There has been a wide variety of studies over the years that have attempted to evaluate the factors that affect demand for education in general and higher education in particular both in India and international context. The following is an overview of the most recent literature addressing the importance of various socio-economic factors in affecting demand for education in India and rest of the world.
2.1 Review of Literature based on Determinants of Demand for Higher Education

- (Kramer, Monte R-2011)- This study examined the state investments in public higher education alongside student affordability to determine which state characteristics might explain the funding practices and which state characteristics are linked to the growing costs to students. Panel data for the 50 states covering 2000 to 2010 was used for the fixed-effects time series regression analysis study. Political, demographic, cultural, and economic variables were analyzed to determine their influence on state higher education funding support and student affordability. The regression analysis identified strong relationships between state higher education funding levels, term limits, legislative professionalism, state tax rates, formula funding, and consolidated governing boards. Student affordability was significantly influenced by governing board control, which the entity had tuition setting authority, changes in the state population groups aged 5-44, poverty rates, and state funding levels.

- (Smith, Edie Lee-2010)- This research attempted to determine variables predictive of success in mathematics achievement among pre-service
teachers at UMKC. Logistic regressions were used to determine whether race, age, gender, SES, mathematical ability, beliefs, and study habits were predictive of successful achievement in pre-service mathematics courses. They found that race and age were the only significant contribution to success in the content class studied.

- (Van der Merwe, Alex-Jun 2010)-Within a qualitative research design, and using a limited analysis of respondents’ higher education demand, this paper sought to establish whether individuals’ expected returns to higher education investments are significantly associated with their enrolment choices. This case study, within a qualitative research design and using principal components analysis of a purposive sample of Durban University (South Africa) of Technology first year students’ attitudes and perceptions relating to higher education, sought to establish whether their expected returns to higher education investments are significantly associated with their enrolment choices. Using binomial logistic regression analysis, respondents’ anticipated private rates of return were shown to be a significant consideration in respect of their higher education choices. This finding, the product of qualitative analysis, affirms the human capital theory.
proposition that individuals regard higher education as an investment, that
is, as a risk versus return prospect.

• (Ziga CEPAR, Stefan BOJNEC – 2010)- This paper investigates higher
education demand in Slovenia in general and specifically in the field of
tourism. Explanatory variables of the general model are divided into two
different groups of factors. The estimated regression model identifies the
most important factors of demand for higher education in Slovenia, tests the
direction of influence of each particular factor and its statistical significance
for the dependent variable. Next, they analyzed the movements of demand
for higher education in the field of tourism in the last years and compared
them to the movements of the demand for tourism in Slovenia. Finally, they
derived some conclusions about higher education demand determinants in
Slovenia in general and in the field of tourism and proposed some
recommendations for national education policy. They have observed that
most of the socio-economic higher education demand factors are increasing
the higher education participation rate, thus encouraging the demand for
higher education of all age groups including adults. With economic growth,
economic conditions are improving, whereas other economic, technological,
social and cultural circumstances are also boosting demand for higher
education. Factors for the higher education demand in the field of tourism are besides demands for tourist services particularly the demographic and socio-economic circumstances. Demographic trends in general slow down or even decrease demand for higher education, while socio-economic factors mostly encourage demand for higher education in the field of tourism.

- (Mahdi Fadaee Khorasgani-2008)- This study examined the effect of higher education on Iran’s economic growth during the period of 1959-2005. The main idea is the application of a HC measure as an additional input into the production function. The objective of this study was to examine the relationship between higher education and economic growth in Iran. By using multivariable time series data on the variables annual logarithmic GDP, physical capital (K), HC, research expenditure (R) and by using an autoregressive distributed lag (ARDL) model, this study investigated the existence of a long- and short-run relationship between growth and the higher education variable. The study findings revealed that higher education overall had a positive and significant effect on economic growth in Iran from 1959 to 2005.
- (Toutkoushian Robert K, Hollis Paula-Aug 1998)- This study has used panel data on state appropriations from 1982 through 1996 to examine the sensitivity of the results from the legislative demand model to changes in statistical methodology employed. Empirical studies of legislative demand for higher education, using cross-sectional data for all 50 states, have not found much evidence that economic and demographic factors influence state higher education appropriation. The results showed that the signs and significance levels of variables used in the legislative demand model vary widely when ordinary least squares, fixed effects and two-stage least squares are used.

- The studies like (Canton and Jong 2005, Yang 1998, Duchesne and Nonneman 1998, Fredriksson 1997) shows a positive relationship between demand for education and the labour market characteristics, namely, unemployment rate immediate after the completion of secondary education, perception of students on labour market, college premium, expectations of monetary and non-monetary benefits of higher education and the studies like (Arabsheibani 1991, Canton and Jong 2005) and negative relationship with the factors like alternative wages, waiting period of the graduates (Canton and Jong 2005, Arabsheibani 1991).
• In some studies (Mian 1985, Mora 1996, Duraisamy 1998) the non-economic variables like family size, location (rural/urban) of the households, educational level of the parents, distance of the home from institution, availability of roads from home to institution are more significant than economic factors like income of the parents, fees paid by the students and other labour market characteristics.

• When we refer to the field of tourism we think of numerous sub sectors of tourism like accommodation and lodging, food and beverage services, travel and transportation, event management and similar. As tourism industry is growing, the need for labour employed in the field of tourism and thus the demand for higher education in the field of tourism is growing too (Teixeira and Baum 2001; Horng 2006). There are some universal factors that impact demand for higher education in general as well as in the field of tourism in particular. These are several economic factors, like perceived benefits from higher education and cost of a study (Borowec 2007), other social and family related factors, like education and social position of parents. Demographic factors, factors related to the quality and availability of supply of higher education and social role of government are also important for the
demand for higher education in the field of tourism as well as in any other field of education (Needham 2006).

- Most of the studies attempted to estimate demand for university education employing economic variables, such as tuition fees, graduate starting salaries and unemployment rates. Cambell and Siegal (1967) used time-series data for four-year duration education colleges in the United States to estimate the demand for higher education. The equation for the undergraduate enrolment in four-year higher education institution in a given year t \( (N_t) \) is explained as: \( N_t = f_t (Y_{ht}, P_t, E_t) \), where \( Y_{ht} \) is real household disposable income, \( P_t \) is the average cost of tuition and \( E_t \) is the total pool of eligible’s aged 18-24 years in year t. According to this model demand for higher education is positively associated with household income, and negatively with tuition costs. In order to identify the drivers of the higher education participation rate and not the absolute enrollment, the above equation can be transformed into: \( R_t = f_t (Y_{ht}, P_t) \), where \( R_t \) is equal to \( N_t/E_t \) and measures the higher education participation rate. Cambell and Siegal (1967) estimated this model in logarithmic form: \( \log R_t = A + a \log Y_{ht} + b \log P_t \).
• Some other regression models explain university enrolments by independent explanatory variables like real income, opportunity costs, rate of return on university education and an eligible population for higher education. Authors of these models found that cost variables were negatively correlated with enrolment demand, while the effect of youth unemployment on university demand was weak and insignificant in most cases. There is a strong relationship between additional earnings from completing a degree and enrolment, where enrolment rises by 20% due to the 10% increase in expected earnings (Handa and Skolink, 1975).

• Nicholls (1984) estimated aggregate demand for tertiary education in Victoria. The demand for tertiary education is explained by four explanatory variables. The first one was a dummy variable for government policy on tuition fees where a value 1 indicates a year where university fees charged, and 0 otherwise. The sign of this coefficient of variable was found negative. The second variable was the pool of eligible people who may demand for tertiary education and the third one the real household disposable income. Regression coefficient of both variables had a positive sign. The last explanatory variable included in the regression was a youth unemployment lagged for one calendar year, which association was found to be negatively
correlated with the aggregate demand for tertiary education. Weak labour market for youth was indicating declining employment prospects for university graduates and thus reducing the perceived expected return to a degree. Another attempt to analyze the demand for university education places is a study of the labour market for academics. They projected full-time student units for all study fields with high and low growth scenarios regarding three groups of students. In the first group were included school leavers, who move between the secondary and tertiary schools, in the second group were included overseas students, and in the last group were included mature age students. In general, the growth of the last and partially of the second group of students was expected, but the declining numbers of the 15 to 19 years old youth population of the secondary school leavers was caused by demographic effects.

- (Sloan et al., 1990). Institute for Employment Studies (1996), projected demand for full-time higher education in the United Kingdom (UK) from young people. These projections were based on datasets about the number of young people in the relevant age cohort, the likely numbers of young people who will gain the third level of qualification as the traditional threshold for entry to higher education, and the current propensity of those
with such qualifications to enter higher education. Additional factors that were included in the projections of demand for higher education, were also return on student’s investment in higher education, economic cycles which affect graduate employment, funding and capacity constraints, demographic and social changes, demand from older age groups, part-time and postgraduate students, and requirements for continuing professional development.

- De Meulemeester and Rochat (1996) estimated a relationship between the rate of participation at the university education and a set of explanatory variables, which are the unemployment rate, the proportion of intellectual workers (white collars) in the working population, the average real fiscal revenue per capita, and supply variables such as the number of universities by districts or the distance to the closest university.

- Neugart and Tuinstra (2001) believes that important determinants for higher education demand are productivity shocks, beliefs about future wage differentials, and accession costs to information on the return to education. The IR model is based on two different pairs of destabilizing backward looking prediction rules, on rational expectations versus naive expectations in schooling choices and on steady state forecaster, which are agents, who
know the steady state wage differential between high-skill and low-skill jobs versus adaptive beliefs.

- OECD (2005) finds that important determinants of the higher education demand are the increasing proportion of people who meet the entry education conditions, the increasing awareness that a more educated population is an important asset for societies and economies, and education supply decisions made by governments. New education demand is arising from groups of people close to and over 30 years old, who are already employed and who may have already finished some post secondary education and from women. On the other hand, there are some more specific factors of demand for higher education, which refer particularly to certain economic sectors such as in the field of tourism. For instance psychological factors like particular motivation or interest of individuals for tourism (Borowee 2007). Geographical condition of some country, culture and tourism, the importance of tourism as an industry in total economy of a specific country and the rate of growth of tourism and its quality level also determine a need for the quantity and quality of labour employed in the field of tourism (Christou 1999). Another specific higher education demand factor might be the specific background of families with a long tradition of owning or working in a certain tourist service. Moreover, relative changes
in perceived benefits from higher education in the field of tourism compared to other fields of education may play an important role (Ahimsa Putra 2005). As different sub sectors of tourism are getting more specialized, tourism education should also become more specialized in nature (Dale and Robinson 2001).

2.2 Review of Literature based on Determinants of Demand for Management Education

- (Cao, Yingxia, Sakchutchawan, Sut-Dec2011) - This study has found out the popularity of online MBA courses in comparison with traditional face to face MBA courses. Quantitative method (Chi-square) was employed in this study to approach these questions. Data were collected from over two thousand students from the year of 2002 through the year of 2010 and a total of 153 courses were included accordingly. The findings revealed that online MBA courses have lower overall satisfaction rating from the students than the traditional face-to-face MBA courses.

- (Reddy, Malin-sep, 2011) - This study has attempted to discover the factors that Indians students look for in a business school in order to develop a
preference for it. It has also attempted to understand their decision making process. The study was conducted across six colleges in India with 274 students, each of which completed a 33-item questionnaire that asked them to rate the importance of various factors when deciding which business school to attend, or apply for. The study employed focus groups and questionnaires for data collection. Analysis and interpretation of data was done using factor analysis and ANNOVA. This study found the six identifiable factors which explained that 58.25% of the total variances were Auxiliary Academic Activities, Attainment Yardsticks, Pure Academic Offerings, Physical Facilities, Personal and Locations Comfort Zone, Endorsement/Ratification.

- (Adahi Moulaye M’Hamed Taher; Chen, Jin; Yao, Wei-2011)- The purpose of this paper was to establish the key predictors of Master of Business Administration (MBA) student’s performance, considering the interaction between personality type, learning approaches and educational achievement. A structural equation model is formulated to check out the perfect relationship between the construct variables. The study subjects were 208 MBA students at Zhejiang University. The main findings are significant correlations between the three personality traits, namely, extraversion,
conscientiousness and openness to experience with the deep approach (DA) to learning, predicting high MBA student’s performance.

- (Krishnan, Venkat R-Dec 2008)- In this study the impact of 2-year residential fulltime MBA program on student’s values was studied using a longitudinal design and data was collected over 7 years from a business school in India. Results of matched sample t-tests show that self-oriented values like a comfortable life and pleasure become more important and other-oriented values like being helpful and polite become less important over 2 years. The moderating role of sex and functional specialization were also analyzed.

- (Lin, Chun-Chun; Chan, Shun-Nan-Dec 2007)- The main purpose of this research was to investigate the effects of career counseling education on business college students in Taiwan. Two research variables were framed by this study including student’s demographics and student’s needs for career counseling. The methodology in statistics analysis includes descriptive statistics, item analysis, reliability analysis, validity analysis, t-test, one-way ANNOVA and Scheffe Post-hoc test. A total 650 students were selected based on multistage stratified random sampling. The significant findings and
conclusions are summarized as follows: 1. Business college students have very high demand for career counseling. 2. In terms of the needs of career counseling, there are significant differences based on school district, gender, grade, and father’s occupation.

- (Scism, Darby C-2005)- The purpose of this study was to examine the job placement variables of international students graduating from MBA programs across the United States in the 2001 class. There was a direct correlation found between the number of years of prior work experience and the base salary of the students. Student with earn undergraduate major in technology earned slightly higher salary and signing bonuses. The results may also assist MBA admissions professionals in deciding who to admit to their programs, as placements results are important measures of an MBA program’s success.

- (Simpson Ruth, Sturges Jane, Woods Adrian, Altman Yochanan- Apr 2005)- This study represents the findings of a Canadian-based survey of career benefits from MBA. Quantitative method (Chi-square test) used in methodology to find out the intrinsic & extrinsic benefits of MBA on age & gender. Results indicate that firstly gender and age interact to influence
perceptions of career outcomes and secondly, that both men and women gain intrinsic benefits from MBA.

- Abou-Rustom, Elias R-2004)- This study focused on the factors that affect receptivity of online MBAs by Arab mid-level managers and whether there is enough receptiveness to online MBAs to accept along or substitute it with traditional MBAs. The results of the meta-analysis showed that there was a definite correlation between various variables that were measured against receptivity levels in online MBAs. This meant that receptivity in online MBA programs could be favorably improved through instilling and improving personality traits and characteristics in Arab mid-level managers.

- (Thompson Edmund R, Gui Qin-Mar/Apr 2000)- This study found out the reasons why executives decide to pursue an MBA and highlights significant differences in motivations by gender, age, educational background, and working experience, that have important implications for MBA course. In the methodology of this research an instrument was administered asking the same questions to 130 executive MBA students studying at School of Business, university of Hong Kong, to state on a 5-point Likert-type scale to what extent they either agreed or disagreed that various items were
important in their decision to pursue an MBA. The findings shows that motivations for pursuing MBAs differ significantly by gender, age, work experience, and educational background.

- (Carol Ackah Norma Heaton, McWhinney Gavin-1999)- This study focused on the impact which an MBA has on the careers of women in management and compared the career progression of male and female MBA graduates. The research was carried out among graduates who had obtained an MBA from the University of Ulster between 1992 and 1996. The study found that the management careers of men and women did differ significantly in a number of respects and that there is a difference between male and female graduate in their perception of how MBA has affected their careers.

2.3 Review of literature based on the Application of probabilistic Models in Higher Education

- The application of probabilistic models in higher education to deal with dichotomous dependent variable is not new. Its use can be traced back to the late ‘60s & early ‘70s. During these decades efforts were made at developing econometric models to explain college choice( Manski & Wise; 1983).
Bishop (1977), for instance employed this technique to find out college enrollment decisions and how responsive these decision in enrolling tuition & students add programs. Likewise Manski and wise (1983) relied on multivariate logistic regression in addressing the role of the basic educational opportunity grant (BEOG) in facilitating college choice & enrollment for the high school class of 1972. Later St. John (1990,1991) & St. John & Noell (1989) relied on logistic regression to address the role of tuition on college attendance and to estimate the effect of student aid in facilitating college attendance on the part of minorities.

- The application of logistic regression has not been restricted to college enrollment. Behaviours such as college persistence, transfer decision & degree & attainment have also elicited the use of this technique. Stage (1989), for instance, used a combination of logistic regression & LISREL for validating Tinto’s (1975,1987) model of college persistence Stampen & Cabera (1986,1988) used logistic regression for aggregate data in exploring the extent to which student aid equalized opportunities to persist in college. St. John, Kirshtein & Noell (1991) utilized logistic regression to document the effects of financial aid on year to year college persistence for the 1980 high school senior cohort. Cabera, Stampen & Hansen (1990) use this
method to explore the ability to pay on the persistence process. Dey(1991) Relied on logistic regression to explore determinants of persistence to graduation for a national sample of college students.

2.4 Review of Literature based on Determinants of Demand for Education in general

- (Rojas Villamil & Ana Maria, 2012)- This study pursued to identify poor households constrains to investments in basic education in Colombia, to understand how educational policy actions should be focalized. The OLS & fixed effects analysis for 2008 & 2003 estimates evidenced the gap between urban and rural households, suggesting that the educational attainment of the parents is the most robust determinant of expenditure in early education & that data for single-mothers as the most vulnerable group is not conclusive enough. Policies targeting this population should be revised and resources are prioritized towards specific program to improve educational attainment of parents & decentralization measures. This kind of research provides empirical evidence for Colombia and would be useful for policy makers who seek a general understanding of educational regulatory policy and its implications to national development.
(Harris & Pavla, 2012)- This research examines national identity from a new perspective and provides outlines of relationships that exist between education, national identity, economic development in the world, and other country – level characteristics. This research theorizes that, in developed countries national identity decreases with higher levels of education but that in developing countries the levels of national identity are higher among the more educated. The data collected during 2005-2008 from 57 countries, and matching the individual-level survey data with aggregate measures of economic development, political and cultural factors allows for multilevel analyses with cross- level interaction that link national identity and education in varied societal contexts.

(Ansong, Abraham, Gynesare, Michael Asiedu – May 2012 ) This paper explores the determinants of university working- student’s financial literacy. This study adopted a correlational research design as the framework because it is appropriate when attempting to examine the relationship between variables without determining cause and effect (Bluman, 2001). This type of design (Bluman,2001) can be used to determine the magnitude and direction of the relationship between two or more quantifiable variables. Data were
randomly collected from 250 undergraduate and postgraduate students of a public university in Ghana. The paper found that age and work experience were positively related to financial literacy. However, the level of study, work location, father’s education, access to media and the source of education on money were all not significantly correlated with financial literacy.

- (Lim, Helen G N-2011)- This study has examined whether education has a causal impact on health in Canada. This study has used econometric analysis of the effect of education on health using Canadian census data. The results indicate that education does indeed have a causal impact on mortality (a robust indicator for health).

- (Meshkaty Azadeh S-2010)- This research attempts to evaluate the impact of resources and characteristics of individual households as well as that of schooling access and quality have on primary level educational attainment of boys versus girls (grades 1-6). This research looked at a 1993 case of Indonesia using the Indonesian Family Life Survey and Community Facilities Survey as provided by Rand Corporation. With this data, this research analyzed the varying impact of family characteristics, household
wealth, and access to quality schooling on the gender differentials of primary level educational attainment.

- (Southgate, Darby E-2010)- The term shadow education refers to supplemental, privately-funded academic lessons outside of school. Drawing upon PISA 2003 data which surveys over 200,000 15 year-old students from 41 nations, this study considers macro and micro level determinants of shadow education in order to ascertain whether its use is detrimental to educational equity. Logistic regression, correlation and descriptive statistics shows that vast majority of nations use a modal strategy of remediation when employing shadow education, meaning shadow education is used for struggling students and not for high performance students, and all nations employ a remediation strategy when considering tutoring as part from formal learning centers – in no nation do high performing students employ tutors. Moreover, national levels of inequality are associated with use of shadow education. As inequality increases, so too does additional schooling.

- (Reifscheneider, marina B-2009)- This study assessed perception of online education quality and effectiveness of 1332 students, 52 faculty members, and 23 administrators at a private non-profit university in Brazil. Linear and
ordinal multiple regressions were used in methodology. Predictors for e-course taken were age, life science, worth compared, motivation barrier, and enjoyment. For e-courses not taken, in addition to enjoyment and gender, there were social and pre-skills barriers.

- (Edgell, Margaret Sampson-2009)-This research design based on Qualitative Comparative analysis, addressed three initial challenges to the study of a macro-level social phenomenon: subjectivity of study of a social construct; lack of definition of social- contract terms; and multiplicity of social contracts. Three countries were chosen as case study due to their classification as welfare states with strong government orientations: Finland, Norway, and Sweden. The results of this study revealed that for student financial support policy, that, absent supranational social contract, the national social contract was a stronger determinant of funding in the three countries studied than the shifts in social contracts in other European countries. For academic research funding, national social contract was the driving factor, over supranational social contract.

- (Chakraborty Kalyan, Biswas Basudeb-Apr 2000)- In this study, the sources of scale economies in the production of public education are investigated.
The relationship between the average cost of producing educational output and school characteristics including school and district size was estimated using a neoclassical cost function. The empirical analysis uses panel data from Utah school districts and concluded that scale economies arise from both sources but that the evidence is stronger for district size.


- Various others studies (Campbell and Siegel 1967, Canton and Jong 2005, Ghali and et al 1977, Yang 1998, Mian 1985, Galper and Dunn 1969, Mora 1996, Menon 1998, Duraisamy P 2001) shows a positive relationship between demand for education and socio-economic variables, such as disposable income of the household, educational level of resident residing in
a particular region, percentage of rural households living in pucca house, percentage of men rural workers engaged in non-agricultural activities and negative relationship with average size of land holding, percentage of rural men workers engaged in cultivation (Duraissamy P.2001, Nagarajan and Madheswaran 2001).

- The studies made by Mora 1996, Duraisamy P 2001, Chakraborty 2006, Duraisamy 1998, Nagarajan and Madheswaran 2001 shows a positive relationship between household characteristics like educational level of parents, percentage of adult female literacy, and negative relationship with family size, birth order of the child, total number of children in the household, the number of siblings less than five, the number of animals (goat and cattle) (Ghali and et al 1977, Duraisamy P.2001, Duraisamy 1998).

- The studies by (Ghali and et al 1977, Mian 1985, Menon 1998, Duraissamy P. 2001, Chakraborty 2006, Chakrabarti and Joglekar 2006, Duraisamy M. 1998) shows the effects of various child characteristics namely intellectual ability of the students, age, sex, caste, specialization of the study on demand for education.
• The studies of Galper and Dunn 1969, Husain 2005, Hossain and Kabeer 2004, Duraisamy P. 2001 shows the relationship between demand for education and supply side variable like total public expenditure on education, political will and the education policy of the government, access to school, study allowances, other incentives of education such as mid-day meals, uniforms, books, transport and scholarship.

• There are few others studies (Duraisamy P.2001, Chakraborty 2006, Dhesi 1998, Husain 2005, Hossain and Kabeer 2004, Chakrabarti and Joglekar 2006, Duraisamy 1998, Nagarajan and Madheswaran, 2001, Buragohain 1997) in case of India on demand for education and these evidence show that, the factors like scholarship, parental education level, household economic status, expectations of monetary and non-monetary benefits of education, perception of students on labour market, percentage of men rural workers engaged in non-agricultural activities, have positive impact on higher education whereas the factors like birth order of the child, area of land holding, total number of children in the household, direct and opportunity cost of education, number of school going children in the family, the number of siblings less than five in the family, the number of
animals (goat and cattle), percentage of rural men workers engaged in cultivation have negative impact on education.