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Perception of Higher Education: A Public or Private Good?

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Abstract. The social benefit of higher education is one of the most important reasons for its being funded by the state. However, within the context of liberal economic policies, the perception of education as a private good and, therefore, the necessity of supplying it by the market has brought about a decrease in the state participation in higher education in many countries. Therefore, this study aims to determine whether students studying at public and foundation universities, differentiated according to financing, perceive their university education as a public or private good. In a sense, this study aims to examine whether different financing methods in higher education affect students' perception of higher education as a public good. In this study, the data collected from the students were tested within the scope of structural equation modelling, and the hypotheses put forward were confirmed. This study demonstrated that higher education is perceived as a public good by all university students whose financing method differs. According to the results obtained, students who are direct buyers of higher education services

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in universities that differ according to the financing method do not differentiate in terms of perceiving higher education as a public good.

Key words: higher education, public good, externalities, social benefit, private benefit, structural equation modelling.

Introduction

Education, which is a human right by national and international law, was defined as a right in the Universal Declaration of Human Rights in 1948[1] for the first time. Then, the International Covenant on Economic, Social and Cultural Rights (1996)[2], the United Nations Convention Against Discrimination in Education (1960)[3], and the Convention for the Protection of Human Rights and Fundamental Freedoms (1952)[4] define education as a human right. Today, 160 countries have been included in the United Nations Convention Against Discrimination in Education, which was signed on December 14, 1960. The Convention accepted that education is not a luxury but a fundamental human right, and the states' protection and substantial obligations to protect this right were emphasized. In this context, states are obliged to provide free and compulsory education. Furthermore, states have to stay away from discrimination and encourage equal education opportunities while fulfilling these obligations. In addition, the Convention holds the conditions responsible for realizing Higher Education based on individual ability as an education that can be seen equally by everyone.

While all these international agreements strengthened the public aspect of education, liberalization policies that became valid worldwide after 1980 caused the share of the public in education to decrease gradually. Thus, higher education has started to be defined as a traded service (Tilak, 2008), and its availability, traditionally seen as a public good based on the market, has become a dominant view due to the benefits it provides to society (Brown, 2015a). As a result, higher education was liberalized, private universities entered the market, and household education costs increased due to the cuts in the funds transferred by the state to higher education (Pusser, 2006). However, the social benefit provided by higher education is the essential issue limiting marketization in higher education (McMahon, 2009).

Neoclassical economic theory prescribes intervention of the state in the market in case of externalities, which it describes as one of the market failures. On the other hand, education gains the feature of being a public good because of its benefit scattered to the society, in other words, due to externalities. Nevertheless, despite the positive externalities of education, public financing of education and, accordingly, higher education has been limited in the world and Turkey within the scope of liberal policies implemented after 1980.

In Turkey, the share of the young population between the ages of 15–24 in the total population is 15.6%; and seven million young people are studying at higher education institutions. As of

[1] Universal Declaration of Human Rights, 1948. Available at: https://www.ohchr.org/sites/default/files/UDHR/Documents/UDHR_Translations/eng.pdf (accessed: January 10, 2022).

[2] International Covenant on Economic, Social and Cultural Rights, 1996. Available at: https://www.ohchr.org/en/instruments-mechanisms/instruments/international-covenant-economic-social-and-cultural-rights (accessed: January 10, 2022).

[3] United Nations Convention Against Discrimination in Education, 1960. Available at: http://portal.unesco.org/en/ev.php-URL_ID=12949&URL_DO=DO_TOPIC&URL_SECTION=201.html (accessed: January 10, 2022).

[4] Convention for the Protection of Human Rights and Fundamental Freedoms, 1952. Available at: https://www.echr.coe.int/documents/convention_eng.pdf (accessed: January 10, 2022).

2021, there are 207 universities in Turkey, 129 of these universities are public universities, and 78 are foundation universities.

Although there is a student contribution (the share of student contributions is generally below 10%) in state universities, their funding is provided from public sources to a great extent. A foundation higher education institution is defined as a university and high technology institute established by foundations, and faculties, institutes, colleges, vocational colleges, conservatories, research application centers and vocational colleges that are not affiliated with a university or high technology institute, provided that they are not for profit purposes. In foundation universities, financing of education and training is provided by foundation revenues, student fees (user fees), and government aid. As of 2020, the ratio of scholarship students in foundation universities has been increased to 15%, and students who are successful in the university entrance exam can benefit from scholarship opportunities at different rates.

Article 42 of the Constitution of the Republic of Turkey states: no one can be deprived of the right to education and training. Higher education in Turkey had been fully financed by the state until the first foundation university was established in 1986. Within the scope of liberal policies, the share of foundation universities has increased over the years, reaching 37% of all universities in 2022.

Since foundation universities are financed within the scope of user fees, more middle and upper-middle income groups can benefit from this education.

Being a public good is ascribed to education and higher education in particular because of the positive externalities they comprise. In this context, there have been different studies in the literature. It was examined to determine whether education is a public good or society perceives education as a public good. In the context of modern approaches, education is classified as a public good (Samuelson, 1954). It is stated that it is not a public good when considering its rivalry and exclusion characteristics (Kaul, Mendoza, 2003). Although the preferences of the political powers restrict the state's share in the economy and accordingly its share in higher education, the opinions of university students about the public aspect of higher education should be essential.

While it is being discussed in theory whether education is a public good, it has been examined what kind of good the society perceives as education and higher education in practice. It has been concluded that different demographic factors affect the perception of education[5] (Immerwahr, Foleno 2000; Baum et al. 2013).

According to national and international conventions, education has been accepted as a fundamental human right rather than a luxury. By emphasizing the obligations of States to provide free and compulsory education, equality of opportunity in education is promoted. Ensuring equal opportunity in education means that everyone benefits from education services without discrimination. While the liberal policies implemented almost all over the world after 1980 narrowed the state's share in the economy, this shrinkage also occurred in education expenditures and the presentation of education as a public good. In parallel with the shrinkage of the public's share in education, a more significant portion of the household's income had to be allocated to education. This situation, on the one hand, disrupts the equality of opportunity in education; on the other hand, it can negatively affect the social benefit. For this reason, it is essential whether university students, who directly take sides in the individual and social benefits of education, perceive education as public or private property

[5] Dudley J. (2015). *Perceptions of Higher Education: Private Good or Public Good?* Ph.D. dissertation. The University of Missouri-Columbia.

This study aims to determine whether students studying at public and foundation universities perceive their university education as a public or private good. In a sense, this study aims to examine whether different financing methods in higher education affect students' perception of higher education as a public good. Thus, with this study, in a sense, it will be determined how the higher education students evaluate the changing public share in higher education.

Education within the scope of public goods and externalities

It has been the subject of many studies to determine in which group the education service should be included in classifying private goods and public goods. In these studies, education has been described as a public good, semi-public good, and private good. This is due to the presence of different opinions regarding the definition of public goods in literature. The modern public goods theory is based on the description provided in (Samuelson, 1954), according to which the features of public goods should include the absence of rivalry between individuals in the consumption of the good. In other words, the marginal cost of the good should be zero and the benefit of the good cannot be excluded from the additional user (Musgrave, 1959). In this public goods classification limited by these two characteristics, education can be described as a private good in terms of not being excluded from the benefit of the good and not having rivalry in its consumption. Malkin and Wildavsky draw attention to the fact that a good that is classified as a public good in one society may be a private good in another society, and the society can determine the classification in question (Malkin, Wildavsky, 1991). In parallel with this, Kaul and Mendoza stated that the classification of public goods could not be made solely according to the criteria expressed by Samuelson (Kaul, Mendoza, 2003). Goods can be evaluated socially differently despite their basic characteristics and classified as private or public goods according to political preferences. In this context, Kaul and Mendoza placed education in different categories of goods and considered education both as a private good and as a human right, as well as a public good because of the positive externalities created by educated people and because the contributions of the educated people to economic growth and development being more productive (Kaul, Mendoza, 2003). In this classification, the main distinguishing element in characterizing education services as both private and public goods is its positive externality, i.e. the non-compensable effect of one's actions on the welfare of the other party. Since externality is a kind of by-product of any activity (Tullock, 2011), the private sector will not offer these by-products for free or bear their costs. Therefore, the production of such goods and services will have to be provided by the public sector (Batırel, 1990). In this context, it is helpful to examine the externalities of education.

Benefits provided by education and positive externalities

Due to the positive externalities, education has been closely associated with the public interest from classical economic theory to the present. Marshall describes education as a national investment (Marshall, 1890). Furthermore, in endogenous growth theories, education is an important component of economic development (Neira et al. 1990). Progressing in parallel with these views, many studies in the literature have discussed the individual and social benefits of education under different sub-titles (Weisbrod, 1964; Bowen, 1988; Baum, Payea 2004; Tilak, 2008). In their study detailing the benefits and costs of education, Mignat and Tan discussed the scattered benefits and costs of education individually and socially (Mignat, Tan, 1996). As shown in *Table 1*, the individual costs of education are analyzed as direct and indirect costs. Direct individual costs include tuition fees, books, etc., and transportation costs, while indirect individual costs consist of wages given up by not

Table 1. Education costs and benefits and their accrual to individuals and society in general

	Individuals	Society
Cost	C1. Direct costs (including school fees)	C3. Public subsidy (net of cost recovery and adjusted for possible deadweight losses of tax-financed public spending)
	C2. Forgone production (lost earnings, etc.)	
Benefits	B1. Increased market productivity (as reflected in earnings or other outputs)	B3. Spillover effects on worker productivity (as when a person's education enhances the work productivity of their coworkers)
		B4. Expanded technological possibilities (such as those arising from the discovery, adaptation, and use of new knowledge in science, medicine, industry, and elsewhere)
	B2. Private non-market effects (better personal health, expanded capacity to enjoy leisure, increased efficiency in job search and other personal choices)	B5. Community non-market effects (greater social equity, more cohesive communities, stronger sense of nationhood, slower population growth and related alleviation of environmental stress, reduced risks from infectious diseases, crime reduction, and so on)

Source: (Mignat, Tan, 1996).

working during the training. The social costs of education, on the other hand, result from the financing of the services with taxes.

Mignat and Tan (Mignat, Tan, 1996) associated the individual benefit of education with B1 and B2 and the social benefit with B3, B4, and B5 subheadings (see Tab. 1). In this context, individual monetary benefits of education included higher productivity and, therefore, higher net income, better job opportunities, higher savings, personal and professional mobility; social monetary benefits – higher national productivity, higher tax revenues, greater flexibility in the workforce, higher consumption, less dependence on the government; individual non-monetary benefits – educational enrichment, better working conditions, higher personal status, higher job satisfaction, better health and life expectancy, improved spending decisions, higher value of hobbies and leisure activities, personal growth; social non-monetary benefits – social adaptation, appreciation, social diversity, and cultural heritage, higher social mobility, lower crime rates, more donations and charitable work, increased capacity to adapt to new technologies, and higher social/political participation. On the other hand, the works (Jongbloed, 2004; Vossensteyn, 2009) examined the individual and social benefits of education within the scope of monetary and non-monetary benefits. Moreover, McMahon associated the non-market social benefit of education with externalities and public goods *(Tab. 2)*.

The indirect relationship of education with externalities comes from the benefits of education scattered in society and on future generations, besides its benefits only for the individual. While individuals consider only their individual benefits

Table 2. Total benefits of education

Private benefits	External social benefits
A-1. Market benefits to earnings and growth *Direct effects*	B-1. Indirect effects on earnings and growth *Indirect effects*
A-2. Private non-market benefits *Direct effects*	B-2. Indirect effects on non-market private benefits *Indirect effects*
A-3. Non-market social benefits *Direct effects*	B-3. Indirect effects on non-market social benefits *Indirect effects*

Source: (McMahon, 2006).

when making their education investments, in other words, education expenditures, they are not interested in social benefit; for this reason, education expenditures remain below the socially efficient level. In the Neoclassical economic theory, this is one of the market failures, which is the reason for the state's intervention in the economy, and it results in ascribing the public good attribute to education due to its externalities.

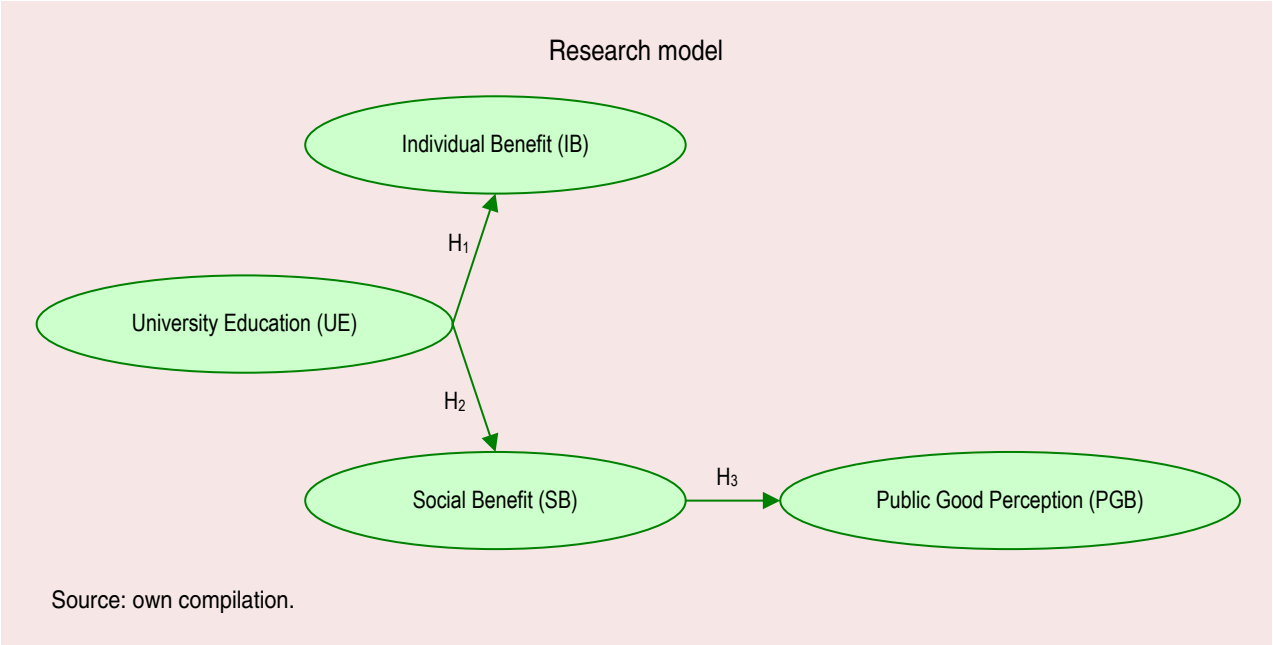
Along with the education service in general, higher education is also considered a public good, a merit commodity. In addition to being a public good in itself, higher education produces many public goods. The public goods that higher education produces, shapes, and nurtures are also diverse. The social purpose it serves, its nation-building role, the public interest, and the human rights nature of higher education all these dimensions are closely interrelated. They should be regarded as fundamental and uncompromisable principles in education (Tilak, 2008). With the liberalization practices that began in the 1980s, higher education, which has the attribute of being a public good, has become commodified, and the "higher education market" (Kirp, 2003) has grown rapidly. This trend toward increased participation of non-state actors in education is mainly caused by the discrepancy between rising demand for education at all levels and public budget constraints in expanding non-governmental organizations and increasing economic liberalization that encourages business sector participation (Daviet, 2016).

In theory, while the subject of whether education would be a public good within the scope of individual and social benefits has been widely covered in the literature, a limited number of studies have been conducted on how society perceives higher education in practice. In this context, the study (Immerwahr, Foleno, 2000) examined how higher education was perceived by the parents of students with different ethnic origins. As a result of the study, it was determined that all groups perceived higher education as extremely important and thought that it was necessary for good jobs and a middle-class lifestyle; in addition, it was concluded that African-American and Hispanic parents attach more importance and priority to a university education than white parents. All groups participating in the study think that the country should ensure that no qualified students are excluded from university education because of cost. However, despite the frequent complaints about the high cost of higher education, most parents believe that anyone who wants to study at university can access this service. Parents stated that they were worried about paying for their children's education, but they were sure that their children would go to university and find a way to pay for it (Immerwahr, Foleno, 2000). Baum et al. have shown that gender, age, and race of an individual influence their perceptions of higher education (Baum et al., 2013). Some researchers use the survey method to find out whether society perceives higher education as a public or private good[6]. In the study, based on the hypothesis that demographic factors would be the determining elements in the perception of higher education as a public good, as a result of the survey applied to individuals over the age of 18, it was concluded that higher education was generally perceived as a public good. Still, the differences in education level could affect this perception. Using the findings that Dudley obtained in 2015, our study focuses on whether students studying at public and foundation universities in Turkey perceive higher education as a public good depending on the individual and social benefits provided by higher education.

Methodology

In the study, an inductive approach was used in accordance with the sociological methodology. Data were collected within the scope of the survey

[6] Dudley J. (2015). *Perceptions of Higher Education: Private Good or Public Good? Ph.D. dissertation*. The University of Missouri-Columbia.



Source: own compilation.

method, which is the main research technique of direct observation. With the survey, which is a first-hand data collection technique, systemized questions about the perception of higher education, which is the research subject, were created.

The research model (Figure) demonstrates four latent variables within the model. These are university education (UE), individual benefit (IB), social benefit (SB), and public good perception (PGP). University education (UE) is an exogenous variable; individual benefit (IB), social benefit (SB), and public good perception (PGP) are endogenous variables. The single-headed arrows show the effects of each latent variable on other latent variables.

Our research model contains three research hypotheses – H1, H2, and H3. They revealed the relationships based on the theoretical framework among the latent variables. We differently tested the hypotheses for both public and foundation universities. The details regarding the hypotheses are seen below:

H1: University education (UE) positively impacts individual benefit (IB).

H2: University education (UE) has a favourable influence on social benefit (SB).

H3: The social benefit of university education (SB) contributes positively to the perception of university education as a public good (PGP).

Using a questionnaire method, we obtained the data from 227 students who study at the foundation and public universities. The number of participating students from the public university is 116, and the number of participating students from the foundation universities is 111. In addition, we procured the data on foundation universities from three different universities to increase the number of samples. We acquired the data for both foundation and public universities in 2019. While the percentage of male students participating in the public university is 51%, the percentage of female students is 49%. On the other hand, while the share of male students attending foundation universities is 62%, the rate of female students is 38%.

First, we generated the attitude statements to test the model put forward within the scope of structural equation modelling and the hypotheses (H1, H2, H3). In this context, we shared 25 attitude statements based on literature and field studies with students studying at the foundation and public universities. Since we wanted to

Table 3. Statements subject to confirmatory factor analysis, and their codes

Statement code	Statement
[a]IB1	An individual with a university education is happier in business life.
IB2	An individual with a university education is happier in his social life.
IB3	University education provides better job and career opportunities for the individual.
IB4	University education provides new social opportunities for the individual.
IB5	University education increases the individual's sense of achievement.
[b]SB1	The university creates new job opportunities in its region.
SB2	The University organizes cultural activities in its region.
SB3	The university facilitates access to public health and other services.
SB4	The University stimulates the local economy in its region.
SB5	The University attracts qualified job opportunities to its region.
[c]UE1	Getting a university education improves the technological innovations in the country.
UE2	Getting a university education encourages scientific research in the country.
UE3	Getting a university education improves the level of knowledge in the country.
UE4	Getting a university education enables the development of social, cultural, and political leaders.
[d]PGP1	University education should be free.
PGP2	Anyone who requests it should be able to get a university education.
PGP3	University education should only be offered by the public sector and financed by taxes.
PGP4	The benefit of a university education spreads to society.
Note: [a]individual benefit; [b]social benefit;[c]university education; [d]public good perception.	

develop a new attitude scale, we excluded seven with low reliability from the 25 attitude statements presented to the students for the first time. Thus, we made the analysis and tests to build an attitude scale with 18 statement *(Tab. 3)* and designed the statements in the questionnaire according to the 5-point Likert method. The scores in the questionnaire were interpreted as follows: 1 – strongly disagree, 2 – disagree, 3 – neither agree nor disagree, 4 – agree, 5 – strongly agree. The statements regarding individual and social benefit were adapted from (Immerwahr, 2000). Within this framework, we performed confirmatory factor analysis and successfully applied the first part of the scale development phase. Finally, thanks to the test results, within the scope of structural equation modelling, we accepted the hypotheses for both foundation and public universities. We analyzed the collected data through AMOS (Analysis of Moment Structures) 18 and SPSS (Statistical Package for Social Science) 19 programs.

Results

Under this heading, we respectively explain the results of missing value analysis, frequency analysis, confirmatory factor analysis, analysis of structural equation modelling analysis, and hypotheses put forward depending on the variables.

Missing value analysis

It was necessary to perform a missing value analysis because there were missing data in the surveys we collected for attitude statements. Among the 227 observations, the test result *(Tab. 4)* was compatible with the data presented in the literature.

Table 4. The result of missing value analysis

Test Result	Acceptable p-value	Reference
0.394	> 0.05	(Tabachnick, Fidel, 2013)
Source: own compilation.		

Table 5. The acceptable fit index values for confirmatory factor analysis (CFA)

Fit index	Acceptable value	Public university	Foundation university	Reference
		CFA	CFA	
CMIN/DF	< 5	1.276	1.648	Dattalo, 2013
GFI	> 0.80	0.891	0.858	Lee et al., 2015
RMSEA	0.03 < x <0.08	0.049	0.077	Hair et al., 2014
CFI	≥ 0.90	0.969	0.910	Azmi, Bee, 2010
IFI	> 0.90	0.970	0.913	Collier, 2020
Source: own compilation.				

Confirmatory factor analysis

We performed confirmatory factor analysis by using goodness of fit indices (GFI) or statistics (Özdamar, 2017) within the scope of the research model. We tested the relationship between the observed variables in the model and the latent variables. The sample size for our study exceeded 100 (Brown, 2015b), which is a sufficient number for both foundation and state universities.

We used many statistically sufficient model fit values (Meydan, Şeşen 2015), such as CMIN ($\chi 2$)/DF, GFI, IFI, CFI, and RMSEA for testing confirmatory factor analysis. In this context, *Table 5* demonstrates that fit values and ranges based on the modification index regarding public and foundation universities include the sufficient results. In order to strengthen the hypothesized confirmatory model (Schumacker, Lomax 2004), we applied the modification index between only two observed variables (IB1 and IB2: see Tab. 3) for the relevant public university.

Analysis of structural equation modelling

Structural equation modelling tests the effects of these variables on each other (Hair et al. 2014; Yıldırım et al. 2016) by revealing the observed and latent variables (Meydan, Şeşen 2015) within the scope of the multiple equations modelling with dependent and independent variables (Bentler, 2006). In this context, we either rejected or accepted the hypotheses we put forward.

We reached an adequate sample size from both foundation and state universities. It was observed that our data set showed a multivariate normal distribution (Bayram, 2016), and these distributions remained below the critical ration value for foundation and state universities. The results regarding this are shown in *Table 6*.

Fit indices used for confirmatory factor analysis are also performed for the structural equation modelling[7]. Fit values and ranges based on the modification index regarding public and foundation universities within the scope of structural equation

Table 6. The sample size and critical ration value regarding structural equation modelling

Sample size / Critical ration value	Foundation university	Public university	Acceptable sample	Reference
Sample Size	111	116	100	(Kline, 2011; Hair et al., 2014)
Critical Ration Value	7.353	5.917	< 10	(Kline, 2011).
Source: own compilation.				

[7] Holtzman S., Vezzu S. (2011). Confirmatory Factor Analysis and Structural Equation Modelling of Noncognitive Assessments using PROC CALIS, NEGUS, Statistics & Analysis. Available at: https://www.lexjansen.com/nesug/nesug11/sa/sa07.pdf

Table 7. The acceptable fit index values for structural equation modelling (SEM)

Fit index	Acceptable value	Public university	Foundation university	Reference
		SEM	SEM	
CMIN/DF	< 5	1.325	1.539	(Dattalo, 2013)
GFI	> 0.80	0.885	0.870	(Lee et al., 2015)
RMSEA	0.03 < x < 0.08	0.053	0.070	(Hair et al., 2014)
CFI	≥ 0.90	0.963	0.923	(Azmi, Bee, 2010)
IFI	> 0.90	0.964	0.925	(Collier, 2020)
Source: own compilation.				

modelling revealed statistically sufficient results *(Tab. 7)*. At the same time, for strengthening the hypothesized confirmatory model (Schumacker, Lomax 2004), we applied the modification index between only two observed variables (IB1 and IB2; see Tab. 3) relevant for both public and foundation universities.

Interpretation of hypotheses put forward depending on the variables

In this study, when we considered the results of the statistically adequate fit indexes related to both confirmatory factor analysis and structural equation modelling in the previous titles, we revealed that the p-values of all the hypotheses (H1, H2, and H3) depending on the latent variables within the scope of both state and foundation universities were statistically significant and therefore all hypotheses were accepted. Furthermore, we observed the effects of all variables on each other have a positive appearance *(Tab. 8)*. In this context, we interpreted all of the hypotheses according to the standardized regression weights as follows.

We accepted the hypothesis H1 (University education (UE) positively impacts individual benefit (IB)) for foundation and public universities. In other words, it is seen that there is a significant relationship between university education and individual benefit statistically. Furthermore, the test results for hypothesis H1 (for public and foundation universities) demonstrated that compared to foundation university students, public university students

Table 8. Results of testing the hypotheses regarding foundation and public universities

Hypothesis	Formulation	Standardized regression weight	P-Value	Test results
H_1 (Public university)	*University education (UE) positively impacts individual benefit (IB)*	0.802	P < 0.01	Accepted
H_2 (Public university)	*University education (UE) has a favorable influence on social benefit (SB)*	0.817	P < 0.01	Accepted
H_3 (Public university)	*The social benefit of university education (SB) contributes positively to the perception of university education as a public good (PGP)*	0.498	P < 0.01	Accepted
H_1 (Foundation university)	*University education (UE) positively impacts individual benefit (IB)*	0.587	P < 0.01	Accepted
H_2 (Foundation university)	*University education (UE) has a favorable influence on social benefit (SB)*	0.826	P < 0.01	Accepted
H_3 (Foundation university)	*The Social benefit of university education (SB) contributes positively to the perception of university education as a public good (PGP)*	0.321	P < 0.05	Accepted
Source: own compilation.				

reveal a lot more supportive attitude regarding the opinion that university education has an impact on individual benefit.

We accepted hypothesis H2 (University education has a favourable influence on social benefit) regarding foundation and public universities. This conclusion indicates a significant relationship between university education and social benefit in terms of statistics. Furthermore, the test results for hypothesis H2 (for public and foundation universities) reveal that both foundation and public universities have similar supportive attitudes regarding the opinion that university education impacts social benefit.

We accepted hypothesis H3 (Social benefit of university education contributes positively to the perception of university education as a public good) for foundation and public universities. This result demonstrates a significant statistical relationship between public good perception and social benefit. On the other hand, the test conclusions for hypothesis H3 (for public and foundation universities) showed that compared to foundation university students, public university students have a more supportive attitude regarding the opinion that the social benefit of university education contributes positively to public good perception.

Conclusion

In this study, in the context of spreading liberalization policies in education and taking into account the marketization in higher education in Turkey, we investigated the perception of public goods by students studying at foundation universities and public universities. According to the results of the field research, students studying at foundation universities in Turkey, where the household budget directly covers the financing of higher education, think that the social benefit of higher education is higher than the individual benefit. In addition, the students perceive higher education as a public good, just like students studying at public universities, due to the social benefit in question.

The results obtained in the study differ from those presented in (Immerwahr, 2000; Baum et al., 2013) which note that demographic variables and income level are effective in the perception of higher education as a public or private good[8]. Our work has concluded that higher education is perceived as a public good by all students studying at universities with different financing methods.

We found out that students who are direct buyers of higher education services at universities that differ in the method of financing perceive higher education as a public good, which should be taken into account by the state. The state striving to maximize public welfare should not ignore the significant public benefits of higher education.

The perception of higher education as a public good by students who directly benefit from higher education services strengthens its financing by the public sector. In accordance with the opinion of students, it is necessary to increase the share of the public sector in higher education.

In this context, in the financing of higher education, which is perceived as a public good, user fees are replaced by taxes for financing. Increasing the share of education and higher education in the total public budget plays a key role in increasing the share of the public sector in higher education. Human capital has an important place in eliminating social inequalities and competing with the global world. The share of higher education in the development of human capital is undeniable. In this context, increasing the share of higher education expenditures from the public budget should ensure that the higher education service is used for free financing for everyone who wants it, and should also ensure that the share of higher education investment expenditures is increased. Thus, a contribution will be made to the human capital required for development.

[8] Dudley J. (2015). *Perceptions of Higher Education: Private Good or Public Good? Ph.D. dissertation*. The University of Missouri-Columbia.

References

Azmi A.C., Bee N.G. (2010). The acceptance of the e-filing system by Malaysian taxpayers: A simplified model. *Electronic Journal of e-Government*, 8(1), 13–22. Available at: https://academic-publishing.org/index.php/ejeg/article/view/523/486.

Baum S., Kurose C., Ma M. (2013). *How College Shapes Lives: Understanding the Issues.* College Board Advocacy & Policy Center.

Baum S., Payea. K. (2004). *Education Pays the Benefits of Higher Education For Individuals and Society.* New York: College Board Publications.

Bayram N. (2016). *Yapısal Eşitlik Modellemesine Giriş*. Genişletilmiş 3. Baskı, Ezgi Kitabevi.

Bentler P. (2006). EQS 6 *Structural Equations Program Manual.* Encino, CA: Multivariate Software Inc., USA.

Bowen H.R. (1988). *Investment in Learning.* San Francisco, CA: Carnegie Council.

Brown R. (2015a). The marketization of the higher education: Issues and ironies. *New Vistas,* 1(1), 4–9. Available at: http://repository.uwl.ac.uk/id/eprint/3065

Brown T. (2015b). *Confirmatory Factor Analysis for Applied Research*. Second Edition. The Guilford Press.

Collier J.E. (2020). *Applied Structural Equation Modelling Using AMOS.* Routledge.

Dattalo P. (2013). *Analysis of Multiple Dependent Variables.* Oxford University, USA.

Daviet B. (2016). *Revisiting the Principle of Education as a Public Good, Educatıon Research and Foresight United Nations Educational.* Scientific and Cultural Organization Working Papers.

Hair Jr., Joseph F., Black W.C. et al. (2014). *Multivariate Data Analysis.* 7th edition. Pearson, USA.

Immerwahr J., Foleno T. (2000). *Great Expectations: How the Public and Parents – White, African American, and Hispanic – View Higher Education.* San Jose: National Center for Public Policy and Higher Education. National Center Report.

Jongbloed B.W.A. (2004). Tuition fees in Europe and Australasia: Theory, trends, and policies. In: Smart J.C. (Ed.). *Higher Education: Handbook of Theory and Research.* Dordrecht: Kluwer Academic Publishers.

Kaul I., Mendoza R. (2003). Advancing the concept of public goods. In: Kaul I. et al. (Eds.). *Providing Global Public Goods: Managing Globalization.* Oxford University Press.

Kirp D.L. (2003). *Shakespeare, Einstein and the Bottom Line: The Marketing of Higher Education*. Cambridge, MA: Harvard University Press.

Kline R.B. (2011). *Principles and Practice of Structural Equation Modelling.* 3rd edition. The Guilford Press, USA.

Lee J., Lee J.N., Tan B.C.Y. (2015). Antecedents of cognitive trust and affective distrust and their mediating roles in building customer loyalty. *Inf Syst Front,* 17, 159–175. DOI 10.1007/s10796-012-9392-7

Malkin J., Wildavsky A. (1991). Why the traditional distinction between public and private goods should be abandoned. *Journal of Theoretical Politics,* 3(4), 355–378. DOI: 10.1177/0951692891003004001

Marshall A. (1890). *Principles of Economics.* London: Palgrave Macmillan.

McMahon W.W. (2006). *Education and Development: Measuring the Social Benefits.* Oxford: Oxford University Press.

McMahon W.W. (2009). *Higher Learning, Greater Good: The Private and Social Benefits of Higher Education*. Baltimore: The Johns Hopkins University Press.

Meydan C.H., Şeşen H. (2015). *Yapısal Eşitlik Modellemesi Amos Uygulamaları* [Structural Equation Modelling Amos applications]. Ankara: Detay Yayıncılık.

Mignat A., Tan J.P. (1996). *The Full Social Returns to Education: Estimates Based on Countries' Economic Growth Performance, Human Capital Development.* The World Bank Working Paper.

Musgrave R.A. (1959). *The Theory of Public Finance*. New York: McGraw Hill.

Neira I., Aguayo E., Guisan M.C. (1999). *The Role of Educatıon in Development and European Cooperation with Latin America, Econometrics.* Working Paper Series Economic Development. No. 35.

Özdamar K. (2017). *Scale and Test Development Structural Equation Modelling.* Ankara: Nisan Kitapevi.

Pusser B. (2006). Higher education, markets and the preservation of the public good. In: *Earning from Learning: The Rise of For-Profit Universities.* New York: Turner State University of New York Press.

Samuelson P. (1954). Pure theory for public expenditure and taxation. *Review of Economics and Statistics,* 36, 387–389. Available at: https://doi.org/10.2307/1925895

Schumacker R.E., Lomax R.G. (2004). *A Beginner's Guide to Structural Equation Modeling.* Second Edition. Lawrence Erlbaum Associates, USA.

Tabachnick B.G., Fidell L.S. (2013). *Using Multivariate Statistics.* 6th edition. Pearson, USA.

Tilak J. (2008). Higher education: a public good or a commodity for trade? *Prospects,* 38, 449–466. DOI: 10.1007/s11125-009-9093-2

Vossensteyn H. (2009). Challenges in student financing: State financial support to students – a worldwide perspective. *Higher Education in Europe,* 34(2), 171–187. Available at: https://doi.org/10.1080/03797720902867294

Weisbrod B.A. (1964). *The External Benefits of Public Education.* Princeton, NJ: Princeton Industrial Relations Center.

Yıldırım Z., Tansöker R.L., Bayram N., Aydemir M. (2016). A structural equation modeling the role of social norms in tax compliance: A study from Turkey. *International Journal of Humanities and Social Science Invention,* 5 (12), 81–89.

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