Factors Affecting Individual Education Demand at the Entrance to University: Adnan Menderes University Sample

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Abstract

The aim of this research is to determine the factors affecting individual education demands at the entrance to university. The research is in survey model. The universe of the study consists of 1630 freshmen at the faculties and vocational schools of Adnan Menderes University, Aydın. 574 students from 7 schools were included in the sample. The data were gathered by "the scale of the factors affecting individual education demands at the entrance to university", which is a likert type scale developed by the researcher. The scale consists of 8 dimensions. Findings of the study show that student views on factors affecting individual education demands at the entrance to university do not have a meaningful difference in terms of sex in any dimensions. Meaningful differences were found in the individual satisfaction dimension in terms of whether students have permanent illnesses, in the "diversion and sheltering" sub-dimension in terms of whether their mothers work or not, in the "diversion" sub-dimension in terms of the parents' world views, and in the "employing" sub-dimension in terms of age. The dimension which has the lowest mean among the students' opinions regarding the factors affecting individual education demand in entering to university is "publicity" and the dimension which has the highest mean is the "personal satisfaction."

Key Words

University, Demand, Individual Demand, Education.

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Universities are increasingly gaining more importance. One of the main reasons for this situation is the rapid extension and increase in the quality of knowledge. It deos not seem possible anymore to obtain specialized knowledge with master- apprentice relations or with vocational education at the level of secondary schooling. The truth that this intensive knowledge can only be presented at the levels of higher education increases the demand for universities. Knowing the factors that influence the demand for individual education is also an important precondition for universities to attract more qualified students.

The main functions of educational activities are social, political, and economical. With its social function, education transfers the existing cultural savings to the society and improves this culture by reproducing and recreating. The political function of education is oriented towards individuals' growth as citizens, which is also attached the existing political regime. It is expected from the economic function of education to bring up the manpower qualified and quantified as the development needs. In a sense, economic function aims to bring up creative and economic individuals. In other words, in terms of economy, education must bring up good producers and good consumers (Güçlü, 2005; Kaya, 1993; Tural, 2002).

In this sense, it is obligatory to consider the demand for estimating manpower brought up in a country. The concept of "demand" in economy literature can be defined as the quantity that customers want to buy any product in any time at any price. On the other hand, total demand depends on the quantity of product in economy, the rate of interests, and level of income in economy. If the amount of produced output is equal to the amount of demand in an economy, the production is at a balanced level. The balance condition is the condition that no power forces to change it (Hesapçıoğlu, 1994; Parasız, 2003; Serin, 1979).

The demands of individuals for a product are different from each other. The incomes and admiration systems of individuals are different from each other. But this difference influences only the tendency of individuals' demand curves. Otherwise, the general shape of individual demand curves, that is the line descending through left to right, is the same for all. The law of diminishing marginal returns is valid for all individuals. Generally, the factors that determine the demand are the level of income, system of pleasure, price of this product, and the other

products (Aren, 1986). Different from general demands, the factors that influence individual education demand are more complex and vary according to various cultures.

In this study, the classification made by Tural (1994) is taken as a base. Tural classified the factors that influence individual education demand, by taking the classification of Harnguist (1979) as a base, more distinctively as following:

(i) Individual factors (age, biological features, cognitive skills, interests, expectations for the future…)

(ii) Economic factors (cost of education, income level, income expectancy, vocational choice, expectancy about market…)

(iii) Sociocultural factors (origin of family, social gender)

(iv) Institutional factors (education system, other institutions)

In his descriptive study, Hesapçıoğlu (1985) asserts that the models that have been applied so far mostly include only some aspects of the concept of "capacity" such as the full utilization of personnel and branch capacity; and that there is not any integral model including the all magnitudes of the concept of "capacity."

Koç (1994) defined that the main factors of job selection are family wish, economic condition, the will for attainment of social status, opportunities for taking a job and friend group.

In the research of Kurnaz (1996), it is defined that the most important factors for continuing high open education are enabling the professional life to go ahead with education, creating opportunity for advancing the stage, transferring to another desired job, jumping to the upper position in organizational index and thus expecting to get higher fees.

Jackson and Weathersby (1975) assert that, in the registration of higher education, low income family members are more impressed by the changing price range than the members of high income families. But, Leslie and Brinkman (1987) claim that the effect of increase in price on registrations is not generally occur in the real world. The main reasons for this are claimed as the decrease in the prices of higher education, students' tendency for schools in low prices and the increase of donations being given to the students.

Fredrikson (1997) indicates that registration for universities at the end of the 1960's reached to top, but as for the middle of the 1980's it dramatically decreased. The researcher states tthat he dramatic decline of students' donations as the basic reason of this decrease. Kim (1988) asserts that there are tragic declines in the level of welfare because of the excessive increase of prices which affects negatively the demand (consumption) of education.

Stafford, Lundsedt, and Lynn (1984) claim that factors as income, academic success, the academic achievements of family members in the past and the graduation of parents from higher education are important for the entrance in higher education.

Nielsen (2001) claims that family income, education costs and the qualities of the schools are also affecting registrations. Contan and Jong (2002) surveyed the roles of economic factors on students while deciding to register for universities. According to the economic indicators in Holland, school prices don't seem much to the students, but some financial aids as donations and loans, college contributions and alternative fees are more important for the future acquisitions oriented towards the job while deciding to register.

Beneito, Ferri, Molto, and Uriel (2001) determined that women searching for a job have 20% less possibility of finding a job compared to men; the situation of being affected from social and economic factors for high school is much more than for universities; the effect of opportunity cost in education is negative both for high schools and universities; and women have more tendency than men have for university education.

Mueller and Rockerbie (2004) assert that the excessive increase of the payment for entrance to university forces students to raise their high school graduation grades. They state that if there is not much demand to the payments for entrance to university, grades required for registration increase for the schools such as faculty of medicine and other schools related to health, and schools for four years apart from health.

Considering the studies mentioned above, the problem sentence of this research is as follows: "What are students' aspects about factors affecting education demand for entrance to university?" Within the framework of this main problem, the answers to the following sub-problems were sought:

At university entrance,

1. What is the position of students' opinions regarding the factors the most and least affecting individual education demand according to the scale "the factors affecting individual education demand for the entrance to university?"

2. What is the position of students' opinions about the factors that affect individual education demand in terms of individual satisfaction, qualified education, social prestige, orientation, family effect, presentation, sheltering dimensions?

3. Do student aspects show significant differences according to individual parameters (such as gender, age, family income; the educational situation, the settlement and world-view of the family etc.) at every dimension of the scale?

Method

Research Model

In this research, survey model is adopted as the existing situation being represented as its' own style.

Population and Sample

The population of the research consists of 1630 freshmen students from the faculties and academies in Adnan Menderes University (ADU) in the academic year of 2005-2006. The approach of proportional cluster sampling is followed when taking samples from the population. The undergraduate faculties in ADU are taken into account. 574 of students from 7 different schools are selected in the sample. Among these students, 298 (51.9%) are women and 276 are men (48.1%).

Data Collection Methods

In the research, for the purpose of gathering data, "the Scale of Factors Affecting Individual Education Demand" developed by the researcher was used. There are 56 items in the scale.

From the beginning of the preparation of the scale, face to face interviews were done with students who were the target audiences, in order to provide the validity of the scale. The structures of meaning and

the items were analyzed by the Turkish language experts. The opinions of educational administration, inspection, economy and planning experts were consulted to provide the validity of the scale's content. The necessary corrections were made on the scale according to suggestions and opinions of the students and experts. Pre-applications were administred to 62 students chosen randomly from the schools and the reliability coefficient was founded as α = . 89. For the main application, the scale consisted of 56 items.

Before starting the analysis of the factors, first, the anti-image correlation of the items in the scale, than Kaiser-Meyer-Olkin (KMO) correlation and Barlett's Test are taken into consideration for the samples' adequacy. The value of KMO correlation which is .73 and Barlett's test are found to be meaningful (Büyüköztürk, 2004). The anti-image correlation of the scale items are found above .50. Afterwards, principal components analyses were performed in order to determine the factor structure of the scale. Finally, it was found that 15 factors whose eigen value was above 1.00 explained 61.01% of total variation.

In this solution, including 15 factors and found according to the method of Varimax rotation, load factors were analyzed. Two types of items were omitted from the scale: those the load factors of which were below 30 and those the difference between their loan factors is below .15 and loaded more than one factor. For these operations, Orthogonal (Varimax) rotation operation was implemented as the correlation value between two sub-scales was below .32 (Tabachnick, & Fidell, 1996). And once the factor structures of items in the scale started to stabilize, lower limit was determined as .60 for the load factor. In this case, an 8 factor solution was attained. The decision that the structure of the scale could be formed with 8 factors was made by using Scree plot graphic (Büyüköztürk, 2004).

The rest of the items, a total of 21 items, were located to the factors as follows: 4 items to the first factor, 3 to the second, 3 to the third, 3 to the fourth, 2 to the fifth, 2 to the sixth, 2 to the seventh and 2 to the eighth. It was found that 8 factors explained 72.25% of total variation. Common variation values for items have been varied between .54 and .82. When examining skewness (-1,62 and ,43) and kurtosis coefficients (-78 and 3,10), it was found that the scale scores illustrated a normal distribution. According to Kline (1998) to provide normal distribution absolute values of skewness values should not be greater than 3 since it will seem to be extremely skewed, and that kurtosis values should not be greater than 10.

Procedure

After providing the validity and reliability of the scale and giving the final shape to the items, the application stage was launched. The scale was applied at the fall semester of 2005-2006 academic year in the schools predetermined. Totally, 750 packets were distributed to the schools from which the samplings had been taken. 64 (8.5%) scales returned blank, 54 (7.2%) scales didn't returned. 632 of these scales (84.3%) returned. 58 of these (9.2%) returned scales were canceled and weren't evaluated. As a result, 574 (76.5%) scales were taken into account.

Statistical techniques used for the data analysis

In this research, frequency, percentage, average, standard deviation, t-test, Mann Whitney U Test, One-way Analysis of Variance Test and multiple comparison tests were utilized. In all of the significance tests, alpha value was set to α=.05. SPSS 15 was used for the data analysis.

Findings
Findings related to the first sub-problem

The first three topics which have the *highest* average on the factors that affect individual education demand are as follows[2*]: "I am very pleased with the curriculum that I study at present," "I chose because it will earned me a good job," and " I chose because it matched my skills."

The first three topics which have the *lowest* average on the factors that affect individual education demand are as follows: "I chose because I was affected by the informative articles about universities in the newspapers," "I chose because I found the dormitories of ADU agreeable," and "I chose because I was affected by the informative TV programs about universities."

Findings related to the second sub-problem

The dimension which has the *highest* average on the factors that affect individual education demand is the dimension of "individual gratification." The dimension which has the *lowest* average on the factors that affect individual education demand is the dimension of 'Presentation.'

[2*] See, Sarpkaya (2008) for whole version of the scale.

Findings related to the third sub-problem

According to mothers' work status, there appears to be a significant difference in the dimensions of the students' opinions related to the factors that affect individual education, which are demand and orientation dimensions of the scale. Students who had working mothers had lower average than ones whose mothers were not working.

According to whether the students have a hereditary disease or not, there appears a significant difference in the dimension of the students' opinions related to the factors that affect individual education, which is the individual gratification dimension of the scale. The students having a hereditary disease have lower average in entrance to the university than the others not having a hereditary disease. With reference to this situation, it can be affirmed that those having a hereditary disease are more effective for their demands of individual education than those not having a hereditary disease.

According to their fathers' educational status, there appears a significant difference in the dimensions of the students' opinions related to the factors that affect individual education, which are the qualified education and employment dimensions of the scale. It has been observed that the students whose fathers have a secondary school diploma consider the employment and qualified education dimensions of the scale less than those whose fathers have a university degree.

There appears a significant difference in the dimensions of the students' opinions related to the factors that affect individual education, which are sheltering and employment according to the family settlement. The students whose families live in the village consider the sheltering dimension of the scale in university entrance more than those whose families live in town.

The students whose families have a conservative world-view consider the orientation dimension of the scale in entrance to the university more than those whose families have a social democrat and the other option world-view.

Results

The first three topics which have the *highest* average on the factors that affect individual education demand are as follows: "I am very pleased with the curriculum that I study at present.", "I chose because it will

earned me a good job.", "I chose because it matched my skills.". It is a fact/ phenomenon supported by literature that, in entrance to the university, students head towards a job which they can make a living and satisfy in the future. Thus, Ünal (1996) affirm that individual demand of education is mostly a demand of profession for education levels after the obligatory education. In the research of Türk Eğitim Derneği ([TED], 2006), the question of "Why would you like to study in a university?" was replied by the 50.2% of the university students as "to have a job." Kuzgun (2006) affirm that especially the highly talented students consider their own talents in entrance to the university.

According to the findings of the research, it appears that students weren't affected by the informative TV programs and articles in the newspapers while choosing ADU. However, Yeşilyaprak (2003) emphasizes that it is important to benefit from catalogues, books, magazines and booklets prepared by various institution and also from computers while investigating and recognizing a profession. That situation can arise from ADU not having introduced itself sufficiently in newspapers and TV. As an outside chance, it may arise from students' having information from another sources about ADU.

The dimension which has the *highest* average of the students' opinions related to the factors that affect individual education demand is the dimension of 'individual gratification'. At this dimension, looking at the items, it appears important to head towards a suitable profession according to their liking in their individual demands. Thus, in the research of Ünal (1990) it is emphasized that an occupation that they can profess fondly is very important in their employment expectations. Menon (1998) affirms that professional and psychological-individual factors affect significantly the resolution of studying in a university after high school.

It is observed that students affect *less* from the publicity dimension in orientation to the university. The field, in which the publicity plays an important role while students shape their individual education demands, is emphasized in the literature. Özyürek and Atıcı (2002) state that one of the supplementary sources is also about media for university students while choosing a profession. Hamgivrst (1978) affirms that while heading through a profession (market), individual uses information passed through various filters one of which is mass media (Transferred by cited in Ünal, 1996). Söylemez (1997) also emphasizes that some universities

like Bilkent, METU introduce themselves by sending various booklets to the students listed in first 2000 and this kind of publicity actions are considerably effective. As can be observed, publicity has an important role in the individuals' decision to the university entrance. The fact that the dimension of publicity isn't much effective in this research may arise from ADU not having introduced itself adequately.

The students having their mothers employed have lower average than the others having their mothers unemployed. With reference to this, the students having their mothers employed affect less from the topics listed under the orientation dimension of the scale in entrance to the university. These topics are benefitting from guidance counselor at high school or at private tutoring and from the teachers' recommendation at high school. It can be conceived that the socio-economic levels of families, in which the mothers are employed live is better than the others. Thereby, it can be asserted that a mother having a profession can be more effective to orient her children towards a profession. In the same way, the fact that the students having their mothers employed have lower average in the sheltering dimension can be linked to the high socio-economic level of the family. Thus, Serin (1979) and Ünal (1996) emphasize that socio-economic level of the family is directly proportional to the importance attached to the child's education. Jackson, & Weathersby (1975) assert that the fact whether the costs are high or low affects considerably the demand for universities. According to Kuzgun (2006), the socio-economic condition of an individual determines his/her level of education and eventually the profession chosen by him/her.

The students having a hereditary disease have lower average than the others not having a hereditary disease. With reference to this, students having a hereditary disease are more effective for their demands of individual education than the others. This situation may arise from the fact that the students having a hereditary disease approach pessimistically to the life and the future due to their malady. Enç, Çağlar, & Özsoy (1981) assert that those who have a chronic disease have various deficiencies and as a result of this, lots of negative feelings and behavioral patterns appear. These kinds of children show lack of self-confidence. They are anxious and apprehensive and have social depression. Kobal (2003) states that children having orthopedic and health deficiency have some specific characteristics in some fields such as social, linguistic, emotional

and physical; for this reason, if they aren't encouraged, they may be surrendered by the feeling of being handicapped incessantly in their life.

The students whose fathers have a secondary school diploma consider the employment and qualified education dimensions of the scale less than those whose fathers have a university degree. Albert (2000) emphasizes that family features are important factors in the student's demand for higher education; especially the mother's educational status is more important than the father's. In our research, the fact that, the educational status of the father is more effective in the employment and qualified education dimensions related to demand for individual education, may arise from the specific conditions of our country because, patriarchal family structure is dominant in our country.

Students whose families live in the village consider the sheltering dimension of the scale in university entrance more than those whose families live in town. It can be observed that the students whose families live in town consider the employment dimension of the scale in entrance to the university more than those whose families live in the village. The more geo-demographic size of the family settlement increases, the less it affects the demand for individual education in the sheltering and employment dimensions. Thus, Ünal (1996) asserts that there are differences between those who live in countryside and those who live in town in terms of educational expectations and attitudes. Sa, Florax, and Rietvelt (2003), Zumeta (1996) and Engels (1975) affirm that regional factors are important in the higher education demand.

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