Determinants of Using Contraceptives
Evidence from Kosova: Household Survey Result 2003

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Abstract

This research contributes to the better understanding of contraceptive use, in Kosova and analyzes the factors that have influence on using them. Empirical evidence shows that majority of women in Kosova have heard about contraceptives, but the level of use in almost the lowest in Europe. The purposed theoretical framework is based on the behavior outcome and in individual level theory, in particular, Theory of Planned Behavior. In this study we present the theoretical framework to study the association between contraceptive use as behavior outcome and factors that have influence on using them. We also examine the empirical evidence and focus on variables, such as, value orientation in one hand and external variables in the other hand. The data use for this research derived from Kosova Household Survey 2003. The result shows the discrepancy between the level of knowledge and use of contraceptives. The findings also show that value orientation change by external variables, and furthermore, its characteristics and contraceptive use have close association. The results conclude that contraceptive use vary from demographic and socio – economic background of women.

Keywords · knowledge about contraceptives · contraceptive use · factors that have influence on contraceptive use

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INTRODUCTION

Contraceptive use depends not only on people's fertility desires, but also on availability and quality of family planning services; social traditions that affect the acceptability of contraceptive use; and other factors, such as marriage patterns and traditional birth-spacing practices. The level of contraceptive use has a strong, direct effect on the total fertility rate (TFR) and, through the TFR, on the rate of population growth. Contraception are used to prevent pregnancies that are too early, too closely spaced, too late, or too many has benefits for maternal and child health. This indicator is also closely linked with sustainable development indicators, such as: age of population, woman's participation in the labor force, and the level of development.

On the basis of the above mentioned this study documents the contraceptive use. The overall objective of it is to provide a detail evidence on distinguish between using contraceptives by type, knowledge and services according to age, education, employment, income, marital status, place of residence, ethnicity and number of people per household; moreover, to offer interpretation of these variables. The main data source for this document is the Kosova household Survey, conducted in 2003 by the Statistical Office of Kosova (SOK) and UNFPA. The Household survey contains information on several types of demographic indicators which enable us to characterize the contraceptive use and factors that has influence on using them. In order to reach this objective, we are focusing in four main aspects:

- Presenting a demographic situation in Kosova;
- Providing a conceptual model from theory;
- Providing a methodology and operationalisation base on data and conceptual model; and
- Presenting a final result form the Kosova Household Survey Result 2003.

In order to fulfill the first aspect of this study, we present the recent demographic situation in Kosova, which differs from other European population in many ways; starting from the age of population. When the Europe is aging, the population of Kosova is in exception. One of the most important features is fertility, which affects all the aspect of live in the Kosovar Albanian society. The population is very young, 32.8 percent is under 14 years and more than half under 25. The average children per woman, is 2.7 (failing swiftly after war 1999). Infant and maternal mortality are high, perhaps among the highest in Europe. The dependency ratio is very high, largely because of the large proportion of persons under 15 years of age. The percentage of rural population is higher than urban. There is a large difference in educational attainment and employment rate, among living area and sex.

The second aspect of this study is to provide a conceptual model, which will be based on the theory which deals with the behavior outcome in the individual level. More specifically, we apply the theory which holds the value orientation and external variables, and make possible to incorporate all factors that we foresee in this study.

Next aspect of this study is to provide the methodology and operationalisation of all variables presented in the conceptual model; and in the final part will be presented the result of this study. Here we try to answer our research questions, by analyzing data set that we possess. Not all women use contraception, even if they have knowledge about them. In fact, these women are the majority in Kosova. Keeping this in mind, the first part of result is focused in the level of knowledge and use of contraceptives, to continue with way of supply. The way of supply is analysed by place of obtaining, type of contraceptive methods and background characteristics of respondents. Analysis continues with explanation of the relationship between contraceptive use as behavior outcome and subjective norm; moreover, with background characteristics of women, demographic and socio-economic background.

1.1 Research Questions

1. What is the use of contraceptives in Kosova?
   a. What is knowledge about contraceptives?
   b. Where do people obtain methods?
   c. Which method they are using mostly?

2. What factors influence using of contraceptives?
   a. What is the influence of attitude, subjective norms in contraceptive use?
   b. What is the influence of people's background in contraceptive use?

3. Which of these factors are more significant in the decision to use contraceptive?

4. What can be done for further research?

1.2 Research Objectives

Due to research questions the objectives for this thesis, we divide in three parts: ultimate, immediate and further objectives (Matsuo, 2001).

- The ultimate objective of the overall research is to contribute to the understanding of interaction between contraceptive and determinants that influence using of them.

- The immediate objective of the research is to provide a detail evidence on distinguish between usage contraceptives by type according to age, education, employment, income, marital status, living area, ethnicity, influence of others and way of supply; moreover, to offer interpretation of these variables.

- A further objective is to see which of these factors are more significant than others, when it comes to the decision to use contraceptive.

1.3 Presentation of the thesis

The thesis is organized in five chapters, starting from the first chapter where is presented the research problem with objectives and the organization of the thesis. In the second chapter is presented the demographic situation in Kosova, starting from the general overview with number of population and age of population; to continue with other characteristics, such as: education, economic situation, household characteristics and natural increase. The third chapter deals with theoretical framework and conceptual model. The theory used in this study, is Theory of Planned Behavior by Ajzen (1991). In this chapter is done the elaboration of research question with theory and also conceptual model created base on theoretical framework. The next chapter (Chapter 4) follows with methodology and data sets, which are analyzed as part of the present research. The data sets used in this study are from the Kosova Household Survey 2003; a survey conducted by Statistical Office of Kosova (SOK) and UNFPA. The results of this study are presented in chapter five. This chapter gives details about determinants of using contraceptives and ranks them in accordance with their importance, starting from knowledge, use of contraceptive in Kosova, place of obtaining them, subjective norm and background in contraceptive use. This chapter will be closed with section about significant factors in the decision to use contraceptive. The final chapter (Chapter 6) concludes the research with a detailed discussion.

2. DEMOGRAPHIC SITUATION OF KOSOVA

In order to make it understandable the result of this study, in this chapter, we will elaborate all demographic indicators that are characteristic for Kosova, prior to the war 1999. We will start from demographic indicators, such as: age and sex of population, level of education, labor force participation, household characteristics and natural increase and than following with a brief description of contraceptive use in Kosova.

To complete this demographic picture of Kosova have been used different data source, such as: population estimation in 1991, Household survey 1999, Vital Statistics of Kosova 2002 – 2003 and the Kosova Household Survey 2003. This mixture of data source sometimes creates some difficulties on explanations, because the data were from different time intervals.

This chapter contains two main sections, starting from the Population of Kosova presented in the first section 2.1, which contains the number of population with age and sex variables; level of urbanization; and birth and death rates. Subsequently, socio - economic factors are presented with education in the subsection 2.1.1; economic situation in 2.1.2 and household characteristics in 2.1.3 and natural increase in subsection 2.1.4 where also is given a brief description of life expectancy. The level contraceptive use with some indicators is presented in section 2.2.

2.1 Population of Kosova

In this section we will give a general overview of population in Kosova. It is not so easy task to describe demography of a region which during many years has been involved in an open conflict between its population and government, in a conflict between ethnic groups of a province. Moreover, a region which in the last years has been involved in a war and its demography has been misused to justify the ethnic policy of one group against the other. This is a case of Kosova, a province in the South of Europe; a small and landlocked territory in the center of Balkan Peninsula.

We are initiating this section with the demographic overview of Kosova and from estimation data of population in 1991, by Serbia Government. It is important to mention that in 1991, the census of population was boycotted by the Albanian population, and in that time the government of Serbia make just estimation for residents in Kosova. However, the results have to be treated with caution, when it is known that always the aim was to decrease the number of one ethnicity and increase the number for other ethnicities. According to this it is known that since the end of 80's and beginning of 90's, the data for Albanian nationality were underestimated almost 20 percent for fertility and 25 percent for mortality, mostly due to unregistered fertility and infant mortality. This fact of underestimation was approved also by Serbian statistical and science institutions (Islami, 2005).

Nevertheless according to this estimation, Kosova in 1991 had approximately 2 million inhabitants, precisely 1 956 196 (Islami, 2005). The majority ethnic group was Albanians with 82.2 percent of total population, then 9.9 percent were Serbs, and 7.9

percent belongs to other nationalities, such as: Bosnian, Croat, Montenegrin, Turks, Gorani and Roma/Ashkali/Egyptian community (Islami, 1994).

After the last war in 1999, there was a critical need for current, economic, social and demographic data to help in the reconstruction and development of Kosova. In response to this need, OSCE (the Organization for Security and Co-operation in Europe) organized a civil registration (of people up to 16 years) and voter registration (up to 18 years), in way to provide identification and travel documents for Kosova's population and also to compile a voting system. Base on these registrations, Hivzi Islami, demographer in Kosova, roughly estimated that the total population in Kosova for the year 2005 is approximately 2.5 million inhabitants. In this time more than 90 percent are Albanians, 5.2 percent Serbs and the rest are other ethnicities.

The population characteristics, such as: age structure, sex ratio, fertility and mortality rate, urban and rural rate, education and employment rate makes Kosova a unique province in Europe. In an aging Europe, the population of Kosova is an exception. The population is very young, with a mean age 25.3 years, in 1991. It is by far the youngest population in Europe, where 32.8 percent is under 14 years and more than half under 25. By contrast only about 6 percent of the population is 65 years and older (SOK – Statistical Office of Kosova, 2002). The rate of the "active" population (between 15 – 64 years of age) is about 61 percent. Thus, the dependency ration is very high, largely because of the large proportion of persons under 15 years of age.

The age pyramid, presented in the following graph, shows clearly that Kosova population is very young. The shape of pyramid is still triangular. The declining width in the base of pyramids shows that fertility start to fall slowly after the war 1999. Another feature of this pyramid is narrowing of the bars at ages 20 – 50, especially for males. This is mainly caused by emigration that occurred in the past for economic and political reasons, which leads to significantly more females than males in this age group (116 females per 100 males). Until 1998, the war in Kosova itself remained a "cold war" till 1998, with constant repression by Serbia and passive resistance by the Albanians majority, not braking out into widespread, open violence.

Afraid from this kind of war which now engulfed them, brings to the real war which started in 1999. The result of war in this year has been an unprecedented violent offensive against the civilian population. Many people have been killed; most of them civilians - mainly women, children, and elderly people. The number of wounded people has been even greater. Regarding to health care in many areas was non-existent or desperate, for Albanian population. Pregnant women had no special care at all, and childbirth takes place under very difficult conditions. There were food shortages and problems with drinking water. In some cases wells have been contaminated with the carcasses of livestock. Malnutrition and infectious diseases are commonplace, especially among children of preschool age and elderly people (Tolaj, 1999). The consequence of this is the narrowing of the last bar in the same pyramid (Figure 2.1). This rapid narrow of this bar is result of fertility decline, because from the insecure situation created in that

time and from fear of war, people decided to postpone their marriages and childbearing. In this time, within one year (1999) the rate of childbearing falls from 2.1 to 1.8.

Figure 2.1 Population age-pyramid of Kosova, in 1999

Age Distribution in Kosova
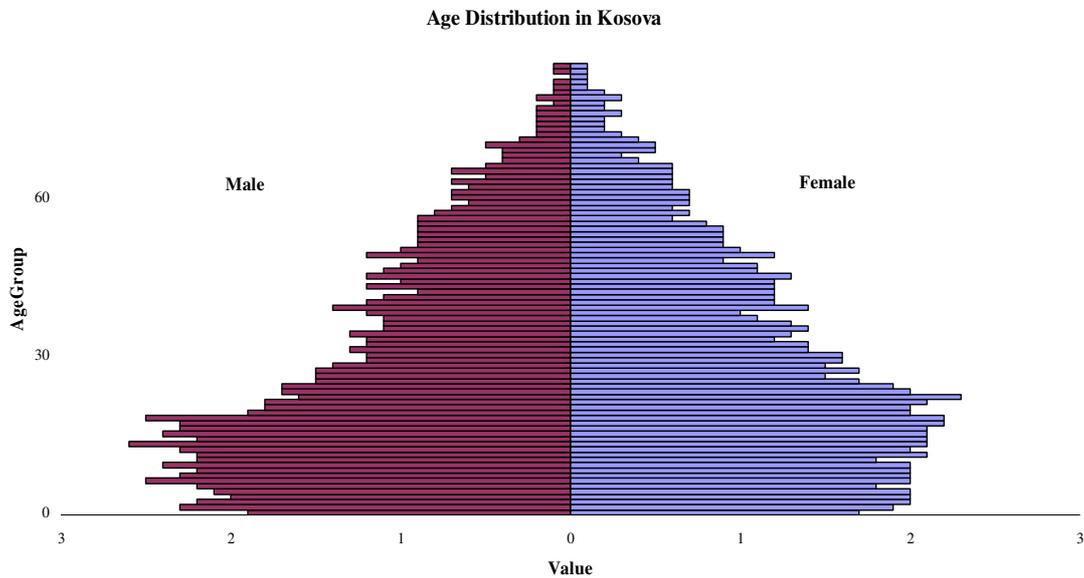
Source: SOK, Household Survey, 1999

According to LSMS (Living Standard Measurement Survey 2000), Kosova is poor country where almost 40 percent of population is poor. However, according to Statistical Office of Kosova, the poverty in Kosova is still widespread but it is not very deep (SOK, 2003). Following this economical situation, the way of life in Kosova still remains traditional, with agricultural life in rural area and extended families.

Today Kosova has predominantly a rural society. In 1991, time when in the other counties, majority of population is urban, in Kosova is the opposite; still 63 percent of population was rural (Islami, 2005). The reasons for such a high rate of rural society are the following: late and slow economic development, absent of industrialization and slow functional transformation of rural areas into urban areas. From these reasons, it is difficult to predict the future of rural-urban changes, but if Kosova follows the experience of other Balkan countries, it will experience a rapid shift toward urbanization. This shift we can see in the Figure 2.2, where for 40 years the urban population is increased almost 28 percent. This increase of urban rate, we suppose that is much higher in recent years, especially after the recent war (1999). Time when within many changes that shaped the characteristics of the population, internal migration played an important role in it. This mass of rural – urban migration for a short time, brings many socio-economic, cultural and infrastructural problems to the kosovar society. Especially when it is known that on this rural – urban migration, after the war it takes part the lowest social class of population from villages, because most of them lost their dwelling. During the war, perhaps half of the villages in Kosova have been severely damaged. Some of them were flattened completely (Tolaj, 1999).

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Figure 2.2 Level of urbanization in Kosova, 1948 - 1991
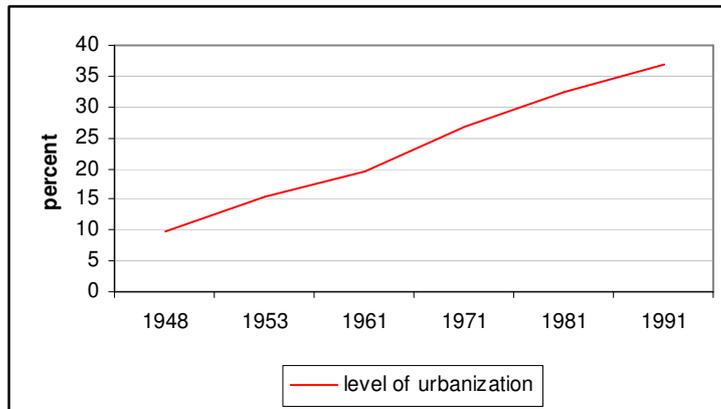
The demographic picture of a population in not completed without analyzing the components of natural increase. Fertility and mortality patterns in Kosova have played major role in the population change of the province. In this section we will present determinants of natural increase in Kosova, such as: Crude Birth Rate and Crude Death Rate for a period 1950 – 2003 (Figure 2.3).

Figure 2.3 Crude Birth Rate, Crude Death Rate in Kosova, 1950 – 2002
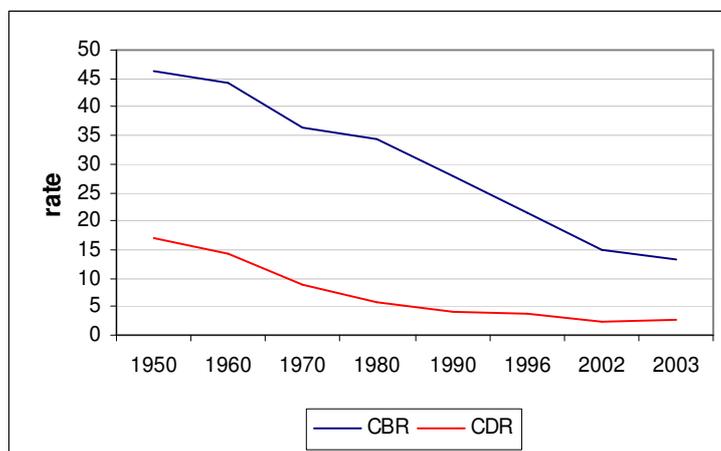
The above figure indicates that fertility and mortality in Kosova experienced a decline from 1950 to the present day. Crude Birth Rate decreased from 46.1 in 1950 to 15.1 in 2002, more evidently, after 1990s. This can be explained with migration of youths, especially men's as result of social, economical and political pressure during the war years. Afterwards fear of war and social insecurity, cause postponement of marriages and childbearing's. However, during all this period the declining of CBR is result of

under records of vital statistics; meaning that data's for Albanian population were underestimated by Serbian government and also Albanians did not record all cases of births and deaths. The decreasing of Crude Birth Rate it falls sharply in 2003, when within a year Kosova has 4000 deliveries less (Islami, 2005). Despite the fact that fertility in Kosova is reduced dramatically for last 50 years, still today remains the highest in Europe. Such a high fertility level can be explained with fact that Kosova remained not just the last developed region in the former Yugoslavia, but also an area where the traditional traits and values are still predominant in the society.

The high fertility rate it's not the only component that has influenced the high growth rate in Kosova, for more then fifty years; but also the decline of mortality rates. Crude Death Rate it falls down from 17.0 in 1950 to 2.3 in 2002 (Islami, 2005). Due to lack of data about the number of deaths during the last war, we can not explain in detail this variable, for that period.

2.1.1 Education

In this subsection we present the situation of school attendance in Kosova, by age and sex, which provides the most fundamental information about the effectiveness of current education policies. Education especially serves as a key background variable for studies on labor force, migration, contraceptive use, fertility and family planning, and also in all topics related to decision making.

In the following Table, 2.1 we present the school participation rate, according to Household Survey 2003, by place of residence and the highest level of school completed among the population aged 15 years and above.

Table 2.1 Percentages of the highest level of school by place of residence, in 2003

Highest level of schooling	Urban	Rural	Total
No schooling	7.4	10.1	9.3
Primary school	37.5	55.1	50.1
Secondary school	48.5	32.5	37.1
University and higher	6.6	2.3	3.5

Source: Kosova Household Survey, 2003

From this table we see that a little more than 9 percent of population aged 15 and above never attended school; half of them (50.1 percent) attended primary school, 37.1 percent secondary school and just 3.5 percent attended university and higher level of education. The high percentage of illiterate people in Kosova is accumulated in old age groups, 65 years and more and can be explained with many factors. These explanations firstly start from the inappropriate educational situation for a long time (education in Serbian language), e. g. absence of primary school in Albanian language and national, social and cultural discrimination of Albanians. Secondly, even that after the World War II, the primary education becomes obligated by low in Kosova, the absence of school buildings in rural areas hinder the school attendance for many people. Thirdly, the inheritance of national tradition, especially the illiteracy of parents and their

conservatism, many times was hindrance for woman's education in rural areas. Fourthly, the agricultural life for a long time always requires a lot of workers. Finally, as conclusion this high percentage of illiterate people is result of low economical situation for a long time.

Current school attendance by sex and place residence is presented in the Table 2.2. From the table is shown clearly that situation is changed, high percentages of people aged 6 – 29 attend the school. In contrast with this, for the fist time in Kosova the school attendance in recent years (after the war 1999) is higher in rural areas than in urban areas. This discrepancy in school attendance between places of residence can be explained with the last war. As explained in the previous section, after 1999, in Kosova were present the internal migration, from rural to urban areas. This created a chaos among all spheres of life, including education. The people, who participated in these internal migrations, are characterized by low level of education and low social and economical status; which change the educational situation for the moment.

Table 2.2 Percentages of persons currently attending school or university by age group and sex, in 2003

Age group	Males	Females	Urban	Rural	Total
	%	%	%	%	%
5 - 9	69.4	62.7	65.9	66.3	66.2
10 - 14	98.9	96.5	97.4	97.8	97.7
15 – 19	70.7	54.0	70.7	59.8	62.7
20 – 24	15.8	13.5	20.2	12.5	14.6
25 - 29	4.4	2.4	6.7	2.0	3.3

Source: Kosova Household Survey, 2003

From the above table (2.2), school participation rate is high, especially for age-group 10-14, where 98 percent of population in this age group attends the school. The lower percentage in the age group 5 – 9, which can be explained by the late starting age for some pupils; and then the participation rate at age 15 – 19 falls to almost 63 percent. The difference of attendance the school or university becomes visible when it comes to sex and place of residence.

Sex differential exist to all ages and level of education, where boys are more likely than girls to attend the school. This difference becomes more visible between age groups and level of education when it comes to the place of residence (urban – rural). It is surprising that at ages 5 – 14, school participation by rural children is higher than urban children, though which this difference is very small but statistically significant. This situation changed by age, in favor of urban areas where education advance emerge. At the age group 15 – 19, the school attendance in urban areas is much higher than in rural areas. Of course, this does not necessarily reflect the relative likelihood of urban or rural residents perusing further education; still there are some rural pupils' who moves to urban areas to take advantage of opportunities offered (particularly in age groups 20 – 24 and 25 – 29, for high education levels).

2.1.2 Economic situation

The economic situation is one of the determinants that effect on demographic changes. Regarding to this factor, contraceptive use varies from: labor force participation, level of employment, position in profession, level of income, etc.

Data from Household Survey 2003 have been used to interpret the economic situation in Kosova. According to this survey, the concept of economic activity status includes total population in Kosova, while the concept of labor force includes persons in working age, 15 and 65. Persons who worked in a job for an hour or more last week (in the time of the survey) are considered as employed. Those who are not working or looking for a job are considered as unemployed. This category is known as economically active population (which include current and potential workers), in contrast to next category which is not economically active population and is made by old people, children and others. Base on these concepts, in the Table 2.3 we present the percentage of economic activity status of total population in Kosova.

Table 2.3 Percentage of economic activity status of total population in Kosova, in 2003

Economic activity status	%
The labor force -	58
Employed	27
Unemployed	31
Not economically active population	42
Total population	100

Source: Kosovo Household Survey, 2003

The table shows clearly that in Kosova, the percentage of employment is very small. From total population, 58 percent are economically active and 42 percent are not economically active. Within the first category, 27 percent are employed and 31 percent are unemployed. This low participation in general can be explained with the high dependency ratio in Kosova (32.8 % of population is under 14 years), with high percentage of not economically active population.

Working just with the concept of labor force, which includes people in the working age (15-65), today in Kosova the majority of them is unemployed (54%) compare to employed (46%). See Figure 2.4. This unemployment rate is very high by the world standards, and exceptionally so far from Europe. This high unemployment rate can be explained with low and slow economic development; especially after the war 1999.

Figure 2.4 Labor force participation in Kosova, in 2003
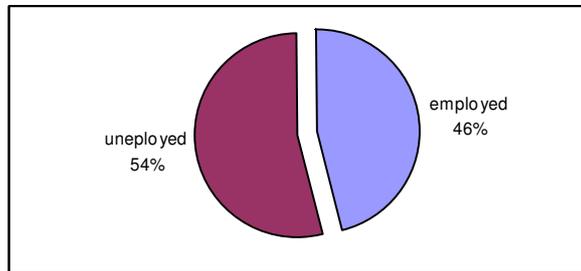
Source: Kosovo Household Survey, 2003

Labor force participation varies for a number of reasons, as: age, sex and place of residence. From the Household Survey 2003 it is known that labor force participation rate for males is much higher than for females (76% versus 40%). Difference also exists according to the location; although that they are less marked than for sex and do not seem very surprising. Urban participation in labor marked is 62% compare to rural who participate with 56%.

2.1.3 Household characteristics

While Kosovar society went through different changes, family composition did not change at all. Kosova society has been and still remains the traditional one, where family is large and the tradition from the kinship to nuclear family has still the long way to go. Being mainly rural, the existence of large households of different generations and families living together still is quite common. To make possible a simple comparison between ages and number of household per family, in the following figure 2.5 we give a number of household through census of 1981. In that time, the average members per family in rural area were 7.9 while in urban areas was 5.5. Looking at this figure we can say that during the period under study a family in urban areas has less household members, in comparison with family in rural areas. In urban areas almost 5 percent are families with one household member, than 17.0 percent with four and more than 20 percent with eight and more household members. Beside this, in rural areas 2.7 percent were families with one household member, 8.0 percent with four, and 45.3 percent were families with eight and more members.

Figure 2.5 Percentage of household members in Kosova, base on census 1981
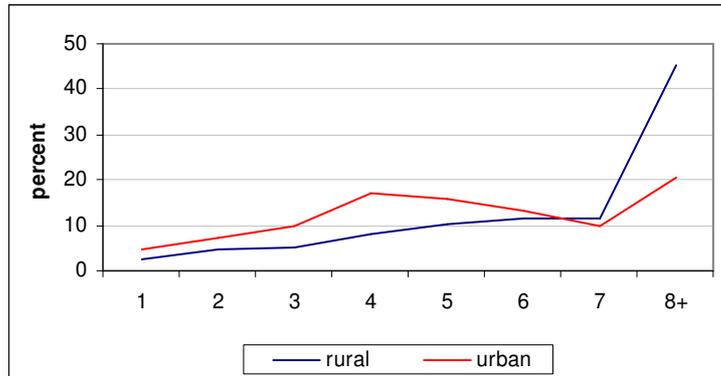
Source: Islami, 2005

In the recent years there is a small development in this aspect, but still the number of household per family is quite high. The average size of household today in Kosova, is 5.6 members (Household survey, 1999).

Another particularly of Kosova household is their family composition. Today, almost 72 percent of household have a nuclear family, 21% are multiple household[1] with 2, 3 or even more families in a single household and one person households are very rare in Kosova, just 2 percent (Household Survey, 1999).

The unfavorable economic situation in Kosova, explained in the previous sections, is reflected in the characteristics of household, as well. The high unemployment rare, source of income, tradition, heritage, specific moral codes, mores of collective lives, etc. are the factors that keeps alive the traditional extended families. This family structure has major influence on the thinking and mentality of Kosovar Albanians, and that only radical economic change to its disintegration.

2.1.4 Natural Increase

Natural increase can be expressed in two terms: Total Fertility Rate and life expectancy. According to available data, Total Fertility Rate is defined as the average number of children a woman would have if she would experience the fertility pattern of that particular year, and if she would survive until the end of her reproductive life. The Table 2.4 shows the TFR in Kosova, for period 1950 – 2000, where is clear that there is quite a substantial reduction. TFR is reduced from almost eight children per woman in 1950 to a little more than two in 2000. Time when the natural increase is under replacement level for most of European countries, Kosova for the first time is experiencing this rate almost in replacement level.

This reduction can be explained with woman emancipation in recent years; her incorporation in educational system and labor force participation. Moreover, internal migration after last war and life in urban areas has the major effect in reduction of this rate.

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[1] In the household survey 1999, is defined as household with more than one family nucleus.

Table 2.4 Total Fertility Rate in Kosova, for period 1950 – 2000

Year	TFR
1950	7.85
1955	6.68
1960	6.73
1965	6.02
1970	5.45
1975	5.21
1980	4.82
1985	4.30
1990	3.60
1995	2.61
2000	2.20

Source: Islami (2005)

In the Figure 2.6 we present the life expectancy is Kosova, more or less for the same time period 1950 - 1990. It is interesting to see that in 1950 the life expectancy at birth was higher for male than for female, time when in the most European countries was the opposite. This shows once more that Kosova's society, as a traditional one was favoring males compare to females in terms of care and nutrition during childhood (Gjonça, 1999). Even that the data for this demographic indicator are incomplete, from the Figure 2.6 is clearly shown that this phenomenon is disappeared in the coming years; and in 1990 the difference of life expectantly at birth, between sexes is almost five years in favor of females.

Figure 2.6 Life Expectancy in Kosova, 1950 – 1996
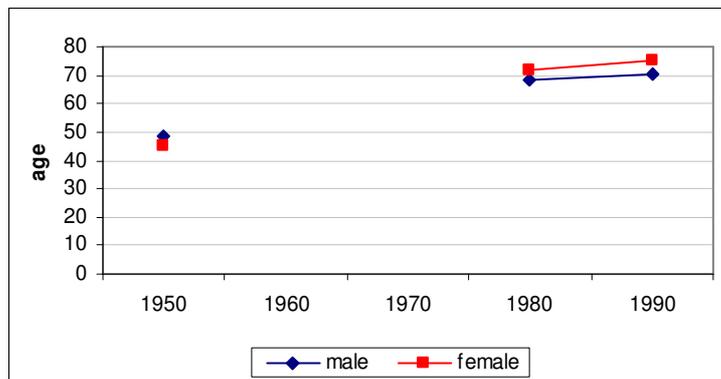
Source: Islami (2005)

2.2 Contraceptive use

The aim of this section is to give briefly some more information about marriage, birth interval and contraceptive use in Kosova. From the Table 2.4 is noticeable that the population growth rate in Kosova is declining in recent years, mostly after the last war 1999. This is plausible assumption based on the non secure situation created during the war years. In this time, political, economical and social situation was reflected in daily life and furthermore, had a negative effect in demographic development. This is a time when couples decide to postpone marriages and first births.

Postponing marriages and first birth brings to the reduction of family size and fertility, as well. According to Household Survey 2003 (published report in 2005), today the mean age at marriage is 27 for males and 24 for females and the mean interval between successive births is just 2 to 2.5 years (Household Survey, 1999); which sometimes can be even shorter, depends on the family size. About contraception, according to the same report is concluded that Kosova has the lowest prevalence recorded in Europe (20 percent). For a long time, the main method of family planning was abortion; which according to the law "is allowed for everybody above 18 years and till 10 weeks of pregnancy. Until this time of pregnancy (10 weeks) woman needs an agreement from the fist level of a committee (group of doctors in hospital) and than she can decide by her own. However, if pregnancy is more than 12 weeks, a committee will decide for her, because the abortion could be dangerous for the patient" (Paçarada, 2005). According to Dr. Paçarada, if the patient is fewer than 18 years, than abortion will be with parent's agreement.

To show the declining number of abortion in Kosova, in the Figure 2.7 we present some data about abortion from University Health Center in Prishtina (capital of Kosova), from 2001 till mid 2005. From this figure is indicated that number of abortions are declining and if this will continue with the same level till the end of 2005 year, within this five years period the number of abortion is reduced twice; from 969 in 2001, falls to 542 in 2004 and 213 abortion in mid 2005. Since this number of abortion is taken just from one public health centre, in reality this number is much higher, especially when its known that Kosova has many others public and private health centers, where abortion can carry out.

Figure 2.7 Abortion number in University Health Center in Prishtina, 2001 - mid 2005
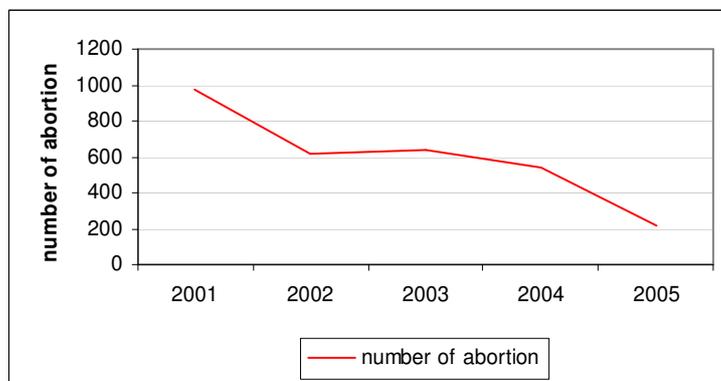
Source: Koha Ditore, 2005

This declining of abortion in kosovar society can be explained with the emancipation of society and usage of contraception in recent years. Furthermore, the health centers and pharmacies who deliver contraceptive methods influenced in the declining of unwanted pregnancies (Paçarada, 2005).

According to household survey 1999, the proportion of woman who has knowledge about contraception compare to woman who use contraception, is very different. While 88 percent of woman in the survey reported to have heard for any of contraceptive methods (pill, IUD, injection, diaphragm, condom, rhythm/abstinence, withdrawal, sterilization of both sexes and other methods), around 18 percent are using them. The most known and the most used methods among woman in the survey are traditional methods. From modern methods, pill and IUD were the methods which women most often reported as they knew it, but the usage of them is very low.

Demographic factors, age and marital status, are the main factors that explain the prevalence on contraceptive use. According to Household Survey (1999) prevalence increases with age up to 45, but does not exceed 36 percent (among age group 35 – 44); 32 percent of married woman use contraception. Women in the age groups 35 – 44, are also those who make the greatest use of traditional methods. Withdrawal is the most used method (used by 8 percent of all woman and 14 percent of married women).

Among other demographic factors, such as education and place of residence, is this result: 23 percent of educated women aged 15-49 use contraception, compare with 18 percent of uneducated woman in the same age group. The use is slightly higher among urban women, 21 percent of whom use contraception, compared with 16 percent of rural women.

3. THEORETICAL FRAMEWORK

The aim of this chapter is to present the theoretical framework we use in this research. It provide the framework for analysis of the data that we possess from the contraceptive file of Demographic and Health Survey data from Kosovo 2003, with the research questions that we indicated in chapter one and also research objective of this study. From these three factors we noted that the Theory of Planned Behavior from Ajzen (1991) is the most relevant theory since allows us to distinguish concept and variables, in the individual level according to which we can describe factors that have influence in contraceptive use.

This chapter is divided into three main sections. Section 3.1 deals with the explanation of Theory of Planned Behavior and reasons of using it. In other words we describe the relevance of this theory with contraceptive use. In section 3.2 we introduce the conceptual model for the overall research, a model that serves for further study. Subsequently, in section 3.3 we give a definition of concepts used in this research.

3.1 Theory of Planned Behavior

To make it clear and easy understandable the Theory of Planned Behavior, in this section we give a brief explanation of theory with identification of variables and the relationship between these variables. Since this theory originate from the Theory of Reasoned Action from Ajzen and Fishbein (1980) and contains alike variables, first we start with explanation of Theory of Reasoned Action; and then continue with the detailed explanation of Theory of Planned Behavior from Ajzen (1991), in way to see the linkage between them. Finally we close this section with and arguing of using it.

The explanation of both above mentioned theories we start from the fact that both of them help us to develop our research by giving a clear picture or understanding of human communication and human behavior. Ajzen and Fishbein (1980) developed an adaptable behavioral theory and model in 1980 called the Theory of Reasoned Action. This theory "assumes that individuals are rational and they process information and are motivated to act on it" (Ajzen and Fishbein, 1980). Very simply, the model is presented in Figure 3.1

Figure 3.1 Model of Theory of Reasoned Action
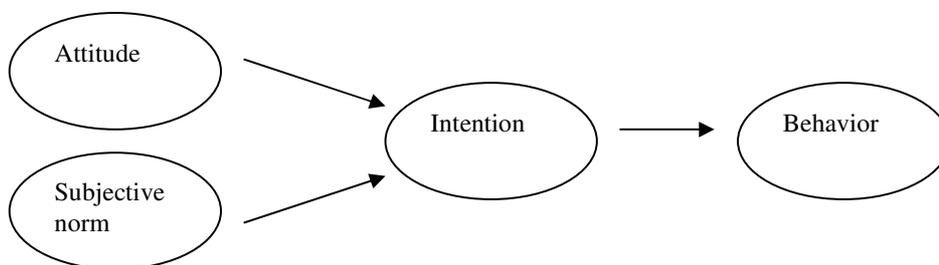
Source: Ajzen and Fishbein, 1980

In this theory, a person's attitude toward behavior consists first, of a belief that particular behavior leads to a certain outcome and second to an evaluation of the outcome

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of that behavior. If the outcome seems beneficial to the individual, he or she may then intend to or actually participate in a particular behavior. Also, in this theory is included the concept of subjective norm, which present the effect of social pressure in particular behavior (Ajzen and Fishbein, 1980).

As the Theory of Reasoned Action began to take hold in social science, Ajzen and others realized that this theory had several limitations and after reviewing in the 1988, Ajzen added a third element to the original model: Perceived Behavioral Control and rename as Theory of Planned Behavior.

The Theory of Planned Behavior proposed by Ajzen (1988, 1991) same as Theory of Reasoned Action, helps to understand the behavior of people. This is a theory which predicts deliberate behavior, because behavior can be deliberative and planned (Ajzen, 1991). In other words, the theory supposes that human beings behave in a reasonable way, taking into account available information and understands the implication of the consequences of behavioral outcome.

According to this theory, human actions are guided by three kinds of consideration (presented in the Figure 3.2):
- Attitudes toward behavior (beliefs about the likely consequences of the behavior);
- Subjective norms (result of social pressure) and
- Perceived behavioral control (presence of determinants that may facilitate performance of behavior).

Figure 3.2 Theory of Planned Behavior
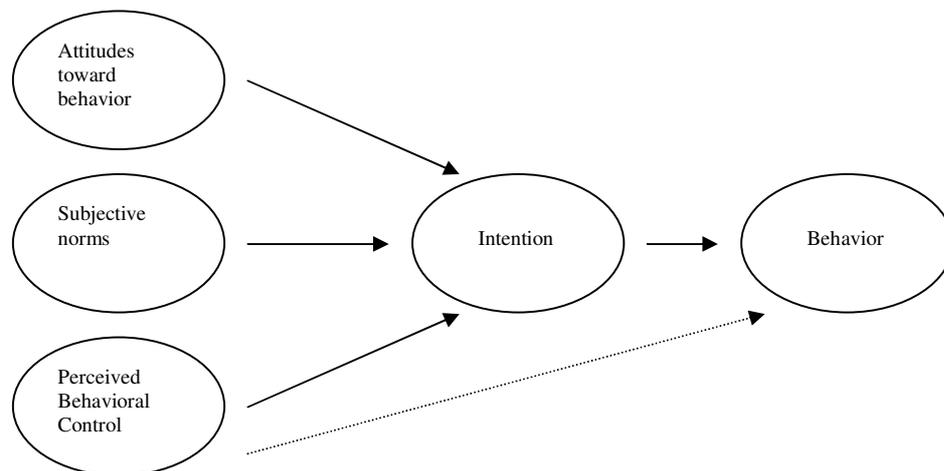
Source: Ajzen, I., 1991, p. 182.

Theory of Planned Behavior suggests that a person's behavior is determined by his/her *intention* to perform the behavior and that this intention is, in turn, a function of his/her attitude toward the behavior and his/her subjective norm and perceived behavior control. The best predictor of behavior is intention, which has a central role in the theory.

A person forms an intention to engage a certain behavior. Intentions are assumed to capture the motivational factors that influence a behavior; they are indicators of "how hard people are willing to try or how much of an effort they are planning to exert, in order to perform the behavior" (Ajzen, 1991, p. 181).

Aside from intention in the Theory of Planned Behavior, are three more variables that affect the behavior. The first one is the *attitudes toward the behavior* and refers to "the degree to which a person has a favorable and unfavorable evaluation or appraisal of the behavior in question" (Ajzen, 1991, p. 188). Different from general attitudes toward institutions, people or objects, this attitude is the individual's degree to which performance of the behavior is positively or negatively valued (Ajzen, 2002). It is the person's judgment that performing the behavior is good or bad that the person is in favor of or against performing the behavior (Ajzen, 1988, p. 117 cited by Matsuo, 2001). The second predictor is a social factor termed s*ubjective norm*: it refers to the "person's perception of social pressure to perform or not to perform the behavior" (Ajzen, 1991; 2002). The subjective norms specially refers to the influence of others think they should perform or not. The component, subjective norm, included in Ajzen's theory, represents the perceived social pressures on the individual, referring to people's beliefs concerning other people's attitudes towards the behavior and how much important are their opinions.

Perceived behavior control, as third variable, together with intention can be used to predict behavior. *Perceived behavior control* is the "resources and opportunities available to a person" (Ajzen, 1991, p.183). This factor refers to the people's perceptions of their ability to "perceived easy or difficulty of performing the behavior and it is assumed to reflect past experience as well as anticipated impediments and obstacles" (Ajzen, 1988, p.132 cited by Matsuo, 2001). Another approach to perceived control can be found in Aktinson's (1964) theory of achievement motivation, where is named as "expectancy of success" and is defined as "perceived probability of succeeding at a given task" (Ajzen, 1991, p.183). Also, as concept "perceived self efficacy" is given by Bandura's which "is concerned with judgments of how well we can execute courses of action required to deal with prospective situation" (Ajzen, 1991, original from Bandura, 1982)

Besides three determinants of intention, that we talked till now, there are also "function of beliefs". In the basic level of explanations, the theory postulates "that behavior is a function of salient information, or beliefs, relevant to a behavior". It is these *salient* that are considered to be the prevailing determinants of a person's intentions and actions. Three kinds of salient beliefs are distinguished: *behavioral beliefs* which link the behavior of interest to expected outcomes. A behavioral belief is the subjective probability that the behavior will produce a given outcome. Although a person may hold many behavioral beliefs with respect to any behavior, only a relatively small number are readily accessible at a given moment. It is assumed that these accessible beliefs in combination with the subjective values of the expected outcomes, determine the prevailing attitude toward the behavior (Ajzen, 2002). *Normative beliefs* refer to "the perceived behavioral expectations of such important referent individuals or groups as the person's spouse, family, friends, and depending on the population and behavior studied teacher, doctor, supervisor, and coworkers" (Ajzen, 2002). It is assumed that these normative beliefs in combination with the person's motivation to comply with the

different referents, determine the prevailing subjective norm. *Control beliefs* have to do with "the perceived presence of factors that may facilitate or impede performance of a behavior" (Ajzen, 2002). It is assumed that these control beliefs in combination with the perceived power of each control factor, determine the prevailing perceived behavioral control.

These beliefs are related to individual background. Individual background is expressed as "external variables" in the theory. These external variables have three main elements. These are *demographic variables*, as: age, sex, socio-economic status, religion and nationality; *attitudes toward targets* (people or institution) and *personality traits* (Matsuo, 2001).

After description of Theory of Planned Behavior, this section we continue with the reasons of using this theory in our research. We use the Theory of Planned Behavior, by Ajzen (1990), because as a model is based at the individual level and according to this theory we can measure different variables that have influence on the contraceptive use as behavior outcome. Subsequently, this theory originates from Theory of Reasoned Action (Ajzen and Fishbein, 1980) and contains specific variables that affecting the behavior outcome, such as: beliefs, subjective norms, attitudes and intention. In addition, perceived behavior control is added as an important variable in the planned behavior theory and through it, in our research, we get to know the opportunities to the person to obtain contraceptive methods.

Finally, this was the most relevant theory since we want to indicate the relationship between number of cognitive variables as independent variables in one side and independent variable as behavior outcome, in other side.

With this model we can make it clear how women in the different cultural settings are capable in a practical way to decide to use (or not) contraceptives. According to this theory, we are able to understand the external factors that influence the usage of contraceptives by women, such as: intention, attitude, subjective norms, perceived behavior control and beliefs, as well. By analyzing the relationship between these variables we explain the contraceptive use as behavior outcome.

Furthermore, among these variables, we assume that more important than beliefs, is knowledge about contraceptives; since the contraceptive use is influenced by knowledge and information about this behavior. Base on the knowledge, women will evaluate as positive or negative behavior, moreover will believe on their consequences.

3.2 Conceptual model

Referring to Figure 3.1, theoretical framework, this section gives a small description of the framework as an explanation on which this research is based. The conceptual model of this research is built base on the research question and Theory of Planned Behavior, by Ajzen (1991). We applied this theory because through it we get to know the importance of individual level within a context.

Since the contraceptive use is behavior outcome as own decision, our conceptual model presented in figure 3.2, is structured just in individual level. This model shows how the different variables are related to each other and affecting each other. Through it we get to see the interaction between attitudes, subjective norms and perceived behavior control with behavior outcome (contraceptive use); furthermore to see the effect of external variables in this behavior outcome.

As the conceptual model explains, the external variables present the individual background of the person which we divided into two groups: demographic background and socio-economic background. Demographic background we formulated base on age and marriage; and socio-economic background base on education, employment, income, ethnicity and place of residence (rural and urban). All these variables, as external variables we assuming to have an impact on the contraceptive use behavior. In other words, the contraceptive use is not influenced just by subjective norms, as influence of others and perceived behavioral control, as way of getting services; but also from demographic and socio-economic background that has an effect through above mentioned variables in the behavior outcome. For instance, woman both at age 30, one who is married, employed and living in urban area and the other one who is married, unemployed and living in rural area, contraceptive use varies from each other.

Furthermore, we conceptualize that knowledge is part of the attitudes because through it a person will evaluate contraceptive use behavior as positive or negative. This knowledge also is influenced by the background characteristics of a person; for instance, contraceptive use varies between woman who has knowledge about it and uses the opportunities for providing it and woman who doesn't have knowledge.

Figure 3.3 Conceptual model

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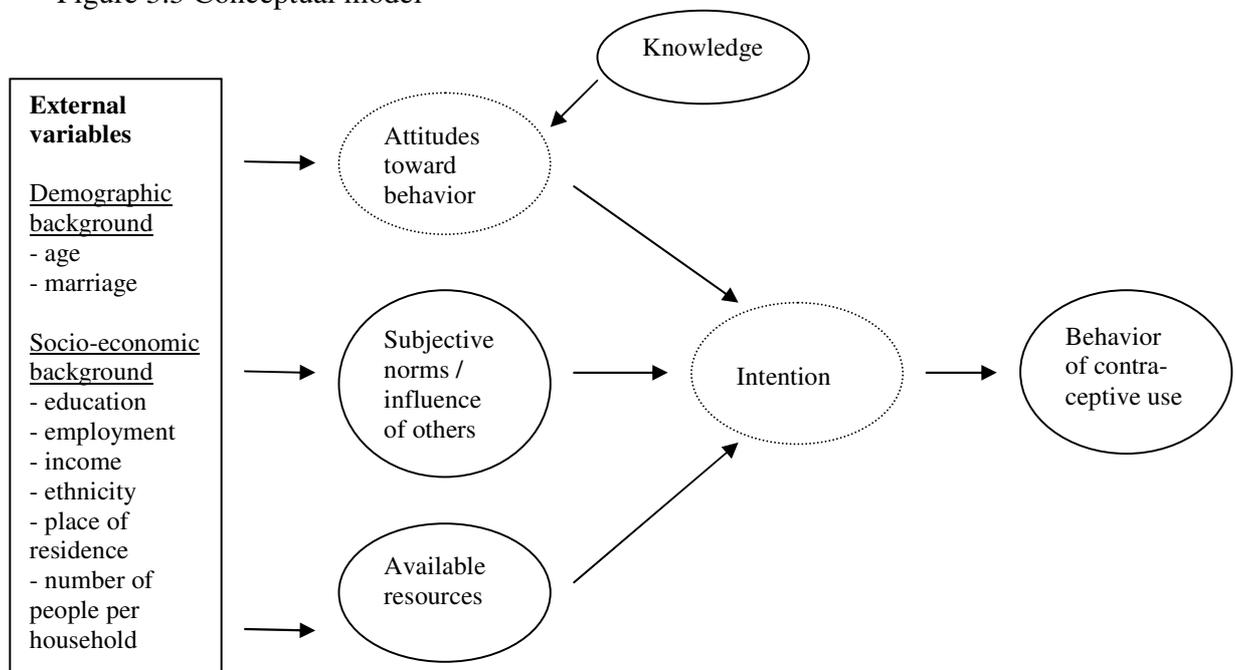
3.3 Definition of concepts

In this section, we define the concepts that have been used in the conceptual framework. Following from the Figure 2.1, the conceptual model is created base just on individual level of conceptual use by women. The definition of the concepts has been done according to the layout the conceptual model.

Contraceptive use behavior – is the actual outcome, which in our case is defined as contraception use. According to survey that will be used for this research, contraceptive use is defined as "ever use" and "current use". Ever use are women who use contraceptive at some time; and current use are women who use contraceptive in the time of the survey. Furthermore, the analysis for this variable will be base on contraceptive methods, divided in modern and traditional. As modern methods are pills, IUD, injections, diaphragm, foam/jelly, condom and female and male sterilization; while traditional are withdrawal and rhythm/abstinence.

Intention – is defined as "how hard people are willing to try, or how much of an effort they are planning to exert, in order to perform the behavior" (Ajzen, 1991, p. 181).

Attitudes toward behavior – is defined as "the individuals positive or negative evaluation of performing the particular behavior of interests" (Ajzen, 1988, cited by Matsuo, 2001).

Knowledge – is variable that is added in the conceptual model as part of attitudes toward behavior and define as to what degree a person has knowledge about using or not using contraceptives. Base on knowledge, a person will evaluate contraceptive use as a positive or negative behavior and in our research is define as "ever heard for each method".

Subjective norms / influence of others – is defined as "People intend to perform a behavior when they evaluate it positively and when they believe that important others they believe that important others they should perform it" (Ajzen, 1988, cited by Matsuo, 2001). In our research we define as, woman's decision to use or not to use contraception base in their evaluation and when contraceptive use by women is affected by social pressure.

Available resources – base on the Perceived Behavioral Control we define as "resources and opportunities available to a person" (Ajzen, 1991; cited by Matsuo, 2001). In our research we define as available places for obtaining contraceptive methods by women.

External variables - are "defined as demographic variables toward targets" (Matsuo, 2001). In our research these are defined as demographic and socio-economic background, which are formulated from the variables, as follow:
- *age* which is define as "date of birth";
- *marital status* define as "a close and intimate union";

- *education* define as "the highest level of school completed";
- *employment* define as "economic activity";
- *income* defined as "monthly income by economic activities";
- *ethnicity* define as "a person's identification that results from religion, traditions, culture and language"
- *place of residence* define as "live in rural or urban areas" and
- *number of people per household* define as "family: a social unit living together".

4. DATA AND METODOLOGY

The conceptual framework is build up on the theoretical framework, which acts as a foundation for further research. Following this, in this chapter we provide the methodology and operationalisation of variables presented in the conceptual framework.

This chapter is divided into two sections. Starting from section from 4.1, where is presented the description of data sets that will be used in this research and difficulties of getting them. Section 4.2 deals with the generalized conceptual framework and the operationalization of variables. This model is the same as conceptual framework, but is build up with all variables that we are measuring in this research. Afterwards, the same section deals with the selection of variables and giving a detail description about them. This section will be closed with the information related to this variables and way of analyzing in our research.

4.1 Description of the data sets

The data set that will be used for this study, are taken from: **Demographic, social and reproductive health situation in Kosova** *(Results of the Household Survey)* conducted in 2003 by the UNFPA and SOK (Statistical Office in Kosova). Is this survey we will explain this survey through the published report in 2005.

Following the war in 1999, in Kosova was a critical need for current economic, social and demographic data to help in the reconstruction and development. In response to this need, UNFPA together with International Organization for Migration (IOM) and Statistical Office of Kosova (SOK) constructed the first survey in November 1999 – February 2000. Then later on, in October 2002, the World Bank recommended a full Health Demographic and Survey (published report 2005, pp. 7) with reason that it's not possible to conduct a full census in the near future and notably when it is known for changes that are occurring in Kosova now. The purpose of this survey was to provide reliable, relevant and current information required from the ongoing development efforts in Kosova (Household Survey 2003); with scope to cover information about population housing and household, background characteristics of surveyed population, fertility, mortality, contraception, reproductive and health issues and migration.

Sample - the research was conducted in July 2003 and the essential requirement of this survey, was that frame should cover the entire territory of Kosova. The sampling frame in total contains 3 192 households interviewed in 196 settlements (from 283 statistical areas and 3200 enumeration areas) stratified according to region, ethnicity and rural/urban.

Questionnaire - holds as key questions that were asked in 1999 survey, in way to make it possible the comparison and measurement of recent change. The questionnaire contains two parts: household components and individual components. The general part of individual questionnaire was asked to all household members. The questions on

contraceptives and fertility were asked to all women aged 15-49, and according to the survey report from UNFPA and SOK, the reason for this is "in the hope that the sharper focus on women of reproductive age will improve the quality of responses" (report of Household Survey, 2005, pp. 9). According to questionnaire, respondents firstly were asked about ten contraceptive methods of family planning than about their usage and knowledge about each method.

Fieldwork **–** was conducted during three weeks in July 2003. As the authors (UNFPA and SOK) mentioned, several levels of supervision were set up to ensure that high quality of interviews were conducted.

Data processing and analysis – the data processing system firstly was designed using MC ACCESS. This system was not thought to be sufficient flexible to clean the data files or to generate tables. As a result the data were downloaded into SPSS file, for better study.

All data in SPSS were sorted out by type of information and divided in different files, such as: dwelling and household characteristics, fertility and health issues, contraceptives, mortality and migration. From these files, to complete this study we are using file of contraceptives which also contains the information about the background characteristics of surveyed population in individual level and dwelling file which contains information in household level.

Difficulties of getting data **-** To work with country in transition, as is Kosova, sometimes it is not so easy task. In this last paragraph of data section will be described the experience of getting the data for this study.

The requirement for this study was to obtain data from SOK, in SPSS file which could give the opportunity to analyze any aspect of demographic situation in Kosova. After consulting their publishing's related to the population studies in the SOK web page[2], the most relevant one in this case was the Household Survey 2003 (published report in 2005), conducted by SOK and UNFPA; as a partner for organizing this survey.

After many contacts with two above mentioned institutions, was given the permission for usage of these data. The published report of this survey was provided by SOK and two data files in SPSS format: dwelling file which contain data related to the household part of questionnaire and contraception file related to the individual part of questionnaire was provided by UNFPA.

As a result, analyzing contraception was the only possibility to work for Kosova, at this moment. Furthermore, this study can be limited regarding fertility in Kosova, because this data was not possible to get it neither from SOK neither from UNFPA (!).

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[2] www.sok-kosovo.com

4.2 Operationalisation of variables

Following the Figure 3.2, where is presented the conceptual framework of this research, which specifies how different variables affect the individual behavior, as outcome; in the same way in the continuation with this, in this section we give the operationalisation of these variables that will be measured in this research. To explain this relation between variables, we start with the operationalised conceptual model (Figure 4.1) with all variables identified from the data sets; and than we give a set of indicators that have been used for measuring them, according to Household Survey 2003 in Kosova.

Figure 4.1 Operationalised conceptual model
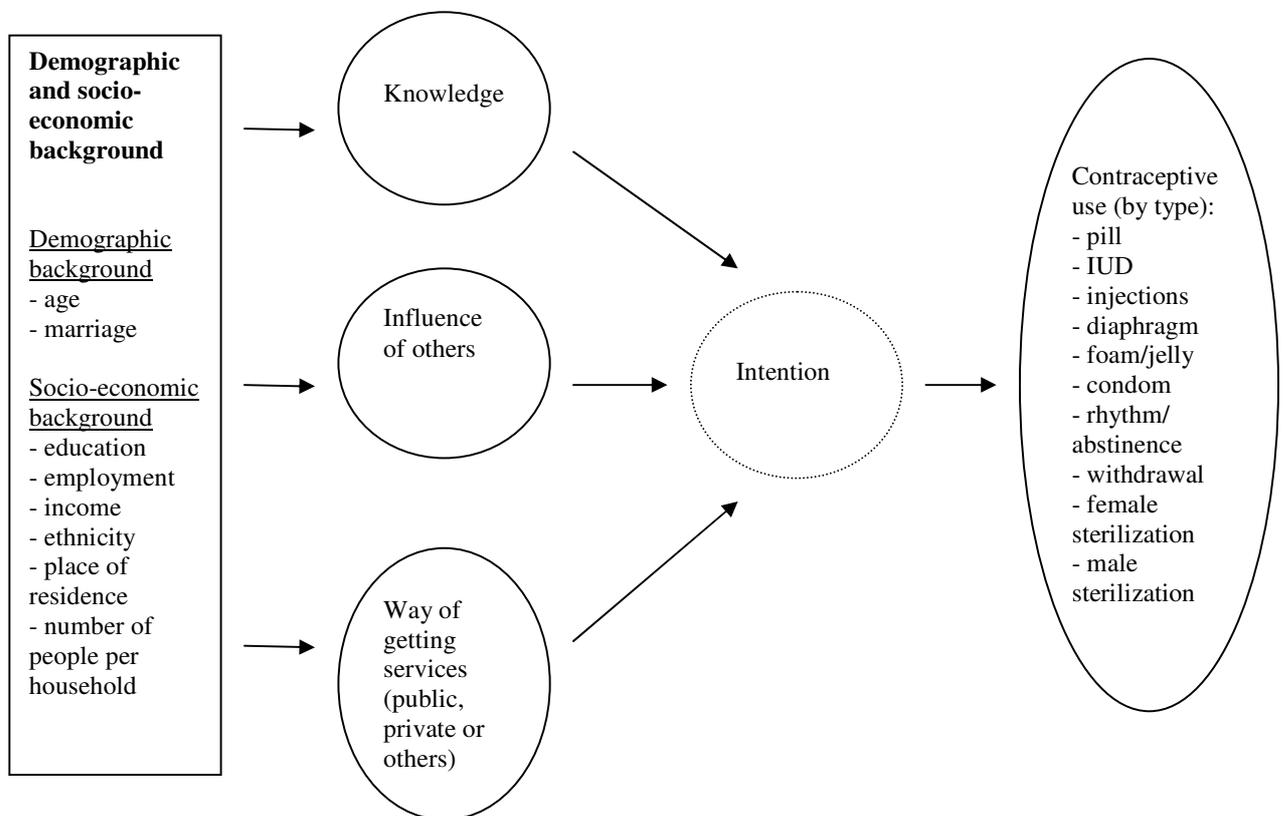
As was mentioned in the chapter of theoretical framework, this research is based on the individual level. Contraceptive use will be looked at through the background characteristics of woman, knowledge, influence of others and the way of getting services. In order to make this clear, in the following part we describe all variables that will be used in this research. This description gives details around the operationalisation of variables according to Kosova Household Survey 2003. As was mentioned in the beginning of this chapter, part of questionnaire about the fertility and contraceptives was

realized among woman in fertile age (15 – 49). According to this, for all variables in the conceptual model (chapter 3) in this study are 4610 cases (respondents) in total. In the questionnaire of this survey, variables have been operationalised by a set of indicators, but in the data file that we possess in SPSS format, sometimes indicators are regrouped. For instance, in some indicators where the number of respondents was very small, in order to clarify the result, these are regrouped with other indicators which have the same attributes and does not change the meaning of variables. This are explained as follows:

Contraceptive use as behavior outcome and as result of this study, has been identified with two terms: "ever used methods" and "currently using any methods" in the time of the survey and has been studied only to woman in the reproductive age (15 – 49). This indicator has been categorized into ten contraceptive methods; which we explain as following according to definitions used in the Kosova Household Survey 2003.

- *pill* – woman take a pill every day;
- *IUD* – woman has a loop or coil placed inside her by a doctor or a nurse;
- *injections* – woman has an injection by a doctor or nurse which stops her from becoming pregnant for several months;
- *diaphragm* – woman places inside her before intercourse;
- *foal / jelly* - woman places inside her before intercourse;
- *condom* – man use a rubber sheath during sexual intercourse;
- *rhythm / abstinence* – couple can avoid sexual intercourse during the period of the month when woman is fecund;
- *withdrawal* – men pulls out before climax;
- *female sterilization* – woman has an operation to avoid any more pregnancies;
- *male sterilization* – man has an operation to avoid any more children;
- *other method* – the respondents has to specify by themselves.

Knowledge has been identified as "ever heard for each method". This variable has been studied among the same women; aged 15-49 which were asked about knowledge for each contraceptive method (define in the same way as is explained in the operationalisation of contraceptive use variable).

Services also this variable were studied only to women in the reproductive age and defined as "place where they obtain contraceptive method in the last time". The places are characterized into three sectors:

- *public sector* – government hospital, government health centre, family planning clinics, mobile clinic and fieldworker;
- *private medical sector* – private hospital clinic, pharmacy and private doctor;
- *other source* – shop, religious institution and friends / relative
- or they had to specify by themselves.

Subjective norms is operationalised as ***Influence of others*** which as indicator was measured to the same group of women, in the reproductive age and follows from questions "in the last year months, have you discussed family planning with your friends, neighbors or relatives" and "would you say that using contraceptive is mainly your

decision" . Following from these questions, in the first part, if the answer it is yes, they were asked to specify with whom and to fill out the given possible answer, as:
- husband, mother, father, sister, daughter, son, mother in low, friends/ neighbors or they have to specify by themselves.

While in the second part they had to choose the answer between: own decision; husband/partner decision; joint decision or to specify other possible answer.

The ***Demographic and socio-economic background variables*** – in our research are divided into demographic background which contains age and marriage; and socio-economic background which contains: education, employment, income, ethnicity, place of residence and number of people per household.

Demographic background

Age – we use the variable, in the Household Survey 2003, specified as "date of birth" in the part of individual questionnaire, filled out by woman in the reproductive age. Since we have the year and month of birth of the respondents, we calculated the age and categorized in seven levels: 15 – 19; 20 - 24; 25 - 29; 30 – 34; 35 – 39; 40 – 44; 45 – 49.

Marital status – is one of the variables that characterized the background characteristics of respondents. According to Household Survey 2003, respondents were asked to circle one of the given options for marital status, as: single, married, widowed and divorced. Since just a few cases belongs to widowed and divorced as marital status, in our study all indicators we regrouped into two indicators: *marriage* which includes married woman and *unmarried* which include three other groups of marital status (single, widowed and divorced).

Socio – economic background

Education – in the questionnaire was specified as "the highest level of schooling completed" and were given nine category as solution to be circled by respondents, such as: no schooling; less than primary 1-4; less than primary 6-7 primary; secondary 1-3; secondary 4 and more, gymnasium; high school and university or higher. In our study all education categories are regrouped into four groups: *no school*; *primary* which is created by unity of two categories: less than primary 1-4; less than primary 6-7 primary; *secondary* created by secondary 1-3; secondary 4 and more, gymnasium; and in the group of *university* is created by union of high school and university or higher groups.

Employment – in the questionnaire was specified as "working last week in a job or own enterprise/activity from which you or your household/family got earning in cash or in kind" and respondents were asked to fill one of two possible answers: yes or no. This variable in the SPSS file already was created with two indicators: *employed* and *unemployed*.

Ethnicity – in the Household Survey was specified by eight present ethnic groups in Kosova, such as: Albanian, Serbian, Montenegro, Croat, Turkish, Bosnian, Roma, Goran and other, which respondents from nine option has to specify one. In our study is regrouped into three groups: Albanian, Serbs, and others. We regrouped all other ethnicities into one group, since the number of respondents was very small for all ethnic minorities.

Place of residence – defined as "location/municipality at time of the survey". In the SPSS file all municipalities are regrouped into rural and urban areas.

Number of people per household – define as "present persons in the house at time of the survey".

Income – in the questionnaire was defined as "estimation of monthly household income in euro from all sources" and seven of possible categories were given: 0 – 100; 101 – 200; 201 – 300; 201 – 400; 401 – 800; 801 – 1600; 1601 and above.

For analyzing these data, the logistic regression model will be used. The variables will be organized into two groups, as: dependent and independent variables. Below we present a list of the two groups of variables:

- dependent variable which is the a behavior outcome, in our case is:
    o contraceptive use
        ▪ by type of contraception (in the survey are mentioned: pill, IUD, injections, diaphragm, foam/jelly, condom, rhythm/abstinence, withdrawal, female sterilization, male sterilization and others (specified by respondent)

- independent variables are all indicators that help us to measure the behavior outcome, contraceptive use in our case, which we divided into two groups:
First group are variables that direct has an effect in the contraceptive use behavior
    o knowledge – attitude
    o decision to use / influence of others – subjective norm
    o services (public sector, private or others) – perceived behavior control
Second group hold the demographic and social background, which has an effect on the contraceptive use behavior through the first group of variables.
    o age
    o education
    o employment
    o marital status
    o living area
    o ethnicity
    o income

5. RESULTS

The aim of this chapter is to present the result, based in statistical analyses of data taken from the Kosova (Household Survey, 2003). This chapter contains five sections, starting from the first section 5.1, where we present the general overview of the data sets for all variables that we are working with. Then in the second section, 5.2 we try to find answer to the first research question, "What is the contraceptive use in Kosova?" with level of knowledge about contraceptives, way of obtaining them and the most used method. The variables that have influence in the contraceptive use are presented in section 5.3. In this section we try to give an answer to the second research question, "What variables influence using of contraceptives?" where we incorporate knowledge, subjective norm and perceived behavior control toward the contraceptive use behavior as a first part of variables (see Chapter 3). Subsequently, we include the demographic and socio-economic background variables in term of age, marital status, education level, employment, ethnicity and place of residence. The next section (5.4) aims to answer the third research question, "Which of these factors are more significant in the decision to use contraceptive?" where we try to find the importance of each factors, mentioned in the second question, when it comes to decision for contraceptive use. The answer for last research question, suggestions for further research, will be answered in the form of discussion in the next chapter.

5.1 Study population

As has been noted in the previous chapter, the data that we will use in this research are from the: **Demographic, social and reproductive health situation in Kosova** *(Results of the Household Survey)* conducted in 2003 by the UNFPA and SOK (Statistical Office in Kosova) and published as report in 2005. From this survey in our research we will use data from the individual part of the questionnaire, precisely part of contraceptive file, in SPSS format.

In this section we will give a brief description of all variables that we presented in the conceptual model. The variables in our research, are from the individual part of questionnaire, realized just with women in the reproductive age (15 – 49) and contain 4610 cases (respondents). From this number of women in the survey, 1716 are currently contraceptive user and 2904 woman do not use contraceptives in the time of the survey. Since we are working with woman in the survey who currently use contraceptive, most of our analysis are focused on 1716 cases.

The other characteristic of our data is that sometimes the variables in the questionnaire were measured with more indicators than are presented in our study; for some variables we regrouped indicators, especially when numbers of cases were very small. In the following part we describe each variable, one by one.

Demographic background variables

Age – from all respondents, who are women in the reproductive age, from 15 – 49, more than half (51.7 percent) belongs to the three first age groups, which make us known that survey was more focused on the women till age 30. The number of cases for each age group is presented in the following table, 5.1.

Table 5.1 Number and percent distribution of women in the survey among age groups

age group	number of woman	Percent
15-19	797	17.3
20-24	817	17.7
25-29	769	16.7
30-34	688	14.9
35-39	592	12.8
40-45	553	12.0
45-49	394	8.5
Total	4610	100.0

Marital status – as variable has four indicators: single, married, divorced and widowed. From all 4610 cases, 2826 or 61.3 percent are married, than 1781 of cases (38.6 percent) belongs to unmarried group, which contains single, widowed and divorced women; three cases are missing in this category (one percent).

Socio – economic background variables

Education – all respondents in this variable are divided into four categories. Starting form the first category which is no school are 144 cases (or 3.1 percent), in the second group with primary school is the highest number of cases, 2499 or 54.2 percent; with secondary school are 1823 cases (or 39.5 percent) and university degree just 141 cases (or 3.1 percent). Also in this variable are three missing cases (one percent).

Employment **-** from 4610 cases in this research, 3978 reported as unemployed (86.3 percent) and 627 (13.6 percent) as employed. Five cases are missing (one percent).

Ethnicity - the percentage of ethnic groups included in the survey is more or less the same with the percentage of ethnic groups in Kosova; majority of respondents belongs to Albanian ethnicity, 4033 cases or 87.5 percent; than Serbs are 432 cases or 9.4 percent and the rest belongs to the other ethnicities with 3.1 percent of respondents.

Living area (urban / rural) - from all respondents in this variable, 2663 cases 57.8 percent are living in the rural areas and 1947 cases or 42.2 percent are living in urban areas.

Income and Number of people per household – according to data and methodology (Chapter 4) as variables were part of the dwelling data file. However, these two variables are excluded from further research, because from two files (dwelling and contraceptive) just 218 cases were merged and the effect of these variables in contraceptive use was not representative of the overall situation.

5.2 Use of contraceptives in Kosova

Base on the first question that we specify in the introduction and Chapter 4 according to operationalisation of variables, we herewith, present the result on the contraceptive use, knowledge, place of obtaining methods and the most used method by kosovar woman. Furthermore, since women were asked about the reasons for not using contraceptives in the time of the survey, we can present a small report on this indicator.

For this research question we will give result base on the term defined by the Household Survey 2003 data, "ever used a method" and "currently using any method" in the time of the survey; by woman in the reproductive age (15 – 49) which in the following study will be mentioned as ever user and current user. Regarding to the first term, from all women in the survey (4610) we find out that more than 40 percent or 1844 of woman claimed to have ever used a method at some time, while 37.2 percent or 1716 of woman in the sample are using contraceptive in the time of the survey (see Figure 5.1). From the figure it is clearly visible that in Kosova just a small number of woman use contraceptive, while almost 60 percent of woman claimed to never used any contraceptive method, even if they have knowledge about them. Since the variable for the "ever used" were separately for each method, in the Figure 5.2 we present the percentage of user and non user of contraception, for each contraceptive method.

Figure 5.1 Percentage of "ever use" and "current use" contraceptives in Kososva, HS[*] 2003
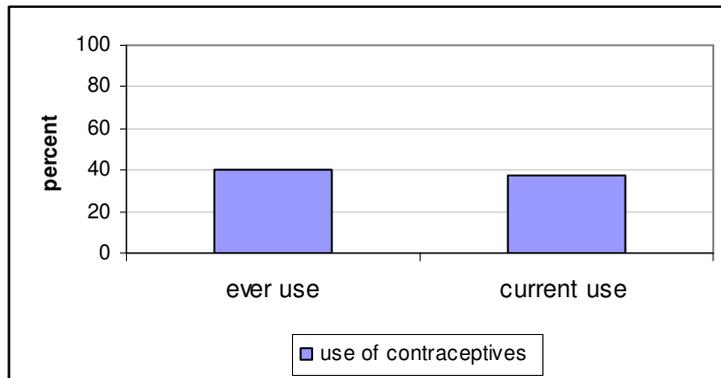
N = 4610

Figure 5.2 Percentage of ever used contraceptive , HS, 2003
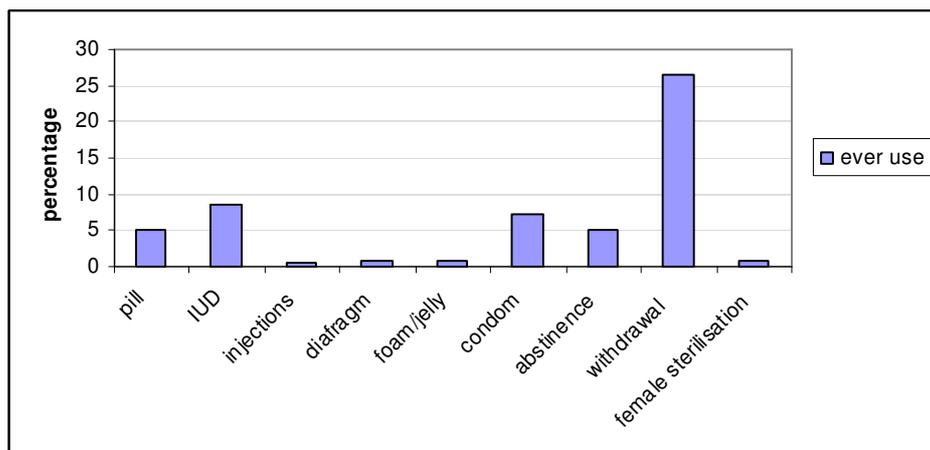
N = 4610

Going further with analyzing of data related to the ever and current user we find the most current used methods by woman in kosovar society. Keeping in mind that from all methods in this survey (total 11), male sterilization and others methods which have to be specified by women, are excluded form the further analysis since has no history of use among the surveyed population. While majority of respondents in the survey (86 percent) claimed to have knowledge about modern contraceptive methods, regarding to the first term "ever used method", just 14.6 percent of women ever used these modern methods, such as; pill, IUD, injection and condom. In the other side, the situation with traditional methods is different; from 78.5 percent of women who claimed to have knowledge about

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[*] Household survey

traditional methods, 21.5 percent of them used these methods, such as: withdrawal and rhythm/abstinence.

Compare to ever user, variable that contains 1716 cases, we find that more than half of women, who were currently contraceptive user in the time of the survey, have used traditional methods. For instance, 55.1 percent used withdrawal and 2.8 percent used rhythm abstinence. From the modern contraceptive methods the most used was IUD with 22.1 percent, than condom 8.0 percent and pill 7.9 percent.

The most striking feature of the data, also brought out clearly in the figure 5.3 where we present the percentage of the most used methods separately, such as: withdrawal, IUD, condom, pill and since the percentage of other methods is very small, we regrouped into one category and named as others. In this graph is clearly shown the high percentage use of withdrawal, as contraceptive method, which certifies once more the level of traditionalism of kosovar society.

Figure 5.3 Percentage of most current use methods, HS, 2003
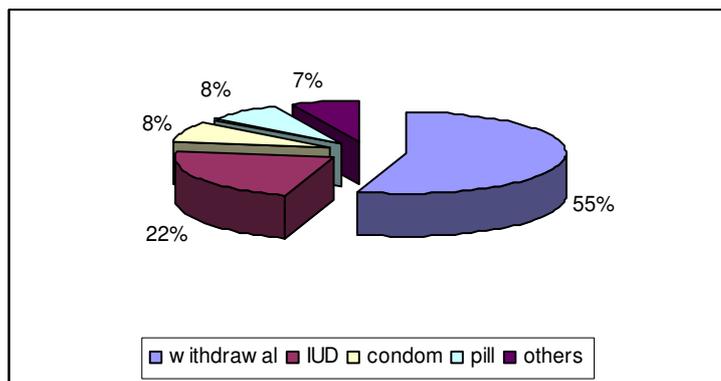
N=1716

In this section we will go further with analyzing of data, to find the number of contraceptive methods used by same women. From all types of contraceptives, which are presented in this study, such as: pill, IUD, injections, diaphragm, foam/jelly, condom, rhythm/abstinence, withdrawal, female sterilization, male sterilization and other methods; are used by woman in the sample and they claimed to have ever used at least one method at some time. Furthermore from these data we find that some women claimed to have used more than one method during their life span. This is presented in the Figure 5.4, where is shown that 28.8 percent of women have used one method during their life span, 8 percent have used two methods, 2.4 percent have used tree methods, 0.7 percent have used four methods and 0.1 percent of woman used 5 contraceptive methods.

Figure 5.4 Number of methods ever used by woman during their life span, HS, 2003
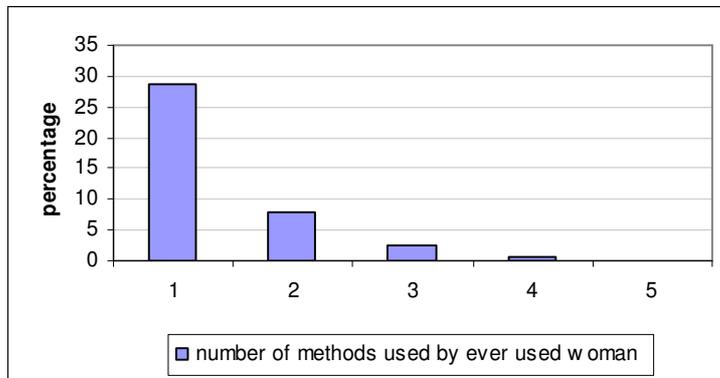
N = 1844

   In addition, regarding to term "currently using any methods" women who are not using contraceptives in the time of the survey (2894 of them), were asked to specify the reasons. By analyzing this indicator, we try to understand the reason of low level contraceptive use by kosovar woman. The five mentioned reasons in the questionnaire are: "no sexual intercourse" responded as a reason from 37.8 percent of women in the survey, than for 13.4 percent of women the reason was that they "want a child", 3.6 percent of them were "sterile", 3.5 percent were "pregnant" and 2.5 percent were "in the medical institution"[3] (See figure 5.5).

Figure 5.5 Percentage of reasons for not using contraceptives according to women currently not using contraceptive, HS, 2003
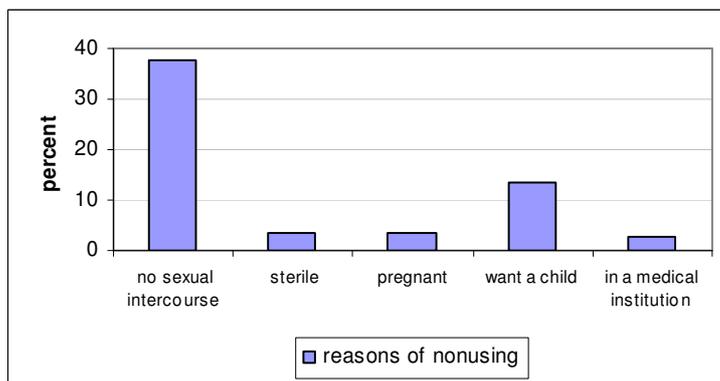
 N = 2894

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[3] The medical institution, as a reason it is not clearly explain in the survey.

5.3 Knowledge about contraceptives

Related to conceptual model (chapter 3) to fulfill studies about contraceptive use we want know the knowledge about them, hence this section we present result in this issue. We did analysis about knowledge base on the term "ever heard for each method" by women in the reproductive age (15 – 49) and we find that from all women in the survey (4610), 97.5 percent or 4380 women claimed to have heard at least for one contraceptive method (Figure 5.6).

Figure 5.6 Percent of knowledge about contraceptives according to women in the survey, HS, 2003

N = 4610

In the following figure (5.7) is presented the knowledge of contraceptives by types, where it seems obviously that all methods are known by women. The positive side is that majority of respondents have heard about the most efficient methods, which are kn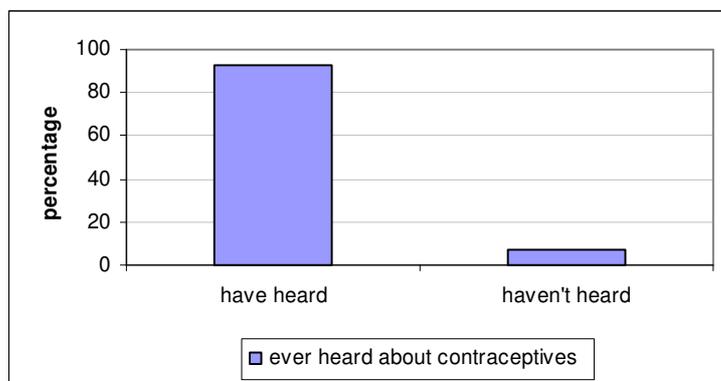own as modern method and are heard from more than 86 percent of woman. These methods are pill with 91 percent, IUD with 89.3 percent, condom with 79.7 percent and injections with 62.2 percent. In contrast to the modern efficient methods, 78.5 percent of respondents claimed to have heard of withdrawal as a contraceptive method, which is known as traditional method and actually is not considered as a particularly safe method.

Since this variable we analyze from the term "ever heard for each method", we can not have a clear picture of knowledge by woman for each contraceptive method. In the survey they were asked just to underline the ever heard method, but not to react on knowledge about it. So, base on this we can say that all women in Kosova have the same level of knowledge about contraceptives. For, instance, 91 percent of women know about pills, but we could not measure do these women know about the way of using, about the length of the using time, about the side effect of pill, etc. Furthermore, due to this indicator we can understand the existent discrepancy between the level of knowledge and usage of contraceptive in among kosovar women.

Figure 5.7 Percentage of ever heard (knowledge) contraceptive methods, HS, 2003
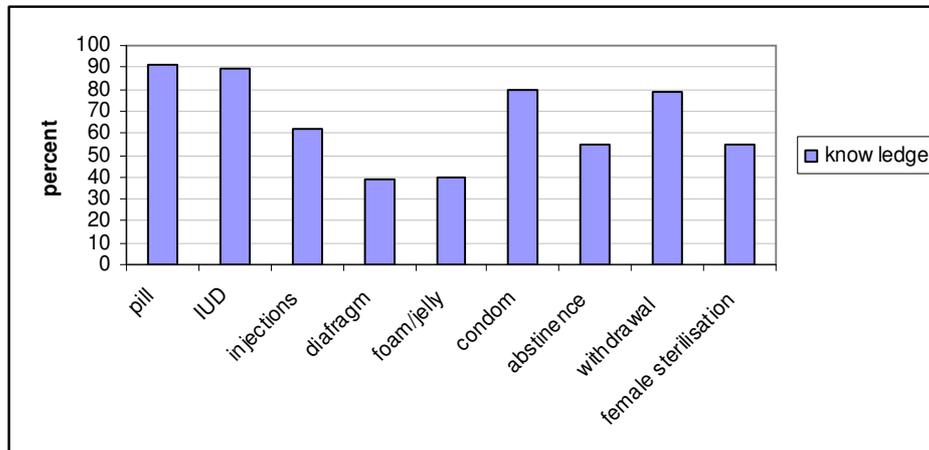
N = 4610

In order to make a proper analysis of the knowledge about contraceptives, it is necessary to present the number of methods known by each woman. This result we got form number of women who claimed to have heard at least for one contraceptive method (4380 or 97.5 percent); and present in the Figure 5.8. In this figure is clearly shown that all methods appointed in the survey are known by women; moreover women have knowledge for more than one method. According to this we can indicate that 18 percent of women have heard for all methods appointed in this survey (pill, IUD, injections, diaphragm, foam/jelly, condom, rhythm/abstinence, withdrawal, female sterilization, male sterilization and other methods), than 12.7 percent have heard for four methods, more than 10 percent for five methods and the knowledge for other methods is under this percentage.

Figure 5.8 Number of contraceptive methods known by all women in the survey, HS, 2003
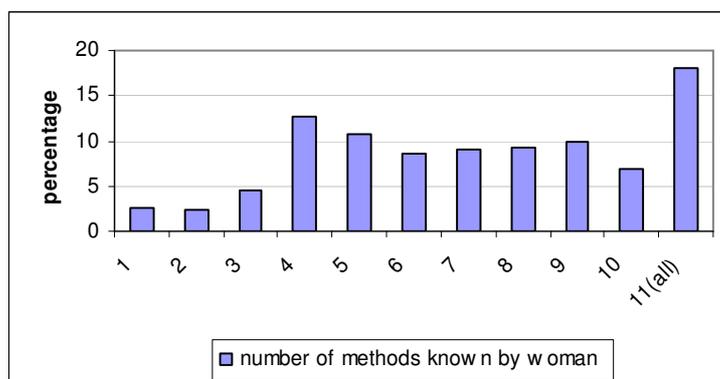
N = 4380

5.4 Place of obtaining methods

Besides the knowledge and usage of contraceptives, we will describe in this study also the way of obtaining methods by women in the survey. For this we will give result base of term "obtaining method in the last time" where respondents had three main possible answers with more sub-answers. The main sources were public sector, private sector and other, as we describe in the operationalisation of variables section.

When we study this variable, we find that this variable has more cases, 1759 cases (woman that obtained contraceptives) which means that some of woman who are currently contraceptive user, use more than one place to obtain methods. From the above mentioned sources for obtaining contraceptive, the main one is public sector (see Table 5.2), which is used by almost 35 percent (604) of woman. The most used form this sector is the Government health centre, which accounts 20.7 percent of obtained all contraceptive methods. Other important public sources are field worker and family planning clinics with more or less the same percentage and the last are government hospitals and mobile clinics.

The private sector appears to be less important in this issue, where as a contraceptive source are used by 18.3 percent (322) of respondents. Principal among these are private doctors, accounting 8.6 percent of total use, than private hospital clinics with 5.4% and pharmacies with 4.3 percent. Significantly, by far the larger source is from outside the established institutions, used by 47.4 percent (833) of respondents. Almost half of respondents, 45.4 percent, claimed that they obtain the contraceptive methods from friends or relatives.

Table 5.2 Place where all contraceptive methods are obtained, according to currently used method, HS, 2003

sectors	%
public sector	
government hospital	2.3
government health centre	20.7
family planning clinic	5.0
mobile clinic	0.3
field worker	5.9
total	34.3
private sector	
private hospital clinic	5.4
pharmacy	4.3
private doctor	8.6
total	18.3
other source	
shop	1.8
religion institution	0.2
friend / relative	45.4
total	47.4

N = 1759

By focusing our analyzing on modern contraceptive methods and place of obtaining them, we find more or less the same result as in Table 5.2, for all methods (see Table 5.3). Starting from the first method, *pill*, where there are 181 cases, the public sector is the most important sector. This sector is used by 45.7 percent of respondents, than comes private sector used by 36.1 percent of respondents and the less important for pill user are friends, with 18 percent. For *IUD*, as important place for obtaining this contraceptive method are public and private sectors, used by 55 and 33.7 percent of women. Among these two sectors for IUD, the most important place is government health center with 35.9 percent and private doctor with 18 percent. In the category of other sources, for this contraceptive method is used by 11.6 percent of women. *Condom*, as third modern contraceptive method, has another percentage of obtaining according to sectors, compare with two other methods in the table. While pill and IUD mostly are obtained in public and private sectors, condom is obtained by other sources. The majority of women (47.9 percent) claimed to take condom from friends.

Table 5.3 Place where modern methods are obtained, according to ever used method, hS, 2003

sectors	pill	IUD	condom
public sector			
government hospital	1.6	3.8	1.5
government health centre	35.9	35.8	17.6
family planning clinic	5.0	9.2	4.2
mobile clinic	0.0	0.0	1.1
field worker	3.3	6.2	5.7
total	45.77	55.0	30.1
private sector			
private hospital clinic	6.1	13.3	3.4
pharmacy	17.6	2.4	10.0
private doctor	12.5	18.0	9.6
total	36.17	33.7	22.97
other source			
shop	0	0.5	2.3
religion institution	0.5	0.0	0.0
friend / relative	17.6	11.1	44.8
total	18.1	11.6	47.09

Pill: N = 181
IUD: N = 368
Condom: N = 261

Following the conceptual model, in this part we present the place of obtaining contraceptive methods according to background characteristics of respondents. From Table 5.4 we see that the main source of obtaining methods is other sources, which include shops, religion institution and friends, than is public sector and in the end private sector (same as is Table 5.2). Starting from age of respondents, we find that women in the

age group 35-39 use more other sources and public sector, while private sector is used more by women in the age group 30-24 and 40-44. According to marital status, both married and unmarried women use more other sources, than public and private. The same percentage is with education, ethnicity and place of residence. When it comes to employment we find that for employed women the main source is public, than friends and in the end private; while for unemployed women the main source are others, than public and in the end private.

Table 5.4 Place where women obtain contraceptive methods, according to background characteristics of women, HS, 20003

		public sector	private sector	other source
age				
	15-19	0.3	0.2	0.5
	20-24	1.6	1.3	3.8
	25-29	4.5	3.1	8.5
	30-34	7.0	4.0	9.4
	35-39	8.6	3.7	10.3
	40-45	7.8	4.1	8.6
	45-49	4.5	1.9	6.3
total		34.3	18.3	47.4
marriage				
	married	33.6	18.0	46.5
	unmarried	0.7	0.2	0.9
total		34.3	18.3	47.4
education				
	No school	1.0	0.5	1.5
	Primary	18.5	9.8	28.9
	Secondary	13.3	7.1	15.7
	University	1.5	1.0	1.1
total		34.3	18.3	47.4
employment				
	employed	7.3	3.1	6.4
	unemployed	27.1	15.2	41.0
total		34.3	18.3	47.4
ethnicity				
	Albanian	28.1	16.2	38.8
	Serbian	5.3	1.6	5.7
	Other	1.0	0.5	2.8
total		34.3	18.3	47.4
place of residence				
	urban	18.9	13.0	27.2
	rural	15.5	5.3	19.1
total		34.3	18.3	47.4

N = 1759

Public: N = 604

Private: N = 322

Other sources: N = 833

5.5 Subjective norm in contraceptive use

After having highlighted the contraceptive use level, knowledge about them and place of getting them, this section aims is describing the different variables that has influence on using contraceptives. As we instate in the conceptual model, all the variables that suppose to have an influence in contraceptive use, we divided into two groups. First group of variables that will be analyzed in this section, regarding to this study is subjective norm; furthermore, the effect of external variables in subjective norm.

The operationalisation of subjective norms is being done using the questionnaire on "in the last year months, have you discussed family planning with your friends, neighbors or relatives" and "using contraceptive is mainly your: own decision, husband/partner decision or joint decision". Here, we try to understand the influence of others to this response on contraceptive use.

From the first definition that we used to analyze this variable, whether if women discuss the family planning with others, we find out that from all women who claimed to use contraceptive in the time of the survey (currently user), 836 women or 48.2 percent responded as "yes" and 872 women or 51.8 percent responded as "no" (See Figure 5.9). Following this question, women who answered "yes", had to specify with whom they are discussing and had to choose one (or more) of nine given option, such as: husband/partner, mother, father, sister, brother, daughter, son, mother in low, friends/neighbors and other. From these given options, women respond with husband/partner 92.8 percent, mother 1.7 percent, father 1.4 percent, sister 1.2 percent, daughter 0.7 percent, mother in law 0.4 percent and friends/neighbor 1.9 percent (See figure 5.10). Since, none of the women responded as discussing the family planning methods with brother (s) or son (s), we excluded from the further analysis.

Figure 5.9 Percentage of women who discuss or not family planning with others, HS, 2003
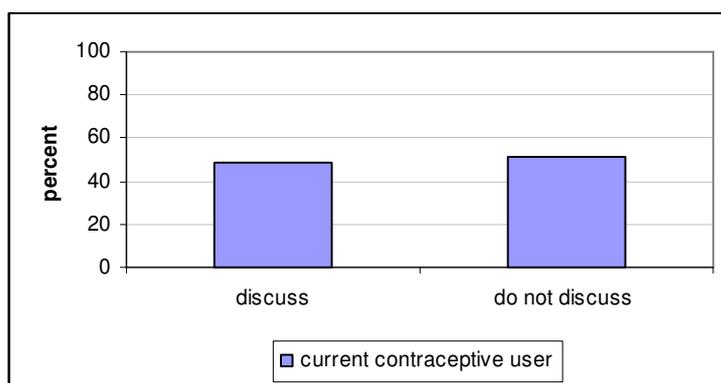
N = 1708

Figure 5.10 Percentage of discussion contraceptive use with others, HS, 2003

	husband/partner
	mother
	father
	sister
	daughter
	mother in law
	friends
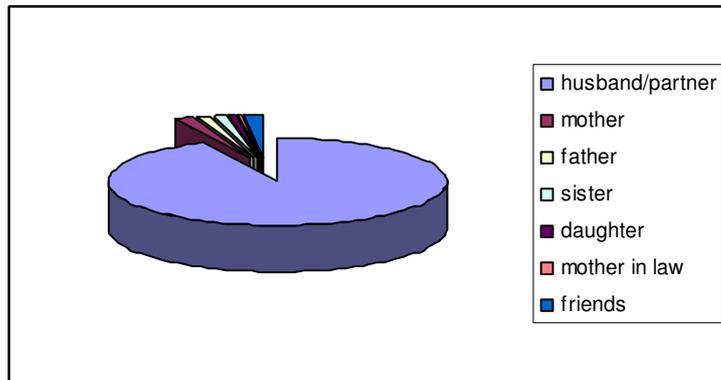
N = 1708

We have gone further with analyzing of this variable, now to see these influences of others for each contraceptive method. In this part we are working with women who currently use contraceptive and who responded to discuss family planning with others; which are 836 cases or 48.2 percent. Table 5.5 indicates the distribution of contraceptive use by type and the people that might influence on using them. From this analyze are excluded brother and son, from the influenced people variable; and male sterilization and other methods from contraceptive use variable; since there are no records in these four indicators.

As is shown in the table, from all current contraceptive users who claimed to discuss family planning methods with husband/partner (92.8 percent), 50 percent of them use withdrawal as contraceptive method, than comes modern methods: IUD 22.1 percent, pill 8.5 percent and condom 7.3 percent. In the second group are friends/relatives from whom the influence is focused in the traditional methods, withdrawal 1.3 percent and rhythm/abstinence 0.4 percent, while the influence for all modern methods is very small. From the nature of these traditional methods, this figure implicitly includes advice. In the third group is mother, whom an influence is focused on withdrawal 1.0 percent and IUD 0.4 percent, and influence for other methods is almost missing. Than in the fourth group comes father's influence, which is more or less the same as mother but with high percentages on modern methods. This analyzes follows with influence by sister, daughter and mother in laws, which are in the small percentages and also are focused more in traditional methods. It is interesting to see that none of these three groups of people do not suggest usage of pills; furthermore mother in low do not influence for none of the modern methods.

Table 5.5 Percentage of discussion with others for each contraceptive method, HS, 2003

	husband	mother	father	sister	daughter	mother in low	friends	total
pill	8.5	0.0	0.1	0.0	0.0	0.0	0.0	8.6
IUD	21.1	0.4	0.5	0.1	0.1	0.0	0.1	22.2
injection	1.1	0.1	0.0	0.1	0.0	0.0	0.0	1.3
diaphragm	1.1	0.0	0.0	0.0	0.0	0.0	0.0	1.1
foam/jelly	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
condom	7.3	0.1	0.2	0.1	0.1	0.0	0.1	8.0
rhythm/abstinence	2.0	0.1	0.0	0.2	0.0	0.1	0.4	2.9
withdrawal	50.0	1.0	0.5	0.6	0.4	0.2	1.3	53.9
female sterilization	0.7	0.0	0.1	0.0	0.1	0.0	0.0	1.0
total	92.7	1.7	1.4	1.2	0.7	0.4	1.9	100.0
number of respondents	775	14	12	10	6	3	16	836

N = 836

We follow this analysis base on the first term "using contraceptive is mainly your: own decision husband/partner or joint decision" and in this variable we are working with women who used contraceptive in the time of the survey. File contains 4610 cases in total, from which 2902 cases are women who do not use contraceptives in the time of the survey and eight of them are women who currently use contraceptive and do not answer in this question; 1708 (37.0 percent) are number of cases in this variable. Regarding to the first part, in general, women who currently use contraceptive in the time of the survey respond "joint decision (80.9 percent or 1381 women)" as the first option, than "husband/partner decision (13.1 percent or 233 women) as second, followed by "own decision (6.1 percent or 104 women) as third option (Figure 5.11).

Figure 5.11 Percentage of others influence on decision to use contraceptive, HS, 2003
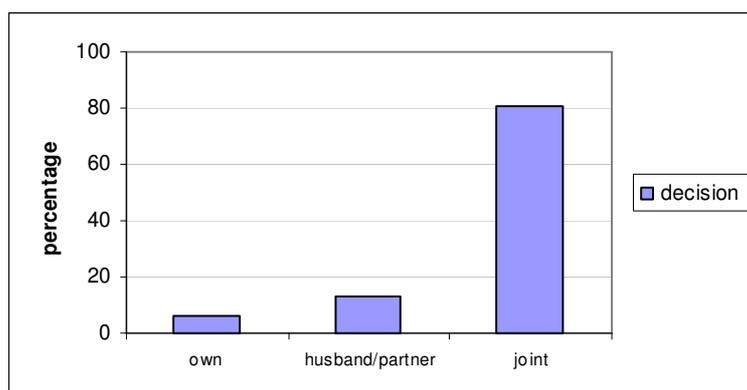
N = 1708

We continue analysis concerning to the second term, to see the decision on contraceptive use regarding to background characteristics of women in the survey. See Figures from 5.12 till 5.17, for each indicator.

We present a result that majority of women in the survey claimed that use of contraceptives is a joint decision, which is shown very clear in each of the following figures. Furthermore, they are some differences on decision depends from women's background. Starting from the *age-group* background variables in the Figure 5.12 indicates that older women are more decisive on their own when it comes to the use of contraceptive, than younger women. While in the older age groups the percentage of own decision in present, in the first age group, 15-19 own decision is missing at all. In the opposite with this, husband/partner decision in the fists age group is very high, while in the other groups this influence is lessen.

Second variable of demographic background, is *marriage*. From the Figure 5.13 we see that unmarried women are more willing to decide on their own when in comes to contraceptive use, than married women. The influence husband/partner in this case is more or less the same for both parts and is very small.

Third variable is *education*, which through operationalisation of this study belongs to the socio-economic demographic variables. The result of this variable we present in the Figure 5.14, where is shown that majority of woman from all educational levels, claimed that contraceptive use is joint decision. Furthermore, when it comes to others influence, for high educated woman this percentage is very small, meaning that they decide more on their own and for uneducated in quite high meaning that use of contraceptive is mainly husband/partner decision.

Fourth variable is *employment*, where the joint decision has the same percentage for both categories, employed and unemployed. Husband/partner and own decision together compose 20 percent of influence in this variable. The difference between two groups is that employed women are more decisive on their own to use contraceptive, in contrast to unemployed women who are more influenced from their husband/partner (See Figure 5.15).

Fifth variable is *ethnicity*. From three groups of ethnicities, presented in the Figure 5.16 we can see that not too many Albanian women decide on their own to use contraceptive. They are more influenced from their husbands/partners than other ethnicities in Kosova. Among other ethnicities, Serbian women has the highest percentage of own decision and the lowest husband decision ant the group of all other ethnicities has the same percentage between the own decision and husband/partner decision (11 percent for each). From all ethnicities, almost 80 percent of overall percentage belongs to joint decision.

Last socio-economic background variable is *place of residence*, presented in the Figure 5.17. In this figure is clearly shown that contraceptive use as result of joint decision is more common in the rural areas than urban once. Furthermore, own decision in higher in urban areas which are relevant with the high educational level and employment participation of women. The same is husband/partner influence in contraceptive use, is higher in urban that rural areas.

Figure 5.12 Type of decision among current contraceptive user according to age, HS, 2003
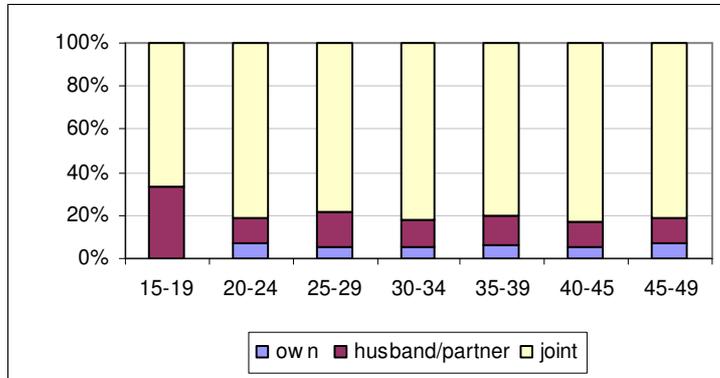
N = 1708

	15-19	20-24	25-29	30-34	35-39	40-45	45-49	total
N	15	111	273	345	390	351	223	1708

Figure 5.13 Type of decision among current contraceptive user according to marital status, HS, 2003
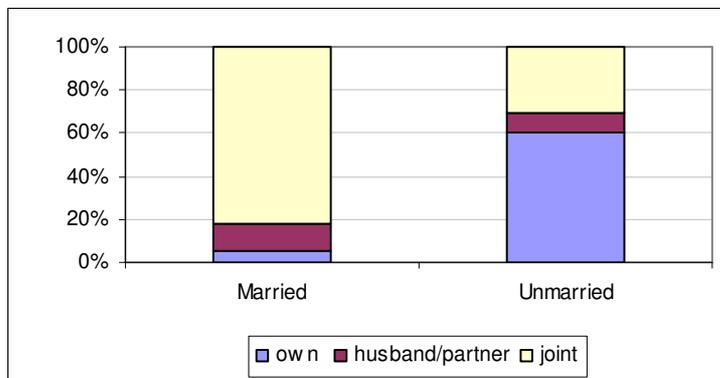
N = 1708

	married	unmarried	total
N	1675	33	1708

Figure 5.14 Type of decision among current contraceptive user according to education, HS, 2003
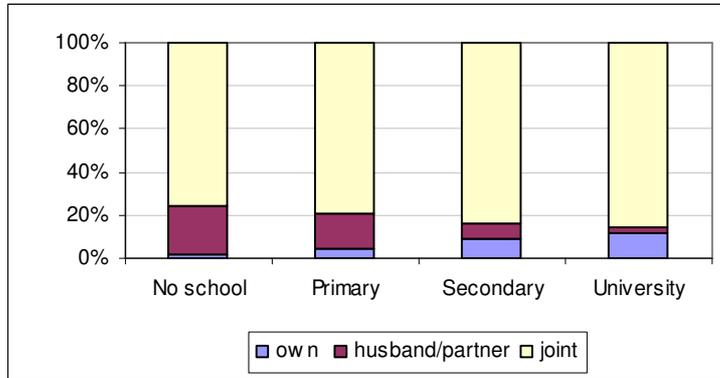
N = 1708

	No school	Primary	Secondary	University	total
N	54	979	614	61	1708

Figure 5.15 Type of decision among current contraceptive user according to employment status, HS, 2003
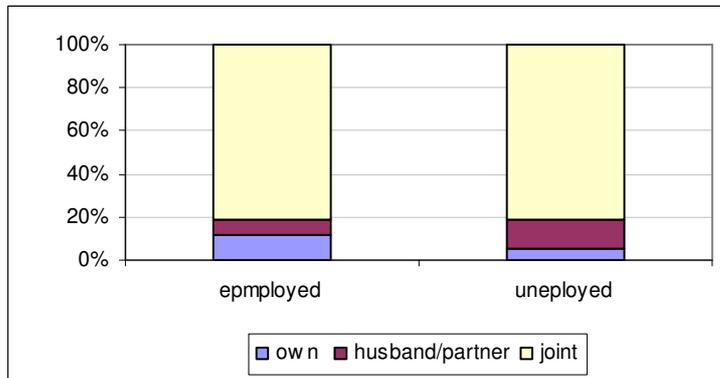
N = 1708

	employed	unemployed	total
N	282	1426	1708

45

Figure 5.16 Type of decision among current contraceptive user according to ethnics group, HS, 2003
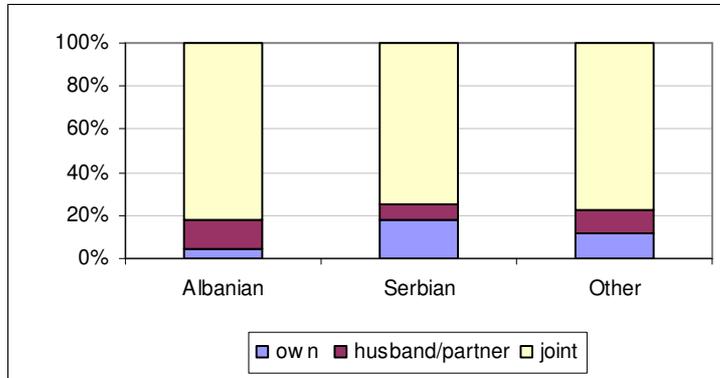
N = 1708

	Albanian	Serbian	Other	total
N	1434	203	71	1708

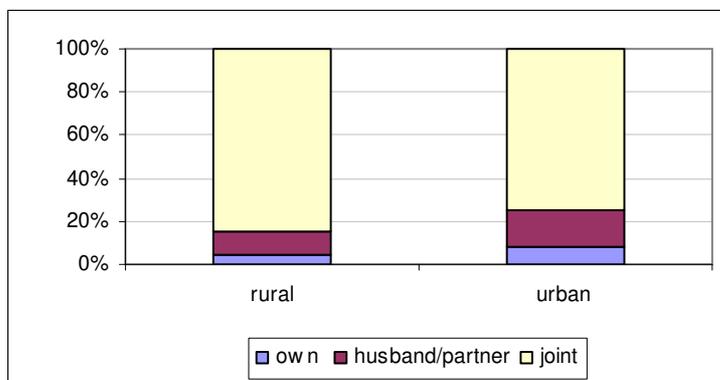Figure 5.17 Type of decision among current contraceptive user according to place of residence, HS, 2003

N = 1708

	urban	rural	total
N	1022	686	1708

5.6 Background in contraceptive use

As we mention in the conceptual model and in the operationalisation of variables for this study, important role in the contraceptive use behavior are playing external variables, divided by us into demographic background and socio-economic background variables. Demographic background we formulated through age and marriage; and socio-economic background through education, employment, ethnicity and place of residence (rural and urban areas).

When we study these variables one by one, we find that each of them has their effect on the contraceptive use behavior. This result we present in the following part

Age

Age as variable is defined as *date of birth* and from all women in the survey which were currently user of contraceptives, in the time of the survey; we find out that women in the old ages use more contraceptives than women in the young ages. This we can see from the Figure 5.18 where is presented the percentage of contraceptive use within each age group. In this figure is shown that just 2 percent of total number of women in the age group 15-19 (797) are using contraceptive in the time of the survey; than from total number of woman in the age groups 20-24 (617) 14 percent and in the age group 25-29 (768) 36 percent are using contraceptives in the time of the survey. Therefore, we can suggest that still woman do a little delay childbirth at the time of marriage or within short marriage duration. This table also illustrates that contraceptive use rise to a peak at ages 35 – 39 where from total number of woman in this age group (582) 66.2 percent are using contraceptives. This percentage remains high through the remainder of the reproductive period, demonstrating a continuing desire to reduce fertility once or desired family size has been achieved.

By studying the type of contraceptive use according to age, we find more or less the same level of use as described in the first part of result. The most used method from all age groups is withdrawal, which is used more than twice compare to IUD, for age groups up to 30 years and more than four times for age groups less than 30 years. From other methods known as the most used, is condom, which has almost the same level of use for all age groups.

From this analysis, we can see that old age women tend to use more modern methods, in contrast to younger ages where the percentage of traditional contraceptive use is still high compare to other methods.

Figure 5.18 Percentage of current contraceptive use according to age groups, HS, 2003
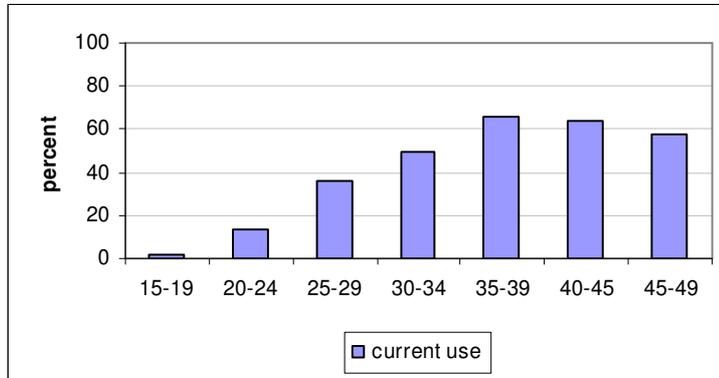
N = 4610

|	15-19	20-24	25-29	30-34	35-39	40-45	45-49	total
number of all respondents	797	817	769	688	592	553	394	4610
number of contraceptive users	16	111	274	342	392	354	227	1716

Marital status

As we explain in the operationalisation of variables, all women in the sample, base on their marital status are divided into two groups, married and unmarried. By studding contraceptive use and marital status of woman, we can not necessary draw a simple answer, because, it is difficult to foresee weather these unmarried women have a regular sexual intercourse or not.

The result of this variable we present in the Figure 5.19, where is shown very clear the difference of contraceptive use among married and unmarried woman. From total number of married women (2826), 60 percent of them are current contraceptive user in the time of the survey; and from unmarried woman (1784), just 2 percent of them are using contraceptive.

Due to contraceptive use by type, we find that high percentage of married woman use withdrawal with 54.5 percent, pill with 7.9 percent, IUD with 21.9 percent and condom with 7.2 percent; while unmarried woman use withdrawal and condom. Herein it is surprising to see the fact that for the first time in this study, the percentage of modern methods in higher than traditional among unmarried woman, since 0.8 percent of them use condom and 0.6 percent of them use withdrawal as a contraceptive methods. Pill has no recoded in any case and IUD is used just by 0.1 percent of unmarried woman.

Figure 5.19 Percent of current contraceptive use according to marital status, HS, 2003
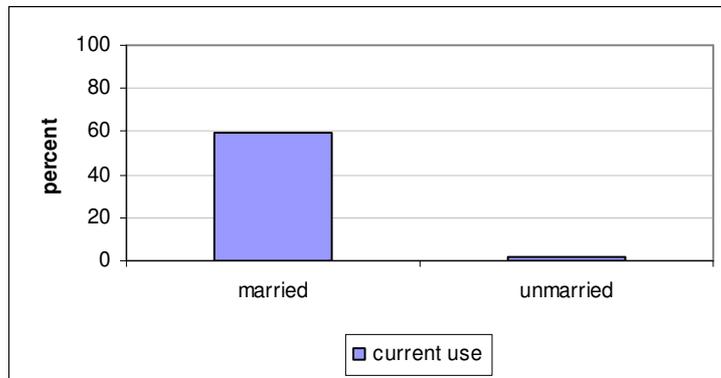
N = 4607 (three cases are missing)

|	married	unmarried	total
number of all respondents	2826	1784	4610
number of contraceptive users	1682	34	1716

Education

The second part of background variables that we define in this study are socio economic variables and starts from level of education. Level of education in the operationalisation of variables, Chapter 4, is define as the "highest level of schooling completed" and through the questionnaire of Household Survey 2003, respondents can answer in one of nine levels of schooling, which we regrouped into four categories: no school, primary, secondary and university.

When we study contraceptive use according to educational status, we find that high educated woman use more contraceptives than low educated woman. For instance, from total number of high educated woman (141) 44 percent of them are using contraceptive in the time of the survey compare to other groups; 37 percent of women no educated woman use contraceptive, 39 percent in primary level and 34 percent in secondary level. It is surprising the fact that woman with secondary school level use less contraceptive then with primary school or uneducated. Even that this difference is very small, still is visible (See Figure 5.20).

Furthermore, by study the educational status and contraceptive use by type, we find out that the result is in accordance with the overall result, presented in the first question. The most used method is withdrawal than IUD, pills and condom.

Figure 5.20 Percent of current contraceptive use according to level of education, HS, 2003
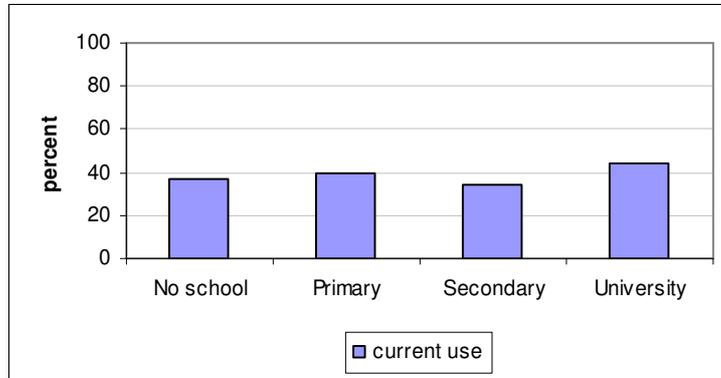
N = 4607 (three cases are missing)

	No school	Primary	Secondary	University	total
number of all respondents	144	2499	1823	141	4607
number of contraceptive users	53	984	617	62	1716

Employment

When we observe from the data the relation between the employment status and contraceptive use, we find that employment woman use more contraceptive than unemployment. From total number of employed woman in the survey (627), more than 45 percent of them are current contraceptive user, versus unemployed (3978 total) with 36 percent. See Figure 5.21.

By studying the contraceptive use by type and employment status, we find out more or less the same distribution. The most used method is withdrawal, than IUD, pills and condoms; which has the same level use for both employment categories. For instance, withdrawal is used 2.5 times more than IUD, more than six times compare to pills and more that eight times compare to condoms.

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Figure 5.21 Percentage of current contraceptive use according to employment status, HS, 2003
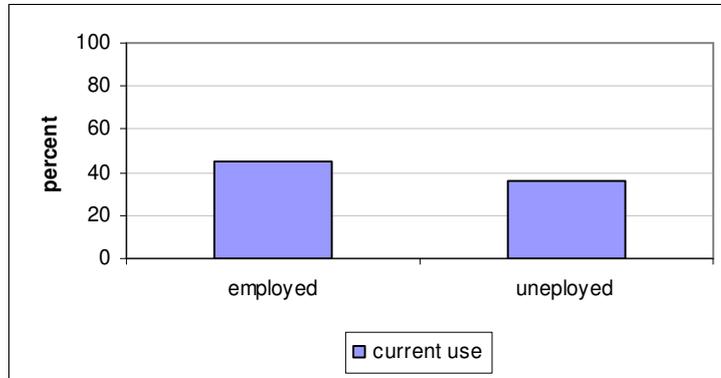
N = 4605 (five cases are missing)

	employed	uneployed	total
number of all respondents	627	3978	4605
number of contraceptive user	284	1432	1716

Ethnicity

By studying the contraceptive use in relation with ethnicity, we find out that the highest level of contraceptive use is among ethnic minorities, which we put in one group and they are: Montenegro, Croat, Turkish, Bosnian, Roma, Goran and others. In the second group are Serbians and in the third group than kosovar Albanians. For instance, from total number of women who belongs to other ethnicities (145) 50 are using contraceptives in the time of the survey, 48 percent of Serbian women (from 432 in total) and lastly 38 percent of Albanian woman (from 4033 in total). See Figure 5.22.

Due to contraceptive use by type among ethnic groups, we find that most used method among all ethnicities is withdrawal. Modern methods are more used by Albanians than other nationalities. For instance, Albanians use 1.3 times less modern methods (IUD, pill and condom) than withdrawal; Serbians use two times less and other nationalities 1.8 times less.

Figure 5.22 Percent of current contraceptive use according to ethnic groups, HS, 2003
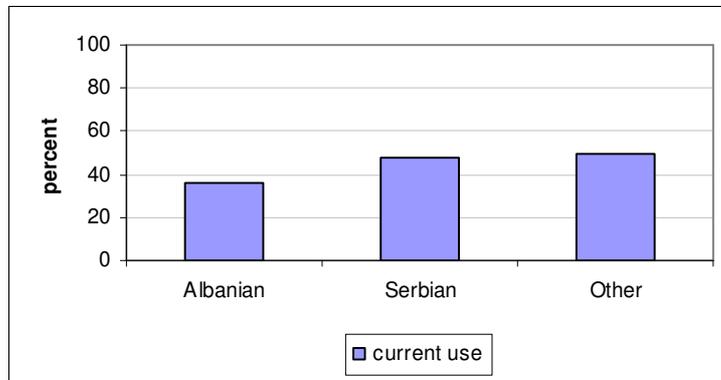
N = 4610

	Albanian	Serbian	Other	total
number of all respondents	4033	432	145	4610
number of contraceptive user	1437	207	72	1716

Place of residence

By study of this variable, we find out that place of residence do not has such effect in the contraceptive use. As result we find that women in urban area use more contraceptive than women in rural area. This disparity is not so big, but it is significant in the figure 5.23 where the difference of contraceptive use between areas is almost 5 percent. From total number of woman, in rural areas (2663) 39 percent are using contraceptive in the time of the survey compare to (1947) 35 percent of women in urban areas.

From both parts, the most used method is withdrawal, but the discrepancy between these two living areas continues also when it comes to other types of contraceptives. Women in urban area use twice more modern contraceptive methods compare to traditional methods, than women in rural area.

Figure 5.23 Percent of current contraceptive use according to place of residence, HS, 2003
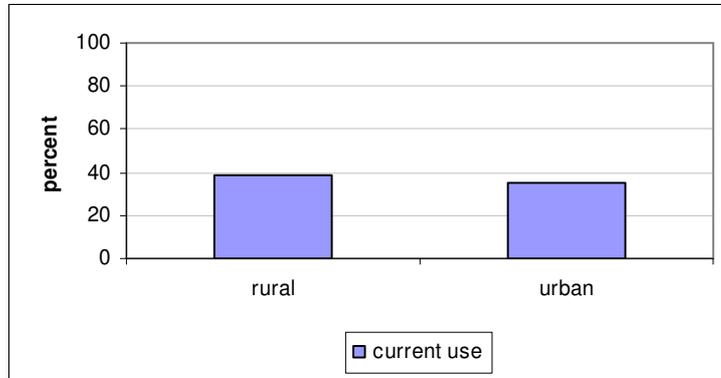
N = 4610

	rural	urban	total
number of all respondents	2663	1947	4610
number of contraceptive user	1028	688	1716

5.7 Significance of factors in the decision to use contraceptive

In order to give answer in the last research question, the logistic regression analysis has been used to see the significance of variables in contraceptive use. In this model as dependent variable we put the variable of current contraceptive use in the time of the survey and as independent variables we took all variables presented in the conceptual model (Chapter 3), such as: subjective norm, age, marriage, education, employed, ethnicity and place of resident. All independent variables are categorical and as reference category is taken the last indicator.

Labels for each variable are:

Dependent variable
- the value of the response variables (current contraceptive use) is 1 if the defined condition is yes, otherwise is 0.

Independent variables
- subjective norm is measured from question if they discus family planning with others and has two labels: 1 = yes and 2 = no;
- variable of age has seven labels of age groups, which are: 1 = 15-19; 2 = 20-24; 3 = 25-29; 4 = 30-34; 5 = 35-39; 6 = 40-44 and 7 = 45-49;
- marriage has two labels: 1 = married and 2 = unmarried;

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- school (level of education), has four labels: 1 = no school; 2 = primary; 3 = secondary and 4 = university;
- employment has two labels: 1 = employed and 2 = unemployed;
- area (place of residence) has two labels: 1 = rural and 2 = urban;
- ethnicity has three labels: 1 = Albanians, 2 = Serbians and 3 = others.

In the following table (5.6) we present the result from this logistic regression model, from which we got more or less the same as result that we presented till now for all variables that has an effect on contraceptive use. Sometimes when the result is not significant for some variables, the log linear model is used to find the reason within the relation throughout the third variable.

Table 5.6 Logistic Regression result of current contraceptive use, Household Survey, 2003

Dependent variable: Current contraceptive use (1/0)			
Variable(s)	Coeficient	Standard Error	Significance*
Constant	-2.30965	0.42094	0.000
Subjective norm(1)	-0.27998	0.08342	0.001
age_grp			0.000
age_grp(1)	-1.64962	0.31005	0.000
age_grp(2)	-1.19787	0.16659	0.000
age_grp(3)	-0.49517	0.14568	0.001
age_grp(4)	-0.01221	0.14573	0.933
age_grp(5)	0.46999	0.15095	0.002
age_grp(6)	0.43385	0.15327	0.005
married(1)	3.82697	0.19481	0.000
school			0.002
school(1)	-0.76821	0.32774	0.019
school(2)	-0.02142	0.26330	0.935
school(3)	-0.18154	0.25513	0.477
employed(1)	0.13071	0.13235	0.323
area2(1)	0.40347	0.08760	0.000
ethnic1			0.000
ethnic1(1)	-1.01107	0.25962	0.000
ethnic1(2)	-0.71068	0.29039	0.014
R- square		0.388	
Log-likelihood		3773.365	
Chi-square		2188.144	0.000

* Significance is until 0.05 percent level

The estimation output from SPSS provides the coefficients of the log likelihood and the goodness of fit test for the model. With this information, the regression model is interpreted. The result from logistic regression model shows that the overall model is significant, according to the Model Chi-square statistic. The model predicts 77.9 percent of the respondents correctly.

Starting with analysis for each variable, we find that coefficient of the *subjective norm* is negative but statistically significant. For this variable we find that respondents, who discuss about contraceptives with others, use 0.756 times less contraceptives. For this reason we use the log linear model to see the effect of third variable in the subjective norm. The result, after including variable of age in the model, looks as follow:

Age_group

Contraceptive use
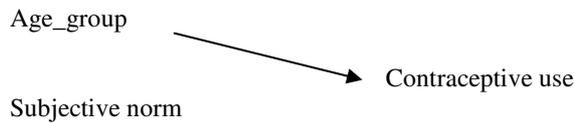
Subjective norm

from which we got two way interaction effects. We find that use of contraceptives is increasing by age, but in the other hand we did not find an interaction effect between subjective norm and contraceptive use.

Demographic background variables, age and marriage positively relate to the contraceptive use. In general, *age-group* is significant variable which means that older age groups the higher level of contraceptive use is. For the first four age groups 15 – 19; 20 – 24; 25 – 29; 30 – 34 is negative effect, since the level of use for these age group is very low (under the reference category level). The age group 30 – 34 in the table is not significant with meaning that is in the same level with the last group, which is the reference category. For the age groups 35 – 39 and 40 – 44 we have a positive effect and respondents in these age groups are likely to use contraceptives 1.5 times more than last age group, 45 – 49. About *marriage*, in the table 5.6 is clearly shown that this variable is significant. We can see that married women use almost 46 times more contraceptive than unmarried women.

In the second group of external variables, socio-economic background variables, we got different level of significance. Starting from *education,* the level of university is a reference category. In the Table 5.6 we can see that this variable is not significant but since from the previous result we find that the highest rate of contraceptive use is among women with university, in this model we got negative result. From this model we can see that women without school are 0.464 times less likely to use contraceptives that women with university degree. Also, women with primary school are 0.979 and secondary 0.834 times less likely to use contraceptives than women in reference category. Than e*mployme*nt variable has to labels: employed and unemployed. From these to level, the is unemployment is reference category and as the result in this variable we find that employed women use 1.140 times more contraceptive than unemployed women. P*lace of residence*, as third socio-economic variable is statistically significant, and shows that women in rural areas use more than 1.5 more contraceptives than women is urban areas. Finally, the last variable in this model is *ethnicity* and is statistically significant. As reference category for this variable is group of other nationalities. The result shows that this variable is negative, but since form previous result we find that level of contraceptive use is higher among other nationalities than Albanians and Serbs, in this model we can conclude that are significant but the usage is under the level of use of reference category indicator.

The last thing that can be indicated from the Table 5.6 is the level of significance. Since we mentioned that till level of 0.05 shows significance, we find out that marriage, place of residence and ethnicity are the most significant variables in contraceptive use. Than continue with subjective norm; and for other variables such as: some age groups, level of education and ethnicity which looks not significant in the table, we explained above.

6. CONCLUSION AND DISSCUSSION

The aim of this research is to see the interaction between the contraceptive use and factors that has an effect on using them, in the individual level. The objective of this research is to provide the conceptual model base on theory and to present the result of contraceptive use form Kosova's data according to introduction of methodology and operationalisation of research.

In Chapter 2, we present the demographic situation in Kosova, referring to the key aspect for understanding the result of this thesis. With our focus in value orientation, we study different dimensions of information at the individual level which are important to study the linkage between the contraceptive use as behavior outcome and factors that influence the usage of contraceptive. Theory of Planned Behavior (in Chapter 3) offers number of cognitive variables, attitude, subjective norms, perceived behavior control, intention, which explain the relationship between these variables. Target of this research is to operationalise conceptual model and to undertake qualitative analysis. In Chapter 4, we provide the methodology of research by studying the conceptual model and explaining the important definition of concept, such as, external variables (age, marriage, education, employment, income, ethnicity, place of residence and number of people per household), knowledge, attitudes, subjective norms, available resources, intention, are studied. In order to link the conceptual model and empirical use of data in Chapter 5, we analyze the selected indicators and operationalsation of variables identified in the Kosova Household Survey 2003. In Chapter 5, we present the preliminary result of data base on conceptual variables and selected variables base on our research question.

Although we suppose that this study is a good starting point to understand the determinants that has an effect on using contraceptives according to background characteristics of the contraceptive users; from the data that we posses for this study, could not cover all indicators that has an effect on contraceptive use. Since our study is done base on the quantitative data from survey that are not specifically meant to study contraceptive phenomenon, therefore there is a need further research. These suggestions we are explaining in the form of conclusion and discussion.

Regarding to first research question "What is the use of contraceptives in Kosova?" in part of "the most used methods" we find as the most used contraceptive method among kosovar women is withdrawal. This method it takes part in the traditional contraceptive methods which is not considered as particularly safe method and is used from more than half of women who were contraceptive user in the time of the survey. Hence, we suppose that further investigations are required to find out the reason for such a high use of withdrawal as contraceptive method, in way to see what can be done to increase the use of modern contraceptive methods, which are known as safer contraceptive methods. In other side, regarding to knowledge of contraceptive use, we find a discrepancy between knowledge and use of contraceptive. Since the variable of knowledge we measure form term "ever heard method" we can not really measure the level of knowledge about contraceptives among kosovar woman.

In addition, as result regarding to the same question, in part of "way of obtaining methods" we find that almost half of respondents who were currently contraceptive user in the time of the survey claimed to obtain the contraceptive methods from friends or relatives. Since given the nature of the non-efficient contraceptive methods that are being used (withdrawal) in Kosova, we consider that this figure implicitly includes advice. For this reason, we think that is required further research in way to find reason for this and to see what can be done in the future, to increase the obtaining the contraceptive methods from other places, which are more adequate.

Concerning to second part of research question: "What variables influence the using of contraceptive?" and regarding to Theory of Planned Behavior , in Chapter 5 we present the result on subjective norm, perceived behavior control and external variables, but we could not give result on attitudes toward behavior and intention for contraceptive use behavior. This default it happened because in the Kosova Household Survey 2003 data, are missing indicators for measuring these variables. Furthermore, from the data file that we possess, dwelling in household level and contraception in individual level, still we could not include in the research process all variables, pointed in the conceptual model. By studying attitudes we will find to what is the degree to which person favorable or unfavorable attitude toward using contraceptives has. Since attitudes are as driven behavior, in contraceptive use they are important indicator because through it we find people's personal positive or negative evaluation for using (or not) contraceptives. Moreover, by studying this indicator we can find if the attitudes of people toward contraceptive use behavior can change, then we are in position to influence other people's behavior. Than we continue our suggestion for gathering data on intention, through which we get to know the willingness of people to use contraceptive or not. By studying this indicator we can see the linkage with attitudes and other variables and also we can find the independent variables, such as: global and specific attitudes, global motivation to comply and motivation toward fertility regulation.

By measuring subjective norm in contraceptive use, we find that mostly contraceptive use in Kosova is result of joint decision, husband decision and finally a small number of woman claimed for own decision. Furthermore, related to this variable, vast majority of women claimed to discuss family planning with husband/partner, no matter from their background characteristics. By analyzing the subjective norm in relation with external variables, we find that contraceptive use is mainly result of joint decision, except for unmarried women which prove their independency. The majority of women in this category claimed that contraceptive use in their own decision. From analysis we find that husband/partner influence is stronger among women is urban areas, for which we suggest further research since is not in accordance with their independency. We suppose that women in urban areas are more independent regarding to their level of education and labor force participation. Furthermore, from logistic regression analysis, in this variable we find that women, who discuss family planning with others, use less contraceptive than women who do not discuss. Also, in this point we suggest further research; to find the effect of these in the contraceptive use.

Concerning to the influence of people's background in contraceptive use, as result we find that aged married women use more contraceptive than unmarried younger women. In this case can be concluded that unmarried young women could be afraid to use contraceptive, mostly modern methods; in view of the fact that later on these methods may have consequences related to future pregnancies. This is happened mainly among uninformed women or misinformed. We also find from operationalisation of socio economic variables that woman in rural areas use more contraception than woman in urban areas. Besides this, in the second chapter of this research, were we presented the demographic situation in Kosova, is pointed out that women in rural areas are les educated and also high number of them are unemployed; moreover, from our result, presented in the Chapter 5 we find that high educated women use more contraceptive than less educated and employed women use more contraceptive than unemployed women. In contrast with the results of these two background variables; the place of residence is not in accordance with, when it comes to contraceptive use. From result we got that woman in rural areas use more contraceptives than in urban areas. Hence, in this point we suggest further investigation to find the other factors that cause the high contraceptive use in rural areas.

From other external variables, such as ethnicity we find that contraceptive use level is higher among ethnic minorities than Albaninas and Serbs. Finally form this group of variables, which are define as factors that have an influence on contraceptive use, income and number of people per household are not incorporate in the result, due to missing information in the data file. By studying the influence of these to factors income in the contraceptive use, we get to know the importance of economic situation and the effects of it in contraceptive use. With number of people per household, we can complete studding about the subjective norm variables. Since, life in extended families is way of living in Kosova, and it is embedded in traditional norms and rules. This point needs further research in way to point out the influence of other family members (apart partner) on the contraceptive use.

Finally, to fulfill studies about contraception and suggestion, we considering that quantitative and qualitative research need to be done continually, especially when is known that modern contraceptive use in Kosova are not so spread among the population. First, since we already study biological age, current union status, current educational attainment, current employment status, with quantitative research we can study these variables by different dimension of time and to find changes on way of obtaining methods and use of contraceptive by types. Furthermore, base on these we can understand the effect of income (household or level of woman's salary) in contraceptive use. Second, by studying influence of others, through qualitative research (in depth interviews, focus group discussion and specific surveys) we can study the people's attitudes toward the contraceptive use behavior, to find their opinions about modern methods compare to traditional contraceptive methods and to see the level of knowledge for each method.

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