who are in the group of self-employed, they are owners of kiosks which sell artifacts, soft drinks and magazines; saloons; food stalls at the market places; and some are middlemen who buy crops from farmers and sell them to owners of food stalls at the market place.

The second item q20 required respondents to indicate their real income in terms of Tshs. Table 6.4 below shows the responses in percent.

Table 6.4: Level of Income of Women

Women's Income	Responses in %
Less Tshs 30,000	90.9
Tshs 30,001-60,000	8.6
Tshs 60,001-90,000	0.6
Total	100.0 n=725

The table indicates that the majority of women (90.9 percent) here the lowest income level, while those in the upper level of income are only 0.6 percent.

The third item q61 asked respondents to indicate if they have bank accounts. The following Table 6.5 shows their responses.

Table 6.5: Women's Possession of Bank Accounts

Possession of Bank Accounts	Responses in %
No account	74.6
Account	25.4
Total	100.0 n=735

About 75 percent of the women do not have bank accounts. This shows that they do not have income that would enable them to open accounts.

A factor analysis was run for the three items using principal component and oblimin methods for extraction and rotation, respectively. Only one factor was extracted whose component was the first question asked on employment status. This was not seen as representative of the three items. A decision was made to compute a mean value for the items. The first two items were recoded to range between one and two to give them equal weight, and the mean of the three items was computed. The theme of the computed variable is: Employment status of women.

Employment Status of Women

The proposition is that women who are not employed and, therefore, do not have incomes of their own were likely to record higher percentages of non-use of contraceptives than employed women.

About 81 percent of the women were low on the employment index. Those high on the employment index were 4.5 percent, and the women who are intermediate on the employment index were 14.5 percent.

When contraception was cross-tabulated by employment, results indicated a higher percentage of non-use of contraceptives (61.0 percent) among those who were not employed than any of the other groups. A significance level of 0.060 was observed as indicated in Table 6.6 below.

Table 6.6: Contraception by Women's Employment Status

Support	Contraception in %		Total in %
	Don't Use	Use	
No employment	61.0	39.0	81.0
Self employed	54.2	45.8	14.5
Employed	48.1	51.9	4.5
Total	59.4	40.6	100.0 n=675
Significance p=0.060			

When contraception was cross-tabulated by employment, results were similar to that shown in Table 6.6.

The results have showed that employment has significant association with contraceptive use. The results supported the proposition.

Decision-Making

It is believed that when women are able to participate in decision-making on family matters, they can also influence decisions on contraceptive use so as to limit the number of children, maintain their health, have time to concentrate on their careers, and have fewer but higher quality children.

Four items were used in the interview schedule to collect information for this variable. The first item, q23, asked respondents to indicate who decides on the expenditure of income earned by the women. The responses follow.

Table 6.7: Decisions on the Expenditure of Women's Income

Who Decides on Income Expenditure	Responses in %
Myself	43.7
Me and spouse	48.7
Spouse	7.6
Total	100.0 n=718

spend the money they earn, while 48.7 percent decide together with their partners, and 7.6 percent indicated their partners have full power over the money they earn.

The second item, q62, asked respondent to indicate who decides what they should do with the money they earn. Responses were as follows:

Table 6.8: Who Makes Decisions on What Women Should Do With Their Money

Who Decides What Women Should Do With Their Money	Responses in %
Myself	51.2
Me and husband	39.4
Husband	8.0
Parents and in-laws	1.4
Total	100.0 n=736

Responses indicated that the majority of women, 51.2 percent, make decisions on what to do with the money they earn. This was followed by 39.4 percent of the women who said they decided together with their partners (husbands). About eight percent indicated their husbands make decisions while 1.4 percent said their parents and in-laws make decisions.

The third item, q59, asked respondents to indicate who decided on the number of children they bear. Table 6.9 below indicates their responses.

Table 6.9: Decision on the Number of Children to Bear

Who Decides on Number of Children to Bear	Responses in %
Myself	0.7
Me and my husband	15.2
Husband	46.0
Parents/In-laws	38.1
Total	100.0 n=698

The response frequencies showed that the majority of women do not have the power to decide on their fertility. Only 0.7 percent said they decided on the number of children to bear, while the majority of respondents indicated that decision on number of children to bear was made by her husband or her parents and/or in-laws. These two groups accounted for about 84 percent. About 15.2 percent indicated that they made the decision together with their partners.

The fourth item, q60, asked respondents to indicate who decided on their marriage. Responses were as follows.

Table 6.10: Decision on Marriage

Who Decided on Your Marriage	Responses in %
Myself	68.0
Me and partner to be	3.7
Parents and in-laws	28.3
Total	100.0 n=690

Most women, about 68.0 percent, indicated they made the decisions on their marriages. However, parents still play a role in making decisions for their children's marriages; response percentage indicated that 28.3 percent of respondents' marriages were decided upon by their parents and/or their in-laws.

Three of the four items had four groups and one had three groups. The item with three groups was expanded to range from one to four to give each item equal weight before the factor analysis was run.

A factor analysis was run by use of the principal component and oblimin methods for extraction and rotation, respectively, to obtain one or more factors that would represent the set of items. Two factors were extracted. The factor loading scores were as follows:

Table 6.11: Loading Scores for Factors to Women's Decision-Making

Question number	Factor 1	Factor 2
Q23-decision on income use	.85832	
Q62-who decides on what women should do with their salaries	.88511	
Q60-decision on marriage		.76442
Q59-decision on # of children to bear		.69045

The theme for each of the factors is as follows:

Factor One: who decides on your money expenditure?

Factor Two: who decided on your marriage and children?

Factor One: Who Decides on Your Money Expenditure

Participation in decision-making by women is an important tool of empowerment.

When a woman is able to participate in decision-making especially on what to do with her money she earns, it then provides her the chance to prioritize her needs. Further, the fact that she earns some income, she possesses some power to influence her partner to consider her needs which may include reproductive health, contraception, and the number of children to bear.

The aim was to look into women's behavior towards contraception by their participation in decision-making. The purpose was to show whether there were

differences in contraceptive use between those who participated in decision-making and those who did not.

As indicated earlier, q23 had three groups and q62 had four groups; the three groups of q23 were recoded to extend the three groups into four to give equal weights to the item contents.

The proposition is that women whose husbands and parents and/or in-laws decide for them, were expected to have higher percentages of non-use of contraceptives than those who participated in decision-making on how to use their money.

Almost half, 46.4 percent, indicated they decided, and 35.4 percent made decision together with their spouses. About seven percent indicated that their husbands made the decisions and 11 percent said their parents and in-laws made decisions.

When contraception was cross-tabulated by the viewpoint, results indicated that women who said their husbands decided recorded higher percentage of non-use of contraceptives with 66.7 percent followed by the group whose in-laws have a say with 64.0 percent. A significance of 0.056 was observed, as can be seen in Table 6.12.

Table 6.12: Contraception by Those Who Make Decision on Women's Money Expenditure

Decision on Women's Money Expenditure	Contraception in %		Total in %
	Don't use	Use	
Myself	54.6	45.4	46.4
Me and husband	52.0	48.0	35.4
Husband	66.7	33.3	7.1
Parents/In-laws	64.0	36.0	11.1
Total	58.5	41.5	100.0 n=675
Significance P=0.056			

When contraception was cross-tabulated by the statement while controlling for ethnicity, education, religion, and income, results were not different from what is indicated in Table 6.12.

The results have shown that participation in decision-making on money expenditure has a significant association with contraceptive use. The results also support the proposition that those women whose husbands and in-laws decide on the expenditure of their money are expected to record higher percentage of non-use of contraceptives.

Factor Two: Who Decided on Your Marriage and Fertility

Women who can make decisions on whom to marry and when, are said to have some degree of empowerment. Such women are, therefore, likely to contracept more than women whose parents and in-laws- to-be decided on their marriages.

One item had three groups and the other had four. The items groups were thus recoded to expand them to four for purposes of providing the items equal weight.

About 23 percent of women decided on their marriage and fertility while 42.5 percent indicated their marriages were decided upon by their parents and in-laws. The proposition is that women whose marriages were decided by their parents and in-laws-to-be, have no empowerment, and therefore, were likely to record higher percentage non-use of contraceptives.

When contraception was cross-tabulated by the viewpoint, results showed a higher percentage of non-use of contraceptives by those whose marriages were decided upon by their husbands with 70.2 percent. This was followed by the parents' and in-laws' group with 67.8 percent. A significance level of 0.072 was observed as can be seen in Table 6.13 below.

Table 6.13: Contraception by Those Who Decided on Respondents' Marriages

Decision on Marriages	Contraception in %		Total %
	Don't Use	Use	
Myself	47.4	52.6	22.6
Me and partner to be	38.6	61.4	9.2
Husband	70.2	29.8	25.7
Parents and in-laws	67.8	32.2	42.5
Total	57.9	42.1	100.0 n=675
Significance p=0.072			

When contraception was cross-tabulated by the statement while controlling for ethnicity, education, religion and income, there was a similar outcome of results as that indicated in Table 6.13.

The results observed in Table 6.13 supported the proposition that women who are denied the right to decide on their own welfare; (parents and in-laws make decisions for them on matters concerning their marriage and fertility) were likely to record higher percentage of non-use of contraceptives.

Property Ownership

Women's ownership of property empowers them to make decisions, become autonomous, raise their self-esteem and be able to make decision on their own fertility. This is because they are independent economically. They have a purchasing power. Therefore, they are likely to use contraceptives.

Information collected on property ownership, however, could not be used. This is because, inadvertently, the survey did not include a question differentiating women's property from men's and jointly owned property. Since the information provided by respondents is on property which may belong to men or be jointly owned, property items do not provide valid indications of women's status. Therefore, it was decided not to include property in the analysis.

Financial Resource

The purpose for this variable was to investigate women with financial resources and to determine how different they are from those with no financial resources in terms of their behavior towards contraception. Women's possession of financial resources can be an indicator of empowerment as they can make decisions on what they want to do with the funds they possess.

Information on financial resources was obtained through three items asked of the respondents. The first item, q61, asked respondents to indicate whether or not they own bank accounts. The responses were as follows:

Table 6.14: Women's Ownership of Bank Accounts

Ownership of Bank Accounts	Responses in %
No	89.3
Yes	10.7
Total	100.0 n=735

Very few women own bank accounts; about 89 percent have no accounts.

The second item, q64b, asked respondent to indicate whether they had obtained a bank loan. The responses were as follows:

Table 6.15: Bank Loans for Women

Bank Loans for Women	Responses in %
No	97.2
Yes	2.8
Total	100.0 n=743

The response frequencies indicate that very few women, 2.3 percent, have had the opportunity to get bank loans for personal projects out of those who had requested. The

possible reason for such a small number is possibly due to the fact that they do not qualify to get loans according to the requirements set. This is an indication of low status.

The third item, q64a, asked respondents to indicate whether they were engaged in income-generating activities. The responses to the question were as follows:

Table 6.16: Income-Generating Activities for Women

Income Generating Activities	Frequencies
No	74.6
Yes	25.4
Total	100.0 n=735

The results show that 74.6 percent of the respondents were not engaged in any income-generating activities. However, it has to be noted that activities such as crop production are not perceived as income generating; hence, the possibly higher percentage of women in the non income generating group.

A factor analysis was run by use of the principal component and oblimin methods for extraction and rotation, respectively, to obtain a few factors to represent the set of items and calculate their loading scores. One factor was extracted. This was deemed not to be a good representative of the three items. A mean value of the three items was thus computed to obtain a new variable. The theme for the new variable is: women's financial resources.

The proposition is that women who do not possess financial resources are dependent on their husbands or partners. Such women are appendages to their partners and, therefore, cannot make any decisions on their own, even on those matters which have to do with their personal welfare. Approval has to be sought from their partners upon whom they depend for their survival. This demonstrates women's low status. Such women were, therefore, expected to record a higher percentage of non-use of contraceptives.

About 87 percent of the respondents indicated having no financial resources. When contraception was cross-tabulated by financial resources, results were not significant. A significance level of 0.533 was observed as is indicated in table 6.17 below.

Table 6.17: Contraception by Women Who Possess Financial Resources

Women With Financial Resources	Contraception in %		Total in %
	Don't Use	Use	
0-no	60.1	39.9	86.8
1-yes	57.3	42.7	13.2
Total	59.7	40.3	100.0 n=687
Significance p=0.533			

When contraception was cross-tabulated by the statement while controlling for ethnicity, education, religion, and income, results were similar to those which are indicated in Table 6.17 above.

The results indicated that women's possession of financial resources had no significant association with contraceptive use.

Division of Labor

In most patrilineal societies, as stated earlier, division of labor is based on gender. Women, besides having roles of subsistence crop production, have to perform all domestic chores which include fetching water and firewood, washing clothes and utensils, cleaning the house and compound, cooking, pounding grains, reproduction and taking care of children by feeding and bathing them, and providing services to their husbands such as preparing bath water and washing their clothes (Reynolds, 1979).

Such unequal division of labor shows how much women are denied rights to participate in social welfare improvements, especially those which are community-based. Since they do not participate in such activities due to the overload of household chores, they are left behind in matters that concern their personal improvement including obtaining knowledge about their fertility. Their place is said to be the kitchen (Willy, 1983; Boserup, 1970).

Information on this variable was collected by use of nine items asked in a Likert scale. The responses were as follows.

Table 6.18: Responses for Items on Division of Labor

Question #	Responsibilities	Responses in %		
		Wife	Wife and husband	Husband
Q63g	wash utensils/dishes	98.0	1.2	0.8
Q63b	cook food	96.3	3.2	0.5
Q63h	bath children	93.0	5.6	1.4
Q63c	clean house/compound	91.5	7.7	0.8
Q63d	fetch water	90.2	8.7	1.1
Q63f	wash clothes	87.0	11.4	1.6
Q63e	fetch firewood	77.1	20.7	2.2
Q63a	care for the children	53.5	45.4	1.1
Q63i	buy groceries	29.9	43.5	26.6
Total		n=675		

Results in the table above show that most of the domestic workload including caring for children is solely a responsibility of women. On cooking and related activities, about 98 percent of dishes/utensils washing is done by women (item q63g), and 96.3 percent of the food cooking is done by women (item q63b). On cleaning, 93 percent of

those who clean house/compound are women (item q63d) and 87 percent who wash clothes are women (item q63f). On fetching water and firewood, 90.2 percent are women who fetch water (item q63d), and 77 percent fetch firewood (item q63e). Those who care for children, 93 percent who bathe the children are women (item q63h), and 53.5 look after the children (item q63a). Women do little in only one item, that is, item q63i on buying groceries, with 29.9 percent.

A factor analysis was run by use of the principal component and oblimin methods for extraction and rotation, respectively, to obtain a few factors that would represent the set of items. Three factors were extracted. Below is the table for the loading scores for each of the factors extracted.

Table 6.19: Loading Scores for Factors on Division of Labor:

Name of Responsibility	Factor 1	Factor 2	Factor 3
Q63e-fetch firewood	.64835		
Q63d-fetch water	.51634		
Q63i-shopping	.68131		
Q63h-bath children		.69716	
Q63a-children care		.84967	
Q63b-cook food			.78122
Q63c-cleaning house			.72043
Q63f-washing clothes			.56929
Q63g-wash dishes			.52909

The theme for each of the factors is as follows:

Factor One: who fetches firewood and water

Factor Two: who cares for the children

Factor Three: who cooks and cleans

When contraception was cross-tabulated by the three factors, results were insignificant. Even when the factors were cross-tabulated by contraception while

controlling for ethnicity, education, religion and income, the results were all insignificant as is indicated in Tables 6.20, 6.21 and 6.21 below.

Factor One: Who Fetches the Water

Table 6.20: Contraception by Those Who Fetch Water and Firewood

Those Who Fetch Water and Firewood	Contraception in %		Total %
	Don't Use	Use	
wife	54.1	54.9	19.7
husband	61.9	38.1	47.1
wife and husband	56.3	43.8	33.2
Total	58.5	41.5	100.0 n=675
Significance p=0.215			

Factor Two: Who Cares for the Children

Table 6.21: Contraception by Those Who Care for the Children

Those Who Care for Children	Contraception in %		Total %
	Don't Use	Use	
wife	58.5	41.5	37.5
husband	59.1	40.9	57.2
wife and husband	52.8	47.2	5.3
Total	58.5	41.5	100.0 n=675
Significance p=0.765			

Factor Three: Who Cooks and Clean

Table 6.22: Contraception by Those Who Cook and Clean

Those Who Cook and Clean	Contraception in %		Total
	Don't Use	Use	
wife	59.0	41.0	88.4
husband	56.9	43.1	8.6
wife and husband	50	50	3.0
Total	58.5	41.5	100.0 n=675
Significance P=0.702			

The three factors have no significant association with contraceptive use.

Summary of Results on Women's Status Variables

The bivariate analysis and the Pearsons chi square test have shown some women's indicators as having significant association with contraceptive use and some had no significant association with contraceptive use as indicated below.

Education

Results indicated education to have significant association with contraceptive use. The results also supported the proposition. The implication of the result is that education influences the use of contraceptives. According to the percentages of non-use of contraceptives, it was indicated that the more years of education one has the higher the chance to use contraceptives. When women are educated, they become empowered in many ways which include the ability to decide on contraceptive use and can afford to meet the costs for the services because, when they are educated the chances for employment are higher. Therefore, they can own cash.

Employment

The results of the analysis on this variable showed it has significant association with contraceptive use. The results also supported the proposition. Employment as an indicator of empowerment of women is closely related to education. Educated women have higher chances of getting employment and employed women can have cash of their own to enable them meet costs for contraception services.

Decision-Making

The variable had two factors to analyze; these are on who decides on women money expenditure, and who decided on their marriages and number of children to bear. Results of both factors showed significant association with contraceptive use, and the results supported the proposition.

The implication for the results are that when women's affairs are decided by husbands and or in-laws and thus they are denied rights to decide on their own welfare, they are likely to have minimum chance to use contraceptives. This is because, as was seen earlier in chapter five, women have to abide to their husbands and in-laws demands for many children in order to keep their marriages. A women who cannot make decisions on her own life therefore cannot participate on making decisions that concerns her fertility. Therefore, the chances for such women to contracept are minimum. Women have to participate in decision-making in order to control their own fertility and health.

Financial Resources

The factor analyzed on financial resources indicated no significant association with contraceptive use. Financial resources is a vital factor for women empowerment. This is because a woman with financial resources is likely to be autonomous, confident, and self-esteem, and, therefore, can make decisions on her own welfare including fertility and health matters. The results showed the variable to have no significant relationship, possibly because of the small number of respondents who had financial resources.

Division of Labor

Three factors were analyzed and all had no significant relationship with contraceptive use.

Three empowerment variables for women were found to have significant relationship with contraceptive use. These were women's education, women's employment, and women's decision-making participation.

Logistic Regression

Table 6.23: Logistic Regression of Contraceptive Use on Women's Status Variables Significant in Bivariate Analysis

Model 1

Covariate Name	B	Wald	Sig	R
Women's education	0.3483	14.3202	0.0002	0.1242
Decision on money expenditure	-0.1407	4.1471	0.0417	-0.0519
Decision on marriage and fertility	-0.0938	0.9005	0.3426	0.0000
Employment	0.0532	0.1580	0.6910	0.0000

Model 1 shows that women's education and decision on money expenditure have a significant association with contraceptive use. Decision-making on marriage and employment, however, lose their significance in logistic regression.

The classification table in the regression model 1 indicates that about 59 percent on the respondents included in the analysis were correctly predicted. Furthermore, the don't use group was better predicted than the use group for reasons explained earlier under the customs prediction table. This shows that the logistic regression model has well predicted the observed data as the classification table below shows.

Table 6.24: Logistic Regression Model 1 Classification for Contraception and Women's Status Variables

Observed	Prediction		Percentage Correct
	Don't use	Use	
Don't Use	269	82.5	82.5
Use	67	27.7	27.7
Total	n=568		59.1

Table 6.25: Logistic Regression of Contraceptive Use by Significant Variables in Model 1 Above and Control Variables

Model 2

Covariate Name	B	Wald	Sig	R
Women's education	0.3044	11.3034	0.0008	0.1051
Decision on money expenditure	-0.0314	0.1321	0.7162	0.1037
Ethnicity (Wanyakyusa)	-8.8833	3.0799	0.0793	-0.0361
Traditional religion	-0.3221	0.1617	0.6876	0.0000
Catholics	0.7230	2.1620	0.1415	0.0137
Born Again	0.0460	0.0043	0.9479	0.0000
Muslims	0.1505	0.0298	0.8630	0.0000
Protestants	0.3512	0.4568	0.4991	0.0000
Income	0.7355	6.7258	0.0095	0.0754

In Model 2 when the women's status variables significant in Model 1 are regressed with the control variables, only one independent variable, women's education, remain's significant. Among the control groups, traditional religion become insignificant when regressed by the women's variables.

It is, therefore, concluded that women's education is very important among women's status variables in influencing contraceptive use. Decision-making, especially on money expenditure, was significant in Model 1, but it lost its significance in Model 2.

The classification table in the regression model indicates that about 61 percent of the respondents included in this analysis were correctly predicted. Also, the don't use group was better predicted than the use group for reasons explained earlier in the customs classification table. This shows that the logistic regression model has well classified the observed data as the classification table of the model shows below.

Table 6.26: Logistic Regression Model Classification for Contraception and Women's Status Variables

Observed	Predicted		Percent Correct
	Don't Use	Use	
Don't use	302	53	85.1
Use	185	71	27.7
Total	n=611		61.1

CHAPTER SEVEN

ATTITUDES AND OPINIONS OF PEOPLE ON RAPID POPULATION GROWTH IN RELATION TO DECISION-MAKING ON CONTRACEPTIVE USE

Introduction

The cultural beliefs of a population which are revealed through attitudes and opinions affect the decisions and, hence, the practices of that population. Attitudes and opinions that support rapid population growth of the people affect negatively the decision to use contraceptives and, therefore, affect the environment in which they live.

This chapter presents analysis of variables under research question three on attitudes and opinions of respondents about rapid population growth and their effect on decisions on contraceptive use.

The analysis used information collected through twenty-one items. The questions asked to the respondents and their responses were as follows:

Table 7.1: Attitudes and Opinions about Rapid Population Growth

Question #	Statement	Responses in %				
		SD	D	A	SA	Total
Q26l	Many children are needed for the future of the nation	0.5	5.5	70.9	23.0	1280
Q26n	Tanzania has plenty of resources; more people are needed to use them	1.4	10.1	54.6	34.0	1184
Q26t	The current population has not managed to use the resources available	3.7	12.6	58.2	25.5	1163
Q27a	The population of Tanzania is too big for the country's carrying capacity	24.0	39.3	23.4	13.3	1254
Q26j	Ownership of land	19.9	42.5	28.5	9.1	1271
Q26r	It means power to be many; Tanzanians are still too few	11.8	46.4	30.2	11.5	1243
Q26h	There is soil erosion	3.0	46.3	36.3	14.4	1243
Q26f	Availability of land	16.0	32.1	38.3	13.6	1266
Q26p	Tanzania size and the number of people	8.1	46.3	33.6	12.0	1213
Q26i	There is deforestation	2.7	34.9	45.8	16.6	1248
Q26g	There is over-cultivation	4.0	27.8	50.2	18.0	1262
Q27b	The population of Tanzania is growing too fast to match with economic growth	4.5	15.9	43.7	35.9	1267
Q26d	Roads are deteriorating and there is no sign of maintenance	2.9	17.5	60.6	19.0	1259
Q28a	Rapid population growth rate is serious in Tanzania	6.2	14.8	43.9	35.1	1267
Q26e	The environment is polluted	2.7	27.2	51.7	18.5	1262
Q26a	There is congestion in the schools	2.2	13.2	54.2	30.2	1161
Q26b	There is deterioration of health services	1.1	11.5	51.9	34.6	1267
Q26c	There is housing insufficiency in towns and cities	2.1	11.3	61.7	24.9	Q26b
Q28c	An individual family's high fertility contributes greatly to rapid pop. growth	3.2	9.8	51.2	35.8	1279
Q28b	Low economic growth rate is a serious problem in Tanzania	2.4	5.6	50.5	41.1	1239

The results indicate that respondents were aware of the fact that there are signs of deterioration of social services, deforestation, and pollution as frequency percentages show. On deterioration of social services, 84.4 percent indicated there is congestion in schools (item q26a), 86.5 percent indicated there is deterioration of health services (item q26b), 86.6 percent indicated that there is a housing problem (item q26c), and 79.6 percent indicated there is road deterioration (item q26d). On pollution, about 70 percent of the respondents indicated that there is pollution (item q26e), while 50.7 indicated there is soil erosion (item q26h), and 52.4 percent indicated that there is deforestation (item q26i).

Respondents also indicated support for views concerning problems caused by rapid population growth. About 80 percent indicated that the population of Tanzania is growing too fast to match the country's economic growth (item q27b), 79 percent indicated that high population growth rate is serious in Tanzania (item q28a), while on economic growth problem, 91.6 percent supported the viewpoint (item q28b).

On the contribution of individual families' fertility to the problem of rapid population growth, about 87 percent of the respondents supported the viewpoint (item q28c).

On the other hand, respondents showed support to statements which were contrary to the views on the problems that are likely to be caused by rapid population growth on resources such as land and minerals. About 90 percent supported the viewpoint that more children are needed for the future of the nation (item q26l), 88.6 percent supported the

viewpoint that more people are needed to use the resources available (item q26n), and about 84 percent supported the viewpoint that there are few people to use the abundant resources (item q26t).

A factor analysis was run by use of the principle component and equamax methods for extraction and rotation, respectively. Five factors were extracted. The loading scores for the five factors are as indicated below in Table 7.2.

Table 7.2: Loading Scores of Each Factor Extracted on Attitudes and Opinions about Rapid Population Growth

Question #	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Q26a: congestion in schools	.58204				
Q27b-rapid population growth and economic growth	.84737				
Q28a-rapid population growth as a problem	.84118				
Q28b-low economic growth as a problem	.81505				
Q26b: health service deterioration	.68878				
Q26g-over-cultivation		.63585			
Q26h-soil erosion		.65266			
Q26i-deforestation		.60559			
Q26c: housing problems		.62574			
Q26d-deterioration of roads		.71738			
Q26e-pollution		.68646			
Q26f-availability of land			.71523		
Q26j-ownership of land			.74168		
Q27a-rapid population growth and carrying capacity			.71854		
Q26n-Resources and number of people				.59938	
Q26p-Tanzania size and number of people				.66594	
Q26t-population and use of resources				.73148	
Q26r-power and number of Tanzanians					.67531
Q26l-children and future nation					.61943
Q28c-family fertility and population growth					.85613

The theme for each of the five factors is as follows:

Factor One: rapid population growth affects economic growth

Factor Two: rapid population growth causes environmental degradation

Factor Three: rapid population growth and land availability

Factor Four: resources and population

Factor Five: more children are needed for the future of the nation

Factor One: Rapid Population Growth Affects Economic Growth

This section intends to investigate the people's opinions on the problem of rapid population growth. The concern is that if people hold the opinion that there is no rapid population growth in Tanzania, then use of contraceptives to control birth is very much affected among the people who carry such opinions; that is, such people will not see the need to contracept.

The proposition is that those who disagreed with the viewpoint that rapid population is a problem are expected to record higher percentages of non-use of contraceptives than those who agreed with the viewpoint.

About 76 percent agreed with the viewpoint that rapid population growth is a problem. When contraception was cross-tabulated by the viewpoint, results indicated a higher percentage of non-use of contraceptives among those who strongly disagreed with 75.6 percent, followed by the disagree group with 68.7 percent. A significance level of 0.000 was observed as Table 7.3 shows below.

Table 7.3. Contraception by Support for the Viewpoint that Rapid Population Growth Affects Economic Growth

Support	Contraception in %		Total %
	Don't Use	Use	
SD	75.6	24.4	3.9
D	68.7	31.3	19.9
A	57.6	42.4	46.7
SA	53.6	46.4	29.5
Total	59.3	40.7	100.0 n=1141
Significance p=0.000			

When contraception was cross-tabulated by the viewpoint while controlling for ethnicity, education, religion, and income, results observed were similar to those indicated in Table 7.3.

The results indicate that the viewpoint that rapid population growth affects economic growth has a significant association with contraceptive use. It is further observed that the results support the proposition that those who disagree with the viewpoint are expected to record higher percentage of non-use of contraceptives.

Factor Two: Rapid Population Growth Causes Environmental Degradation

The viewpoint represented the opinions of respondents about the relationship between rapid population growth and environmental degradation. It is assumed that

people's opinions reflect the cultural orientation of the society. A society which esteems large families and does not see the relationship between rapid population growth and environmental degradation is likely to have high fertility levels and, therefore, use no contraceptives.

The proposition is that those who disagree with the statement are expected to record higher percentage of non-use of contraceptives than those who agree.

About 78.6 percent agreed with the viewpoint that rapid population growth causes environmental degradation. When contraception was cross-tabulated by the viewpoint, results showed a higher percentage of non-use of contraceptives among the disagree group, 70.1 percent. The strongly disagree, however, recorded lower, 66.7 percent, than the disagree group contrary to what is expected, possibly due to the small number of respondents in the group. A significance level of 0.001 was observed as can be seen in Table 7.4.

Table 7.4: Contraception by Support for the Viewpoint That Rapid Population Growth Causes Environmental Degradation

Support	Contraception in %		Total %
	Don't Use	Use	
SD	66.7	33.3	0.3
D	70.1	29.9	21.2
A	57.2	42.8	59.8
SA	53.5	46.5	18.8
Total	59.2	40.8	100.0 n=1153
Significance $p=0.001$			

When contraception was cross-tabulated by the viewpoint while controlling for ethnicity, education, religion and income, results were similar to the results indicated in Table 7.4 above.

The results have shown the viewpoint that rapid population growth causes environmental degradation has significant association with contraceptive use. The results support the proposition.

Factor Three: Rapid Population Growth and Land Availability

The information sought intended to provide an insight into people's opinions about the relationship between rapid population growth and shortage of land. Lacking any realization for the connection between rapid population growth and shortage of land,

people will continue to bear children without realizing the consequences that are a result of their individual contributions to the problem. People with such opinions, therefore, are likely not to use contraceptives to control birth.

The proposition is that those who disagreed with the viewpoint were expected to record higher percentage of non-use of contraceptives than those who agreed.

For purposes of making the statements of the items for this factor be all in same direction, item q26j was reverse scored. About 50 percent of the respondents disagreed with the statement. When contraception was cross-tabulated by the viewpoint, results indicated a higher percentage of non-use of contraception by the disagree group with 61.8 percent, while the strongly disagree group recorded a lower percentage of non-use of contraception, about 42.1 percent, contrary to expectation. The reason for such a result cannot be determined from these data, but low number is one of the possible explanations. A significance level of 0.009 was observed as can be seen in Table 7.5.

Table 7.5. Contraception Support for the View That Rapid Population Growth Causes Shortage of Land

Support	Contraception in %		Total %
	Don't Use	Use	
SD	42.1	57.9	1.7
D	61.8	38.2	48.3
A	59.7	40.3	44.7
SA	41.9	58.1	5.3
Total	59.5	40.5	100.0 n=1150
Significance $p=0.009$			

When contraception was cross-tabulated by the viewpoint while controlling for ethnicity, education, religion, and income, results similar to that indicated in Table 7.5 were observed in all categories.

The results indicate that the viewpoint that rapid population growth causes shortage of land has significant association with contraceptive use. Further, the results support the proposition that those who disagree were likely to record higher percentage of non-use of contraceptives.

Factor Four: Resources and Population.

This factor was intended to provide information on the attitudes of people about how they relate resources and the idea of added population to their society. The aim was

to gain an insight on peoples' feelings concerning the availability of resources in relation to an increasing number of people. People with the view that more people have no effect on resources likely to avoid using contraceptives as they saw no need to limit the number of children.

The proposition is that those who agree with the viewpoint were expected to record higher percentage of non-use of contraceptives compared to those who disagreed.

About 66 percent of the respondents agreed with the viewpoint that more people have no effect on resources. When contraception was cross-tabulated by the viewpoint, the results were in the expected direction, but the viewpoint had no significant association with contraceptive use. A significance level of 0.630 was observed as can be seen below in Table 7.6.

Table 7.6. Contraception by Support for the Viewpoint That More People Have No Effect on Resources

Support	Contraception in %		Total %
	Don't Use	Use	
SD	54.5	45.5	1.0
D	57.4	42.6	32.7
A	60.1	39.9	52.0
SA	63.0	37.0	14.3
Total	59.6	40.4	100.0 n=1155
Significance p=0.630			

When contraception was cross-tabulated by the viewpoint while controlling for ethnicity, education, religion, and income, results were similar to those indicated in Table 7.6 above.

The results show that the viewpoint that more people in an area have no effect on resources, has no significant association with contraceptive use.

Factor Five: More Children are Needed for the Future of the Nation

The viewpoint represents respondents' attitudes and opinions towards the concept of having more children because there is plenty of land to occupy and other resources to use in the country. People with attitudes and opinions that support the idea are likely to avoid the use of contraceptives as they feel there is a need for more people to be born to make use of the resources available.

The proposition is that those who agreed with the viewpoint advocate many children as they see resources are in plenty for use. It was, therefore, expected that this group would record a higher percentage of non-use of contraceptives than the group which disagreed with the statement.

About 88 percent of respondents agreed with the viewpoint. When contraception was cross-tabulated by the viewpoint, results were not significant. A significant level of 0.280 was observed as can be seen in Table 7.7 below.

Table 7.7: Contraception by Support for the Viewpoint That More Children are Needed for Future Nation

Support	Contraception in %		Total %
	Don't Use	Use	
SD	100.0	0.0	0.1
D	55.0	44.6	12.1
A	60.9	39.1	74.8
SA	54.7	45.3	13.0
Total	59.5	40.5	100.0 n=1150
Significance p=0.280			

When contraception was cross-tabulated by the viewpoint while controlling for ethnicity, education, religion and income, the results showed significance among the Wanyakyusa ethnic group, Catholics and Protestants as Tables 7.8 and 7.9 below indicate.

Table 7.8: Contraception by Support for the Viewpoint That More Children are Needed for Future Nation and Ethnicity

Support	Wazaramo		Wanyakyusa	
	Contraception in %		Contraception in %	
	Don't Use	Total %	Don't Use	Total %
SD	100.0	0.2	-	-
D	52.8	18.6	64.5	5.5
A	52.7	77.2	70.0	72.2
SA	39.1	4.0	57.5	22.4
Total	52.2	100.0 n=582	66.9	100.0 n=568
Sig.	p=0.467		p=0.031	

Table 7.9: Contraception by Support for the Viewpoint That More Children are Needed for Future of the Nation and Religion

Support	Muslims		Protestants		Catholics		Born Again	
	Contraception %		Contraception %		Contraception %		Contraception %	
	Don't Use	Total	Don't Use	Total	Don't Use	Total	Don't Use	Total
SD	100.0	0.2	-	-	-	-	-	-
D	53.8	18.4	60.9	6.3	50.0	7.0	50.0	4.7
A	53.0	77.7	69.1	72.6	71.2	76.7	70.4	62.8
SA	33.3	3.7	50.6	21.1	37.7	16.3	85.7	32.6
Total	53.3	100.0 n=564	64.7	100.0 n=365	64.0	100.0 n=86	71.0	100.0 n=43
Sig	p=0.250		p=0.011		p=0.032		p=0.407	

Results indicate that the viewpoint that more children are needed for the future of the nation has significant association with contraceptive use among the Wanyakyusa, Catholics and Protestants. The seemingly curvilinearity result is due to the absence of respondents on the strongly disagree group. According to the proposition, this is expected to record the lowest percent of non-use of contraceptives while the strongly agree group is expected to record the highest percentage of non-use of contraceptives. However, according to the nature of results of the findings, it has always been noted that the expected higher percentage is not always recorded and the reason for this cannot be given in this study, hence, the seemingly curvilinear results.

Summary of Results for Research Question Three on Attitudes and Opinions About Rapid Population Growth (RPG) on Decisions about Contraceptive Use.

Factor One: Rapid Population Growth Affects Economic Growth.

The results of the analysis have shown that Factor One, the viewpoint that rapid population growth affects economic growth, has a significant association with contraceptive use. The proposition that those who disagreed with the statement were expected to show higher percentage of non-use of contraceptives was supported by the results.

Factor Two: Rapid Population Growth Causes Environmental Degradation

The results indicated that the viewpoint has a significant association with contraceptive use. The results also supports the proposition that those who disagree with the viewpoint are likely to record higher non-use of contraceptives than the agree group.

Factor Three: Rapid Population Growth and Land Availability

The results show that the viewpoint that rapid population growth affects land availability has significant association with contraceptive use. The results also support the proposition that those who disagree with the viewpoint are likely to record higher percentage of non-use of contraceptives than the agree group.

Factor Four: Resources and Population

The results show that the viewpoint that more people have no effect on resources has no significant association with contraceptive use.

Factor Five: More Children Are Needed for the Future of the Nation

The results show that the viewpoint that more children are needed for the future of the nation has significant association with contraceptive use among the Wanyakyusa ethnic group, Catholics and Protestants.

Logistic Regression

Table 7.10: Logistic Regression for Contraception and Attitudes and Opinion About Rapid Population Growth (RPG) on Decision About Contraceptive Use Variables significant in Bivariate Analysis

Model 1

Covariate name		B	Wald	Sig	R
RPG and economic growth		-0.0544	2.0239	0.1548	-0.0058
RPG and environmental degradation		0.1370	11.3787	0.0007	0.1145
RPG and land availability		0.2834	12.7586	0.0004	0.1226
More children for the Future of the nation	Protestants	0.5710	4.4813	0.0343	0.0589
	Wanyakyusa	-4.1755	28.7914	0.0000	-0.1935
	Catholics	0.4690	1.6407	0.2002	0.0000

Four of the six factors significant in bivariate analysis were indicated as significant when regressed. Two of the four factors are dummy variables, the Wanyakyusa and Protestants which were significant under factor five on more children for the future nation. The dummy variables the Wanyakyusa, Protestants and Catholics were created by computing from the original variables, ethnicity and religion while giving the other groups within, a zero value.

Factor One and dummy variable the Catholics lost their significance, probably due to the presence of dummy variable the Wanyakyusa, because, when the rest of the variables were run in a trial regression without Wanyakyusa variable, the variables became significant.

The classification table in the regression model 1 indicated that about 60 percent of the respondents included in the analysis were correctly predicted. Furthermore, the don't use group was better predicted than the use group for reasons explained earlier in the customs classification table. This shows that the logistic regression model has well predicted the observed data as the classification table below shows.

Table 7.11: Logistic Regression Model 1 Classification for Contraception and Attitudes and Opinions about Rapid Population Growth

Observed	Predicted		Percentage Correct
	Don't Use	Use	
Don't use	581	80	87.9
Use	372	82	18.1
Total	n=1115		59.5

Table 7.12: Logistic Regression for Contraception and Attitudes and Opinion About Rapid Population Growth (RPG) on Decision About Contraceptive Use Variables and Control Variables.

Model 2

Covariate Name		B	Wald	Sig	R
RPG and economic growth		-0.0103	0.640	0.8002	0.0000
RPG and environmental degradation		0.1542	12.9058	0.0003	0.1248
RPG and land availability		0.2615	9.9985	0.0016	0.1069
Many children and future of the nation	Protestants	-0.0606	0.0066	0.9355	0.0000
	Wanyakyusa	-5.0902	20.2462	0.0000	-0.1614
Education		0.3585	8.4428	0.0037	0.0959
Traditional religion		-1.9058	3.3087	0.0689	-0.0432
Catholic		-0.2054	0.0680	0.7943	0.0000
Born Again		-0.4261	0.2674	0.6051	0.0000
Muslims		-0.2304	0.1121	0.7377	0.0000
Income		0.1394	0.4038	0.5251	0.0000

When the four factors were regressed by the control variables, results indicated that three variables remained significant while the Protestant variable lost its significance. The control factor income also lost its significance.

Factor One on RPG and economic growth and dummy variable the Catholics on children and future of the nation, lost their significance in Model 1. Dummy variable the Protestants on children and future of the nation, lost significance in Model 2. The possible reason for the loss of significance of some of these factors could be what we would call an unmasking process. The use of the control variables might have removed some causal influence from these two factors thus leaving them with a clearer causal influence that made them significant.

The classification table in the regression model indicates that about 62.8 percent of the respondents included in this analysis were correctly predicted. This shows that the logistic regression model has well classified the observed data as the classification table of the model shows below.

Table 7.13: logistic Regression Model Classification for Contraception and Variables on Attitudes and Opinion of the People

Observed	Predicted		Percent Correct
	Don't use	Use	
Don't use	475	145	76.6
Use	243	180	42.6
Total	n=1043		62.8

Final Logistic Regression for Contraception and Significant Variables in Logistic Regression Model Two of Each Research Question

The final logistic regression are two models. The first model include only variables that were significant in Model two of each research question variables where significant variables from bivariate analysis were regressed with the control variables and emerged significant. Model 2 included variables significant in model one and are regressed with the control variables. The results of the final regression provided the variables which, throughout the stages of analysis, have shown significance in influencing contraceptive use in this study.

Table 7.14: Final Regression for Contraception and Variables Significant in Model 2 of Each Research Question

Model 1

Covariate Name	B	Wald	Sig	R
Children and family economy	0.2410	21.7369	0.0000	0.2726
Children and future of the nation (Wanyakyusa)	-0.9661	40.1744	0.0000	-0.1601
Women education	0.1322	3.4842	0.0620	0.0316
Barrenness	-0.3809	6.0450	0.0139	-0.0521
RPG and land availability	0.1319	5.1923	0.0227	0.0463
Women bear many children to satisfy husbands and in-laws	-0.2643	3.4606	-0.0628	-0.0313
Children are gifts from God	0.1646	3.9456	0.0470	0.0742
RPG and environmental degradation	-0.0782	1.3249	0.2497	0.0000
Inheritance by sons	-0.2249	1.2025	0.2728	0.0000
Old age care	-0.3478	9.4338	0.0021	0.0000
Prestige	-0.3505	23.3030	0.0000	-0.1196

The table above indicates significant variables in the model to be children and family economy; children are needed for the future of the nation; women's education; barrenness; the views that children are gifts from God, they should be allowed to come; RPG causes land shortage; and the opinion that women bear many children to satisfy their husbands and in-laws as well as for their old age care and prestige.

The classification table in the regression Model 1 indicates that 63.6 percent of the respondents included in the analysis were correctly predicted. Furthermore, the don't use group was better predicted than the use group for reasons explained earlier in the customs section. This shows that the logistic regression model has well predicted the observed data as the classification table below shows.

Table 7.15: Final Logistic Regression for Contraception by Variables Significant in Model 1 of Each Research Question

Observed	Predicted		Percentage Correct
	Don't Use	Use	
Don't Use	456	166	73.3
Use	214	238	552.7
Total	n=1074		64.6

Table 7.16: Final regression for Contraception and Variables Significant in Logistic Regression Model 2 of Each Research Question and Control Factors

Model 2

Covariate Name	B	Wald	Sig	R
Children and family economy	0.2626	20.2972	0.0000	0.1147
Children and future of the nation (Wanyakyusa)	-.6701	7.9810	0.0047	-0.0655
Women education	0.1513	3.2114	0.0731	0.0295
Barrenness	-0.2018	4.2253	0.0170	-0.0515
RPG causes land shortage	0.2269	11.8692	0.0006	0.0841
Many children by women to satisfy husbands and in-laws	0.8177	5.1105	0.0238	0.0971
Prestige	-0.2018	4.2253	0.0398	-0.0399
Children are gifts from God	0.8643	4.3359	0.0373	0.0841
Men education	1.8188	2.8419	0.0918	0.0505
Traditional religion	-5.5614	21.0659	0.0000	0.-.1169
Catholic	-3.6149	14.0866	0.0002	-0.0931
Born Again	-3.9557	15.3150	0.0001	-0.0977
Protestants	-3.6088	14.0730	0.0002	-0.0930
SDA	-3.2841	8.3050	0.0040	-0.0672
Muslims	-3.2674	14.2408	0.002	-0.0937
Income	0.3568	3.9225	0.0476	0.0371

Model 2 table shows that eight variables are important in influencing contraceptive use. These are on the viewpoint that many children are needed for family

economy; women bear many children to satisfy their husbands and in-laws, people don't use contraceptives for fear of being considered barren, women with higher status through education empowerment, children are gifts from God, they should be allowed to come, many children are needed for the future of the nation, rapid population growth and land shortage, and many children for parents' prestige.

The results also show that the religious categories which were used as control factors showed significance levels but results of logistic regression run for each research question variables indicated, they were not significant.

The possible reason for such changes could be the unmasking of some of the causal properties from them by some of the independent variables to make them less influential.

The classification table in this regression model indicates that about 65.1 percent of the respondents included in this analysis were correctly predicted. This shows that the logistic regression model has well classified the observed data as the classification table of the model shows below.

Table 7.17: Logistic Regression Model Classification for Contraception and All Significant Variables in Regression Model 2 of Each Research Question

Observed	Predicted		Percent Correct
	Don't Use	Use	
Don't use	433	153	73.9
Use	198	222	52.9
Total	n=1006		65.1

Conclusion

The results in the analysis chapters (Chapters Four, Five, Six, and Seven) show that cultural factors have effect on the use of contraceptives. Of the thirty variables analyzed from the three research questions, eight are very important in influencing have the most effect on contraceptive use as they were significant in all the three stages of analysis. These are on the viewpoint that many children are needed for family economy, women bear many children to satisfy their husbands and in-laws, people don't use contraceptives for fear of being considered barren, women with higher status through education empowerment, children are gifts from God, they should be allowed to come, many children are needed for the future of the nation, rapid population growth and land shortage, and many children for parents' prestige.

CHAPTER EIGHT

SUMMARY OF FINDINGS, CONCLUSION, AND SUGGESTIONS

Introduction

This study investigated the effects of cultural factors on contraceptive use. The cultural factors involved were customs, beliefs, women's status, and attitudes and opinions about rapid population growth. The study was carried out in two regions in Tanzania, Pwani and Mbeya, where two ethnic groups, the Wazaramo and the Wanyakyusa, respectively, were predominant. A sample of 1290 men and women from different households was interviewed through the face-to-face method. Frequencies, factor analysis, bivariate analysis and Pearsons chi square test, and logistic regression were used to analyze the data.

This chapter presents a summary of the findings of the analysis presented in Chapters Four, through seven. The summary of findings is complemented by discussion. The presentation is under each research question, followed by the presentation of the implications of the findings with regard to the regions under study and Tanzania as a whole. Suggestions on what can be done, reflecting on the implications, are presented.

Besides suggestions on how to raise contraceptive use, proposals are made on areas of research as an extension of this study. Lastly, a conclusion is presented.

Contraceptive use in Tanzania is generally low, with high levels of fertility and rapid population growth. According to the TDHS report of 1991/92 and Beegle (1994), only about 23 percent of the relevant population has used contraceptives, despite a 79.8 percent of those in childbearing period having knowledge about contraception as indicated in earlier chapters. In addition to the high level of awareness about the methods, there is also a high level of accessibility; services are affordable because they are free in all the public clinics (Beegle, 1994). Further, the mass literacy level is high, at 90.5 percent (National Literacy Evaluation Report, 1988). Sensitization is done both in the mass media and in compulsory educative sessions at the clinics for mothers who go for services while pregnant or breast-feeding. Such a situation is conducive for people to change their fertility practices by adopting the use of contraceptives, yet not many people do so.

Stronger economy and better quality of life of the people are functions of various factors, of which one is population. Rapid population growth in a country where economic growth is low exerts pressure on social services, natural resources and overall infrastructure, thus rendering them insufficient to the demands of the fast growing population.

The low rate of contraception among people in the child-bearing period in Tanzania, despite the presence of the necessary and sufficient factors to facilitate

adoption of contraception, can possibly be explained through cultural barriers. The cultural barriers that people have, both traditional and psychological, might be the causal factors as WFS (1983), Caldwell and Caldwell (1992) and Van de Walle and Foster (1990) have suggested.

This study, therefore, investigated the effects of cultural factors on contraceptive use in Tanzania in two regions, Mbeya and Pwani, populated by the Wanyakyusa and Wazaramo, respectively.

Contraceptive use is a function of various factors which include social, economic, environmental and cultural factors that work through contraception to control fertility. The social and economic factors that this study investigated are education, ethnicity, location, religion, income, and gender. These factors are commonly mentioned in the literature as having an effect on contraceptive use. To assess the effects of cultural factors which are among other many factors that influence contraceptive use, the other factors have to be held constant (controlled).

The Schema of Analysis

The cultural factors influencing contraceptive use are central in this study. However, other factors were to be considered as they also affect contraceptive use. The cultural factors are, therefore, the independent variables while contraceptive use is the dependent variable. Other factors which affect contraceptive use in this study are referred to as controls or exogenous factors. The role of these factors in this study was to hold

them constant when investigating the effect of cultural factors on contraceptive use.

The control or exogenous factors that the study started with were ethnicity, location, gender, education, religion, and income. These factors had to undergo an analysis before they were used as control factors to affirm their influence on contraceptive use. Both the bivariate analysis and Pearsons chi square test, as well as a logistic regression indicated ethnicity, education, religion and income as important, while gender and location were shown as not important. The study, therefore, used only the important factors as controls in the investigation.

The Research Questions

The guiding questions for the analysis are:

- .what are the effects of customs and beliefs on contraceptive use?
- .what is the effect of women's status on contraceptive use?
- .what is the effect of people's attitudes and opinions about rapid population growth on decisions about contraceptive use?

Research Question One: The Effects of Customs and Beliefs on Contraceptive Use

The independent variables under customs were inheritance, sex preference, prestige, old age care, and family economy.

Inheritance

This was measured by four variables. These were:

- .females should be allowed to inherit family property
- .many children, especially sons, are needed for inheritance
- .widows should inherit property when husbands die
- .daughters should inherit family property in the absence of sons

Sex Preference

This was measured by four variables, three were derived from factor analysis and the fourth is an item treated separately. These were:

- .daughters are preferred for the wealth accrued from their marriages
- .a child is a child whether it is a boy or a girl
- .no sex preference
- .there is no need for couples to bear more children just because they have only boys or girls.

Prestige

This was measured by one variable, representing the viewpoint that many children are needed for parents' prestige.

Old Age Care

One factor was used to measure the variable. This represented the viewpoint that many children are needed for parents' old age care.

Family Economy

It was measured by three variables. These were:

- .many children mean less benefits
- .many children contribute greatly to family economy
- .few children mean better quality of life

Beliefs Factors Included the Following Variables*Contraception Impairs Fecundity*

This was measured by asking respondents' opinions on whether they believe contraceptives impair fecundity.

Barrenness

This was measured by one variable representing the viewpoint that people do not use contraceptives because they fear to be considered barren.

Contraception and Marital Relationship

This was measured by two variables:

- .women bear many children to keep the marriage relationship
- .women bear many children to satisfy husbands and in-laws

Pro-Natalistic Religious Teachings

This was measured by one variable which is: children are a gift from God; they should be allowed to come.

Research Question Two: Women's Status

The status of women was measured by five indicators as follows:

- .Education of women
- .Women's employment status
- .Decision-making

This was measured by two variables:

- .who decides on your money expenditure
- .who decided on your marriage

Financial Resource Ownership

This was measured by one variable:

- .women's ownership of bank accounts

Division of Labor.

This was measured by three variables:

- .who fetches firewood and water
- .who cares for the children
- .who cooks and cleans

Research Question Three: Attitudes and Opinions about Rapid Population Growth

This was measured by five variables. These were:

- .rapid population growth and economic growth
- .rapid population growth causes environmental degradation
- .rapid population and land availability
- .resources and population
- .more children are needed for the future of the nation

Summary of Findings

The findings for both the bivariate and logistic regression analysis are as follows.

Research Question One**Customs**

Thirteen variables were analyzed under customs' cultural factors. Two were not significant in the bivariate analysis, and seven were not significant in the logistic regression, as Table 8.1 below indicates.

Table 8.1: Bivariate and Logistic Regression Analysis for Customs Variables

Variable	Factors	Bivariate (Sig at 0.10)	Logistic Regression (Sig. at 0.10)
Inheritance	Females should inherit family property	0.791	-
	Many children are needed, especially sons, for inheritance	0.092	0.0877 (1) 0.0551 (2)
	Widows should inherit property when husbands die	0.047	0.1169
	Daughters should inherit family property in the absence of sons	0.002	0.2381
Sex preference	Daughters are preferred for the wealth accrued through their marriages	0.028	0.8719
	A child is a child whether it is a boy or a girl	0.010	0.6136
	The sex of the child preferred in the family	0.403	-
	No need for couples to bear children just because they have only boys or girls	0.028	0.5168
Prestige	Many children are needed for parents' prestige	0.014	0.0771 (1) 0.0409 (2)
Old age care	Many children are needed for some to survive for parents' old age care	0.000	0.0038 (1) 0.0477 (2)
Family economy	Many children mean less benefits	0.003	0.7481
	Many children contribute greatly to family economy	0.000	0.0047 (1) 0.0277 (2)
	Few children mean better quality life of family	0.000	0.5469

(1) refers to Model 1 and (2) refers to Model 2

(-) in the table above means the variable was not significant in bivariate analysis and therefore was not included in logistic regression for second time run.

From the table above it can be observed that two variables which showed no significance in the bivariate analysis were those representing the viewpoint that females should inherit family property under inheritance, and the sex of child preferred in the family.

The variables which were significant in the bivariate analysis and not significant in the logistic regression analysis are widows should inherit property when husbands die, daughters should inherit family property in the absence of sons, daughters are preferred for the wealth accrued through their marriages, a child is a child whether it is a boy or a girl, there is no need for couples to bear children because they have only boys or girls, many children mean less benefits, and few children mean better quality of life of family.

Four variables were significant in both the bivariate and the logistic regression analysis. These represented the viewpoints that many children are needed especially sons to inherit family property, many children are needed for parents' prestige, many children are needed for some to survive for parents' old age care, and many children contribute greatly to family economy.

Variables Significant Both in Bivariate and Logistic Regression Analysis

Inheritance by only sons showed a strong relationship with contraceptive use, implying that parents will continue to bear children seeking for sons for inheritance; therefore, they are likely not to use contraceptives. The issue of inheritance, therefore,

needs to be seriously considered when implementing programs of family planning in societies where customs allow only sons to inherit.

The viewpoint that many children are needed for parents' prestige seem to be a powerful variable in influencing contraceptive use. In the bivariate analysis, the Wanyakyusa and the Protestants were the only groups in which this viewpoint had significant association with contraceptive use. The results tally with the Wanyakyusa ethnic group opinion on support for large families as has been indicated earlier. The implication of this is that people who hold the feeling that having many children in a family is prestigious will bear many children to gain prestige in society and will not use contraceptives. For this reason, any Family Planning Program, if it is to be successful in its endeavor, has to consider the prestige factor.

Old age care is the third powerful variable under customs, shown by both bivariate and logistic regression to influence contraceptive use. This means that parents will continue to bear children for the purpose of having many children to ensure better old age life. In many African societies and Tanzania in particular, there is no provision for social welfare for the aged people. It is solely a responsibility of the family members, the sons especially, to take care of their aged parents and even grandparents. The rest of the siblings have to contribute materially for the well-being of the aged parents. It is, therefore, true that parents would make sure they bear as many children as possible to ensure themselves of a better life in their old age. Old age care as a variable, therefore, affects contraceptive use. That is, to the extent that the need to have many children for old

age care is felt, contraceptive use will remain negligible. For the success of Family Planning Programs, the issue of old age care and contraceptive use has to be seriously considered.

The view that many children contribute greatly to the family economy is the last among the customs' variables which was shown to be significant in both the bivariate and logistic regression analysis. As discussed earlier, children do participate in family income- generating activities. Further, when children are adults grown and are employed for wages or self-employed, they help their younger siblings by footing educational costs, and they provide material support to their parents, grand-parents and the extended family in general. This variable, therefore, is powerful in influencing contraceptive use. This is because contraceptive use will be seen as undermining the family economy, and it will be avoided (Mamdani, 1972). Family economy as a barrier to contraceptive use should be addressed effectively in FPP programs in order to minimize the motivation to bear many children.

Variables Which Were Significant in Bivariate and Not Significant in Logistic Regression Analysis

Widows should inherit family property when husbands die was not a significant variable in the logistic regression. In the bivariate analysis, only among the Wazaramo and the Muslims was there a significant association between this viewpoint and contraceptive use. The implication here is that these groups prefer to see widows inherit family property and, therefore, consideration for a son to inherit is not important.

Recalling the characteristics of the two groups, the Wazaramo ethnic group is matrilineal. That is, inheritance is on the line of the mother. It has also to be remembered that the Wazaramo are over 98 percent Muslims as tabulations indicated in Chapter Four. These are the people, therefore, who do not believe only sons should inherit because the women in their ethnic group have the right to inherit.

Islam, on the other hand, advocates inheritance of one-third of the property of the family by daughters in the family and two-thirds by the sons (Lewis, 1966). However, the results on this variable did not support the proposition. This could be due to the contradictory philosophies the Wazaramo people live with. One is the matrilineal philosophy on women's rights and degree of autonomy; for this reason respondents can support the idea of widow inheritance and would even support the idea of contraception. Yet they do not contracept. This has to do with the second philosophy the Wazaramo live with, the Islamic philosophy. Islam forbids preventing children from being born. It is seen as a sinful act. The Wazaramo would, therefore, support the ideas of contraception and widow inheritance; yet, they do not contracept because of their religious beliefs.

The two variables under sex preference-a child is a child whether it is a boy or a girl, and daughters are preferred for the wealth accrued through their marriages- were not significant in the logistic regression, showing that they are not very influential when the variables have to act in the presence of other influences on contraceptive use.

The implication, especially, on the issue of daughters being preferred for the wealth accrued from their marriage is that parents, besides feeling the need for sons, also

want to have daughters who are needed for the wealth the family gets from their daughters' marriages. As sons are needed in the family, one day they will need to get married. These sons have to pay bride wealth. If the sons have sisters who have married, they will be able to use the bride wealth accrued from their sisters as bride price for their brides. From this perspective, therefore, parents would continue to bear children with a hope of having more girls. Contraceptive use, therefore, will be avoided.

As for the family economy factor, two variables were indicated not significant in the logistic regression. The variables lost their significance possibly due to loss of strength when regressed in the presence of other variables which are stronger in terms of affecting contraceptive use, as variables are run together different from the bivariate analysis where such analysis is done by individual variable.

To conclude this section, the first group of customs' variables which is a barrier to contraceptive use includes inheritance by sons only, prestige, old age care, and children for family economy. These were significant in both the bivariate and logistic regression. This group of variables needs to be given serious consideration because it has shown to have a strong relationship with contraceptive use, implying a strong influence on the use of contraceptives. Unless something is done to enable people to change their attitudes and opinions on these factors, contraceptive use will remain low and fertility levels will remain high. As a result, population growth will continue to remain high.

The second group of variables contain those which were significant only in the bivariate analysis. These are on the viewpoint that many daughters are preferred for the

wealth accrued through their marriages, widows should inherit family property when husbands die, many children means fewer benefits, few children means better quality of life.

Beliefs

Four belief variables were analyzed with five factors; four of the five factors were significant in the bivariate analysis and one was not significant. The logistic regression indicated four variables as significant as can be seen in the table below on summary of results.

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Table 8.2: Bivariate and Logistic Regression Analysis for Belief Variables

Variables	Factors	Bivariate (Sig. at 0.10)	Logistic Regression (Sig. at 0.10)
Contraception impairs fecundity	Contraception impairs fecundity	0.281	-
Barrenness	People do not use contraceptives for fear of being considered barren	0.027	0.0028 (1) 0.0060 (2)
Contraceptive use and marital relationship	Women bear many children to keep the marriage relationship	0.000	0.1397 (1) 0.0487 (2)
	Women bear many children to satisfy husbands and in-laws	0.000	0.0000 (1) 0.0263 (2)
Pro-natalist religious teaching	Children are a gift from God, they should be allowed to come	0.000	0.0048 (1) 0.9904 (2)

(1) Refer to Model One result; (2) refer to Model Two result

Results in the table indicate that one factor representing the viewpoint that contraception impairs fecundity showed no significance in either THE bivariate or logistic regression.

One variable showed significance in the bivariate analysis but was not significant in logistic regression Model One (without the control variables) yet was significant in logistic regression Model Two (with the control variables). The viewpoint that women bear many children to keep the marriage relationship, was not significant in the Model One regression where control variables were not added, but was significant when the

control variables were added. For the other variable, the opposite was the case. The variable represented the viewpoint that children are a gift from God, and they should be allowed to come; the variable was significant in Model One and lost its significance in Model Two when control variables were added.

Two variables were significant in both the bivariate and the logistic regression. These represented the view that people do not use contraceptives for fear of being considered barren; and women bear many children for husbands and in-laws' satisfaction.

Variables Significant in Bivariate and Not Significant in Logistic Regression

Two variables showed significance in the bivariate analysis and insignificance in the logistic regression. The variable on women bear many children to keep their marriage relationship was not significant in Model 1 regression where control variables were not added and was significant in Model 2 when the control variables were added. The other variable was on children are a gift from God, they should be allowed to come. The variable was significant in Model 1 and lost its significance in Model 2 when control variables were added.

One possible explanation for these results of the two variables is that an unmasking process has taken place. When control variables are regressed together with other variables, certain effects of the independent variables are removed from them, hence, they lose the quality of being significant. On the other hand, those which gain significance gain some impact as a result of being regressed together with the control

factors; thus, they become significant. Despite this type of change in significance, it could generally be said of the two variables that when thinking of program implementation which is aimed at raising contraceptive use, it is worth considering them seriously as they were indicated as very important in influencing contraceptive use.

Variables Which Were Significant in Both the Bivariate and Logistic Regression

Barrenness, or the viewpoint that people do not use contraceptive for fear of being considered barren, was significant in both the bivariate analysis and the logistic regression. The issue here is that barrenness is scorned in the community, hence, women and couples fear to be considered barren because the consequences of barrenness are unpleasant, as has been shown earlier in Chapter Five. The implication of this result is that as much as barrenness will continue being seen as a punishment from God, a curse, or witchcraft, couples and individuals in their childbearing period who would want to use contraceptives would hesitate to do so for fear of being considered barren. This belief then needs to be eroded from the peoples' minds. This can be done through various means which include outreach programs, the mass media and house-to-house visits.

Contraceptive use and marital relationship or the view that women bear many children for husbands' and in-laws' satisfaction, was the second variable under the belief factor to show significance in both the bivariate and logistic regression analysis. This indicates that women bear as many children as possible in order to cement their marriage relationship. The majority of these women, as we have seen in Chapter Five, do not own

property, nor are they employed; and they do not have bank accounts of their own. They depend totally on their spouses/partners for their survival.

Based on these grounds, therefore, women would opt to obey their husbands demands so as to remain married, their only way of assurance for care. Because of this, women would avoid using contraceptives so that they could bear as many children as they can to please their husbands and in-laws to assure themselves of their staying married for protection and survival.

In-laws become a force in a couple's marriage because, traditionally, fertility issues are not issues of individual couples, but a family/kin issue. Women/wives have to respect in-laws. Failure to do this might weaken their relationships with their spouses and thus undermine the marital relationship. Contraception in such circumstances is avoided. This is when women's empowerment is important; without it, women will remain appendages to men and, therefore, abide by their men's demands for more children and avoid contracepting.

To conclude, barrenness and the viewpoint that women bear many children for husbands' and in-laws' satisfaction have proved to be very important variables that influence contraceptive use. However, the other two variables which were significant both in the bivariate analysis and logistic regression Model One but not significant in logistic regression Model Two, are worth considering when implementing FPP programs in a country, by the fact that they showed strength in the two levels of analysis, revealing that they have significant impact on contraceptive use. These are the viewpoint that many

children by women to keep marriage relationship and children are a gift from God, they should be allowed to come. The last viewpoint becomes crucial because it has to do with the faith of the people, hence its importance in being addressed. Religious teachings that forbid controlling birth in accordance with religious doctrine pose complications for thinking in terms of controlling childbearing by use of contraceptives. The act of using contraceptives may be seen as trying to undermine people's faith. The Family Planning campaigns to use contraceptives to prevent pregnancies and the religious doctrine are two contradicting ideas for the pro-natalistic religion affiliates. It may seem reasonable that affiliates of pro-natalistic religious teachings are likely to follow their religious teachings and adhere to them and, therefore, avoid using contraceptives because they contradict with their religious teachings. It is, therefore, possible that contraception among affiliates will remain low.

Research Question Two: Women's Status

The five indicators of women empowerment which were investigated had eight variables. The summary of the results of the bivariate and logistic regression are as presented in the table below.

Table 8.3: Bivariate and Logistic Regression Analysis for Women Status Variables

Variables	Factors	Bivariate (Sig at 0.10)	Logistic Regression (Sig at 0.10)
Education	Women education	0.001	0.0002 (1) 0.0008 (2)
Employment	Employment status of women	0.060	0.6010
Decision making	Who decides on your money expenditure	0.056	0.0417
	Who decided on your marriage	0.070	0.3426
Financial resource	Women ownership of bank account	0.567	-
Division of Labor	Who fetches firewood	0.215	-
	Who cares for the children	0.765	-
	Who cooks and cleans	0.702	-

(1) refers to Model 1 and (2) refers to Model 2

The results indicate that five variables - women's ownership of bank accounts under women's financial resources; and who fetches the firewood and water, who cares for the children and who cooks and cleans, under division of labor - were all indicated as not significant in the bivariate analysis.

Two variables - employment status of women and who decided on your marriage, were significant in bivariate analysis and not significant in logistic regression.

Two variables - women's education and who decides on your money expenditure were significant in both the bivariate and logistic regression analysis.

Variables Significant in Both Bivariate and Logistic Regression Analysis

The two variables which were proved important by both the bivariate analysis and the logistic regression were women's education and decision-making on women's money expenditure.

The implication of women's education for contraceptive use is that the education of women which is accompanied by employment, self esteem, confidence and ability to participate in decision-making, can be a force to facilitate contraceptive use for purpose of spacing and limiting the number of children for the betterment of the mother and child, and the betterment of their quality of life.

The cross-tabulation results on contraception indicated that those women with higher education contracepted more. This implied, therefore, that education can help to increase contraception practice and reduce fertility levels. This tallies with what Caldwell (1980), Mason (1985) and Aberstadt (1981) had indicated as cited earlier in Chapters One, Two, and Six.

When women participate in decision-making, especially with regard to their money expenditure, this becomes an important tool in influencing contraceptive use. Women's participation in decision-making is crucial, especially when it comes to matters of fertility and reproductive health. When women are able to participate in decision-making with their partners on issues concerning their fertility, it will help in their getting support for controlling birth and, therefore, will promote the use of contraceptives.

Contraceptive use involves funds in terms of transport to the services, despite free services in all public clinics in Tanzania. If women can have the chance to decide on what to do with their money, this will make things simple for them in terms of attending to their prioritized needs which might include costs to attend services for contraception.

Variables Significant in Bivariate and Not Significant in Logistic Regression

These were employment status of women, and who decided on your marriage. Employment status is shown in the literature as an important indicator of empowerment (Mason, 1985; Sen, 1994). However, it was indicated as not significant in logistic regression, possibly due to the effect of some control variables which are more than powerful and, thus, marginalize the influence of the weaker variables to the point of losing their influence when regressed together as earlier explained. It may also be a result of the negligible number of respondents who were employed. These were only 2.4 percent of the women. Decision-making on marriage might have also been affected by the variables while being regressed; some of its properties got lost; hence, it lost its significance.

Variables That Were Not Significant in Both Bivariate and Logistic Regression Analysis

These were women financial resource on bank account ownership and division of labor. Bank account ownership was not significant possibly because most women did not have bank accounts. The small number of respondents with bank accounts might have

caused this type of results. The division of labor indicator was not significant for reasons that are complex to explain. However, the most likely explanation that can be provided here is that domestic chores and child care are considered in society as moral obligations of women (Reynold, 1975). Women, therefore, do not see them as an over burdens; they feel they are born to perform those duties with no complaints.

This being the case, then, division of labor becomes part and parcel of women's lives and, therefore, is not seen as a barrier to contraception. There is, therefore, no likelihood of any association on the two variables; hence, the insignificance of relationship indicated. However, it would be of interest to investigate further on this issue.

The results showed education of women and their participation in decision-making were important variables in influencing contraceptive use. The two variables are a pair that provide power, confidence and autonomy to women. An educated woman is equipped with the knowledge which she can use to improve her own life. An educated woman has higher chances for employment which puts her in a property-owner position since she receives a salary. These characteristics which a woman receives through education empower her; she gains autonomy; she can make decisions on her fertility and health. She gets the confidence and self-esteem which enable her to participate in decision-making as an equal member of the family. When a woman reaches such a stage, she brings change wherever she is. It is through this type of empowerment that the

women can control their fertility and be able to participate fully in their careers while contributing effectively to national development.

Research Question Three: Attitude and Opinion about Rapid Population Growth on Decision about Contraceptive Use

There were five factors derived by factor analysis. The results of the bivariate analysis indicated four of the five factors as important and one as not significant. The table below provides a summary of the results of the bivariate and logistic regression analysis.

Table 8.4: Bivariate and Logistic Regression Analysis on Attitudes and Opinion Variables

Variables	Factors	Bivariate (Sig at 0.10)	Logistic Regression (Sig at 0.10)
Attitudes and opinions	RPG and economic growth	0.000	0.0010 (1) 0.0014 (2)
	RPG causes environmental degradation	0.001	0.0908 (1) 0.0131 (2)
	RPG and land availability	0.009	0.1710 (1) 0.0034 (2)
	Resources and population	0.630	-
	More children are needed for future nation	0.280	0.1272 (1) 0.0003 (2)

(1) refer to Model One logistic regression result (2) refer to Model Two result

The results indicate that one variable on the view that rapid population growth affect economic growth and more people affect resources showed no significant association with contraceptive use.

Two variables on the view that rapid population growth (RPG) affects land availability and more children are needed for the future of the nation showed significant association with contraceptive use both in bivariate and in logistic regression Model 2 where they were regressed together with control variables. But they were not significant in logistic regression Model 1 without the control variables.

Two variables were significant in the bivariate analysis and in logistic regression Model 1 and Model 2. These were on the view that rapid population growth affects economic growth and rapid population growth causes environmental degradation.

Variables Which Showed Significance From Bivariate Analysis to Final Logistic Regression

Two variables showed significance in the bivariate analysis and logistic regression Model Two under research question three and in Model Two of the final logistic regression. These were on the view that rapid population affects land availability and more children are needed for the future of the nation. Their significance in both types of analysis indicate their importance in influencing use of contraceptives. This implies that FPP programs have to pay attention to these variables if they are to be successful.

These viewpoints are widely accepted by many people in Tanzania. The concern is about those people holding the opinion opposite to these views. People who do not

support this indicate their failure to see the relationship between population growth and environmental degradation. Such people, therefore, will continue to bear children without realizing that this act contributes to the problem.

The issue of people's attitudes and opinions concerning population growth is crucial in the sense that it guides the behavior of individuals. It is at this point that one needs to put emphasis in order to bring change. As attitudes and opinions of people are changed, then behavior will automatically change. Hence FPP programs have to focus on programs that will change peoples' attitudes.

It will also be worth considering two other viewpoints which were significant in one of the logistic regression: on rapid population growth and land availability and more children are needed for the future of the nation. Such views need to be paid attention to so that people who do not see the relationship between the rapid increase of population and land problems and those who want more children to use resources can be changed so that they have more enlightened attitudes towards the growth of population, resources, quality life and contraceptive use.

For a poor country like Tanzania, the need for the people to understand such concepts is crucial so that each individual can plan, decide rationally and act responsibly in an effort to control population growth and contribute to the promotion of economic growth. Thinking of adding more people in Tanzania with its current economic situation, is to exacerbate an already bad situation. The resources might be there, but resources are not tapped fully; and those being tapped are not tapped sustainably because technology is

of a low quality with a lot of wastage and low productivity. An additional number of people will not be a reasonable approach nor an economical one.

Final Logistic Regression and Concluding Statement

A logistic regression which included significant variables from each of the research questions was run. The model also included the control variables. The results indicated eight variables to be important in influencing contraceptive use. These variables have continuously showed significance in all the stages of analysis; that is, from bivariate analysis, logistic regression Models One and Two at research question analysis level and the final logistic regression Models One and Two. The final results are displayed in Table 8.5 below.

Table 8.5: Final Logistic Regression for Contraception and Variables Significant in Logistic Regression Model 2 of Each Research Question and Control Factors

Covariate Name	B	Wald	Sig	R
Children and family economy	0.2626	20.2972	0.0000	0.1147
More children and future of the nation	-0.6701	7.9810	0.0047	-0.0655
RPG and land availability	0.2269	11.8692	0.0006	0.0841
Barrenness	-0.2018	4.2253	0.0170	-0.0515
Women bear many children to satisfy their husbands and in-laws	0.8177	5.11505	0.0238	-0.0399
Prestige	-0.2018	4.2253	0.0398	-0.0399
Children are gifts from God	0.8643	4.3359	0.0373	0.0841
Women's education	0.1513	3.2114	0.0731	0.0295
Men education	1.8188	2.8419	0.0918	0.0505
Traditional religion	-5.5614	21.0659	0.0000	-0.1169
Catholics	-3.6149	14.0866	0.0002	-0.0977
Born Again	-3.9557	15.3150	0.0001	-0.0930
Protestant	-3.6088	14.0730	0.0001	-0.0931
SDA	-3.2841	8.3050	0.0002	-0.0672
Muslims	-3.2674	14.2408	0.0020	-0.0937
Income	0.3568	3.9225	0.0476	0.0371

The findings have shown that cultural factors have an influence on contraceptive use. The study had proposed that cultural factors, which in this study consist of customs, beliefs, women's status and attitudes and opinions of people about rapid population

growth, are a barrier to contraceptive use. The proposition for this study has, therefore, been proved correct as seen above.

To summarize what has been presented; the findings are in three categories. The first category constitutes those variables which were significant in all the three stages of analysis, that is, the bivariate analysis, the logistic regression Model 2 of each research question and in the final logistic regression Model 2. The second category constitutes those variables which were significant both in the bivariate analysis and the logistic regression Model 2 of each research question, and category three constitutes those variables which were significant only in the bivariate analysis.

The first group of variables which consists of barrenness; the viewpoint that many children contribute greatly to family economy; women's education; children are gifts from God, they should be allowed to come; rapid population growth affects land availability shortage; more children are needed for the future of the nation; women bear many children to satisfy husbands and in-laws; barrenness; and prestige have proved to be very powerful cultural variables that influence the use of contraceptives.

The second group of variables consists of prestige, old age care, many children are needed for inheritance especially sons rapid population growth causes environmental degradation who decides on women money expenditure; and rapid population growth affects economic growth. These have shown considerable strength in influencing contraceptive use, although in the final logistic regression, they lost their significance as explained earlier.

The third group of variables consists of the view that widows should inherit family property when husbands die daughters should inherit family property in the absence of sons, daughters are preferred in the family for wealth accrued from their marriages, there is no need for couples to bear more children just because they have only boys or girls, many children mean fewer benefits, few children mean better quality of life, women bear many children to maintain marital relationship, women employment, and who decided on your marriage.

Suggestions

The concern in this study was that contraceptive use in Tanzania is low, making fertility levels and population growth rate remain high. The consequences of this situation are its contribution to the deterioration of social services provision, environmental degradation and resources depletion and overall deterioration of quality life.

Contraceptive use, when applied correctly, can lower fertility and, therefore, reduce population growth rate. Reasons for low contraceptive use are many, as indicated earlier in Chapters One and Two. These include underlying causal factors such as social, economic, cultural and environmental factors and the proximate factors. These factors can act both as barriers and facilitators to contraceptive use.

Cultural factors were said to be the barriers to contraceptive use especially in African societies (Van de Walle & Foster, 1990; Caldwell & Caldwell, 1994; WFS,

1983). Yet, not much was known on how much cultural factors are barriers to contraceptive use.

Considering the findings of the study and the concerns for the study, suggestions are made towards finding a solution to the problem of low contraceptive use which is partly affected by cultural factors. Proposals for more research are made. This will help to strengthen the findings of this study. The suggestions follows after a brief discussion of limitations.

The findings were limited to only two regions dealing with only two ethnic groups; thus, suggestions given here evolved from only those regions where only two ethnic groups were dealt with. Caution should, therefore, be taken when some of the suggestions are extended to the national level because the results are likely to be more relevant to the Tanzanian situation only.

The main purpose is to raise contraceptive use so as to lower fertility and population growth rate. To raise contraceptive use, besides dealing with the psychological aspect where culture is at work, other factors have to be considered; these are availability of services, efficacy of the services, follow up services to ensure prevalence, and affordability and awareness. Assuming that these other factors are well taken care of and what is at stake are cultural barriers to contraceptives use, then the cultural factors are addressed directly.

Reflecting on the finding for Research Question One, various cultural factors based on customs and beliefs have been proved to have an effect on contraceptive use.

The factors addressed here are those indicated above to be in the first category of findings. These factors need to be addressed in the society so that they can cease to be barriers to contraceptive use.

Many Children Contribute Greatly to Family Economy

Children in African societies are considered assets. They are considered economically beneficial when they participate in income-generating activities after school hours and during vacations. When they are employed or self-employed, they still contribute to their parents and to the extended family. This has been proved true in the analysis of this study and is, therefore, a barrier to contraceptive use because parents would hesitate to use contraceptives when thinking from family economy perspective.

The factor might not be easy to deal with because; although it has custom's values, it also has some economic values. This second part can be solved through economic development. When parents are economically capable of taking care of themselves at old age, and when they feel that what they earn can sustain family needs, then there wont be any need for many children. The economic part of the factor might not be easy to achieve because it is a national issue. On the other hand, for a family or society to achieve economic development, there has to be a starting point. That is, they have to produce surplus for re-investment. When there are many mouths to feed in the family, surplus cannot be obtained, hence, the importance for consideration of custom values

becomes. The two variables have to work together concurrently in order to solve the problem.

Programs to change peoples' attitudes on family size such as compulsory educational lectures at clinics; school programs on family life education; mass media programs on health, population, and environment; adult literacy classes; and religious sermons on health and family issues can be used to change peoples' attitudes and opinions.

Barrenness

This is a belief problem. People believe that fertility issues are issues of women. If a women does not bear children, then it is because she is being punished or is cursed for some bad deeds committed or she is bewitched. The pathological factor is not seriously looked into. What the Family Planning Program could do as one of its campaigns for success in contraception is the sensitization of people on new ideas about barrenness. People should be educated on barrenness facts; that is, people be educated that barrenness is a pathological problem and nothing else. Women should not, therefore, be punished by family/kin or community members for something which is out of their reach. It is only when people's beliefs, attitudes and opinion are changed about how barrenness is currently perceived, then the factor will cease to be a barrier.

Prestige

In societies which esteem large families, respect and status in the community is bestowed to individuals or parents with many children for reasons explained in Chapter Five. It is because of the strong feeling people have about prestige due to having many children that the results have indicated the variable to be important in influencing contraceptive use. Prestige as a factor is, thus, a powerful barrier to contraceptive use, and it needs to be addressed so as make it cease to be a barrier.

A feeling of prestige by parents for having many children can be changed through educational programs which have been suggested above under family economy factor.

Women Bear Many Children for Husbands' and In-Laws' Satisfaction

Many husbands and in-laws would like to see wives reproducing as much as possible. The concept of large family size which is esteemed by many African societies still has a strong force. This, again, is an issue of changing people's attitudes and opinions on the value of children which is in accordance with traditional norms and values. The change can be brought about through the Family Planning Program, outreach activities, the mass media and even through religious gatherings both in churches and mosques.

Children are Gifts From God, They Should Be Allowed to Come

Introducing contraception to people who see children as gifts from God that provides them to couples, may be perceived as an act to undermine God's generosity to them. The implication of such an attitude is to undermine FPP's success and perpetuate low use of contraceptives. To ensure such attitudes are changed and people made to perceive contraceptive use as a positive act for the future benefits of the children who are brought to earth by God may need to use religious leaders, schools and outreach programs.

Women's Education

What the government could do is to ensure women are given the opportunity to go for higher education for empowerment purposes as it is detailed in Chapter six. This can be enhanced through government policies concerning education and human rights with an emphasis on women's rights. If the majority of women get such empowerment, contraceptive use will rise tremendously.

For Research Question Three on attitudes and opinions of people on rapid population growth, the viewpoint that rapid population growth has effects on land availability, is among the variables in the first category, which are considered as very important in influencing contraceptive use in this study.

Rapid Population Growth Affects land Availability

The results proved right the argument that people who do not see the connection between rapid population growth and subsequent consequences will continue to bear children and, therefore, will avoid using contraceptives. In this respect then the variable which has to do with lack of awareness about the connection between the two factors, needs to be removed.

A program that could aim at educating people on such a connection might be effective. Such educational programs could be carried out in schools, literacy classes for adults, outreach programs, FPP, mass media, churches, and mosques. Educating people to see the connection will result in changing their attitudes and opinions on these issues. This is also likely to change their practice on contraception.

Suggestions for Further Research

This study was limited in scope; it included only two ethnic groups in two regions out of twenty regions. For purposes of getting more information on the role of culture on contraceptive use within the country, there is the need to extend the scope to more ethnic groups in different parts of the country. Further, there is a tendency to generalize on the issues of certain factors especially when it comes to African societies' norms and values. To ensure there is no fallacy of generalization on the role of culture on contraceptive use among African societies, it is worth extending the study to other African countries to find

out whether cultural factors play the same role as it has been found out in this study in other African countries.

Third, one variable under belief factors needs to be followed a little bit further with more care. This is: contraceptives impair fecundity. Since the factor has a psychological value, it is important in shaping people's behavior. It is, therefore, worth being investigated to obtain an insight on how much it influences contraceptive use. This study had aimed at investigating it, but the type of data obtained did not allow proper analysis of the variable, therefore, it was not analyzed.

Concluding Statement

Cultural factors have an effect on contraceptive use. This is what the study has found out. To increase the use of contraceptives, cultural factors have to be dealt with to make them cease to be barriers to contraception. The above suggested strategies, more relevant to the Tanzanian situation, can help to remedy the situation. Raising contraceptive use will facilitate lowering of fertility levels and, therefore, decrease the population growth rate which then will reduce the pressure exerted on resources, social services and environmental degradation as a whole.

The cultural differences of the two ethnic groups, the Wazaramo and the Wanyakyusa, was revealed in various results of the analysis, especially in areas of widows inheritance, barrenness, children for prestige, children for old age care, property ownership rights, and children for the future of the nation. These differences were also

reflected in the overall use of contraceptives which indicated the Wazaramo to be using contraceptives more than the Wanyakyusa. These differences support the idea that strong pro-natalistic views do affect the use of contraceptives.

It has been witnessed also that women's autonomy is an important tool to contraceptive use. This was revealed through education and decision-making participation variables. Women with many years of education and those who participate in decision-making were showed to be using more contraceptives than their counterparts.

Suggestions for further research to complement this study have been made. These are to extend the study to more regions in Tanzania and to other African countries. Also, further research is proposed to investigate on contraception and fecundity impairment.

APPENDICES

APPENDIX A

DATA COLLECTION SCHEDULE BY MONTHS, WARDS, VILLAGES/MITAAS, AND BY HAMLETS/SUB MITAAS

1. PWANI REGION

A. KIBAHA DISTRICT-RURLAL RESPONDENTS

Months	Wards	Villages	Hamlets
February and part of March, 1996	Tumbi	Bokotimiza	Temboni
			Boko
		Pangani	Pangani
			Mtakuja
		Mkuza	Mkuza
			Kibondeni
		Twendepamoja	Sofu
	Mwendapole	Kongowe	Kongowe
			Bamba
			Mwambisi
			Miembesaba
		Viziwaziwa	Shuleni
			Sagale
		Mwendapole	Mwendapole
			Kwa mfipa
	Visiga	Visiga	Visiga kati
			Mwembemadafu
		Misugusugu	Misugusugu Bamba
			Miembeni
		Zogowale	Zogowale
			Jonung'ha
	Ruvu Stesheni	Lupunga	Lupunga
		Ruvu Stesheni	Mkino mdete
			Mnazi mikindani

B. REGIONAL HEADQUARTERS FOR URBAN RESPONDENTS

Months	Wards	Mitaas	Sub Mitaas
Part of March and April, 1996	Kibaha	Maili Moja	Ungindoni
			Uyaoni
			Kwa Lyoba Yagi
			Maili Moja
			Maili Moja Shuleni
		Tumbi	Tangini
			Picha ya Ndege
			Lulanzi
	Mlandizi	Mlandizi A	Mlandizi Mjini
			Njiapanda JKT
			Mahande
		Mlandizi B	Mlandizi Kati
			Janga
			Kilangalanga
		Msufini	Msongolo
			Msufini

2. MBEYA REGION

A. RUNGWE DISTRICT FOR RURAL RESPONDENTS

Months	Wards	Villages	Hamlets
Part of June and July, 1997	Mpuguso	Mpuguso	Ushirika
			Kasyeto
		Isajilo	Mpumbuli
			Mibula
	Iluma	Katundulu	Ngujubwaje
			Katundulu
		Lubanda	Ilima
			Itula
	Katumba	Katumba	Kikuba
			Iluma
		Ikama	Mpakani
			Itagata
			Ilinga
			Ilenga
	Kyimo	Syukula	Ilenga
			Syukula
		Kibisi	Kyimo
			Katabe
	Kiwira	Mpandapanda	Mpandapanda
			Ibula
		Ilunde	Kikota
			Igembe
	Malindo	Makandana	Lumbila
			Ndembele
			Itete
		Kapugi	Kapugi
			Igalama
			Kalalo

B. REGIONAL HEADQUARTER-MBEYA URBAN FOR URBAN RESPONDENTS

Months	Wards	Mitaa	Sub mitaa
May and June, 1996	Nzovwe	Itiji	Mwasanga
			Mbwile
		Nzovwe	Nzovwe
			Ikuti
		Mabatini	Kisunga
			Simike
			Kilimahewa
	Iyunga	Iwambi	Iwambi
			Lumbila
		Iyunga	Ikuti
			Maendeleo Lupeta
		Manga	Maendeleo
			Manga
			Mafiati
	Sinde	Sinde	Sinde A
			Ilolo kati
		Ruanda	Ilolo
			Kabwe
			Benki
	Maendeleo	Maendeleo	Kiwanja Ngoma
			Community Center
		Nonde	Mwalingo
			Mbwile
	Ghana	Majengo	Majengo Kaskazini
			Majengo Kusini
		Ghana	Ghana Mashariki
			Ghana Magharibi

APPENDIX B

FIELD RESEARCH: PHASE I GUIDE QUESTIONS

FIELD RESEARCH: PHASE 1
FOCUS GROUP DISCUSSION
GUIDE QUESTIONS

1. Describe the customs, norms and values, and beliefs that exist in your community

- i. What affects the number of children a couple produces?
- ii. Who decides on the number of children to bear in the family?
- iii. What affects decision to use contraceptives?
- iv. What are the customs concerning inheritance in this community?
- v. Do you believe in this community that the use of contraceptives affect fecundity?
- vi. What are the old beliefs on the use of contraceptives in your community?

2. What is the main stream view on family size in your community?

In your opinion, how is a couple with many children (over 5 children) perceived?

How is a couple with few children (2 or less) perceived?

3. Do you think Tanzania is having too many people within a short time?

If yes, why? And if no, why?

Do you think your community is having too many people within a short time?

If yes, why? And if no, why?

4. In your opinion, if a country has too many people; what are the possible consequences (in giving your views, consider resources, overcrowding, and the environment as a whole)

Are there such signs in your community and Tanzania at large?

If there are, what is the ultimate result for such signs?

What need to be done to avoid such results?

5. What are the advantages and disadvantages of:

planning for childbearing?,

delaying and/spacing?,

And limiting the number of children?

6. Who make the decision on the use of contraceptives? How is the decision reached?

Why?

Do in-laws and other relatives or friends have a say in making the decision?

How much does FPP influence couples in using contraceptives to space, and limit the number of children?

7. Can you tell me about FPP in your community?

How effective is the program? Why?

What does the program do to ensure contraceptive use prevalence?

What are the weaknesses that contribute to the failure of the program, if any?

8. What do you feel about the use of contraceptives; is it necessary? Why? Is it morally acceptable to you? Are you comfortable to use it?

What do people say about contraceptives and people who use contraceptives?

Who do you think use contraceptives more than the common people; the educated, those with high income, non Muslims and non Catholics, urbanites, the young generation, the employed for wage

9. What is the age at which women marry for the first time? Who decides on their marriage?

How much in estimated cash is the bride price in your community or ethnic group? Why is it paid? Can the bride say no to the bride price? Can the groom say no to bride price?

10. In your opinion, do you feel that women should have their own property? Why, or why not?

11. In your opinion, do you think both man and women can be employed or it is better only for a man to be employed and the wife remain in the home to take care of the children and perform domestic duties?

12. What can you suggest for the government and FPP to do in order to make couples plan, space and limit number of children for the betterment of family health and better quality of life?

APPENDIX C

INTERVIEW SCHEDULE

INTERVIEW SCHEDULE

CULTURAL FACTORS AND CONTRACEPTIVE USE IN TANZANIA.

LOCATION: Region.....District.....
Urban: Name of town/city.....
Rural: Name of village.....

PART I: PERSONAL INFORMATION

1. Gender: 01 male, 02 Female
2. What is your age:or year of birth.....(*If not known use alternatives provided*)
3. What is your ethnic group (*indicate code number from the list provided*)
.....
4. Marital Status: a. 01 Married, 02 Separated, 03 Divorced,
04 Widowed, 05 Divorced and remarried,
06 Widowed and remarried
 - b. For married men, how many wives do you have?
 - c. For married women, how many cowives do you have?
5. (a) What was your age at first marriage?
(b) What was your spouse's age at first marriage?

6. During your childhood and adulthood, approximately how many years have you lived in villages and towns/cities:

Place of residence	childhood (less than 15 years)	adulthood (above 15 years)
Villages		
towns/cities - less than 20,000		
20,001 - 50,000		
50,001 - 80,000		
80,001 - 110,000		
over 110,000		

7. How many years of schooling have you completed? (*Circle that apply*)

- 01. 0 years of education
- 02. less than primary education (this includes literacy education)
- 03. 7 years primary education
- 04. Primary education with vocational training
- 05. 8-12 years secondary O level education
- 06. Secondary O level education with professional training
- 07. 13-14 years high school A level education
- 08. High school A level education with professional training
- 09. University education (first degree), 10. advance degree

8. What describes best the schools you attended: *(check all that apply)*

- 01. Boarding school urban,
- 02. Boarding school rural,
- 03. Day school urban,
- 04. Day school rural,
- 05. other, specify.....

9. Were the schools you attended private or public: *(check all that apply)*

- (a) Primary school: 01. Public 02. Private
- (b) Secondary school: 01. Public 02. Private
- (c) High school: 01. Public 02. Private

10. Were the schools you attended coeducational *(check all that apply)*

- (a) Primary school 01. Yes, 02. No
- (b) Secondary school 01. Yes, 02. No
- (c) High school 01. Yes, 02. No

11. If you attended private schools, were they: *(check all that apply)*

- i. Religious schools? 01. Yes, 02. No
- ii. Secular schools 01. Yes, 02. No

12. What is your father's highest level of education?(*circle that apply*)

- 01. 0 years of education
- 02. less than primary education (this includes literacy education)
- 03. 7 years primary education
- 04. Primary education with vocational training
- 05. 8-12 years secondary O level education
- 06. Secondary O level education with professional training
- 07. 13-14 years high school A level education
- 08. High school A level education with professional training
- 09. University education (first degree), 10. advance degree

13. What is your mother's highest level of education?(*circle that apply*)

- 01. 0 years of education
- 02. less than primary education (this includes literacy education)
- 03. 7 years primary education
- 04. Primary education with vocational training
- 05. 8-12 years secondary O level education
- 06. Secondary O level education with professional training
- 07. 13-14 years high school A level education
- 08. High school A level education with professional training
- 09. University education (first degree), 10. advance degree

14. For those married, what is your spouse's highest level of education?(*circle that apply*)

- 01. 0 years of education
- 02. less than primary education (this includes literacy education)
- 03. 7 years primary education
- 04. Primary education with vocational training
- 05. 8-12 years secondary O level education
- 06. Secondary O level education with professional training
- 07. 13-14 years high school A level education
- 08. High school A level education with professional training
- 09. University education (first degree), 10. advance degree

15. What is your religion (*check one*)

- 01. Traditional, 02. Muslim, 03. Catholic, 04. Protestant
- 05. Born again(Pentecost, Assemblies of God etc), 06. SDA
- 07. Other - indicate

16. What is the level of your current interest in religion (*check one*)

- 01. not interested 02. slightly interested
- 03 . moderately interested 03 . very interested

17. How frequently do you go to church or mosque to participate in formal activities?

(*Check on one*)

- 01. never,
- 02. occasionally (3-5 times a years),
- 03. once a month,
- 04. once a week,
- 05. more than once a week

18. How often do you engage in voluntary religious activities at the church or mosque?

(*check that apply*)

a. Reading the Bible or Koran?

- 01. never,
- 02. rarely (twice a week),
- 03. often (up to 5 times a week),
- 04. every day

b. Praying?

- 01. never
- 02. rarely (twice a week),
- 03. often (up to 5 times a week),
- 04. every day

c. Religious activities at church or mosque?

01. never 02. sometimes 03. often

19. What is your employment status?

a. Employed: 01. full time, 02. Part time

b. Self employed: 01. Full time, 02. Part time

c. Other - indicate

What is your occupation

Who is your employer

20. What is your average income per month?

01. Less than \$ 50,

02. \$ 51-100,

03. \$ 101-150,

04. \$ 151-200,

05. Over \$ 200

21. What is your spouse's employment status?

a. Employed: 01. full time, 02. Part time

b. Self employed: 01. Full time, 02. Part time

c. Other - indicate

. What is your occupation

Who is your employer

22. What is the monthly income of your spouse?

01. Less than \$ 50,

02. \$ 51-100,

03. \$ 101-150,

04. \$ 151-200,

05. Over \$ 200

23. Who decides on the expenditure of income you earn?

- 01. Yourself,
- 02. You and your spouse,
- 03. Your spouse,
- 04. Other -specify.....

24. Who owns what property? (*Check all that apply*)

Property name	number	who own the property		
		wife	husband	wife and husband
		01	02	03
a. Houses				
b. Land: in ha				
c. Livestock: type				
d. Vehicles for business				
e. Vehicles for domestic use				
f. Business companies				

PART II: GENERAL INFORMATION ON POPULATION AND ASSOCIATED**PROBLEMS IN TANZANI**

25. I would like to know your opinion concerning the population growth of the country.

Do you think it is growing:

- 01. Too fast,
- 02. A little too fast,
- 03. About right,
- 04. A little too slow,
- 05. much too slow

26. Please indicate the extent to which you agree or disagree with each of the following statements:

	SD	D	A	SA	DK
	01	02	03	04	05
a. Too many children in schools while school places are few					
b. There is deterioration of health services					
c. There are housing problems in towns/cities					
d. Roads/houses are deteriorating and no sign of maintenance					
e. There is environmental pollution					
f. There is lack of land					
g. There is overcultivation/poor farm output					
h. There is soil erosion/dissertification					
i. there is deforestation					
j. There is still plenty of land					
k. There are plenty of minerals					
l. Children are needed for the future nation					
m. Tanzania has plenty of resources therefore it needs more people to use the resources					
n. Large part of Tanzania is empty of people, the population has to increase to occupy the land					
o. The current population has not managed to use the resources available					
p. It means power to be many, Tanzanians are still too few					

7. (a) The population of Tanzania is too big for the country's land carrying capacity?
01. Strongly disagree, 02. disagree 03. Agree 04. Strongly agree
05. Dont know

(b) the population of Tanzania is growing too fast to match with economic growth?
01. Strongly disagree, 02. disagree 03. Agree 04. Strongly agree
05. Dont know

28. What is your opinion on the following:

(a). High population growth rate is a serious problem in Tanzania

- 01. strongly disagree,
- 02. Disagree,
- 03. Agree,
- 04. Strongly agree
- 05. Dont know

(b). Low economic growth rate is a serious problem in Tanzania

- 01 .Strongly disagree,
- 02. Disagree,
- 03. Agree,
- 04. Strongly agree
- 05. Don't know

(c). Families' high fertility contribute to rapid population growth

- 01. Strongly disagree,
- 02. Disagree,
- 03. Agree,
- 04. Strongly agree
- 05. Dont know

(d). I, as an individual contributes to the problem of rapid population growth

- 01. Strongly disagree,
- 02. Disagree,
- 03. Agree,
- 04. Strongly agree
- 05. Dont know

PART III: CONTRACEPTIVE KNOWLEDGE AND USE

29. (a) It is important to control the birth of children.

- 01. Strongly disagree,
- 02. Disagree,
- 03. Agree,
- 04. Strongly agree
- 05. Dont know

(b) couples should limit the number of children so that the children will be healthier

- 01. Strongly disagree,
- 02. Disagree,
- 03. agree,
- 04. Strongly agree
- 05. Dont know

(c). couples who do not limit the number of children will be unable to support a big family

- 01. Strongly disagree,
- 02. Disagree,
- 03. Agree,
- 04. Strongly gree
- 05. Dont know

30. To what extent does your spouse approve or disapprove birth control

- 01. Strongly agree,
- 02. Disagree,
- 03. Agree,
- 04. Strongly agree
- 05. Dont know

31. What methods of birth control are you aware of? (*check all that apply*)

- | | |
|--------------------|------------------------|
| 01. Condoms, | 07. IUD, |
| 02. Vasectomy, | 08. Depo provera |
| 03. Diaphragm | 09. Coitus interruptus |
| 04. Pills, | 10. Rhythm, |
| 05. Tubal ligation | 11. Traditional |
| 06. Foam tablets, | 12. Other-specify..... |

32. How did you know about the methods? (*check all that apply*)

- 01. Clinics,
- 02. Physician,
- 03. Parents,
- 04. Mass media (TV, radio, news papers),
- 05. Friends,
- 06. FPP

33. Did you at the beginning of your marriage life, have an opinion on the number of children you hoped to have? 01. Yes 02. No (If No, go to q. # 37)

34. If yes, what was the number you hoped to have? Males 01 Females 02

35. How many children do you have now? Males 01 Females 02

36. How many more do you want to have? Males 01 Females 02

37. At the beginning of married life, do you think your spouse had an opinion on the number of children she/he hoped to have? 01 Yes, 02 No (If No, go to q. # 41)

38. If yes, what was the number she/he hoped to have? Males 01 Females 02

39. Have you ever tried to prevent or delay pregnancy in any way? 01 Yes 02 No

40.(a) Which of the following methods have you used?

- | | | |
|----------------|---------------------|-------------------------|
| 01. Condoms, | 04. Pills, | 07. IUD, |
| 02. Vasectomy, | 05. Tubal ligation, | 08. Depo provera, |
| 03. Diaphragm, | 06. Foam tablets, | 09. Coitus interruptus, |
| 10. Rhythm, | 11. Traditional | 12. Other-specify..... |

(b) what birth control method are you using now?

(c) are you satisfied with the method you are now using? 01. yes, 02. No

If no why?

1. It has side effects
2. The method is costly to use
3. The method is difficult to use
4. There is no service provided for that method
5. Other

If yes, why?

1. The method has no side effects
2. The method is easy to use
3. Its service is easily available
4. The method has no effect on sexual intercourse
5. Other

41. What do you think are the reasons for preventing pregnancy (*check all that apply*)

- | | |
|--|---------------------------------|
| 01. due to professional responsibilities | 05. to space children |
| 02. children are troublesome and limit freedom | 06. due to ill health of spouse |
| 03. many children impose economic burden | 07. to satisfy spouse's desire |
| 04. the house is too small for a large family | 08. due to doctor's advise |
| 09. other reasons, specify | |

42. If you never used contraceptives, which of the following reasons explain why you don't use them (*check all that apply*)

- | | |
|---|-------------------------------------|
| 01. desire to have a big family, | 10. desired number not yet reached, |
| 02. ignorance of preventive methods, | 11. it is against religion, |
| 03. preventive methods impairs fecundity, side effects | 12. preventive methods have |
| 04. the methods are difficult to use | 13. services are not available |
| 05. they are not available in the clinics, | 14. contraceptives are expensive, |
| 06. it is expensive to travel to the clinics for the services | 15. my spouse is against using them |
| 07. the use of contraceptives diminishes sexual satisfaction | |
| 08. to keep the spouse who is against contraceptive use | |
| 09. relatives and neighbors criticize the use of contraceptives | |

43. If a method of contraception was used and then stopped, which of the following explain why you stopped (*check all that apply*)

- | | |
|---------------------------------------|------------------------------|
| 01. another child was wanted, | 05. method had side effects, |
| 02. my spouse was against the method, | 06. it is costly, |
| 03. it is difficult to use, | 07. it is ineffective, |
| 04. its provision ceased | |

44. For those who have ever used contraceptives, which of the following stimulated you to use them?(*Check all that apply*)

- 01. Myself, because of the felt need to do so
- 02. sensitization by FP providers at clinics, or through TV, radio and news papers
- 03. my spouse convinced me
- 04. my religion allows it
- 05. my doctor advised me to do so
- 06. my parents and friends supports it

PART IV: CUSTOMS, BELIEFS, AND STATUS OF WOMEN

45. Indicate the extent to which you agree or disagree to each of the following statements using the scale (Strongly disagree, SD; Disagree, D; Agree, A; Strongly agree, SA; Don't Know, DK)?

Statement	SD 01	D 02	A 03	SA04	DK 05
a. couples like to have many children for prestige					
b. couples like to have many children to ensure survival of some					
c. children have to come because they are a gift from God					
d. couples have to have them as many as God can provide them					
e. it is prestigious to have many children					
f. Religious teaching does not allow the use of contraceptives					
g. Children have to come especially girls because parents earn wealth through their daughters					
h. children are needed for labor in the family economy					
i. children are needed by parents for old age care					
j. women have to bear as many children as possible to cement marriage relationship					
k. women bear as many children as possible to gain status in society					
l. women have to bear children against their will following the husbands' and in-laws' decision					
m. women bear many children because they are refused by their husbands to use contraceptives					
n. children are needed for inheritance especially sons					
o. a child is a child, whether it is a girl or a boy					
p. there is no need for couples to continue child bearing just because they have girls or boys only					
q. girls can inherit family property if there are no sons in the family					
r. the wife should inherit family property if the husband dies					
s. in the absence of a son, it is to deny rights to other family members (wife and daughters) if the father dies and male relatives inherit that property					
t. females should inherit family property					
u. only males should inherit family property					

46. If a husband dies without a son to inherit, and the family property is inherited by a male relative of the husband:

a. what happens to the wife?

1. She is removed from her home
2. She is inherited by the deceased male relatives
3. She remains in her home and takes care of her children
4. She can go where she wants without taking with her the children

b. Who takes charge of the children?

1. The deceased relatives who inherit the widow
2. The mother of the children
3. Babu/bibi wa watoto
4. Other

a. How would you feel if you have only daughters without sons?.....

1. It is ok
2. I will be satisfied because that is God's will
3. Unsatisfied because I would like to have both boys and girls
4. I will be disappointed
5. Other

48. In your opinion, who do you think will be respected more in the community?

.....

(mark all that are related)

01. a couple with no children
02. a couple with 1-2 children
03. a couple with 3-5 children
04. a couple with over 5 children

49. In your opinion, how does the community perceive a woman with no children?

.....

(Check all that apply)

- 01. Cursed by ancestors
- 02. Punished by God because of her bad deeds
- 03. Unfortunate because biologically she is incapable of bearing children
- 04. She has been bewitched
- 05. Other indicate.....

50. Which of the following explain why some do not use contraceptives?

.....

(check all that apply)

- 01. they fear to be considered barren,
- 02. they fear side effects
- 03. the contraceptives are uncomfortable to use,
- 04. women want many children
- 05. their husbands fear that contraceptives will impair their fecundity
- 06. the husbands fear that their wives will become promiscuous
- 07. other - indicate.....

51. Would you agree or disagree with the following statements about children

Statement	SD 01	D 02	A 03	SA 04	DK 05
a. Many children are an asset because they contribute to family economy					
b. Many children ensure parents of some of them to survive for inheritance					
c. Many children help each other in footing education costs					
d. Many children ensure parents of comfortable life at old age because of their material and moral contribution to them					
e. Many daughters in the family bring wealth in the family through bride prize					
f. Many daughters in the family help the mother in subsistence crop production and and in domestic chores					
g. Many children drain the family income through education costs					
h. Many children in the family cause food inedequacy					
i. Many children in the family cause deterioration in family quality of life					
j. Few children in a family are more likely to live a better life eg. Eat good food, better clothing, and better shelter					
k. Few children in a family are more likely to get better education					
l. Few children in a family are more likely to get better health services					

MARITAL FERTILITY, CONTRACEPTIVE USE AND WOMEN STATUS*(For women only?)*

51. Did you have children before first marriage? 01. Yes, 02. No
 b. If yes how many?
52. Did you have children with your first husband? 01. Yes 02. No
 b. If yes, how many?
 c. If you had children in your first marriage, did you prevent any birth?
 01. Yes 02. No
53. Have you divorced? 01. Yes 02. No
 a. If yes, have you remarried? 01. Yes 02. No
 b. If yes, did you have children with your second husband? 01. Yes 02. NO
 c. If yes, how many?
54. In the period after divorce and remarriage, did you have any children? 01. Yes 02. No
 b. Did you use any contraceptives during this period?
(Continue to probe in case she has more divorces and remarriages)
55. Is family planning service provided in your village/street
 01. Yes 02. No (If No, go to q. # 58)
56. If yes, have you had the chance to use the service?
 01. Yes 02. No

57. If yes, did anyone encourage you to use the services?

01. Yes 02. No (If yes, go to # 59)

If no, who did:

01. The husband,
 02. You and your husband,
 03. In-laws,
 04. Relatives,
 05. Doctor
 06. Clinic personnel
 07. Other - specify.....

58. For those who have never used FP services, what are the reasons for not using?

(Check all that apply)

- | | |
|--|---------------------------------------|
| 01. Husband disapproval, | 04. Is against religious teaching, |
| 02. Is against parents and in-laws wish, | 05. It is said they are not effective |
| 03. It is said they impair fecundity, | 06. It is said they have side effect |

59. Who decides on the number of children to have in the family?

01. Yourself, 02. Your husband,
 03. In-laws/parents, 04. God's will
 05. Other - indicate.....

60. Who decided on your marriage?

01. Yourself, 02. Your parents
 03. Both your parents and your husband to be parents
 04. Other - specify.....

61. What job do you have?

01. Employed for wage, 02. Farmer, 03. Business

If business, do you own the business?

01. Yes 02. No

If no, who owns it?.....

62. Do you own an account in your name

01. Yes 02. No

If no, where do you keep your income?.....

63. Who decides on how the money you earn should be spent?

01. Yourself, 02. Your husband,

03. You and your husband

04. Parents/in-laws

64. Indicate Who is responsible for each of the following in the home?

Statement	wife	husband	statement
care for the children			
cook food			
clean the house/compound			
fetch water (if no tape water)			
fetch fuel wood (if no other means of fuel source)			
wash clothes			
wash utensils/dishes			
bath children			
buy glossaries			
decide on children education			
what to grow in the farm (if farmers)			
discipline children			
help relatives from each side			

65. Are you engaged in any income generating activities other than your regular work?

01. Yes 02. No

Have you ever obtained a loan from a bank or credit union?

01. Yes 02. No

If yes, how much? Tsh.....,

If no, why not.....

66. Do you agree or disagree with the following statement?

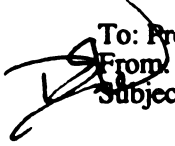
Statement	SD 01	D 02	A 03	SA 04	DK 05
a. If you educate women you educate the nation					
b. Girls are equally good in school as boys					
c. Girls can do as well as boys in science subjects					
d. Educated women tend to know more about issues concerning their welfare eg. Birth control methods					
e. Educated women tend to participate more in decision making on family affairs					
f. Educated women tend to have less children					
g. Highly educated women get better jobs					
h. Wage employed women are more likely to have more say in the use of their earnings in the home					
i. Wage employed women tend to have less children					
j. Farm working women are not likely to have time to advance themselves in terms of basic needs					
k. Wage employed women are more likely to own property					
l. Wage employed women are more likely to have access to health services					

APPENDIX D

LETTER OF SUPPORT FROM UCRIHS

MICHIGAN STATE
U N I V E R S I T Y

7 January 1998

 To: Prof. Craig Harris and Ms. Mary Kitula, Department of Sociology
From: David E. Wright, Chair, UCRIHS
Subject: IRB# 95-491, "The Effects of Cultural Factors On Contraceptive Use in Tanzania"

UCRIHS discussed this matter at its meeting of 5 January 1998, the facts of which are as follows. Data for Ms. Kitula's Ph.D. dissertation were gathered before UCRIHS review of the protocol had been completed and therefore before UCRIHS approval had been granted. There was, moreover, a reviewer comment outstanding: a concern that involvement of local Tanzanian "authorities" in the recruiting of subjects might prove coercive to subjects.

UCRIHS has completed a non-compliance review of this matter. The Committee determined that Ms. Kitula had acted in good faith and was not aware of, or responsible for the non-compliance. It further determined that subjects do not appear to have been harmed or put at increased risk due to their participation in the research. (The Committee determined that Tanzanian government officials were not involved in subject recruitment.)

Under University and federal regulations protecting human subjects of research, UCRIHS may not approve data gathered in protocols that have not had prior UCRIHS review and approval. However, under the circumstance, UCRIHS will inform the Graduate School with a copy of this memorandum that it does not object to the Graduate School's accepting Ms. Kitula's dissertation without UCRIHS approval.



OFFICE OF
**RESEARCH
AND
GRADUATE
STUDIES**

c. UCRIHS
Klomprens
Huggett

APPENDIX E

LETTER FROM THE MINISTRY OF SCIENCE, TECHNOLOGY, AND HIGHER EDUCATION



THE UNITED REPUBLIC OF TANZANIA

MINISTRY OF SCIENCE, TECHNOLOGY AND HIGHER EDUCATION

Telegrams: "SAYANI", DAR ES SALAAM.

Telephone: 27701-3.

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In reply please quote:

PF.935

Ref. No.

P.O. Box 2645,

DAR ES SALAAM.

04/01/1996

Date

Mkuu wa Mkoa
Mkoa wa Mbeya.

Mkuu wa Mkoa,
Mkoa wa Pwani.

Yah: UTAFITI WA MRS. MARY KITULA KATIKA MKOA
WA MBEYA NA PWANI

Mtajwa hapo juu ni mfanyakazi wa Wizara hii. Kwa sasa hivi anafanya utafiti katika Mikoa iliyotajwa hapo juu ikiwa ni sehemu yake ya mafunzo ya Digrii ya tatu (PHD) huko Michigan State University.

Utafiti huo unaanza Januari hadi Julai, 1996 katika Mikoa hii miwili. Tafadhali tunaomba apatiwe msaada wenu ili aweze kufanikisha kazi hiyo.

Asante.

A. Chande
kny: KATIBU MKUU

APPENDIX F

LETTER FROM

HALMASHAURI YA MANISPAA YA MBEYA

HALMASHAURI YA MANISPAA YA MBEYA

S.L.P. 149,
MBEYA.

Kumb. Na. MMC/R.50/1/117.

11/1/1996.

Maa isa Watendaji wa Kata,
Ghana, Maendeleo, Isanga, Sinde,
Ruanda na Mwakibete.

YAH: KUMTAMBULISHA MRS. MARY KITULA
KUFANYA UTAFITI

Napenda kumtambulisha Mrs. Mary Kitula wa Michigan State
University ambaye anapenda kufanya utafiti katika Kata zenu.

Naomba apewe msaada wa kila aina ili afanikishe utafiti
atakaotaka kufanya katika Kata zenu na kumpa ushirikiano wa hali
ya juu.

Nawakia ushirikiano mzuri.



(N.A. Mwaikuka)

kny: MKURUGENZI WA MANISPAA
MBEYA

APPENDIX G

LETTER FROM

OFISI YA WAZIRI MKUU NA MAKAMU WA KWANZA WA RAIS

JAMHURI YA MUUNGANO WA TANZANIA

OFISI YA WAZIRI MKUU NA MAKAMU WA KWANZA WA RAIS

MKOA WA PWANI

Anwani ya Simu: "Rascom", PWANI.

Simu Namba: 2221-4

Telezi No.: 47109.

Uamaji: tafaadhi taja:

OFISI YA MKUU WA MKOA,

S.L.P. 30080 AU 71481, Dm.,

KIBAHA.

Kumbukumbu Namba: GR/L.40/30/296.

28 Februari, 1996

**Afisa Tawala wa Wilaya,
Ofisi ya Mkuu wa Wilaya,
S.L.P. 30175,
KIBAHA.**

**YAH: UTAFTITI WA MRS. MARY KITULA KATIKA WILAYA YA
KIBAHA**

Tafadhali husika na somo hilo hapo juu.

**Hatajwa hapo juu ni Mfanyakazi wa Wizara ya Sayansi, Teknolojia na
Elimu ya Juu ambaye anafanya Utafiti ikiwa ni sehemu yake ya Mafunzo ya
Digrii ya Tatu (PHD) huko Michigan State University.**

**Anapenda kufanya Utafiti katika Mikoa ya Mbeya na Pwani. Hivyo
namleta kwako umpatie msaada wa wote atakaohitaji katika kufanikiwa
Utafiti huo. Utafiti huo unaanza Januari, 1996 hadi Julai, 1996.**

**E.I.
(E. Itanisa)**

k.n.y. MKURUGIZI WA MAENDeleo (M),

PWANI

Hakala kwa: Mrs. Mary Kitula. ✓

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