

# THE RELATIONSHIP BETWEEN HUMAN CAPITAL AND MBA EDUCATION: THE CASE OF TURKEY

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## Abstract



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Human capital is one of the most important source for economic development and economic progress in a country. Of course, the quality of human capital will be determinative of the economic development and economic progress. Education, on the other hand, is the most important and the initial step in improving the quality of human capital and in achieving a sufficient level of qualification regarding human capital. Today, undergraduate education programs, especially Master of Business Administration (MBA) programs, make a greater contribution in upgrading the quality of the human capital. MBA programs have become widespread in Turkey as well as in many countries around the world.

There is a necessity of measuring the quality level of human capital which is provided by the education especially, MBA programs. Within the framework of this necessity, in this article, it is aimed to measure the level of contribution of MBA programs to human capital in Turkey.

According to the results of the study, there is a statistically significant relationship between economic performance and the quality of human capital obtained through MBA education. However, according to another result of the study, the effect of MBA education on the level of disposable personal income takes time. Moreover, more effort to increase the awareness of the public and private institutions about the contribution of MBA education to human capital is needed.

**Keywords:** *Economic Development, Human Capital, Social Capital, Education, MBA Programs.*

**JEL Classification:** *I23, I25, E22, E24.*

## Introduction

The basic driving forces for economic development and economic progress are production factors, the quality and quantity of which must be taken into consideration since they are determinative of the level of development of a country.

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The traditional perspective, which proposes that labour, capital, natural resources, and entrepreneurship are the only production factors necessary to understand our current economic and business environment, is insufficient. Capital, which according to the traditional view represents tangible assets, has currently been revised within wider individual and social perspectives. That there exists a significant correlation between economic progress/growth and human capital, which physically represents individuals' competencies and experiences, has been increasingly emphasized since the 1960s. Education has taken a central place among the factors, which affect the quality of human capital, according to recent studies. It is thus evident that there exists a strong correlation between education and economic progress and growth, in other words economic performance.

Empirical studies regarding both the relationship between human capital and economic progress/development, and the relationship between human capital increases through education and economic performance, have been conducted in Turkey as well as in many other countries. Such research studies have been conducted in the field of Masters of Business Administration, MBA, programs which have become a common phenomenon in Turkey in recent years. These research studies enable one to make a meaningful assessment of the financial effects of the program through its contribution to human capital development with data analysis obtained concerning the expectations of the program students have and the program's level of achievement in meeting those expectations. This paper arises from the quest to reveal the relationship between economic performance through human capital and an MBA education, and aims to produce certain empirical results beneficial for businesses, which are in need of quality human forces regardless of their being private or public corporations, and to contribute to the literature in question. The study encompasses five main parts, which are as follows:

The first part examines the relationship between human capital and economic performance, while the second part investigates the relationship between human capital and education. The third part provides a literature review of some leading related studies at the micro and macro levels. The fourth part elaborates upon this current research to determine the level of contribution MBA programs make to human capital. The research is based on a questionnaire, and analysis of the questionnaire items, which is conducted with the sample group graduated from MBA education.

## **1. The Economic Importance of Human Capital**

Inputs/resources required for the production of goods and services people consume to meet their related needs are called production factors. The financial objective to meet consumer needs in terms of higher levels of quality and quantity is viewed as economic growth or progress and is bound to the level of development of one country. Thus, production factors play an important role from the economic development and growth. The production factors in both classical and neoclassical frameworks include labour, capital, natural resources and entrepreneurship. In that classical approach, capital as one of the production factors refers to physical units such as machinery, tools and other technical equipment. From the common perspective, capital is believed to express monetary power. Even though capital in human life

means money and materials, which are purchased with it, capital in fact has a wider and different meaning when the production process is now taken into account.

In the Classical model, production factors may be confined to only two, because labour and entrepreneurship are both human-related resources. The Labour factor is also defined as an unqualified human force while entrepreneurship is somehow viewed as a human resource, which may take risks and requires education. On the other hand, capital, in terms of physical and financial perspective is savings that one acquires from incomes originating from utilizing natural resources in previous ages. Capital is also defined as accumulated labour. Both physical capital, which is also described as machinery, tool and other equipment used in production, and financial capital used to purchase physical capital are a combined factor. Thus, in other words, basic production factors are human and natural resources. This leads one to the conclusion that it is quite important to have more human and natural resources, in terms of quality and quantity of both human and natural resources to maintain economic growth/progress. If one should redefine the term capital according to the above-mentioned classical model assumptions, taking also modern production factors into consideration, capital then includes human capital and social capital as well as physical and financial capital.

Individual and social capitals are more concrete compared to the classical view, which suggests that physical and financial capitals are more concrete and observable. Human capital is embodied in one's knowledge and experience, social capital is reflected in the relationships between individuals, both in society and in organizations. Capital may now be defined considering all four of these different aspects: Capital is the total sum of both materialistic and unmaterialistic (spiritual) assets, which are contributing factors in terms of quantitative and qualitative aspects of the production process. Such a definition leads one to the conclusion that the essential production factors in economic growth and progress are social and human capital, which emphasizes the quality of individuals and interpersonal relationships rather than physical and financial capital.

This paper reveals, as the literature review in the study also suggests that, classical model based production factors and traditional definition of capital are not sufficient to explain financial activities in today's production process of services and goods. As one study in the literature review suggests, the impetus for economic growth in terms of production factors is more likely individual and social capital rather than labour and financial capital.

In the period where classical models prevails, that knowledge accumulation is not appreciated and the human being is viewed as an inconsequential factor, as a mere source for capital in the production process has brought less attention to individual and social capital which emphasize both individuals and interpersonal relationships. Both Marshall and Mill oppose the concept of human capital, since Marshall stresses the non-existence of human capital, and Mill proposes that welfare is for human beings and human beings should not be considered as a resource of welfare. However, human capital should not be avoided, but in contrast, needs to be thoroughly addressed more carefully in the production process where knowledge, education and experience play central roles. Because, a proper level of human capital in today's economic business environment is an important determinant in the technological

advancement through Research and Development activities, and so is technological advancement in the area of economic development.

## **2. The Relationship between Human Capital and Education**

Although physical power potential, (in other words labour) as a production factor, has been predominant in the classical model, human capital, in this sense, already represents labour. In a brief definition, human capital is a set of quality based on positive values, which represent the dynamism, experience, knowledge and skills of a workforce in the production process. In accordance with the given definition, a person's education level takes an important place in the surge in human capital. Many empirical studies conclude that there exists a positive relationship between education expenses and economic growth. However, any positive financial growth can not be identified with education. Education and health are two pioneering determinants of human capital. Education and health expenses have a priority on individual expenses. The component to make the work force more quality by raising their competence and performance is education, while the other component to raise their efficiency and effectiveness is health.

Certain factors such as dynamic population and brain drain also have a huge impact on human capital, in addition to the major factors: education and health. High quality human capital and the exploitation of this human capital enable one country to efficiently and conveniently implement its financial and physical capital, and thus to sustain its economic growth/progress.

Education from the perspective of Human capital is divisible into three categories; pre-school education, school-based education and in-service education. School-based instruction may further be divided into three groups, namely primary and middle school, high school, and higher education institutions. Higher education has also three main sub categories; associate degrees, undergraduate degrees and post-graduate degrees. MBA plays a key role amongst other master degrees to raise the quality of human capital. The program has become common in parallel with the demand all around the world.

Some indicators, which express human capital's potential adherence to education, are availability of schools country wide, literacy rate, the rate of higher education, budget allocation to education, the number of academic publishing and one's educational expenses and education level.

The studies conducted in the context of Turkey like other studies worldwide, reveal that educational expenses incurred at any level and of any kind contribute to one's financial intake and efficiency and thus his country. The literature review examines the relationship between human capital and economic performance (economic growth/progress) at both micro and macro levels. The authors' literature review finds that some studies, regarding human capital and one's individual education level, were conducted, but most are only confined to primary, high schools and undergraduate degrees, and that no particular study has been done on post-graduate degrees in the Turkish context. Nevertheless, it is vital to carry out quantitative researches with a focus on the relationship between economic growth/progress and education levels (to further studies). There is also an emerging need to do quantitative research on, and

to perform a research analysis for, the quality level, which an MBA program provides to human capital.

The findings between MBA programs and human capital will constitute the basis for a check-up on both the quality of the educational programs and the capacity utilization individuals and institutions try to obtain from MBA programs.

### **3. Literature Review**

The Neoclassical growth model, which was predominant in the literature of economics and constituted the basis for Solow's 1956 work, was not able to elaborate the concept 'growth' in a fully proper way in the 1980s. Much of the Neoclassical growth model, which disregards technological development and human capital, holding them as exogenous factors, is focused on physical capital and asserts that the economic development in developing countries would be achieved without any state intervention. Although the easy flow of money, a result of globalization, reduces the importance of differences of owning physical capital among the states, it has not been able to reduce the distinctions of the level of development of countries. Thus, this has compelled economists to construct alternate growth models from Neo-classical growth theories, which are insufficient to explain the concept 'growth'.

In fact, the Solow model of economic growth has been a prevailing theory since the 1960s, an early period, and has touched on how to foster human capital as a requirement of efficiency of the human factor. On the other hand, it is necessary to state that before the afore-mentioned period, classical economists, such as A. Smith, Marhsall, Mill and Senior, mention about education (thus human capital). The studies conducted by Denison (1962) and Schultz (since 1960) who were accepted as the theoretical main contributors to the concept human capital, have paid close attention to human capital. Since the second half of 1970s, the human factor has taken its place in the economic analysis and in particular, underscores the importance of investments made to the human factor (Doğan & Şanlı, 2003; 173-196). For example, Denison measured the USA's average annual growth rate at 2.93%, between the years 1929-1959. However, Denison attempted to break down the rate, finding that 0.92% accounts for labour and 2.01% for an increase in efficiency related to education, and thus increased the attention to human capital investment.

Since the mid-1980s, human capital and technology have been highly valued and endogenous growth model has predominated Neo-classical growth. The concentration on both concepts sped up in 1990s thanks to early, pioneer studies like Romer's (1986) and Lucas' (1988). Lucas claims that Solow had not developed a direct and original growth theory and reached a conclusion based only on the growth dynamics of the USA economy and suggests that the most vital factor in the long-term growth is human capital and that physical capital has been overvalued. Lucas emphasizes, in his own growth model, that the Lucas Growth Model is meant to add the concept individual human capital to the model. The basic assumptions in Lucas' 1988 study have been a handy resource for many models, which examine the effect of 'human capital' on economic growth.

### **3.1 Literature Review on Macro Level**

Schultz, one of the founders of human capital theory, suggests in one of his studies that any investment on human capital investment ensures economic development in the shorter period, having emphasized the role of the human factor (Schultz, 1961;1-17). Psacharopoulos and Schultz made an international analysis on the impact of education on economic growth, according to their results education has influenced economic growth at certain rates, as 25% in Canada, 15% in the USA, %2 in Germany, %6 in France, %7 in Italy, %16.5 in Argentina, %3.3 in Brazil, %0.8 in Mexico, %3.3 in Japan, %14.7 in Malaysia and %15.9 in South Korea (Psacharopoulos and Schultz, 1984; 337).

Following the pioneer studies of Schultz, Denison and Psacharopoulos, human capital, which were initially used in the literature of economical growth, turned out to be a phenomenon, due to Lucas's study conducted in late 1980s. Many different studies were done on the effects of educational investments and it is empirical to state that almost all of these studies conclude that human capital has a positive impact on economic performance.

Romer, who examined 112 countries between the years 1960-1985, rated those countries according to their level of development, used as data the portion of total investments (including public investments) in GDP, the proportion of non-investment expenses in GDP and the income per capita in the mentioned period. The study, in which Endogenous growth model was used, concludes that education (educational expenses) representing human capital has a positive effect of economic growth.

Mankiw, Romer and Weil conducted a comparative analysis by way of international data obtained, restructuring the Solow model by adding the concept of human capital (i.e. human capital was added to the Neo-classical growth model). They found that the integrated Solow model perfectly explains the data (Mankiw, Romer and Weil, 1992; 407-431). Barro and Lee who carried out a similar study on 129 countries, examined each individual five year between the years 1960-1985. Barro and Lee examined each gender separately and established the level of education as a variable, having categorized the levels as illiterate, primary school graduate, middle school graduate, and higher education graduate. Barro and Lee conclude that an increase in one's education level promotes economic development (Barro & Lee, 1993; 1-29).

Lau and his colleagues looked into Brazil's economic performance between 1970 and 1980 and established four variables for economic growth, namely physical capital, labour, human capital and technological advancement. They initially found both average education period and level in the country and conducted a further study later which found out that just a one-year increase in education level improves labour efficiency by an average of 20%. They additionally discovered that of these four variables technology itself totals efficiency at 40%, human capital at 24%, physical capital at 19% and finally labour at 17% (Lau, Jamison, Liu, Rivkin, 1993; 45-70).

Barro made the most comprehensive study on the relationship between human capital and economic growth in 1990s and found that one's pursuing his education one more year results in 0.44% increase in economical growth (Barro, 1998; 5-6).

Freire-Seren examined the empirical relationship between economic growth and human capital between 1960 and 1990, and discovered that human capital has a positive effect on economic development and economic development contributes to human capital in turn (Freire-Seren, 2001, 585-602).

Asteriou and Agiomirgianakis, who did a similar study in the context of Greece on the relationship between economic development and human capital, examined the correlation between income per capita and the number of registered students at primary, middle schools and higher educational institutions. They found that the number of registered students and the growth rate is cointegrated (Asteriou, Agiomirgianakis, 2001; 481-489). In another study conducted in Japan between 1952 and 1953, co-integration and causality analysis were administered. The results indicate the presence of bilateral causality between economic growth and human capital (Cheng, Hsu, 1997; 393-395).

Likewise, the studies carried out in Turkey yielded similar results and concluded that there is a positive correlation between economic growth/performance and education. Doğan and Bozkurt who examined the period between 1983 and 2001, set education (the enrollment rates and the rate of education budget allocation) and economic growth as variables in their study and reached the conclusion that education positively affects economic growth (Doğan and Bozkurt, 2003; 1-9).

It was concluded in another study conducted in Turkey that one year extension in period of education increases the rate of national income growth by 21% (Ergen, 1999; 54-55). Another study which was conducted to examine the effect of education on economical growth for the years between 1980 and 1990, in 67 cities of Turkey, detected a positive correlation between the employment of qualified staff and industrial output (Güngör, 1997; 211).

Kar and Taban, in their study, found that expenses on education and national social security contribute positively to economic growth (Kar and Taban, 2003; 145-170).

Kar and Ağır, in a subsequent study, examined the relationship between economic growth and human capital by means of a causality test – commonly used in endogenous growth models through the data obtained between 1926 and 1994, and concluded that causality analysis is sensitive to the human capital index (Kar and Ağır, 2003).

Sarı and Soytaş analyzed on the relationship between GDP and the number of the registered students for the period 1937-1996, and concluded that education and real GDP are cointegrated.

### **3.2 Literature on Micro Level**

Many of the studies on human capital examine the impact of human capital on the economies at a micro level. There are only a few studies which focus on the individual factor compared to a large number of the studies measuring growth and development. In such studies, which look into human capital in terms of education, researchers assume that one certain effect of an additional higher education is higher wages at a micro level. It is also crucial to note that these studies found that education investments provide not only financial but also psychological contributions.

Barro states that education is not only an element which boosts one's knowledge and skills, and thus his efficiency, but it is also a factor which increases the quality of one's life and the welfare state (Barro, 2002; 9-24). Because any additional education completed generates a better chance of finding a better job in the labour market (Öztürk, 2005; 9), the result is higher wages. On the other hand, *ceteris paribus*, an educated workforce acquires higher pay. Thus, for the workforce to be more qualified there is a need for an educational investment (Ünal, 1993; 227).

There are various theoretical approaches to the contribution of education to one's life. One of those approaches is Signaling. The Signaling Approach proposed by Micheal Spence (1974), is based on the idea that sellers send signals to buyers about the quality of their products. A seller here may be viewed as employees and a buyer as employer. When an employer chooses among potential employees, he tries to understand whether the employee's qualifications are sufficient and finally strives to employ the best available in the market. Spence states that education credentials may be used as a reliable signal to differentiate individuals in terms of their capabilities, and that one's educational degree may indicate his level of learning ability (Spence, 1974; 296-332). It is worthy of mention that education is just a signal in this context, but may not be related to what one has learned in the process. Queuing Theory, which examines the role of education in one's life, education is not a factor to increase an employee's efficiency, because efficiency is a feature of work, not an employee's trait. Those high efficiency oriented jobs are believed to pay high wages to employees (these jobs require the use of high technology) (Carnoy, 1995; 1-9).

Some other similar studies also show that higher education lead to individuals' efficiency and wages. Breton found that a 4 year secondary school education increases one's pay by 24%, associate schools by 47% and undergraduate degrees by 89% (Breton, 2003; 3).

According to another study which was conducted for both genders in the USA, between the years 1967-1995, the turnover rates for secondary school degree to income level (a rate measured from the real income) reduced to 10.8% from 12.5% for men and increased to 13.3% from 9.7% for women for the years between 1967 and 1980. The same rate for undergraduates (a rate measured from the real income) is 11.6% for male and 11.8% for female employees, between the years 1967-1995 (Arias, McMahon, 2001; 121-138).

Psacharopoulos suggests that an increase in one's education level is promoted in private enterprises more than in public and that leaving school one year later may cause an increase in income distribution from 12% to 15% in England (Psacharopoulos, 1984; 347). Turkmen's study also concludes that the turnover of higher graduation to income level is quite high in Turkey, for the period 1980-1999 (Türkmen, 2002).

#### **4. The Methodology**

In the methodology part of the study, the analysis results and hypotheses of the obtained data are tested by taking into account the purpose and method of the research and the demographic information of the participants.

#### **4.1. The Purpose of the Research**

Employees join the MBA programs to improve the quality of their work and to make their work more productive in the institution. However, how satisfied are the participants with the MBA programs, and at what level do participants in MBA programs recommend these programs to others? In this context, in this research, the factors that are effective in the recommendation of MBA programs have been determined, and the impact levels of expectation of contribution to human capital, the contribution of workplace and contribution to human capital in the MBA program was investigated.

#### **4.2. The Method of the Research and Data Collection Tools**

The research is structured in the form of a questionnaire and is designed in two steps as follows:

In the first step, the questions/items are generated, with the help of both the theoretical background, and the suggestions and ideas of the lecturers who tutor in certain MBA programs. In the second step, the questionnaire was applied to a pilot MBA graduate program and eventually redesigned in consideration of their views.

A quantitative 5 point Likert scale (1- *very little*, 5- *very much*) was used in the questionnaire. The sampling group was selected from the MBA graduates (in both languages; Turkish and English).

#### **4.3. Sample and Demographic Characteristics of the Research**

The questionnaire was sent to 1,187 graduates of the MBA programs and 170 graduates responded. Thus, the questionnaire includes 170 participants' responses.

Male respondents account for 70.39% of the whole sample group and female respondents account for 29.61%. The mean average age of the sample is 33.02 by the year they graduated and 35.03 by the date when the questionnaire was conducted. To provide more details, the average age among the male participants is 33.58 by their graduation year and 35.60 by the questionnaire date. As for the female respondents, the overall age mean is 31.69 by the year they graduated, and 33.71 by the date questionnaire was administered. 40% of the sample group works at public institutions and 60% at private enterprises.

#### **4.4. Research Hypothesis**

The research hypotheses are listed as follows:

**H1:** There is no significant effect of expectation of contribution to human capital on encouraging and recommending participation in the MBA program.

**H2:** There is no significant effect of the contribution of workplace on encouraging and recommending participation in the MBA program.

**H3:** There is no significant effect of the contribution to human capital of participation in MBA program on encouraging and recommending participation in the MBA program.

#### **4.5. Analysis of the Research Data**

The answers to the survey questions were analyzed with the reliability of the questionnaire. Main factors affecting research by doing factor analysis, significant effects of factors have been revealed with multiple regression analysis, and hypotheses have been tested. IBM SPSS 21 statistical package program was used to analyze the collected data.

##### **4.5.1. Reliability Coefficient Value**

According to the calculation of the reliability of the questionnaire, the internal reliability (consistency) coefficient (Cronbach's Alpha) of the scale was found to be 80.9%. Values between 0.8 and 1 according to Alpha value indicate that the scale is highly reliable. (Akgül ve Çevik 2003; 435-436)

The findings derived from the questionnaire and their analysis are provided below as follows;

##### **4.5.1.1. Impact of the decision to do MBA on Future Career Plans and Higher Income Expectation**

82.4% of the participants state that their career plans contributed to their decision to pursue an MBA and 17.6% of the whole group state that they commenced the program without taking their career plans into consideration as a determinant factor.

46.5% of the graduates state that the expected increase in their income level had no effect on their decision, while 53.5% of the participants consider an increase in their income level as an impetus.

When the answers to both questions are analyzed, the respondents' main driving force for pursuing an MBA is the program's potential contribution to their future career plans. An increase in income level does not have an overly significant impact on their decision making process.

##### **4.5.1.2. Contribution of Workplace in the Participants' Decision Making on MBA Program**

46.5% of the participants said that the institutions they work for contributed to their MBA education, while 53.5% of the group stated that they had no institutional contribution to their education.

When these mentioned rates are investigated, there is no certain trend observable. This result implies that there exists a need to increase the firms/institutions' awareness of fostering the quality of human capital.

##### **4.5.1.3. Impact of MBA on Personal Development**

68.8% of the participants emphasized that their MBA training has a positive influence to improve their personal development, and the same percentage of the respondents mentioned that their self-esteem has been encouraged through the education they have received.

When the high rate of positive responses to the question is taken into consideration, one concludes that the participants have already realized the positive output of the program on their personal development.

#### **4.5.1.4. Impact of MBA on Motivation towards Work**

Only 15.3% of the MBA graduates said that the program did not have any effect on their motivation level towards work. As the majority (84.7%) of the respondents believed that the program increased their motivation at work, one may thus conclude that MBA increases people's professional motivation.

#### **4.5.1.5. Impact of MBA on One's Career**

33.5% of the participants stated that an MBA had no positive effect on their career, while the rest (66.5%) claimed that it contributed positively to their career.

When only the participants whose career plans are taken into account in their decision are considered, 80.7% of this group has attained their career plans according to the study. This rate infers that an MBA is successful assisting to the graduates to realize their future career plans.

#### **4.5.1.6. Success Level of MBA Program to Meet Expectations**

Only 12.9% of the respondents in the whole group believe that the MBA program did not meet their expectations.

The ones who state their expectations are met at a medium-level is 42.9%, while the percentage of the ones believing that the program met their expectations to a high level of success is 44.1%. From the perspective of the success level of MBA programs only, an MBA program meets the expectations.

#### **4.5.1.7. Impact of MBA on Recognition at Workplace**

After the completion of the program, 32.9% of the participants believe that they do not get enough social recognition, 37.6% believe they have got respect at a medium level, and 29.5% at above a medium level.

The figures suggest that there is no observed trend for any social recognition provided by completing an MBA.

#### **4.5.1.8. Impact of MBA on Income Level and Professional Position**

The total percentage of participants whose income has indeed increased as a result of obtaining an MBA degree was only 14.7%.

On the other hand, the rate of participants who stated that they had received a promotion at work due to their MBA degree was 15.9%.

When both these rates are examined, one may conclude that the impact of an MBA degree on the income level and on a promotion at work is quite low. The main reason for these low results is that it takes a certain period of time to get promoted at work and to increase one's income in response to a recently acquired degree. Some studies in the literature (Arias and McMahan, 2001) also confirm that it takes a long time to profit from the turnover of such human capital investments. Thus, when the impact of an MBA on both one's career and other expectations are considered alone, it is expected that one may have a better position at work

and a higher income in the following years, rather than having a more immediately effect following the completion of the degree.

#### **4.5.1.9. The Level of Recommendation of the Program**

Only 4.7% of the participants do not recommend the MBA program to others, while 80% strongly recommend it.

When the above cited figures about the recommendation level are examined, it may be concluded that customer satisfaction attained on the MBA program is very high.

#### **4.5.1.10. Compared Analysis and Assessment**

**A.** 76% of the participants who have decided to pursue an MBA only in order have a better career trajectory consider that the program had a positive effect on their career.

**B.** 90% of the MBA graduates, who take only their career plans into consideration in the decision making process, state the program was able to meet their expectations.

**C.** 87% of the graduates, who take 'the desire for a better income' into account in their decision to do an MBA, state that the program was able to meet their expectations.

**D.** 60% of those who take either their career plans or a higher income into consideration in their decision to attend an MBA program, state that their expectations had been realized, while comparatively this rate was 20% for the participants who said that both of their expectations (a better career and higher income) had been realized.

**E.** Of the graduates who affirmed that the program assisted them in their personal development, 96% confirmed to have gained an increase in their self-esteem.

**F.** 94% of the participants who allege to have experienced a positive impact from their MBA on their career affirmed that their expectation was met successfully.

**G.** The total percentage who states that the program was able to meet their expectations and recommend the MBA program to others was at 99%.

**H.** Out of the graduates, 79% of the public officers and 84.5% of the employees at private enterprises state that their future career plans had an effect on their decision-making to do MBA.

**I.** 46% of the public officers and 58% of the employers at private sector state that their expectation for a higher wage caused them to do MBA. When the figures are compared, one may conclude that the employees at private enterprises consign a higher level of importance on MBA programs.

**J.** 61% of the public officers state that MBA had a positive effect on their career. This was 70% for the employees at private sector.

**K.** 51% of the public officers and 55% of the private sector employees state that their institutions had a partial impact in their decision to do MBA.

**L.** 67% of the public servants who take their career plans into consideration in their decision making to do MBA state that the program had a positive effect in their career, and this was 78% for their counterparts at private sector.

Table-1 below summarizes the results the relationship among the responses obtained from the questionnaire with the help of Pearson Correlation.

**Table-1:** Correlation Coefficients of Research Variables

Correlation Coefficient/Sig. (two-tailed)/N/	My career plans had an effect to do MBA.	My expectation for a higher income level had an effect to do MBA.	The institution I work for had an effect my decision to do MBA.	MBA program helped my personal development.	The program assisted me to increase my self-confidence.	MBA increased my motivation towards my work.	The program had a positive effect on my career.	MBA was able to meet my expectations.	I now feel more social recognition at my workplace thanks to my MBA degree.	I encourage and recommend the MBA education.
My future career plans had an effect my doing MBA.	1 .000 170	.518** .000 170	.074 .339 170	.302** .000 170	.349** .000 170	.400** .000 170	.321** .000 170	.203** .008 170	.349** .000 170	.115 .136 170
My expectation for a higher income level had an effect to do MBA.	.518** .000 170	1 .000 170	.062 .425 170	.124 .107 170	.166* .031 170	.212** .005 170	.296** .000 170	.083 .282 170	.264** .001 170	.028 .720 170
The institution I work for had an effect my decision to do MBA.	.074 .339 170	.062 .425 170	1 .000 170	.086 .262 170	.136 .078 170	.269** .000 170	.080 .299 170	-.108 .162 170	-.113 .142 170	.084 .277 170
MBA program helped my personal development.	.302** .000 170	.124 .107 170	.086 .262 170	1 .000 170	.665** .000 170	.512** .000 170	.324** .000 170	.460** .000 170	.411** .000 170	.363** .000 170
The program assisted me to increase my selfconfidence.	.349** .000 170	.166* .031 170	.136 .078 170	.665** .000 170	1 .000 170	.568** .000 170	.335** .000 170	.442** .000 170	.443** .000 170	.317** .000 170
MBA increased my motivation towards the work.	.400** .000 170	.212** .005 170	.269** .000 170	.512** .000 170	.568** .000 170	1 .000 170	.465** .000 170	.339** .000 170	.377** .000 170	.340** .000 170
The program had a positive effect on my career.	.321** .000 170	.296** .000 170	.080 .299 170	.324** .000 170	.335** .000 170	.465** .000 170	1 .000 170	.414** .000 170	.541** .000 170	.237** .002 170
MBA was able to meet my expectations.	.203** .008 170	.083 .282 170	-.108 .162 170	.460** .000 170	.442** .000 170	.339** .000 170	.414** .000 170	1 .000 170	.409** .000 170	.429** .000 170
I now feel I'm having more social recognition at my workplace thanks to my MBA degree.	.349** .000 170	.264** .001 170	-.113 .142 170	.411** .000 170	.443** .000 170	.377** .000 170	.541** .000 170	.409** .000 170	1 .000 170	.256** .001 170
I encourage and recommend the MBA education.	.115 .136 170	.028 .720 170	.084 .277 170	.363** .000 170	.317** .000 170	.340** .000 170	.237** .002 170	.429** .000 170	.256** .001 170	1 .000 170

\*\* Correlation is significant at the 0.01 level, \*Correlation is significant at the 0.05 level.

#### 4.5.2. The Results of Factor Analysis

In the sample set subjected to Varimax rotation factor analysis, three main factors were identified that were effective in encouraging and recommending participation in the MBA program. In the factor analysis of nine items, it has been observed that the incentive and the recommendation to participate in the MBA programs has been divided into three main factors: Expectation of contribution to human capital, contribution of workplace, and contribution to human capital. The factor of expectation of contribution to human capital consists of two sub-factors: The effect of career planning on doing MBA and the effect of income expectation on doing MBA. The factor of contribution of workplace to do MBA is contribution of workplace as a factor in itself. The factor of contribution to human capital is shaped by the following sub-factors: The impact of MBA on the personal development, the impact of MBA on the motivation towards work, the impact of MBA on the career, the success level of MBA to meet expectations, the impact of MBA on the social recognition at workplace, the impact of MBA on income level, the impact of MBA on the professional position at workplace.

The factor loadings of the dimensions for expectation of contribution to human capital are 0.903 and 0.792. The factor loading for contribution of workplace is 0.912. The factor loadings of the dimensions for contribution to human capital are in the range of 0.606-0.777. The total variance of this scale score, defined by three main factors, was found to be 67.66%. The result of the KMO sample suitability test for 9 items of the factors related to do MBA was found to be 0.783 and the Bartlett's Test of Sphericity test result was also significant with 503.692 ( $p = 0.000 < 0.05$ ). In this case, the nine factors can be grouped into three main factors, and these three main factors can significantly explain 68% of the variability.

#### 4.5.3. Hypothesis Testing

Multiple regression analysis was used to test the hypotheses H1, H2 and H3. For this purpose, multiple regression analysis was performed to determine the effect of three different factors on the MBA recommendation.

All analysis results were assessed at significance levels of \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ . The multiple regression equation is:

$$IR = \alpha + \beta_1 EX + \beta_2 CW + \beta_3 HC + \varepsilon ,$$

In this model; IR shows the incentive and the recommendation to do MBA, EX represents expectation of contribution to human capital, CW represents contribution of workplace, and HC represents contribution to human capital.

Also, since the VIF values of all variables are greater than 10 and Tolerance values are not smaller than 0,1, the multicollinearity assumption is not violated.

The data in Table-2 shows that a meaningful model can be created. The model is significant for all variables with a value of  $F = 14.054$  ( $p = 0.000 < 0.01$ ).

**Table-2:** The Results of the Relationship between the MBA Recommendation & the Factors for MBA education

Variable	B	Standard error	Coefficients	t	p
Constant	2.253	0.313		7.207	0.000***
EX	-0.064	0.066	-0.073	-0.967	0.335
CW	0.03	0.04	0.053	0.766	0.445
HC	0.566	0.092	0.464	6.178	0.000***
R=0,448		R <sup>2</sup> =0,21			
F(3,168) =14.054		p=0,000***			

Such a model can be established with the available data, and the results of the analysis of the given factors with the independent variables on the MBA recommendation are also significant. It explains 21% of the total variance in MBA effects with the given independent variables. In fact, this disclosure rate includes important predictors. The independent variables in the model are able to explain 21 percent ( $R^2 = 0.21$ ) of the total variance in the dependent variable. That is, the factors mentioned in the MBA recommendation affect 21%. Nevertheless, while the most effective and the only significant factor in the MBA recommendation is the factor of contribution to human capital, no significant effects of the factor of workplace contribution and the factor of expectation of contribution to human capital are seen. While a model can be established with independent variables determined on the incentive and recommendation of MBA, only the contribution to human capital can be a criterion for incentive and recommendation. Since,  $\beta_3 = 0.464$ ,  $p = 0.000 < 0.01$  for the contribution to human capital, the contribution to human capital and the incentive and recommendation to the MBA program are positively influential in the same direction and has an effect of 46.4%. However, other factors, even they show a significant effect, appear to have an effect of 5-7%.

## Conclusion

In such an era where Classical Model is now unable to provide a comprehensive explanation on production process and production factors, human capital has an important role both for developed countries to realize their plans on economic growth & maintenance and for developing countries to provide economic development. Although there have been attempts to determine the relationship between human capital and economic growth & progress since 1960s, the 'quality' aspect of human factor has taken an important role in economic analysis just since 1970s. Schultz's theoretical and Denison's empirical studies have been some pioneering studies to increase the awareness of people on human capital. The causality between human capital and economic growth has been confirmed thanks to the following econometric studies. The studies conclude that human capital plays a central role in economic growth and progress, and that low quality of human factor is a chief factor amongst the negative factors which affect the underdeveloped countries' level of development.

It is important to increase the level of human capital, which is accepted as the most important factor for long term and sustainable growth. Thus, one's investments on his education serve as a major factor to make the best of human capital in production process. Some studies also conclude that physical capital investments which are not supported by required educational

expenses, in other words *low-quality* human factor, have resulted in a low level of economic efficiency.

Many studies conclude that there is a strong and significant correlation between human capital and economic growth and education and human capital.

This study investigates the relationship between human capital and economic performance along with an MBA degree being a factor. The study has the following results in light of the earlier established hypotheses;

As stated in the first hypothesis, an expectation of higher income is an important factor in their decision making to pursue an MBA through which they expect to foster their individual knowledge; the study also concludes that there is statistically a significant relationship between their future career plans & higher income and decision making to pursue an MBA. However, since 82.4% of the participants emphasize a positive effect of better career plans on their decision to attain an MBA while 53.5% has done MBA due to an expectation for a higher income, better career plans is a predominant factor for the participants to pursue an MBA. This is an unexpected result which one presumes the main factor would most probably be a higher wage.

When comes to the second hypothesis, the level of the relationship between the institutional support the participant get from their workplace and their decision to pursue MBA is under the expected level (53.5%). The low rate may suggest that there should be more studies to increase institutional awareness of the necessity of quality human capital at work places. The institutional support is higher (%55) for private enterprises (as expected) than public institutions.

As for the third hypothesis, it is concluded that there has been a significant relationship between MBA education and its contribution to one's personal development, motivation, and career, and thus human capital. According to the responses obtained from the participants, the program is able to meet the respondents' expectations. There is no significant trend observed regarding MBA's effect on increasing one's social recognition.

As for the last hypothesis, the study finds that there is not significant relationship between MBA and a real increase in one's income and position at work. Such a low result may be attributed to that such an increase in one's income and potential promotion may take some time. And some studies in the literature (Arias and McMahon, 2001) also confirm the result in this paper stating that turnover of human capital investments may take time. 95% of the respondents graduated from the program within the last four years. When such responses related to MBA's positive influence on career and meeting expectations are considered, the study concludes that getting such incentives may take time to realize. Additionally, ranking income level low may be a secondary reason for the case.

In conclusion, the study reveals that MBA has an impact on human capital, thus economic performance. To increase efficiency of human capital through MBA programs in Turkey may require high educational institutions to develop such masters programs and make them common.

Additionally, such institutions should strive to increase institutional (both public and private) awareness of contributing effect of MBA programs on individual and institutional development.

As educational expenses, including MBA programs, increase human capital, the Turkish government should allocate more resources and effort to the program in accordance with its 2023 macroeconomic goals. It is also vital to state that both the government's health and technology policies should be in synchronization with the education policy to fulfill macroeconomic objectives.

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