Chapter 1

Concept of Education, Employment and Fertility

Literature Review and Methodology

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In the present chapter, an attempt has been made to discuss the conceptual framework, literature review and methodology. This chapter is divided into three sections. In the first section concept of education, employment and human fertility and their determinants are discussed. In the second section, an attempt is made to bring into limelight the various contemporary perspectives relevant to the present study by extensively reviewing the existing literature related to the study. In the third section, methodology is discussed with reference to the procedure for carrying out the survey and the methodology adopted to analyse the problem of present study.

**CONCEPT AND DETERMINANTS**

This section of the chapter deals with three main theoretical constructs—education, employment and fertility. These three concepts are complex and are influenced by various determinants in empirical terms. Therefore, it has been thought wise to be clear at the very onset about the conceptual framework of these concepts. In the subsequent pages efforts have been made to discuss these concepts and their different determinants.

**CONCEPT OF EDUCATION**

Education is a comprehensive term. Different philosophers and educationalist have defined education differently, according to their own point of view and circumstance (Sodhi, 1998). The word ‘education’ originates from Latin word ‘educare’ meaning ‘to bring up’ ‘to raise’ and suggests a moulding, teaching and training of the mind, character, and personality through schools, colleges, teachers etc. Education is not removal of illiteracy. It is the removal of ignorance. It is the freedom of the young men and women from narrow selfish ends, and shapes them into selfless, hardworking, youth, burning with a desire to achieve the best for the society based on human values. Hence the modern concept of education means to develop the inherent capacities of a child in the social environment. Education which is the base of all the development and advancement of civilization, aims at evolution of a better man and development of mind (Sharma, 2003). Education develops the individual like a flower which distributes its fragrance all over the environment. It is the favourable process which drags a person from darkness, poverty and misery by developing his individuality in all its aspects—physical, mental, emotional and social. Thus education is great essential for the growth and development of individuals and society also (Sexena, 1998).

The idea of education is not merely to impart knowledge to the pupil in some subjects but to develop in him those habits and attitudes with which he can successfully face the future which help a man to lead a full and worthwhile life. A wide diffusion of education is indispensable in the modern civilization, besides the high literacy rate is one of the most important indices of highly developed economy. A society is educated or not is known through its level of literacy. Literacy rate forms an important demographic element which is a good measure of human progress towards modernization. According to the Census of India, a person who can both read and write with understanding in any language is considered as
A person who can merely read but cannot write is not a literate (Jain and Srivastava, 1996). Education is a unique investment in the present and the future. Education does have clean impact on dissemination or spared of modern attitude, value, approach and outlook and can be a powerful instrument of social progress change and national integration. It would be facile to except that every individual or social community must see the tremendous modernizing potential of education and must go in for it (Ahmad, 1987). In its core, it is a spiritual process, whether one is engaged in educating children in formal schools or in colleges and universities, or educating the poor in the slums. Education, by its very nature is transformative, helping to change human persons. Therefore education is not the information of knowledge but transformation of human persons.

**DETERMINANTS OF EDUCATION**

Education is an important ingredient of social development. It is essential for eradicating poverty and mental isolation, for cultivation of peaceful and friendly international relations and for permitting the free play of demographic processes (Chandna, 2004). The literacy rates/educational status in any area are largely affected by a variety of factors (Determinants). These determinants of education are discussed one by one in the forthcoming subheadings:

**Historical Determinants**

In the context of the less developed countries where literacy transition has either just begun or is far from its completion, the political or historical background holds the key to the understanding of the present low level of literacy. For instance, the ex-colonial countries such as India are at a low level of literacy because the colonizing countries did not do much for the social development of their colonies. One unusual aspect of English education in India, according to Varghese was its concentration on general subjects and avoidance of scientific and technical education. He claims that the neglect of these areas of study created a gap between the ruling power and its colonies. In sum, the educational policy that the British imposed on India was partly responsible for the neglect of rural areas and the advancement of urban areas. Colonial education encouraged the development of an elitist philosophy ‘all that is rural is bad, all that is urban is better and all that is foreign is best’ (Varghese, 1986). Although this attitude was attacked by nationalist leaders, it is still much in evidence.

During British rule, a minority of the population of India received a significant measure of support in the sphere of education which enabled them to secure important positions in administrative and commercial life. It was these English educated elite groups who were in the fore front of the political campaigns for self-government and later for independence (Motamedi and Duskin, 1996). At the dawn of independence, the literacy rate was very low (Safaya, 2002). The present political setup in these countries has taken up this task of social development but the constraints of resources have kept the pace of such progress under control. Similarly, those areas which have had a long spell of feudalistic rule also continue to display low literacy rates as a legacy of their historic past (Chandna, 2004).
Economic Determinants

The literacy and educational status is also closely influenced by the type of economy. The differences in the literacy levels of the industrial and agricultural regions contrast so much that one cannot help inferring a correlation between the type of economy and the literacy rates (Hussain, 1994). The requirements of the non-agricultural economy are such that an acquisition of literacy skills becomes a functional pre-requisite. On the other hand, the agricultural operations, particularly in the less developed world are such that these do not have any demand on education. For accelerating the rate of growth and equalizing the distribution of income, education has been placed as a central element in the economic infrastructure. The growing importance of education has been paralleled by the abundance of economic literature, and yet nobody is clearly able to explain a linkage between education and labour productivity (Byun and Kim, 1995). Next in importance is the factor of standard of living. Normally, there exists a positive correlation between literacy rates and the standard of living. Such a correlation has greater significance for poor countries where the appalling poverty of the masses, in general, demands different priorities. Income-wise distribution of literacy also corresponds with income hierarchy. It is evident that higher income groups are at the top in regard to literacy, and the intermediate income group holds the intermediate position, while the lower income group stands at the bottom of the scale with respect to literacy level (Acharya, 1984).

Degree of urbanization has often been referred to as another determinant of literacy. There is a positive correlation between literacy rates and degree of urban development. Similarly, a positive correlation between education and the stage of technological development a country has attained has also been observed. The technologically advanced countries display high educational development in contrast to the educational development of the countries which are technologically marginalized or their advancement was in its infancy stage. While in case of highly technologically advanced countries, literacy and education may be a pre-requisite for getting employment, it may not be so in case of the technologically less advanced countries (Chandna, 2004). A positive association has been observed between literacy and stage of technological developed country has attained. The level of development in transportation and communication facilities is another determinant of educational attainment. The recent development of means of transportation and communication has added a new dimension to the process of propagation of literacy and education in the less developed areas. The higher the transportation and communication facility, the higher is the level of educational attainment. This can be clearly comprehended by comparing rural and urban educational attainment. The rural society which interacts more with the urban society with the development of means of transportation and communication starts appreciating the value of education and making the use of educational institutions that are not locally situated.
Social Determinants

Social developmental conditions in any society affect the importance and availability of educational attainment, and thereby the significant families accord to schooling. The chief social determinants of education are family size, value system of family, availability of educational infrastructure and facilities, socio-economic and educational background of parents, religious affiliation and medium of instruction. In nuclear families, children get much more opportunities for getting education in comparison to the children of joint families. Prosperous families, furthermore, might find it possible to rear many children successfully and send them all to school. Studies examining the impact of high fertility on children are well being often considered that certain children, specifically girls, bear excessively the detrimental consequences of larger family size. For example, when resources are scarce, the physical well-being of the more valued children in a family is often sought at the expense of the others, a phenomenon visible in patterns of boys versus girls’ survival rates in East and South Asia. When fertility is high, higher birth order girls are the most disadvantaged (Sudha, 1997). The societies which do not give equal status to males and females suffer from low female literacy rates which affect adversely the total literacy rate. Similarly, the societies where the females are not allowed to move freely or which suffer from the prejudices against females education also display low female literacy and hence low general literacy. The general value system adhered to by the people, in general, is also an equally important factor. The attitude of the people towards education is governed largely by the value system of a society. Higher the socio-economic awakening more favourable is the attitude of the people towards education.

Much of the progress in literacy in the less developed countries which are lagging behind depends largely upon the availability of facilities for getting education. There exists a positive correlation between the literacy rates and the degree of availability of educational institutions and other educational infrastructural facilities. Lower the number of people per educational institution higher is the literacy rate. The availability of educational facilities within an easy access and within the reach of one’s pocket works as a positive factor in the propagation of literacy and education. The need to travel long distance to school is a particular barrier for girls, especially in countries where a cultural premium is placed on female seclusion (Mishra, 1997). Aspiration, technology, productivity and vertical and horizontal mobility are determined by education. It changes the perception of cost and values which contribute to the economy of the household and the nation. Hazra (1997) argued an illiterate mother would aspire for the education of her children and a mother with some standard of education would like her children to achieve appreciably higher standards than her own.

Religion also plays an important role in process or propagation of education. Those religious communities where oral worship has been in vogue for millennia of years still have low literacy rates in comparison to those religious communities where reading of religious
books is part of the religious tenets (Chandna, 2004). The Islamic world where oral prayer five times a day constitutes an important religious requirement still lags far behind other religious groups where the reading of religious books may be an essential part of daily life. Similarly, language in which the education is usually imparted is another important factor determining literacy rates of an area. If medium of instruction is the mother tongue of the people, it can help augment the literacy rate (Chandna, 1994). Thus, it may be concluded that no sphere of life can survive properly without considering education as a basic ingredient or in other words it can be said that our sense will never allow us to make a limit as far as the role of education in our life is concerned. It acts as a catalyst in our all spheres of culture. It has been observed that educational levels and socio-economic development are directly proportional to each other.

**Political Determinants**

Political ideologies also influence education to a great deal. We see that political doctrines and set up of states organize education according to their political aims and ideals which are to be achieved through educational processes and programme. The purpose is just to prepare citizens for political conformity (Sexena, 1998). In the end mention must be made of the ‘policies of the government’, which in their own way affect the attitudes of the people towards education. Such policies like the free and compulsory education and adult education literacy programme have had their positive impact felt in the countries that have followed them (Chandana, 2004).

A number of factors could be cited as the cause behind such utter neglect of education; but what possibly works at the root of these factors is the planners’ perspective on education, i.e., why literacy and education is necessary or relevant. It acts as a catalyst in our all spheres of culture. Broadly speaking, this perspective in the Indian context has been that literacy is essentially a welfare programme no sphere of life can survive properly without considering education as a basic ingredient and, until the time when economic development has reached a sufficiently high state enabling the people to arrange and pay for their own literacy needs, the government has to shoulder this responsibility because of its social and welfare implications. Lack of education is one of the most important factors for the marginalization of the nation.

**CONCEPT OF EMPLOYMENT**

All human beings, in order to live, must either have some productive occupations themselves or receive their sustenance from someone else. The term employment refers to holding some post in office. It implies that services of the individual concerned being regularly used for some payment. The employee in the employment is expected to provide services exclusively to his employer during the tenure of employment. The employee comprises of all the persons including family workers who work during the time reference period, established for data on economic charter or who had a job in which they were temporarily absent because of illness or injury, industrial dispute, vacation the leave of
absence, absence without leave or temporary breakdown (Chandna and Sidhu, 1980). There are so many literary terms such as manpower, labour force, and labour supply, gainful workers, working population, economically active population, work participation rate and workforce which are synonymously used for referring employment.

Employment determines the social and economic conditions of livelihood pattern of population. It provides information about the human resources and the nature and extent of their utilization. It involves many complications, because the human resource is the most versatile, complicated subject to change in vertical and horizontal dimensions and unlike inanimate resource is capable of renewing itself. In fact, it is very necessary to lay down some rational standard for judging as to what activities should constitute productive work and what degree of performance should be required to qualify a person as worker. Those persons in the population, who fail or do not desire to offer their services in the labour market hereby automatically, exclude themselves from the work force. However, in its most generalized form the work force is conceived of as that portion of population which furnishes labour supply for the production of economic goods and services (Jaffe and Stewart, 1951).

A number of geographers, economists and sociologists are engaged in studying the employment. They have dichotomized the total population into economically active and economically inactive (Bogue, 1969). Those who are classified as economically active are called workers and those who are not classified as economically active are called non-workers. Workers are producers of economic goods and services and hence are said to be gainful employed. The other group that is non workers are consumers of goods but do not produce in the economic sense. The term economically active is used by the United Nations (UN) and it generally subsumes all other definitions. The UN and International Labour Organization (ILO) use the term activity rate for this concept (UN, 1951).

The term ‘manpower’ has gained increasing use recently in the sense identical to employment. Manpower is sought to include a certain portion of a total population, although a larger one than the employment does embrace. It includes both, those who are already engaged in economically productive work and those who can be engaged in productive activities i.e., all those able bodied members of the population who fall in the age group of 15 to 59 years or 20 to 64 years (Kumar, 1971). Manpower supply will be the number of people available during a period of time to perform the jobs newly offered plus jobs already existing but shown as unfilled vacancies. ‘Manpower supply’ and ‘manpower resources’ have been generally used by manpower planners in one and the same way, although the former is a flow concept while the later is a stock concept (Khan, 1972). In the most of the industrialized societies the term ‘labour force’ is common in use, while in the traditional societies terms like working force, gainful worker, and work force are used. Here, the term ‘employment’ is used to subsume all the variants of general concepts of the labour force and gainful workers. The labour force consists, then, of that part of the total population engaged in or seeking, ‘work’
and activity defined in our culture as one contributing to the production of goods or services in exchange of remuneration or its equivalent (Hauser, 1956).

The United Nation considers that the labour force is made up of all the people 14 years of age and over who at a particular moment are either employed or unemployed but looking for work. The labour force includes farm labourer’s physicians, people who work for wages, for salaries, and for fees. People who are not considered in the labour force are all those who are under 14 years of age and all those 14 years of age and over who are doing only incidental unpaid family work (less than 15 hours during the particular week to which the data relates), the latter groups being mostly students, housewives, retired workers, seasonal workers enumerated in an ‘off’ season who were not looking for work, inmates of institutions, or persons who cannot work because of long term physical or mental illness or disability.

**DETERMINANTS OF EMPLOYMENT**

The magnitude of workforce available for the production of economic goods in a society is determined by a variety of demographic, economic and social factors.

**Demographic Determinants**

Among various demographic determinants the magnitudes of workforce which play a profound role in shaping the employment in an area are fertility, mortality and migration (Hock, 1966). High fertility may cause the population to become progressively younger, whereas low fertility by contrast produces a structure in which the proportion of oldsters is relatively high and youthful relatively low (Trewartha, 1969). The high population in under developed countries make the youth dependent because of high proportion of children, but young and older people play a great role in the economic activity of such countries. On the other side, old age and the base creates a heavy old age dependency.

Since the fertility rate of population in the rural segment is generally high as compared to urban segment, thereby gradually augmenting the rural components in the total population. Mortality is the second most important demographic determinant, which influences the employment pattern of a society. The countries with high average age at death, the proportion of population in the working age groups is relatively high and hence the magnitude of working force here is also large in comparison to those countries, where the life span is short and where many workers die in their active age. The work participation appears to have grown faster in countries of low mortality rates as is the case in European countries. In European countries female work participation rate is high, because, in these countries due to occupational hazards, mortality incidence is higher for males (Hauser and Duncan, 1956).

Migration is the third demographic factor which influences the employment structure of both the areas of emigration and immigration. Migration of workers largely takes place in the economically active age group. The areas suffering from emigration have lower employment opportunities resulting into proportionally lower proportion of work force. The areas of immigration are characterized by influx of workers who display higher degree of
working population (Clark, 1981). The structure of population by economic status and occupation also gets modified by migration. In recipient areas of migration being strongly male selective, trends to swell the work force and change the existing occupational structure. At places where industrial development is in progress, the in migration has a favourable impact as it provides cheap labour which, when absorbed in the industry tends to change the occupational structure of the area in favour of industry and in the long run also helps to diversify the economic activities. On the contrary, out migration from an area creates scarcity of labour supply with the consequence that marginal workers i.e. number of female workers, juvenile and senile dependents tend to join the rank of workers.

Another important demographic factor which play very important role in work participation rates are sex and age. The participation of females in occupations is higher in developed countries than developing countries. The principles explanation is that there are more opportunities for gainful employment in urbanized economic institutions (industries), but on the other hand, agricultural societies make very extensive use of females as unpaid family workers in farming work especially at the age of 10-19 years. The participation for females tends to reach a peak in the late teenage or early twenties, just before marriage or onset of child bearing. After the age of 25 years the work participation rates tend to decline as the necessity for household work and caring the children. In developed countries the greater participation of women clearly shows itself in the premarital ages, and the ages after 35 years. In the later case, when their children are to be mature enough to be in school, they tend to re-enter in the workforce. The explanation for this may be as much sociological as economical. Female earners may be helping to earn money to put the children through college, to save for old age or to complete payments on a house. But beside this, they may also be seeking meaningful activity and a sense of self worth after their children no longer are dependent on them.

Employment rates at the older ages are much higher in the developing countries then in the industrialized countries. In the later case, persons at the older ages have the privilege of retiring from the work and spending their last years on pension and the saving incomes. In contrast to this in the former case a person has to remain in the workforce as long as their health permits (Bogue, 1969). Age and sex structure primarily help to explain employment and consumption patterns, social needs and perhaps the psychological characteristics of population. The age structure has major significance because it affects wide range of demographic and social phenomenon and highlights some of the fundamental and social force at work within the area in particular and country in general (Siddiqui, 1984).

**Economic Determinants**

It is the second important determinant of employment. Among the economic determinants, the size of working force, the type of economy of an area, availability of employment opportunities and efficiency of workers are significant. The nature of jobs available in the industrial societies is very much different from those available in agrarian
economy (Chandna and Sidhu, 1980). The factories and industries have their own demand on skill and education which delays the entry into working force and hence the size of working force in such economies suffers a setback. By comparison, the nature of jobs in agricultural economies, particularly of the less developed realm, is such that education has little functional value. Here, the person can start the work as soon as the family exigencies demand his/her participation (Chandna, 1994). The level of income and employment also affect activity rates (Clark, 1965).

As the country becomes economically more developed, the contribution of agriculture to national income goes on declining and that of the secondary and tertiary goes on increasing. Urbanization and urban mentality also induce people to migrate to urban areas and take up employment in works where future generation can live in developed surroundings. Industries, services and construction provide more jobs in urban areas. The general level of income also determines the proportion of workers in total population. Those societies having low level of income have compelled reason for larger participation in economic struggle than the societies that enjoy a higher standard of living. In the former, the economic exigencies demand an entry into working force as soon as possible with a view to augmenting family’s income. Females take up jobs to supplement incomes of the household. The availability of employment opportunities is another significant economic determinant of the magnitude of working force in any area. The less developed countries, are unable to provide ample employment opportunities to their multiplying manpower and thus, have relatively small working force and high incidence of unemployment in comparison to the developed countries where employment opportunities are available for all those persons who are willing to participate in economic activities and are, thus, able to become a part of the working force. That is why, the size of workforce in countries with limited employment potential remains comparatively low (Chandna and Sidhu, 1984).

Efficiency of workers is another significant economic determinant. The distribution of working population by age and sex and by occupation and industry of workers are believed to have effect on the efficiency of workers. It is understood that males and younger population might be more efficient and those who are technologically well trained have an edge over the unskilled labour force.

Social Determinants

Among various socially rooted determinants, size of working population, marital status, level of literacy and education undoubtedly claim the highest rank. The status of women in the society and consequent approval or disapproval of female participation in activities outside the four walls of the house is another social determinant of magnitude of working force. Consequently, in the countries where the prejudices against the female’s mobility and participation in economic activities prevail, the proportion of working force remains low because women constituting almost half the population get excluded from this orbit of workers (Chandna, 1994). The female employment is influenced markedly by their
marital status. Among women who are single, the rate of work participation corresponds rather well to that for males. In fact, from ages 18 to 70 the employment rate for single males and single females is very similar. In sharp contrasts to this, females who are married and living with their husbands have much lower participation rates at each age group, whereas the women are married but their husbands are absent, the participation rates tend to be substantially higher. This tends to be higher if the women are widowed and yet higher if they are divorced. For males, marital status has a completely different relationship to work participation rate than the females. First, the significance is a much smaller one. Second, the relationship tends to be the reverse of those for females. Being married and living with the spouse tend to generate the highest participation rates among males instead of the lowest as for females. At all ages the tendencies to remain in the work participation is somewhat lower for widowed, divorced or single men than for those who are responsible for a wife (Bogue, 1969).

Levels of literacy and education influence significantly the work participation rates. There is a negative correlation between the two. The societies having high literacy rate are proved to display low work participation rates because of the acquisition of literacy and education delays the entry of people into working force. Thus, the universally literate societies are prone to have low participation rate than those where the mass illiteracy prevails. Work participation rate for males and females with a more detailed educational break up are available in urban areas. All literate males show significantly lower work participation rate compared with the illiterate. Among the literate however, there is generally a positive relationship between the work participation and the levels of education. In fact, those with technical degrees show higher rates when compared with the illiterate. Urban females show a similar trend even in a more pronounced way. Among them all graduates and those with technical and non-technical diplomas report for higher participation rates than the illiterate (Sinha, 1961).

General standard of health of the people being an index of their vitality also influences, to some extent, work participation rate. It is normally to be expected that a nation with good general health conditions will display a higher participation rate than the nation with poor condition.

CONCEPT OF FERTILITY

Fertility is the natural capability of giving life. Fertility refers to the actual bearing of children, the reproductive performance, and it is measured in terms of live births. Fecundity is a physiological capacity to bear children or the reproductive potential. It refers to the actual reproductive performance of a person (usually a woman) determined by social, cultural, psychological as well as economic factors. The term ‘fertility’ was originally applied only to females, but increasingly is applied to males as well, as common understanding of reproductive mechanisms increases and the importance of the male role is better known. Fertility is a statistical concept with social relevance, whereas fecundity is a biological
concepts. These terms are used quite loosely in medical literature and are sometimes treated as being synonymous (United Nation, 1958). For this reasons demographers have preferred the word ‘natality’ with French counterpart natalité as the term used for child bearing.

For many the meaningful summary of fertility experience is the family size of an individual women or the mean family size of a group of women. For the demographers ‘family size’ is defined as the number of children surviving at the time of observation. Thus decline in family size refers to changes in the numbers of live born children amongst women born or married at different periods, not to chance in the number of surviving children. For demographers ‘family size’ is therefore essentially an attribute of the mother and one which is irreducible, while for the sociologist it is description of the ‘existential’ family at a particular time. In advanced industrial societies, where childhood mortality is low, the difference between the two measures is usually small whereas in the developing countries, where many children die in their very early age, the number of births is typically well in excess of the number of serving children in the family unit at any time. This fact is of the crucial importance in exploring women’s attitudes towards their own fertility, if a woman is asked about her ‘intended’ family size her answer will be in terms of achieved family size which relate to the number of live births.

DETERMINANTS OF FERTILITY

Fertility is a complex social artefact. It is defined as refers to the actual bearing of children. The number of births occurring in a year in any population is determined partly by demographic factors such as age and sex distribution, the number of married couples, their duration of marriage, age of first age of pregnancy etc. Fertility is also related to many other factors of social and economic set up, such as housing conditions, education, income, religion and attitudes towards family size. These determinants may be studied under mainly six broad categories of biological, physiological, demographic, social, economic and political determinants (Chandna, 1992).

Biological Determinants

Race has been found to be the basic factor generating fertility differences (Chandna, 1992). Biological factor supposed to effect the fertility of a population is health. Although it is very difficult to establish a direct correlation between the health of an individual and his fertility potential, yet there is no denying the fact that bad hygienic conditions can lead to partial or complete sterility (Clark, 1981). Furthermore, normally one would expect that those enjoying good physical and mental health would be more prolific, but more empirical observations show contrary results as the most under nourished in the world are the most fertile (Chandna, 1980). General health conditions have also an indirect impact upon fertility pattern of the, area. Poor health conditions resulting in high incidence of mortality compel the people to go in for large families, so that each couple can have at least two-three survivors. However, with the improvement in the general health conditions, the mortality rate goes down and people start adopting small family norm.
Physiological Determinants

Fertility is affected by post-partum abstinence. After the birth of a child, the woman is generally sterile for some period, as the menstrual cycle is not resumed, or if it is re-established, the earlier cycles are unovulatory. During this period the possibility of the occurrence of conception is very rare, and hence this period of temporary sterility is known as the post-partum sterile period. It has been reported in many Indian studies that, as a result of breastfeeding, the post-partum amenorrhoea period is longer for Indian women than for American and European women (Chandrasekaran, 1961). Fertility is also affected by the restrictions imposed by society or otherwise on reunion or sexual exposure of husband and wife, after the birth of a child. Obviously when this period is long, fertility will be less, when the period is short, husband and wife will get opportunity to meet and chances of fertility are bright and more (Raj, 1984).

Another physiological constraint on unrestricted fertility is the extent of foetal wastage - that is abortion and still births - which varies from country to country and from place to place. Such information, usually collected through sample interview surveys, suffers from under reporting (Bhende and Kanitkar, 1988). The physiological factor responsible for relatively lower fertility in India includes adolescent sterility and longer sterile periods between two births, resulting from the practice of breastfeeding of the child for a longer duration. The impact of social customs on the physiological factors affecting fertility also needs to be taken into account.

Demographic Determinants

The chief demographic determinant of fertility is the age structure of the population. It may because of the proportion of population in reproductive age group have a direct bearing upon birth rate or fertility rate. The higher the proportion of young age group, the higher might be the fertility rate. The second demographic determinant affecting the fertility of a population is its sex composition. A balanced sex ratio would create normal conditions for average birth rates. Sex ratio as a determinant of fertility can be well judged when we examine the birth rates of population having sex structure differentials. For example, in India, the urban centres which largely attract male in-migrants suffer from great paucity of females, thus resulting in low birth rates.

Another demographic determinant leading to the fertility differential is the type of residence or degree of urbanization. Rural fertility exceeds urban fertility in both developed and developing countries. It is because of the fact that in the cities there is high cost of living, which the family with a big size cannot afford. Consequently the couples go on for limiting their family size or adopt small family norm. Child mortality is another factor which influences fertility. In the past the rate of child mortality was very high. Accordingly the fertility was high so that a cushion was provided for the children who would die at some later stage. Today society has controlled many diseases which used to kill children and no longer show their fatal strength. Now parents wish to have only as many numbers of children, as they wish to have. This has considerably influenced phenomenon of fertility (Raj, 1984).
Social Determinants

The main social determinants are religion, literacy, education, age at marriage, status of woman, desire of son, polygamy, widowhood and use of contraceptive methods etc. Religion is considered to be an important factor affecting fertility (Clark, 1985). Religion constitutes one of the most important cultural contexts that govern the behaviour of its adherents. An affiliation to a particular religious group not only affect day to day behaviour and attitudes but it is also affects reproductive behaviour (Singh, 1988). Davis observed that in India, although the Muslims and the Hindus live in similar environment yet the birth rates of the Muslims were found significantly higher than those of Hindus (Clark, 1985). The differential fertility between two religions is perhaps, mainly due to the fact that the remarriage of widow is allowed in Islam while in Hindu religion it is not. Among the all religious groups, the Muslims have the highest fertility and the Christians the lowest (Gupta, 1994).

There is a curvilinear relationship between the number of children and percentage of females who are literate (Devis, 1951). Part of the difference was due to the higher marriage age of those who were educated up to the high school or more. The age at marriage is another basic determinant of human fertility. It appears that fertility goes down when marriage takes place at a late stage. It is well known fact that fertility rate is higher in countries where marriages take place at comparatively early ages. In India, marriages take place at very young age but in West Indies marriages take place at late stage. However in case of latter, the boys and girls are permitted to have sex relations and even produce children before marriage. Thus it is not universally correct that fertility will be low, if the marriages take place at late stage. Since in India in spite of the fact that marriages take place at young age but sexual relationship is socially permitted. The status granted to the women in the society is also considered to be strong social factor having influence on fertility. Higher fertility in the Islamic World is mostly due to the low status granted to women in society (Chandna, 1992). Among the various socially rooted determinants of fertility, the desire to have a son in the family has been quite significant (Chandna, 1992). Although all societies in the world consider a family complete at the attainment of a son, yet there are certain societies where there is strong social or physiological pressure to have a son in the family due to certain social customs and compulsions (World Bank, 1984). Similarly, in the absence of old age homes, the parents in their old age are dependent upon their sons because there is a strong social prejudice against the parents living with their daughter. It is in this context, that the desire to have a son has pushed up the Indian fertility rates significantly.

Another social determinant which influences fertility is polygamy (Raj, 1984). It is a system under which a husband can have more than one wife. This system is not very popular these days. Widowhood quite obviously influences fertility. It is because without her husband she cannot have legal children, but the effect of widowhood on fertility depends on how soon she decides to remarry and at what age she becomes widow. If a widow decided to remarry immediately then fertility will not be affected, but if she decides to marry at very late
stage or not to remarry at all, obviously fertility rate will be affected (Raj, 1984). Several methods of conception control are available today, such as coitus interrupts method, condom, oral pills, loop and abortion. None of them really satisfies the simple criteria for the ideal birth control method specified by Stone and Himes (Stone, 1960), who state: ‘the ideal birth control methods should be harmless, reliable and acceptable’.

The recent reduction in fertility in India and some other developing countries of the world is, to some extent, due to birth control or family planning programmes. An intensive government sponsored family planning programme, growing awareness of the desirability of small families, increasing urbanization, spread of education and rise in age at marriage are already bringing down the birth rates.

**Economic Determinants**

Income and occupation of the couples are the main economic determinants of fertility. Fertility is generally assumed to be a monotonically decreasing function of income. This may be so because a higher level of income is closely associated with better education, favourable occupation, and more important a higher and balanced consumption pattern leading to reduction in mortality. It may be pointed out that with the increase in the income, the total and marginal utility of children as source of security and as production agent decreases. Hence, Leibenstein (1963) argued that increase in income level motivate fertility reduction.

Another most important determinant which influences fertility is the occupation of the couple. It is usually seen that those engaged in mental work have less number of children, as compared with those who do some sort of physical labour. Similarly those whose business is much that takes them to clubs and other places of interest and recreation have less number of children. So is the case with people who are engaged in religious institutions and where both husband and wife are employed on white collar jobs (Raj, 1984). It has been found in several studies that the gainfully employed females have a smaller number of children than those who are not employed Females began to participate in gainful employment which provided an alternative to child-bearing and child-rearing (Bhende, 1988).

**Political Determinants**

Each government provides incentives as well as disincentives to check fertility. Facilities are then provided to those who go in for sterilization or similar other measures to check family size (Raj, 1984). Thus it appears that fertility patterns of a population are determined by the combined effects of biological, physiological, demographic, social, economic and political determinants. It is not possible to isolate any single factor because birth rate is a product of all these issue in unity.

From the above discussion it appears that the three theoretical constructs: education, employment and fertility of population are comprehensive in nature. Their terminology varies as the discipline and the opinions of the scholars vary. These three concepts in their practical utility are determined by the combined effects of various determinants. However, it is difficult to isolate the rate/degree of influence of any single factor because all these dimensions of these variables are artefact of many factors in unison.
REVIEW OF LITERATURE

The review of literature is the base of a scientific inquiry. A perusal of the existing and relevant literature which has appeared in different forms like books, journals, articles and report published and un-published compilation of propositions etc. providing information about the nature of the inquiry already undertaken helps to understand the problem more thoroughly and accurately. It also provides the effective guidelines to present the work. It helps in making comparative statements in the ongoing research with the researches already been undertaken. Population geography is considered to be an applied branch of human geography which addresses a close up view of the problem, occurring among the disparate social groups. Population geography researches are the major thrust of the geographical studies since the social relevance movement in geography in the late 1970s and it presents a micro level enquiry of the disparities in the space. Visher (1931) recognized social order in geographical analysis. (Buttimer, 1968) identified the areal pattern and functional relations of social groups and the social environment. Ahmad (1993) represented socio-geographical interpretation of complexes in the Indian society as well as spatial organization. The present study focuses on tracing the spatial pattern and analyzing it to understand the nature of linkage between education, employment, fertility and socio economic condition of an area with reference to the Muslims.

The growth and spread of educational level, its historical consequences, causes and distribution have been studied in the context of the state's demographic, social and economic situations (Siddique, 1977 and Singh, 1979). Most of the studies on educational status have been attempted with reference to literacy rate in general and by sex and residence in particular (Gosal, 1964, 1967 and 1979; Mathur, 1988 and Tiwari and Tripathi, 1993). The educational disparity in India is linked with socio-economic conditions of the people (Pacione, 1997; Nuna, 1989; and Raza and Aggarwal, 1986). Some of the scholars argued that the education and working population are inversely proportional to each other (Acharya, 1984; Singh, 1986; Tripathi, 1993 and Siddiqui and Nasir, 2004). The interstate disparities in education and working status in India have been analyzed by Malhotra (1999); Mehta (1990); Zaidi (1986); Reddy (1985) and Tilak (1979) whereas inter district inequalities in terms of literacy and educational developments have been attempted by McDougall (2000); Joshi (2000); Hazra (1997); Dash (1993) and Saradamoni (1981) have corroborated educational attainment by sex and residence. Studies like Chaubey and Chaubey (1998); Saldanha (1999) and Bahadur and Ahmad (1981) have highlighted that education in India reflects a rural urban bias. Education plays an important role in giving sustainability to economic development of a region (Debapriya and Mohanty, 2006). It has been pointed out that development in education has important consequence on economic growth (Husain and Charrerjee, 2009). In terms of various aspects of development there is a marked regional variation as well as difference levels of development among different social groups (Siddiqui and Hussain, 2011). As Dreze (2003) pointed out that the disparities by religion and caste have contributed a great deal to the persistence of massive inequalities in Indian society.
Religion depicts the main socio-cultural characteristics of a person and different communities perceive religion differently. The conditions of Muslims have a significant bearing on the Indian society. Several social scientists have noted the inadequacy of researches on Muslims in India (Madan, 1992 and 1976; Ahmed, 1976 and Sinha, 1974). There are few scholars whose work can be reviewed and used for the study of education, employment and fertility status of Muslims in the study area. For the convenience of the study, the reviews are arranged in sequence of the year of publication.

Probably the first work on Muslims of India was carried by Hunter (1871) commissions. The report indicates that the Muslims in Bengal are educationally marginalized and Muslims have low share in modern education. He also pointed out that a hundred and seventy years ago it was almost impossible for a well-born musalman in Bengal to become poor; at present it is almost impossible for him to stay/continue rich. Mishra (1964) and Malhotra (1964) have presented a description of various aspects of Muslims on religious, social and economic life. Mujeeb (1965) argued that the educational marginalization among Muslims of India is due to certain values and attitudes attached to their traditional social system. Siddiqui (1965) observed that Muslims as a class are much marginalized in both education and economy, except few cases. Saxena (1965) and Kirk (1965) studied that early marriage causing higher fertility can be controlled by limitation of family size through family planning. Ahmed (1966) confessed that Muslim faces inequality in respect of loan and licenses for the industry. Habibullah, 1968 said that discrimination causes economic marginalization of Muslims. Karandikar (1969) presents an account of the social life of Muslim, their political history, secular democracy and concept of Islamic economic life.

Aitken and Stoekel (1973) reaffirmed that Hindus have a greater knowledge and favorable attitude towards family planning than Muslims. Shukla (1975) observed that economic and occupational grouping should be taken under minimal literacy level because they remain handicapped in education. Wadhwa (1975) has presented the problems of Muslims during pre and post independence period. Madan (1976) has studied various dimensions of Muslims culture and tried to trace the causes of their marginalization. Sharma (1977) observed that the poor proportion of Muslim children in Delhi schools as compared to others. Engineer (1978) holds inefficiency of Muslim leaders is responsible for the marginalization of Muslims in education and economy. Momin (1978) observed the differential educational status of various Muslims groups and poor participation of Muslims children’s in schools and colleges. Khan (1979) suggest the most important factors contributing high fertility of Muslims seems to be economic benefit from children and low level of living standard with high child mortality.

During 80’s, few works in this field were carried out in India dealing with this problem. Ahmed (1980, 81) in his study remarked that the appeal of education is not universal to all social strata in Muslim community. Kamat (1981) has recognized some factors responsible for the educational marginalization of Muslims even worse than most marginalized class among Hindus. Menon (1981) has referred the socio-cultural aspects of
the status of Muslim women in India. Similarly, Chaudhry (1982) found lower socio-economic status of the Muslim women in India responsible for higher fertility, not their religious affiliation. Suxena (1983) stated that Muslims are ten times more educationally marginalized than other communities. Government of India (1983) appointed a high powered panel headed by Dr. Gopal Singh found Muslims and Neo-Buddhists most educationally marginalized community at national level. Shah (1983) stressed on the effort by state waqf boards and role of media to lessen the high dropout rates among Muslims and condemned the attitude of closed society. Khan (1984) has made an empirical study that highlights the dynamic aspects of economic, social and educational behavior of the Muslim people in the context of changed plane. According to Siddiqui (1984) the main factor of socio-economic marginalization of the Muslims is their ignorance and lack of education. The remedies are general consciousness, strong motivation and careful planning. Shaikh (1984) held increasing poverty and discrimination responsible for educational marginalization of Muslims. Shahbuddin (1984) argues that educational marginalization leads to the economic marginalization and vice-versa and in the national race the Muslims community is not only behind but tends to fall further behind. Mohiuddin (1985) shows how the replacement of Urdu by Hindi and the discriminatory policies adopted by the state towards Urdu have had a deleterious impact on Muslim education since independence. Engineer (1985) holds mutiny and inefficient Muslim leadership responsible for the discriminations against Muslims. Mondal (1985) says that majority of the Muslims belonging to the peasantry craftsman are economically and educationally more marginalized. Shah (1985) said that there is low Muslim representation in state services. He suggests the need for various schemes in waqf board for schools and reservation for Muslims in educational institutions to overcome the problem.

Jain (1986) said that Muslim community though conservative could not remain secluded from modernization. Therefore factors inhibiting women from availing education must be identified so that they can enjoy equal share in national benefits. Ahmed (1987) has discussed income, occupational background and other economic aspects for each caste/community separately with educational development. Sharma (1987) says that high dropout rate is triggered by poor economic condition and vice versa of Muslims and the most important reasons is absence of middle class due to lack of employment. Karim (1988) studied that although rapid post independence progress has taken place in the educational status in the country but the educational disparity between Muslims and non-Muslims has widened. Ansari (1989) says lack of special patronage has rendered the Muslims backward in education. Siddiqui (1989) traces that the British policy of replacing Muslim elite as rulers has had a continuing effect even after independence leading to continued marginalization. Rahmatullah (1989) has pointed out that inconvenient location, psychological inhibitions of the students and unfavourable academic environment in the family and neighbourhood are reasons for the poor academic performance of Muslims. Mondal (1989) in his study has examined the educational situation as well as the educational problems of the Muslim community in West Bengal.
Mehta (1990) observed that in spite of available educational facilities rural female education suffers greatly varying across socio-religious categories while urban population has the advantages. Jyaram (1990) found three reasons behind educational marginalization among Muslims: traditional beliefs, identity crisis and discrimination against Muslims by and large. Hussain (1990) said that Muslim Ulama should take women right seriously avoiding mixing patriarchy with Islam. Kulsoom (1990) in her study noted that though enthusiasm for education is growing among youth little investment is being paid by Muslim community leaders. Peer (1991) examined that because of widespread poverty many parents put their children to work instead of school and recommended some measures to improve Muslim educational status. Narula (1992) in his study found a consistent negative relationship between socio-economic status and their fertility level by religion. Mabood (1993) concentrated on finding reasons behind Muslim women lacking in education. Khan (1993) in his study observed growing enthusiasm for education among Muslims, though some allege ulama discouraging higher education for girls. Kollehlon (1994) in his study found that fertility is inversely proportionate to socio-economic and demographic characteristics of women rather than religious affiliation. Salamatullah (1994) has prescribed regular survey providing regular data so that measures for upliftment of Muslims could be taken. Khalidi (1995) pointed out that inadequate effort to implement the recommendations and suggestions by the social scientists, commissions and committees made Muslims educationally marginalized even in areas where they are in majority. Rehman (1995) has stressed on the importance of Maktabs in uplifting educational status of Muslim. According to Zakaria (1995) inadequacy in promotion of modern education by the Muslim leaders among Muslim is responsible for the marginalization of the community rather than anything else. Shariif (1995) finds that a combination of a positive growth of population and low child mortality seems to have enabled a marginally higher growth of Muslim population in India. Das and Bhat (1995) said that Muslim higher fertility is because of their religious affiliation.

Zaidi (1996) attributes Muslim economic marginalization is due to lack of community effort, parental apathy, low level of parent’s educational attainment and the belief that Muslims would be discriminated in the job market. Mondal (1997) argues that involvement of Muslims in marginal economic activities is an outcome of their educational marginalization leading to overall socio-economic and political marginalization. Ahamad (1997) emphasized that a movement should be launched by the Ulemas to educate the masses about the importance of both scientific and religious education. Basu (1997) argues that few hard line Hindu communalists emphasizing on religion-fertility relationship among Muslims, discard other associated concomitants and therefore pressurize the policy makers to initiate intervention in Muslim life. Begum (1998) in her study finds that the gap between Islamic ideal and practice must be matched in order to improve the status of women leading to the overall development of the community Siddiqui (1998) pointed out that some drastic
measure adopted by British government like alienation from administration, economic measure, language policy and distortion of history have been reported to be responsible for gradual marginalization of Muslims in several parts of India. Qadri (1998) holds Muslim orthodoxy responsible for marginalization of their women and appeals to Muslim voluntary agencies to promote awareness drives within the community. Moulasha and Rao (1999) finds that fertility rate among Muslims is significantly higher than Hindus.

Shariff (2000) argues that Muslims are economically worse off than Scheduled Castes (SC) and Scheduled Tribes (ST) because of lack of education and higher unemployment. Hussain and Bittles (2000) have shown a negative association between consanguineous marriage, fertility and maternal education. Dreze and Murthi (2000) say religious beliefs affect the usage of contraception among Muslim women who can tune fertility trends but have fewer years of education as compared to the Hindu. Jeffery and Jeffery (2000) emphasized on the regional variation of level of development and its impact on fertility and found that Hindu fertility rates in much of North India are higher than many Muslim fertility rates in South India. GOI (2001) shows despite this large proportion Muslims have been rendered educationally marginalized, scientifically insignificant, politically marginalized and economically deprived. Bhagat (2001) in his study found Census of India until 1991 containing misleading data, and census 2001 intends to publish the socio-economic data along with demographic data on religion which is not available at micro level yet. Islam and Abedin (2001) present the effect of Muslim women’s education on age at marriage as well as on fertility as higher education among women contribute in rising of age at marriage and thereby decline in fertility. Sivakumar (2001) found that Muslims have short spaced birth trend and lower age at marriage as compared to Hindus and Christians. Lakdawala (2002) in his study notices that middle and lower-middle class Muslim students have made a considerable progress in recent years in Maharashtra. Jha and Jhingran (2002) hold rejection to the secular education as a reason for Muslims being one of the most marginalized communities. Haque (2002) writes that rural Muslims live in absolute poverty and marginalized in income, consumption expenditure, owning land, working member with a regular salaried job and even in literacy rate also.

Alagarajan (2003) examines that decisions regarding fertility and contraceptive usage vary from different socio-economic conditions irrespective of any religious affiliation. Hasan (2003) notes that state government’s negligence and paucity of data on actual socio-economic and educational condition of Muslim is responsible for their marginalization. Ahmad (2003) opines that the main cause of Muslim educational marginalization owes essentially to a minority complex which leads the community neglect the need of higher education. Choudhury (2003) says that inadequacy of educational infrastructure in Muslim concentrated areas is a major impediment to their educational advancement. The suggested solution lies in consultation with Muslim community leaders. Reddy (2003) found that the Muslims suffer greater education and economic deprivation.
than Hindus in India, especially in urban India. Reddy (2003) shows that Muslim population growth rate is higher than Hindus. Bhagat (2004) analyses that in recent years, rate of acceptance of family planning practices has been rising faster among Muslims than among Hindus and Muslim fertility has been falling more rapidly. Mishra (2004) in his study says that besides socio-economic factors, greater opposition to family planning may also be a reason behind higher fertility among Muslims. Morgan et. al. (2004) suggests that women's autonomy differentials do not account for the higher fertility but demand for more children, and less use of contraception. Siddiqui (2004) observes that dissolution of feudal states containing large number of Madrasas has lead Muslim education suffer tremendously after the partition. The plans and schemes meant for minorities were not implemented adequately. Fahamuddin (2004) in his study has found Madrasas as having emerged as an important alternative to mainstream system of education to sizeable number of poor Muslims in India.

Madani (2005) finds Muslims grossly under-represented and systematically bypassed in Government services and development programmes and therefore appeals to political parties to put up more Muslim candidates so that their needs could be effectively represented in the parliament. Bhagat and Praharaj (2005) found socio-economic and educational marginalization responsible for high fertility rate among Muslim, and in present terms observes a rapid increase in family planning declining fertility trend which is surely indicative of their increasing level of education and standard of living. Bhat and Zavier, (2005) found that the emergence of the religious difference in contraceptive practice is mainly responsible for the wide gap between Hindu and Muslim fertility. And in future Muslims will take more time to stabilize their population than Hindus. Mehta (2005) in his study shows that fertility in Muslims displays a consistent pattern of decline with socio-economic and educational development. Hasan and Menon (2005) argue that given the poor condition of Muslim women’s education there is a special need for the state to take a proactive role in this regard in order to promote social justice and empowerment of Muslim women and to remove the barriers that systematically reinforce their marginalization. Qasmi (2005) has criticized the findings of NCAER and stated that it misrepresents facts and falsifies perceptions which are again new hindrance towards accurate diagnosis of real problems.

Agha Khan Foundation (2006) report suggests that NGOs should be culturally sensitive in their strategies approach and should seek to discussion with local religious leaders to promote education for Muslims. Ali and Sikand (2006a) say that Muslims in India have a poor human development status, widespread illiteracy, low income and irregular employment implying thereby a high incidence of poverty. Zeeshan (2006) say that the Muslim in Karnataka state in general and the women folk in particular are suffering from the course of rampant poverty, illiteracy and social discrimination. Ali and Sikand (2006b) found that the impact of ‘globalization’ and neo-liberal economic policies is severe on marginalized
groups. Therefore they are in a dire need for reservation in employment and balanced allocation of the resources by state. Khalidi (2006) suggests that state should promote handicrafts and related trades among Muslims so that their economical and thus educational status is uplifted. In his article, Shariff (2006) observed that in most states of India Muslims have a lower per capita income and ownership of productive assets is also lower than Hindus. Hassan (2006) in his article made an analysis of the Muslim socio-economic conditions from Hunter to Sachar Committee Report and found the deplorable as well deprived conditions of Muslim in India. GOI (2006) Sachar Committee shows that comparatively higher dropout rates among Muslim children, the youth is suffering from low share in governmental job sector and have comparatively poorer share as far as woman labour is concerned. In sectors like defense and security Muslims stand even below the ST, SC and OBC. Zaidi (2007) examines the census report 2001 and finds out that Muslim illiteracy and marginalization are major issues in some states and central as well as state governments should take special care to tackle this problem. Sand (2007) in his research finds Hindu Nationalists guilty of depriving Muslims of their rights and promoting discriminatory attitude towards them. Krishnakumar (2008) in his study observes that even in those areas where literacy rate is higher than other areas, Muslims register the lowest work participation rate. Islam (2009) analyzes few data and proposes that Indian Muslim question should be taken as a class issue. The study gives us an ample opportunity to look into Muslim question as a class issue on one hand and addresses the problem of Muslim discrimination and deprivation on the other without discarding communal secular issues. Hussain (2009) says that illiteracy is the root cause of Muslims marginalization in West Bengal. Basant and Shariff’s (2010) book most recent empirical work on equity related concerns with a focus on human development parameters in a comprehensive and thematic manner. Waheed (2010) highlights that since independence Muslim community failed to witness any plan of the government to help improve the socio-economic and educational status of community translating into reality. Hussain and Siddiqui (2011) highlight the nexus between of religion, gender, education and development with special focus on Muslims of Malda district of West Bengal.

The reviewed literature shows that most of the studies are in the field of sociology, psychology, demography and population studies concerning socio-economic and educational conditions of Muslims of urban areas of northern, central and southern parts of the country. But they have rarely looked into the factors responsible for their educational marginalization and to relate them to socio-economic conditions thus making it very difficult to sketch out the causes of socio-economic and educational status of Muslims especially in rural regions. Further, in particular there is dearth of such kind of geographical researches. The present study focuses on tracing the spatial distribution of the dimensions of education, employment and fertility and analyzing it to understand the nature of linkages between them with reference to the Muslims of Malda district in West Bengal.
METHODOLOGY

The present section deals with the research methodology adopted to present and analyze the education, employment, and fertility status of the Muslim population. This very section tends to appraise the reader with the systematic and basic outline of the works pursued by the researcher. In fact, this section serves the purpose of a prism through which subsequent work can be critically viewed and assessed. It also discusses research objectives, hypothesis, sampling procedures, field experiences etc.

Nature of Research Problem

Since the historic times, India is incredible for being a home of diverse racial, religious, caste and linguistic people (Nahar, 2007). The invaders came with distinct race, religion, culture and language and left their imprints on the country. Today our country is the living epitome of social unity in cultural, racial, religious and linguistic diversity. However, religious communities show inequality that not only affects the diverse socio-cultural and economic status but also creates human group disparities. India is a democratic country, equality, justice and dignity form the bedrock on which the constitution rests and from which the concept of democracy flow. Under the constitution of India, marginalized communities are those who are not adequately represented in public offices according to the strength of their population (Vide Article 16-4). Indian nation is the habitat of five major religious groups, which have been given official status of minorities namely, Muslim, Christian, Sikh, Buddhist and Jain. Muslim social group occupies an important position in Indian society and civilization. The total population of India is 1029 million out of which 138 million (13.41 per cent) are Muslims. This makes them the second largest religious group in the country; indeed, this is also the second largest Muslim population group in the world after Indonesia (Census of India, 2001).

Muslims in India are a minority community not only in numerical sense; but also in terms of their position in socio-economic and political structure of the country. They are non-dominant, underprivileged and weaker section of the nation, thus they wish to preserve their distinctive social features and cultural elements (Ansari, 1989; Siddiqui, 1984). They are not only the minority, but also the most backward community of India in all walks of life (Ahmad and Mistry, 2010; Mondal, 1997). This fact is also well documented in the various committees reports, conducted by the Government of India such as Dr. Gopal Singh Report (1983), Saxena Report (1983), Seshaiyah and Thimmaiah Report (1983), Chinappa Reddy Commission (1985), Rahman Khan Commission (1995), Sachar Commission Report (2006), Ranganath Commission Report (2007) in order to study the social, economic and educational status of the memories in general and Muslim community in particular. The reports also highlight the fact that this significant minority community has been reached to the lowest socio-economic stratum in post independence period. They have been marginalized and are still lagging behind the SC/ST in many aspects of life (GOI, 2006; Sharif, 2007).
In India, Muslims are economically marginalized and educationally backward social group. Discrimination, social stagnation and educational marginalization have cumulatively been resulted in growing economic marginalization of the Muslims in larger parts of the country (Sikand, 2006). The educational status of Indian Muslims is highly depressing and disappointing. The problems regarding the educational situation of Muslims reflect their level of underdevelopment and a tradition of pre-Islamic past. But their urge for education shows the drive for modernization. More recently, education is much discussed as an independent variable for changing the geography of the underdeveloped and biographies of the oppressed.

Nationally, the Muslim community of India as a whole seems to cut a sorry figure in terms of literacy and education, one of the most critical indicators of human development (Alam and Raju, 2007; Razzak, 2006; Shariff, 1999). However, the national literacy figures of Muslims must be read with caveat for wide and sharp variations in their literacy rates across the regions of the country. Barring Scheduled Caste (SC) /Scheduled Tribes (ST), their literacy rate is the lowest in comparison with both upper and backward Hindus and other religious minorities (GOI, 2006). Owing to minority status and several other socio-economic and cultural reasons, they are suffering from various kinds of problems. Muslims at the receiving end, hence, a sense of insecurity persists among them.

One of the very important causes of Muslims socio-economic marginalization is their low level of education and higher fertility. The position of Muslims fertility in India, in general, has preceded the actual analysis of the problem. All the anxieties about the growth of Muslim population have helped to emerge out as an independent and real demographic trends and socio-economic conditions of Muslims life. Thus, the notion of the Muslims high fertility warrants an in-depth analysis. So far secondary data (Census of India) is concerned, they do not go beyond certain questions. Furthermore, the secondary data give information on fertility differentials in detail but they do not reveal the socio-economic and demographic conditions in which the decision is made with regards to the reproduction.

The above facts are more than sufficient to give an idea of dismal socio-economic conditions of Muslims in India. Of late, the marginalization of the Muslim community in India has become a subject of discussion in the print media and other academic circles. Issues related to Muslim education are generally debated in the absence of hard data which makes it extremely difficult to find out even an appropriate percentage of Muslims in various gainful employments in public and private sectors all over the country. Besides this, the socio-economic marginalization of the Muslims in India and their problems of development and change have been pointed out by some scholars (Ahmad, 1983; Khan, 1984; Mondal, 1985; Peer 1991; Siddiqui, 1984; Singh 1973). There is an opinion among the scholars that the modernization of Muslim society has sustained a setback due to various reasons among which illiteracy and poor educational status are the most significant. But the studies on economic, educational and fertility status of the Muslims and their constraints to educational development are practically very negligible. As Khan (1984) points out that there are studies
on Muslims covering political and religious issues, but very little is known about their economic, educational and social conditions. Thus, it is a real problem to assess the changes in the conditions of Muslims during the post independence period. The noted social scientist Ahmad (2003) laments the lack of adequate data for making an objective assessment of the problem of Muslim deprivation which in turn has allowed for a number of popular clichés and stereotypes about Muslims to persist without any possibility of their being subjected to serious scrutiny. It may also be noted that unlike the state and national level data on development indicators, the district level data on religion are either not available or have limited availability and are too difficult to access.

All these provide an important area of research. In fact, the research-based studies on Muslim population in India are rather scanty. Virtually nothing is known about the social and economic status of Muslims. Of late, there has been a growing interest among the scholars and intellectuals to the Muslim community of this country. In spite of a few studies on Muslims published in recent past, our knowledge in this field of study is very limited and inadequate. Rather it could be said that all the past researches in this field did not encompass all the data in latest perspectives. Therefore, the present study has been undertaken with the result that there is little understanding of the specific factors that kept a large population in poverty and subordination. The factual and ground situation of the people of Malda district has been revealed with a representative sample of 2590 households. It is being carried out not only to understand the comparative conditions of Muslims and non-Muslim on critical indicators of development but also for the latest development figures of the country and accordingly to identify the major areas of development deficit. The micro level study on Muslims has a great significance, as it assesses the existential and live reality of Muslims lives in all its diversity.

**The Study Area**

Muslims of West Bengal and of the other parts of India have contributed largely in the development and transformation of society, culture and civilization of the country. In terms of percentage of Muslim population, West Bengal occupies third position among various states and union territories of the country after Jammu and Kashmir (67 per cent) and Assam (30 per cent). The Muslims of West Bengal constitute 25.25 per cent of the total state population and 14.62 per cent population of the Indian Muslims. According to 2001 Census, there are 20.22 million Muslims out of 80.10 million total population of West Bengal. They are unevenly distributed throughout the state. There are two districts in the state where Muslim population is about 50 per cent or above viz. Murshidabad and Malda. Despite this large share of Muslim population percentage in both the districts, there is no authoritative data on the Muslims. Hence, the present study is an attempt to collect relevant empirical information at village or block level in the district regarding the educational, socio-economic and fertility dimensions of Muslims (Appendix-I). For this purpose, a sample field survey has been conducted in the district of Malda of West Bengal.
This district (Malda) of West Bengal has been selected for the present research work due to several different reasons. It is one of the Muslim concentrated districts of the country and the state and also listed in ‘Sachar Committee Report’ for its one million plus population (GOI, 2006). Malda district is relatively more economically backward and it tends to be less advanced in terms of human development index in West Bengal (GWB, 2004). Historically, the district of Malda is famous for its rich culture and history, where traditional Muslim culture still flourishes. Here, it may also be noted that the religious composition of the population in the district shows that Hindus and Muslims are the two principal religious communities of the district each having a population of over 16 lakh. Muslims constitute 49.72 per cent of the total district population.

There are only three highly Muslim concentrated districts in West Bengal viz. Murshidabad (63.67 per cent), Malda (49.72 per cent) and Uttar Dinajpur (47.36 per cent). It is very disheartens to know that these three districts have the lowest literacy rate of 48.63 per cent, 45.30 per cent and 36.04 per cent respectively. The Muslims (98.38 per cent) of Malda district are largely rural as compared to Hindus (83.22 per cent). The census data show that Malda district is the second largest Muslim concentrated district of West Bengal and ranks second last in literacy rate. It is because of this unique combination (of high Muslim population and low Muslim literacy rate), Malda district has been selected for the research work. The rural Muslim population in the district is primarily engaged in agricultural activities and economically weak. This can be exemplified by an empirical study of Muslims, who constitute half of the population of Malda district. Among the Muslims of Malda district 51 per cent population are engaged in agriculture, 40 per cent are daily wage earners and less than one per cent are white-collar service members. It is in this backdrop that the survey has been attempted to find out the comparative conditions of Muslims and non-Muslims and the researcher has tried to examine the problem of Muslim population, taking a small sample from rural and urban areas of Malda district of West Bengal. Furthermore, the researcher is an inhabitant of Malda district and it is easier to him to gather first-hand information of the on going and over going socio-economic processes in this particular area.

Research Design

The research design has been formulated on the basis of nature of this study. The study area, the sampled population and the tools and techniques for data collection have been decided as per aims and objectives of the research problem. The main purpose of this study is to gain on insights and experience on this particular aspect. This research has been carried out on the basis of structure functional approach. It is a descriptive research with diagnostic outlook in some cases. In the present study, an analytical approach has been taken up for the interpretation of the data. The comparative method, both synchronic as well as diachronic over space and time has been adopted for understanding the present situation of the Muslims as well as the changes therein. The similar methods have also been used for getting a picture of intra-community and inter-community variations in educational, socio-economic and
fertility status. The data for this study has been gathered both from primary as well as secondary sources. Various published and unpublished material has also been consulted for attaining the knowledge on the status of Muslims in historical perspectives. While the empirical facts are mainly collected through intensive field investigations of the population of sampled units in the district.

**Objectives and Hypotheses of the Study**

The practical utility of a research is enhanced manifolds when the objectives of the study are clearly identified. They help the reader to understand the implied themes of the work in form of concrete statement. The defined objectives guard the researcher to keep the feet firmly on the ground and to be in touch with the reality around. Objectives of a research must be in accordance with the hypotheses. In an empirical research, nature of the problem itself leads to the formulation of objectives. The major objectives of the present doctoral research are enumerated below:

- To discuss the status of Muslim and non-Muslim population with respect to education, employment and fertility.
- To investigate particularly the spatial distribution of Muslim population by development block and sample villages in terms of Muslim literacy, education, employment, occupation, income and fertility.
- To examine the level of interrelationships among Muslim education, employment and fertility.
- To make contribution in the field of social and population geography.

Hypothesis building is an integral part of the scientific methodology and one of the very important phases of the research activity. As the term implies hypothesis is the basic premise, around which the whole research activity builds upon. Hypotheses are the scientific assumptions to answer certain queries, which are dealt as research problems or scientific guesses about the research outcome (Ahuja, 2001). The hypotheses may be supported, attacked, added to, subtracted or retested, disproved in part or whole, disregarded or perhaps stand for further examination (Misra, 1989). Formulation of hypotheses gives definite point to the inquiry, aids in establishing direction in which to proceed, and help to delimit the field of inquiry (Young, 2003). In every scientific study, the researcher formulates certain hypotheses before going to analyze the facts. This is done to achieve the objectives of the research. For present research, the following hypotheses have been formulated.

- The status of Muslims is a consequence of religious subjugation or socio-economic conditions and is Muslim concentrated area are less developed within the district.
- Whether fertility level among Muslims are related to educational, employment income, socio-economic conditions or religious affiliation.
- Is higher levels of education are associated with higher employment and income opportunities and lower fertility.
Database and Sampling Techniques

The present work is empirical in nature, although the study shall rely on both primary and secondary data. The testing of hypotheses ensures the research question on primary database but to support the primary data other datasets are also used. However, the religion wise secondary information/data at micro level (block level) is lacking, especially in the case of fertility. Thus, any study on a community is feasible only on the basis of data generated through an intensive field work/survey. Therefore, in the execution of present study field survey method has been done to collect empirical information. For the collection of relevant secondary data and maps, every block development office has been consulted. The information furnished by several other officials has also been taken into consideration.

Sample Design and Sample Size

A sample design has been worked out in accordance with the necessary requirements of the research objectives of the survey. According to 2001 census, there are 1642 villages in the district of Malda. However, to collect necessary information from such a vast number of villages is an impossible task for an individual researcher. Therefore, a sampling technique has been selected, which represents the entire set of relevant units of analysis of the whole population (Nachmias and Nachmias, 1996). A statistical sample is a miniature picture or cross-section of the entire group or aggregate from which the sample is taken (Young, 2003). The sample is designed to provide an estimate for the district as a whole. A representative sample household from both rural and urban areas have been selected. For the present study the data has been collected from 2590 households, out of these 2390 households from the rural areas spreading over 15 development blocks and 200 urban households are drawn from two Municipalities of Malda district.

A systematic, multi-stage stratified sampling design has been used. Selection of Primary Sampling Units (PSUs) in the first stage, followed by the selection of households within each selected PSU in the second stage. The Census 2001 list of mauzas (Census Villages) and wards is served as the sampling frame. For the first stage of the selection, the mauzas with no habitation were excluded from the sampling frame. PSUs have been selected at 5 per cent of total villages and wards of Malda district. Thus, out of 1598 inhabited villages, 80 villages of 15 development blocks from the rural areas and 2 wards or 6 mohallas out of 42 wards of the two Municipalities from the urban areas have been selected as PSUs. A list of selected PSUs and their silent features is given in appendix-II.

The purpose of the present investigation is to make a comprehensive assessment of education, employment and fertility status for both Muslims and non-Muslims. Keeping it into consideration, samples are drawn according to the Muslim and non-Muslim representation. Next level is the stratification of rural villages, which is carried out at block level to draw a representative sample village. The criteria for the stratification of villages have been done on the basis of population size of the village and the concentration of Muslim population in the village, clustered into five categories for both.
OUTLINE OF THE SAMPLE MODEL

SAMPLE MODEL

SELECTION OF SAMPLE UNITS

Rural Units
15 Development Blocks
(1598 Villages)

Urban Units
2 Municipalities
(42 Wards)

Population Size
- Above 2000 (A)
- 1501-2000 (B)
- 1001-1500 (C)
- 500-1000 (D)
- Below 500 (E)

Muslim Population
- Above 75 per cent (M)
- 51-75 per cent (N)
- 25-50 per cent (O)
- Below 25 per cent (P)
- Nil (Q)

Stratification of Sample Units (SU)
- 5 Per cent

80 Sample Villages

2 Sample Wards
(6 Mohallas)

SELECTION OF HOUSEHOLDS

10 Per cent Households from Each Selected SU in Proportion to Community Concentration

2390 Rural Households
- 1200-Muslims
- 1190-Non-Muslims

200 Urban Households
- 100-Muslims
- 100-Non-Muslims

2590 Sample Households Surveyed
The clusters of population size are below 500, 501-1000, 1001-1500, 1501-2000 and above 2000, whereas the clusters of Muslim population concentration are above 75 per cent, 51-75 per cent, 26-50 per cent, below 25 per cent and no Muslim (totally non-Muslim) population concentration. Therefore, the proportions of the sampled number of PSUs are taken into consideration according to the presence of these communities from which the sample has to be drawn (block as well as village). This makes the sample more authentic and assures that every type of Muslim population concentration settlement has been covered up as a part of the sample units. The number of rural PSUs in each cluster has been decided on the basis of the number of the PSUs fall in each clustering groups of population size and Muslim population concentration in every block. The accessibility and connectivity of the villages is also taken into consideration, so that the selected villages thus make a better representation of the interior or remote villages, as well as the roadside and the villages located at blocks headquarters. A locational map of selected sampled villages is represented in appendix-VI.

In the rural sample, out of the 80 sampled villages, 21 villages have population size more than 2000 person, 11 villages having the population size within a range of 1501-2000 persons, 12 village have population size of 1001-1500 persons, 17 villages varies from 500-1000 persons and remaining 19 villages show the population size below 500 persons. As per as the concentration of Muslim population in the sample villages is concerned, 14 villages have more than 75 per cent Muslim population concentration in which 4 villages have 100 per cent Muslim population concentration, 16 village are those where Muslim population ranges from 51-75 per cent, 14 villages are such where Muslim population concentration varies from 26-50 per cent, 9 villages have the Muslim population concentration below 25 per cent and the remaining 27 villages have only non-Muslim population concentration. Block wise distribution of sample villages with their population size and concentration of Muslim population is given in appendix-III, appendix IV and appendix V.

For the urban areas, representative households have been selected through uniform purposive sampling due to the unavailability of ward wise population data on religious composition. Out of 42 wards, two wards comprises six mohallas have been selected for the sampling. The samples have also been taken on the similar bases that are according to the proportion of population size and Muslim population concentration. In total, 200 households have been sampled from six mohallas of two municipalities by considering the concentration of the religious communities. A representative sample of 50 households has been taken for Muslim and non-Muslim from both the municipalities.

The second stage of the sampling is the selection of households for interview. A special care has been taken for identifying the sampled households in each PSU. About 10 per cent household from each sampled villages have been surveyed. The required number of selected household from all the villages is proportionate to the concentration of population by religion. For this, the pardhan or the member of the panchayet, community leader, informed villagers, some educated persons and knowledgeable senior persons of the villages has been
chosen as informants. With the help of these people, households of the religious communities have been classified into different social and economic classes. Firstly, the household has been allotted/selected according to the share of religious group and then within the religious groups each class household has been selected for the survey according to their proportion. However, it should be noted that in case of non-availability and non-cooperation of the systematically selected households, a household of similar type of socio-economic description has randomly been selected.

In total of 2590 households have been surveyed comprising 2390 households from rural areas and 200 households from urban areas. Out of total surveyed households 1300 households are of Muslims (50.20 per cent) and remaining 1290 are of non-Muslim (49.80 per cent). A detail account of the primary survey units with socio-religious category wise survey households has been represented in the appendix-II. A cross tabulation of sample villages by population size and Muslim population concentration has been given in appendix-III and IV. The location of the sampled villages in the study area has been shown in appendix-VI.

**Tools and Techniques of Data Collection**

The data for the present study have been collected through direct personal interview method by the researcher and investigators. A well-structured, pre-tested questionnaire containing both open and close-ended questions has been used for the purpose of data collection. However, any responses, which do not fit in with any of the structured categories, are recorded in other category. At the end of the interview, the respondents are requested to give their suggestions in order to capture the qualitative information. Two types of questionnaires have been prepared for the present study: the village questionnaire and the household questionnaire (Appendix-VII). The village questionnaire is related with the information on the availability of various facilities in the village and other amenities such as electricity and telephone connections. The household questionnaire has been divided into three sections. The first part covers the basic demographic and socio-economic characteristics of the sampled households; the second part relates to the information about education and employment of the household members, and the final part contains questions associated with women fertility from ever-married women, aged from 15-44 years. For the household questionnaire, only the adult member of the household has been selected to gather relevant information. Before asking the questions, the respondents have been informed about the purpose of the study and survey in an unequivocal manner, that it is only for the academic purpose and it has nothing to do with any political or official work.

Most of the interviewed respondents are women, as majority of the men have been found staying away from their home for their work. Beside this they are specifically chosen to acquire information about fertility status. On an average, each household interview took about 20-25 minutes depending upon the type and nature of the respondent. Though the questionnaire was in English, the informants were interviewed in Bengali, for easy
communication and understanding. The data collected through the questionnaire were thoroughly scrutinized once again on daily basis during the filed operation to ensure accuracy. Then the obtained data have been coded and entered in the computer accurately for further calculation and analysis. At each of the stage, maximum care has been taken to maintain the consistency and accuracy of the data. The analysis of all the core indicators has been done in order to gain an insight of the research problem.

In the beginning, the researcher and investigators encountered some difficulties in doing fieldwork. The main difficulty faced by them was to convince the people about the purpose of this research. To tackle this problem, the researcher had to convince the people by stating the fact that the data obtained from them will not be shown to any concerned authority or individual and their privacy shall be strictly maintained. They were also convinced by stating that the, objective of this study was not to submit the report to the Government or to any other organization but for the purpose of academic interest. With these assurances the people's resistance was minimized to a considerable limit and they extended their cooperation enthusiastically.

Field Operation and Field Survey Experience

Though most of the fieldwork has been carried out by the researcher but due to the large sample size for an individual and limitation of time given by the authority for field survey, it was difficult to carry out the research at individual level and so the researcher hired three field investigators. The field investigators have been selected from the local colleges and are postgraduate students of social science background. A reference letter has been obtained from influential persons, usually the pradhans (political head of the village) and other important persons of the sampled villages, so that the purpose of study is not misconstrued and local help may be obtained. The entire fieldwork has been carried out from October 2008 to June 2009, which is divided into 3 sub-rounds. The first sub-round is of one month duration and the second and third is of one and half month duration. In the first round, the information has been gathered at block level by the block development officers and social-political activists for listing the villages dominated by religious communities and in the same time, a pilot survey has also been conducted with an investigator. The pilot survey has helped a lot to improve the original questionnaire. In the last two sub-rounds, the household survey has been carried out in the month of December 2008 to January 2009 with the help of two investigators and in the month of May 2009 to June 2009 with help of three investigators. All the sampled villages have not been covered one by one so that the researcher can manage the investigators effectively in each village.

Fieldwork is the most crucial as well as cumbersome part of the research procedure. The researcher has gained rich experiences while surveying through the cross-sections of the study area. Certain observations based on these experiences are enumerated below. The response rate was found very high among the people belong to the households with the low rate of literacy and low income irrespective of the religious denomination. The members of
these household have been comparatively far more cordial and open in their attitude when they were approached for the survey. Sometimes, this survey has led very poor people to expect some welfare schemes. Many educated non-Muslim did not entertain the researcher inside their gate, presumably in view of the researcher’s minority status. Women of the Muslim in general have been found less inclined to answer than their men who proved to be more interactive and secular in their outlook. Overall impression of such surveys in the public opinion is that they are superfluous or at least irrelevant. Many of them said that surveys are done but nothing concrete takes place. Thus, it is realized by the researcher that socially relevant researches should involve the participatory approach where academicians, government officials and community should work together to achieve a goal. This approach would be sensitized all concerned communities to improve their social condition. It would help in creating a progressive culture where the objective assessment of social reality would also help to include an urgency of social planning, as India is deficient in it. In spite of all these, the researcher considerably enjoyed the job at hand. The researcher communicated and interacted with many people during the course of survey, which helped him to gain experience and gather a lot of information.

**Data Processing and Analysis**

The data collected through field survey were processed after necessary cross checking and editing. In course of data processing, great attention was given to accuracy and completeness of data. Firstly, a short listed tabulation was done manually, which was later calculated and tabulated through computer-aided techniques. In the process of classification and tabulation, some statistical methods were used to study and to describe precisely the average differences and relationships. Finally, the data were organized into relevant chapters. The present study is purely descriptive and analytical in nature with an analytical approach and the emphasis of the researcher is to assess the existing situation of the community and seek out an explanation of reality. The logically connected and generally accepted indicators of spatial aspects have been taken into consideration for measuring the position. The data have been analyzed both quantitatively and qualitatively. But the analytical methods have been kept as simple as possible. For any type of geographical study, there is a need of unit for analysis. In this context, Robinson (1950) has pointed out that the extent and sometimes even direction of relationship among variables may change with varying size of unit of analysis. Generally it is also suggested that smaller the unit of analysis, lesser the distortion of reality. The present study is a micro level study. Mauzas (Census villages) are the smallest administrative unit. Household is taken as the smallest unit for data collection. In the present study, the three tire analysis has been done i.e. district, block and village level. A bulk of data for this study has been collected through the researcher. However, in the present work only those variables are selected which are the most pertinent to and important for the present study. The main variables of literacy-educational, employment-occupation and fertility selected for analysis has been listed in Table 1.1.
Table 1.1  
List of Selected Variables for the Analysis

<table>
<thead>
<tr>
<th>Variables</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Literacy and Education</strong></td>
<td></td>
</tr>
<tr>
<td>X1</td>
<td>Literacy rate.</td>
</tr>
<tr>
<td>X2</td>
<td>Percentage of Below Primary Education</td>
</tr>
<tr>
<td>X3</td>
<td>Percentage of Primary Education</td>
</tr>
<tr>
<td>X4</td>
<td>Percentage of Middle Education</td>
</tr>
<tr>
<td>X5</td>
<td>Percentage of High School</td>
</tr>
<tr>
<td>X6</td>
<td>Percentage of Intermediate</td>
</tr>
<tr>
<td>X7</td>
<td>Percentage of Graduates</td>
</tr>
<tr>
<td>X8</td>
<td>Percentage of Post Graduates</td>
</tr>
<tr>
<td>X9</td>
<td>Percentage of Professional and Technical</td>
</tr>
<tr>
<td>X10</td>
<td>Percentage of Religious Education</td>
</tr>
<tr>
<td><strong>Employment and Occupation</strong></td>
<td></td>
</tr>
<tr>
<td>X1</td>
<td>Employment Rate</td>
</tr>
<tr>
<td>X2</td>
<td>Percentage of Main Workers</td>
</tr>
<tr>
<td>X3</td>
<td>Percentage of Marginal Workers</td>
</tr>
<tr>
<td>X4</td>
<td>Percentage of Cultivators</td>
</tr>
<tr>
<td>X5</td>
<td>Percentage of Agricultural Labourers</td>
</tr>
<tr>
<td>X6</td>
<td>Percentage of Non-Agricultural Labourers</td>
</tr>
<tr>
<td>X7</td>
<td>Percentage of Household Workers</td>
</tr>
<tr>
<td>X8</td>
<td>Percentage of Workers in Business</td>
</tr>
<tr>
<td>X9</td>
<td>Percentage of Government Regular Salaried Worker</td>
</tr>
<tr>
<td>X10</td>
<td>Percentage of Private Regular Salaried Worker</td>
</tr>
<tr>
<td><strong>Fertility</strong></td>
<td></td>
</tr>
<tr>
<td>X1</td>
<td>Child Woman Ratio</td>
</tr>
<tr>
<td>X2</td>
<td>Age Specific Fertility Rate, 15-25 Age Group</td>
</tr>
<tr>
<td>X3</td>
<td>Age Specific Fertility Rate, 25-35 Age Group</td>
</tr>
<tr>
<td>X4</td>
<td>Age Specific Fertility Rate, 35-45 Age Group</td>
</tr>
<tr>
<td>X5</td>
<td>Total Fertility Rate</td>
</tr>
<tr>
<td>X6</td>
<td>General Marital Fertility Rate</td>
</tr>
<tr>
<td>X7</td>
<td>Child Ever Born (15-44 years age Group)</td>
</tr>
</tbody>
</table>

The analysis of data has been made through systematic descriptions of the collected facts. The analytical method has been kept as simple as possible. Mostly average and percentages are employed and the percentage value of all the relevant variables is presented through choropleth maps prepared through standard grading system by Arc View. Standard Index and Karl Pearson’s product moment co-efficient of correlation has been calculated through SPSS.

**Techniques Applied**

In order to take a more comprehensive study on a wide array of variables, the standard score additive model has been used to arrive at a composite standard index. The standard index method has been used to transform the raw data for each variable into standard scores or in other words it is the linear transformation of the original data (Smith, 1973). Standard score have been used to develop a composite score for socio-economic development and fertility status of the district at block level and village level. The standard scores
measures the departure of individual observation from the maximum and minimum values of all observation in a comparable form. The formula involved is:

\[ S_i = \frac{(X_i - \text{Min})}{(\text{Max} - \text{Min})} \]

where, \( S_i \) is the standard index of \( i^{th} \) variable, \( X_i \) is the original value of the individual observation, \( \text{Min} \) and \( \text{Max} \) is the minimum and maximum value of the variable. The values of standard scores are added and their average is taken to obtain the composite mean standard index and expressed algebraically as

\[ \text{CMSI} = \frac{\sum S_i}{N} \]

where, CMSI is the composite mean standard index, \( \sum S_i \) denotes the sum of standard index of variable \( j \) in observation \( i \) and \( N \) denotes the number of variables.

The transformation of the set of variables in this way results in the equalization of two important parameters of this distribution and the units of measurement are eliminated, thus enabling scores on different variables to be combined by simple addition and divided by number.

For analyzing the relationship between Muslim, education, employment and fertility status co-efficient of correlation technique is applied to assess the relationship. After that simple correlation coefficients have been calculated between independent variables and educational status. In the same way interrelationship is calculated and \( t \)-test is applied to find out the significant relationship at 1 per cent and 5 per cent level. This method has been used to find out the existing, nature and degree of freedom.

**Importance of Study**

The religious diversity is stark realities of the Indian society. This diversity has led to the fragmentation of the society according to religious affiliation. It is very important to study the connection between religious belongingness and the level of social well-being in our country, which is constitutionally committed to be a secular state. It is in fact, increasing day by day. Therefore it has become pertinent to have objective understanding in this connection. The present study of Malda district will be useful to study this entire community in terms of population growth, economic condition, social status, changing attitudes towards beliefs in religion, old traditions and social customs. The main implication of this study lies in the fact that no record exists which may permit inter-caste or inter-community comparison of the performances of Indian people on the educational front. This study attempts to highlight socio-economic and cultural variables like education, employment and fertility dimension with religious compositional characteristics at district level. The district level data are extremely important for understanding the regional dimension of demographic situation and its implication for contemporary society and polities.

The significance of the study lies in the fact that it enables us to understand the local resource base, local needs and demands. District and block is the most suitable unit of the study for planning purpose as availability of the data and most of the assessment and implementative decisions are taken by administrative authorities. The present study evaluates
the various socio-economic indicators related with Muslims marginalization in Malda district. It further encourages that the condition of Muslims should be examined at state and national level. It is evident from the review of literature that there is dearth of research oriented literature on Muslim’s social, economic and educational marginalization. Hence, in such a situation, need of the hour is to plan and do some systematic and comprehensive geographical study. This will help to generate empirical data related to the socio-economic problems of Muslims of the state and country in general and in the district of Malda in particular.

Thereby, the study purports to elicit micro level (block and village wise) status indices to identify demographical aspects on the basis of the religious community, which may be focused upon to bring about faster improvements in the demographic and cultural front. Thereafter, the study intends to highlight various significant factors affecting education, employment and fertility status of Malda district across the region and religion. Similarly, the data collected in the present survey will also highlight the main factors responsible for education end economic marginalization of Muslims and will provide a sort of guidance in suggesting remedial measures in this regards. The survey may also prove to be suggestive for introducing compulsory education up to upper primary or secondary stage. All these above efforts will provide them proper guidance in orienting their life-style in proper shape and their adaptability to the present modern society.

It is hoped that this research would show the way in understanding the contemporary society in a better perspective. The main purpose of the present research is to generate interest among the readers to know the condition of Muslim at the micro-disaggregated and macro level in a dynamic way. The present study provides a base for planning purpose to reduce the existing disparities by religion related to socio-economic development on the basic problems like illiteracy, unemployment and high fertility.

Limitations of the Study

It would be presumptuous to say that all the information that has gone into this study is perfect and fault less. It would also be presumptuous to state that all judgments of the researcher are without shortcoming. There is difference in hard and soft science. In former all the dimensions of a premise are measurable mathematically, in the latter measurement may not be easy or the measurement may not be free from the whims and prejudices of respondents. As Davis and Golden (1950) state that, ‘if you always waited for perfect information before attempting to build a comparative social science we would wait forever’. The same is true of the judgments made. Some of the judgments may not true cross-culturally. Local and regional judgments have their values and they may not be at variance with common and general judgments. Sometimes general hypotheses may not be true for the individual case. This does not mean that either of them is incorrect. There are differences in behaviour of groups and individuals, in their value systems, in their perceptions and reactions. Since the present study is a descriptive and expletory in nature, it has own limitations. This study has certain limitations as enumerated below:
- The survey covers the whole of the Malda district, excepting (i) Bhutni area of Manikchak block, which partly is inaccessible because of the river Ganga (ii) interior villages which are situated beyond more than 15 Km. of the bus route and a few other areas are also excluded from the survey coverage due to un-favorable field conditions.
- A multi-stage stratified random sampling is used to capture the respondents. Although care is taken to capture the respondents from all the designated sites, it may be possible that some areas are under-represented. It would be appropriate to utilize a time-location cluster kind of sampling for a large-scale quantitative survey.
- Although the outreach workers covered all the designated sites, it may be possible that non-cruising are totally left out. This study however would serve as a guideline for formulating the strategy for second year of intervention programme.
- Another limitation of the work is the size of sample as the study is based on 80 sampled villages of rural areas and 6 Mohollas from urban areas. Due to the variations in the sampling a difficulty arose in the interpretation of data. In certain villages where the number of households was very few that is 5-10 households, the information about some aspects is not substantial especially in the case of women fertility at village level.
- The results obtained from the sample, conclusions derived and generalizations made in this study can’t, therefore, be generalized for large and different areas. That has local importance. However, they are useful in representing factual situation and are not strictly specific to the area. On the basis of them certain broad generalizations can be made. All these limitation, however are to be kept in mind.

In spite of all the mentioned limitations the study has a significant scope in the field of population geography. No effort has been spared to make the study a comprehensive one.
REFERENCES


