

Developing a Scale to Measure the Economic Justice

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Abstract

In this study, it is aimed to develop a scale for economic justice and to examine its validity and reliability. A total of 838 people participated in this study. The sample group consisted of unemployed, disabled (who are able to work), retired employees, the most disadvantaged people, minimum wage earners and uninsured workers living in different cities in Turkey. SPSS 21 and AMOS 22 programs were applied. Items with a value below 0.50 were not evaluated in the study. A three-factor structure and a 26-item scale were revealed. The correlation number of the candidate scale with the similar scale was 0.902 ($p < 0.001$). The Cronbach coefficient is 0.938. The test-retest correlation parameter was $r = 0.802$ ($p < 0.001$). In summary, the economic justice scale has a good fit criterion, a valid and reliable assessment tool.

Keywords

Economic Justice
Social Justice
Inequalities
Equalities

About Article

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Ekonomik Adaleti Ölçmek İçin Bir Ölçek Geliştirme Çalışması

Özet

Bu çalışmada ekonomik adalet için bir ölçek geliştirilerek geçerlilik ve güvenilirliğinin incelenmesi amaçlanmaktadır. Bu çalışmaya toplam 838 kişi katılmıştır. Örneklem grubu, Türkiye'nin farklı illerinde yaşayan işsizler, engelliler (çalışabilecek durumda olanlar), emekliler, en dezavantajlı bireyler, asgari ücretli çalışanlar ve sigortasız çalışanlardan oluşmaktadır. SPSS 21 ve AMOS 22 programları kullanılmıştır. Değeri 0,50'nin altında olan maddeler çalışmada değerlendirilmemiştir. Sonuç olarak üç faktörlü bir yapı ve 26 maddelik bir ölçek ortaya çıkmıştır. Aday ölçeğin benzer ölçek ile korelasyon sayısı 0,902'dir ($p < 0,001$). Cronbach katsayısı 0,938'dir. Test-tekrar test korelasyon parametresi $r = 0,802$ 'dir ($p < 0,001$). Özetle, ekonomik adalet ölçeğinin iyi uyum ölçütlerine sahip olduğu, geçerli ve güvenilir bir değerlendirme aracı özellikleri taşıdığı görülmüştür.

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Introduction

According to the indicators, it is now accepted that the market economy produces injustices and inequalities. Nevertheless, the market system is in force in almost all societies of the world. On the other hand, it is obvious that the market system is quite successful in achieving economic growth. For this reason, inequalities and injustices often remain in the background. On the other hand, the economic crisis triggered by the 2008 financial crisis and the Covid'19 epidemic has shaken the belief in the sustainability of almost half a century of market society. This fracture is leading to a serious reaction against the growth of inequalities and injustices in the free market economy. Indeed, most debates on justice focus directly or indirectly on the framework of economic justice (Sandel, 2012, p. 34).

The issue of economic justice has been mentioned in the economic policy literature mainly since Rawls' book published in 1971. However, there is no research in the literature on how to measure the phenomenon of economic justice, which is one of the top goals today. There is no scale that determines the level of policies or governments in achieving the goal of economic justice. Therefore, it is necessary to determine the perception of such an important concept/ideal. This is important for sound implementation of policies and making the right decisions. What was achieved with the scale that was developed together with these people? The development of the Economic Justice Scale makes a unique contribution to the literature. The purpose of developing this scale is to identify the perceptions or attitudes of individuals or groups towards economic justice and to show how these people perceive socio-economic measures. Why was such work necessary? This will provide data to both researchers and government officials, and present ideas to administrators and agencies for future policy making.

Literature Review

The realisation of economic justice is based on social and societal choices and not on individual decisions and behaviours. In this process, the state or government plays a role as an important actor. Economic justice should be assessed not only in the context of labour and capital, but also as the totality of relations between the state and social groups. For the state apparatus, which sees itself as both empowered and mandated to ensure the establishment of justice, has to realise the redistribution of income between the advantaged and disadvantaged groups in society within the framework of the welfare state concept. This is precisely what Rawls assesses in the context of the 'difference principle'. Economic justice is very important to ensure social peace and harmony, and even social inclusion (Said and Nurhayati, 2021, p. 12).

According to Piketty, it is unnecessary to claim that growth and income distribution will automatically stabilise. He recommends investing in human capital. In this way, individuals will be able to claim their legal and economic rights in a more rational way and with methods. In modern societies, class wars are being replaced by generational wars. With advances in medicine and science, life expectancy is getting longer. In this process, the demand for investment for longevity in society comes to the fore instead of a rigid and purely economic ideal of justice (Yun, 2022, p. 5).

Another discussion on achieving economic justice concerns the level of wages (salaries). Most people who are employed in society work for a minimum wage. Here, the focus is on social peace, solidarity and dynamism. Do the minimum wage or similar derivatives serve the desired economic justice? Should two people doing the same or similar work receive the same wage even if they work in

different places? Such questions are widely debated. There is no consensus on this question. It may vary depending on the economic size of the company (Stilwell, 2021, p.17).

According to (Abbou et. al., 2017, p. 19) who evaluates the phenomenon of economic justice from the perspective of historical development, there is no positive correlation between scientific development and an increase in economic activity. On the other hand, scientific discoveries affect the economy, and the economy affects science, especially in the development of R&D activities, continuous improvement activities, and online and feedback technological systems.

According to Solomon, the focus of justice in modern times is purely secular and largely economic. The problem is how to distribute the goods produced (or otherwise acquired) so that no one gets too much or too little. It is important that everyone can develop and claim their own rights. Economic justice can be achieved proportionately through the intervention of both the state and civil society. The market mechanism must not be completely overridden and the understanding of a society based on solidarity must be maintained. To achieve economic justice, the concepts of yesterday, today and tomorrow should be considered together (Ware, 2021, p. 8).

According to Chomsky, the obstacles to global economic justice are the unequal distribution of wealth in land, industry and trade. The media undertakes the mission of camouflaging by ignoring major and priority problems, manipulates the public and creates a perception of mind that will make various injustices reasonable and legitimate. It defines the struggles undertaken in the name of economic interests with the illusion of propaganda tools. Global social and economic justice could not be established (Cohen and Rogers, 2021, p. 24).

There are also those who evaluate economic justice in the context of social justice. There is a very strong relationship between social justice and economic justice. Social justice is the general opinion that everyone in the society has a fair share. The need for economic justice, albeit artificial, will be satisfied when a reasonable sense of distribution is achieved in the distribution of the product in the society (which is unlikely to be a 100 % equal allocation of resources). In this case, some contradictions arise. If emotional satisfaction is considered sufficient, even if economic justice has not been provided (Dow, 2023: 48). The opinion of social justice is acceptable for some economists and unacceptable for others (Çamlı, 2020a, p. 15).

Explaining economic justice with macroeconomic reasons, Mankiw emphasizes that in the long run, the country's capacity to produce goods and services is the main determinant of the living standards of the citizens of that country. Monetary and fiscal policies implemented in the short term and the aggregate demand mobilized accordingly may not increase production. Then, in the long run, inflation will increase, unemployment will not decrease, income distribution will deteriorate, and economic justice will be difficult to establish (Mankiw, 2010, p. 9).

Sandel evaluates economic justice in the context of legal reflections of American thought and lifestyle. According to him, law should be applied to define some of the basic theories of economic life. Free market conditions come to life in the freest and most brutal way in the USA. More than 80 percent of the United States view the economic system as 'inherently unjust'. He considers the political system as a deception that serves special interests (Sandel, 2021, p. 89). Some argue that the rich should be taxed to help the poor. According to some people, economic inequality cannot be considered as an unjust situation as long as it is not revealed by force and fraud and as long as it is formed by the choices made by people in the free-market (Bader and Bieri, 2023, p. 4). Sandel's sometimes affirming but mostly critical analyzes of Rawls are noteworthy in America, where the question of whether benefit or justice comes first is increasingly important (Çamlı, 2020b, p. 14).

Rawls tried to build justice as fairness, without destroying the limits of liberalism, and by taking into account the ever-deepening class gap. In fact, Rawls' claim is to create a ground of justice to be applied in the basic structure of society where all different conceptions of the good can coexist. His views based on the Kantian deontological understanding of justice; explains the initial situation with the veil of ignorance and the two principles of justice reached as a result of them. He arrives at a certain matrix of justice in liberal society, on issues such as freedom, equality, the conditions of coexistence. Arguing with the utilitarian view of Bentham and Mill, he put rights and freedoms instead of utility on the basis of the principle of justice. By stating the priority of right to good within the framework of rights-oriented liberalism, he tried to show that rights cannot be violated in the name of welfare (Joseph, 2020, p. 33).

However, the following studies have been carried out recently on economic justice. In their study, Diezmartinez and his team evaluate the effects of climate change in cities depending on the criteria of economic justice. As of June 2021, 58 of the 100 largest US cities have an approved climate action plan. According to the findings they obtained, the priority of these cities, which accept historical and current injustices and try to develop compensatory policies, shows that it is necessary to focus on income inequalities to provide economic justice. Disadvantages related to race, gender, age or disability and climate change necessitate a new concept of economic justice (Diezmartinez et al., 2022 ,p. 47).

Fleurbaey examined the characteristics of the social welfare function and the effects of its inclusion in welfare economics on economic justice. He saw that the applied theories were compatible with egalitarian and libertarian justice understandings. It identifies that fundamental rights such as priority, freedom, and assistance for those who are in a worse situation (disadvantaged) can help economic justice with ethical justifications (Fleurbaey, 2019, p. 93).

In another study, the issue of fair allocation of production opportunities in the seas, which is an important but not discussed part of economic justice, was examined. In an era of environmental change, sea level rise, and overfishing, it is necessary to evaluate methods that will enable the combination of different information production and communication methods to promote and deepen economic justice. Calls for interdisciplinary cooperation on the sustainable consumption of natural resources in the oceans and seas should be voiced more loudly in the global arena (Martin et al., 2019, p. 102).

Newell et al. analyzed economic justice within the framework of the resource allocation problem brought about by climate change. They state that within the framework of changing business models after the Covid-19 epidemic, the notion of economic justice should be addressed on the basis of policies that reduce carbon emissions and distribute the workload of employees more humanely. They also say that there is a need to avoid generating northern/Europe-centered normative theories (Newell et al., 2021, p. 80).

Pearson et al. have examined economic justice, which is increasingly seen as a social justice issue by academics, policy makers and the public, in terms of ethical and moral norms. It shows that it is crucial to understand how different segments of the population perceive climate-related inequalities and their causes. New scientific research on this issue can help efforts to promote public understanding of climate injustice and develop more integrative interdisciplinary approaches (Pearson et. al., 2021, p. 52).

Stephens examines how climate policy makers should perceive justice against emerging famine conditions and economic justice depending on the social innovation perspective. Inadequate

investment in social innovation, when increasingly channeled into investments in technological innovation, hinders changes to reduce social injustice. Plans to advance social and economic justice thus fail. Decision-making within the framework of climate justice involves striving for transformative systemic changes that integrate technological and social innovation while prioritizing equality and social, racial and economic justice (Stephens, 2022, p. 42).

Upham et al. examined employment opportunities for the South Wales industrial cluster (SWIC) that could provide economic justice by reducing carbon emissions and contributing to sustainable climate policies. In this context, economic justice is represented through the production and retention of jobs that enable the growth of the local economy (Upham et al., 2022, p. 78).

As can be seen, economic justice is about to harmony between input and output. When the issue of equilibrium is added to this process, the phenomenon of economic justice consists of input, output and feedback. Kelso and Adler propose a set of principles that correspond to this process: Limiting Justice (regulatory principle), Distributive Justice (recipient principle) and Participatory Justice (input principle). On the other hand, (O'Boyle, 2004, p. 157) has divided economic justice into three principles. The equivalence principle, the distributive justice principle and the contributive justice principle.

Although there are studies on this topic, no empirical study on the phenomenon of economic justice was found in the literature. Therefore, it is difficult to determine the sub-dimensions associated with this phenomenon. As a result of the literature review, the sub-dimensions of economic justice in this study were determined as participatory justice, distributive justice and social justice.

Sub Dimensions

There are three sub dimensions of this scale. These are social justice, distributive justice and participatory justice.

Economic cohesion occurs when participatory and distributive justice fully works for everyone in a system or institution. Social justice serves to alleviate or eliminate unjustified obstacles, monopolies or damaging factors that will disrupt this harmony. That is, social justice provides guidelines for controlling monopolies, establishing checks and balances within social institutions, and resynchronizing distribution with participation. While participatory justice and distributive justice involve more economic values, social justice reflects human striving for other universal values such as truth, love and beauty. It forces people to look beyond what is, to what should be, and to constantly repair and improve their systems for the good of every human being (Gilman, 2020, p. 47; Zauro et. al., 2020, p. 493; Fehr et.al., 2020, p. 67; MacIntyre, 2020, p. 174; Lynch et.al., 2021, p. 55; Sugden and Wang, 2020, p. 130; Miller, 2003, p. 132; 1999, p. 258; 2005, p. 5; O'Neill, 2020, p. 65; Allen and Henderson, 2022, p. 371; Thrift and Sugarman, 2019, p. 3; Derelioğlu, 2022, p. 793-818; Klaasen, 2020, p. 99).

Distributive justice follows participatory justice and refers to the recognition of equal opportunities for all to obtain and enjoy the outputs of income-generating property (Timmer, 2021, p. 430; Tomlin, 2020, p. 355). This type of justice defines an "output" or "purchase" right of individuals in the economic system that matches their labor and capital inputs (Huang, 2019, p. 385; Hahnel, 2020a, p.21). It is the case of equitable distribution of assets that can be distributed in society according to their social status or competencies (Lindsay, 2020, p. 450; amlı, 2021, p. 65). The principle of distributive justice places absolute importance on property and contracts. It turns not to government but to the free and open market as the most objective and democratic way of determining fair price,

fair wages, and fair profits (Singh, 2022; Konow et.al., 2020, p. 130; Richard, 2020, p. 189). If distributive justice is to be scrutinized in terms of morality, it must necessarily take into account the needs. On the other hand, sacrifices should be added to the distribution at least as much as needs. In this way, the objective of economic justice can also be fulfilled in its moral aspect (Hahnel, 2020a, p. 21; Hahnel, 2013; McLean, 2020, p. 340; Hopkins, 2010, p. 111). It is the situation of individuals performing a profession they want in economic activities, in the production process of goods and services, and taking an active role in business life. In other words, they assume their role as a subject in economic life. Participatory justice refers to how a person enters the economic process to survive (Bohmer, 2020, p. 760). This concept requires equal access in productive assets to the means of private ownership (through social institutions such as money and the credit system), as well as equal opportunity to participate in productive work (Lamont, 2017; Jacobson and Rugeley, 2007, p. 30).

When it comes to participatory justice, a political content first comes to the fore. Accordingly, participatory justice requires an order in which there are no legal, de facto and cultural barriers to the pluralism of the political sphere (Hahnel, 2021, p. 296). It refers to the democratic functioning in the political and socio-political field. It refers to the equality of political participation (Smith et.al., 2020, p. 20; Raekstad, 2020, p.616; Galisanka, 2021, p. 785; O’Neill, 2021, p. 93; Bal, 2012, p. 101; Meyers, 2022, p. 253; Fiskin, 2022, p. 231; Albert and Hahnel, 2021, p. 143).

Methods

The unemployed, minimum wage earners, disabled people, the working uninsured, retired people and the most disadvantaged people living in different cities in Turkey participated in the research. Statistics on the participants are shown in Table 1. Almost 38.8 % of the participants are female and 61.2 % are male. 48 % of the participants are minimum wagers; 18.3 % of the participants are unemployed. 14.9 % of the participants are uninsured workers; 8.6 % of the participants are the most disadvantaged people; 7.6 % of the participants are disabled (who can work); 2.6 % of the participants are retired people. Among the participants, those who say they have no income constitute a group of 10.5 %. The ratio of those whose income is between 1000-2500 TL is 34.5 %, whose income is between 2600-5500 TL is 50 %, whose income is between 5600-7500 TL is 5 %. 51.1 % of the participants are between the ages of 18-27, 30.2 % are between the ages of 28-34, 14.9 % are between the ages of 35-41, and 3.8 % are between the ages of 42-48. 15.3 % of the participants are primary school graduates, 61.1 % high school graduates, 14.7 % university graduates and 8.9 % have master's degrees.

Table 1. Demographic Statistics

Gender		Education				Age				Income				Situation					
Female	Male	Primary	High School	University	Master/Doctor	18-27	28-34	35-41	42-48	No income	1000-2500	2600-5500	5600-7500	Unemployed	The Most D.P.	Minimum	Retired P.	Uninsured Workers	Disabled
325	513	128	512	123	75	428	253	125	32	88	289	419	42	152	72	402	22	125	65

Data were collected with the Economic Justice Scale, which is a 40-article scale and was developed by the researchers so as to test validity and reliability. Data for Exploratory Factor Analysis were collected between 1 October 2022 and 15 October 2022 by the researchers. Researchers contacted the participants by telephone or online at first and then sent the questionnaire form to the ones who agreed to join the study. Participants filled in the questionnaire form and sent it back. Data for test-retest were collected between 15 November and 30 November 2022. During the phase of exploratory factor analysis, participants interested in the research were determined and they were filled out the same form. Applications for test-retest were completed at definite intervals. Data for confirmatory factor analysis were collected between 1 December and 15 December 2022.

A re-application was made to test the invariance of the candidate scale over time. This candidate scale was sent to 838 predetermined people and applied again.

The Economic Justice Scale has a three-dimensional structure. The Cronbach coefficient of this scale is 0.938. The reliability coefficient of the sub-dimensions is generally more than 0.83. For this reason, the scale can be evaluated as a whole and its sub-dimensions can be used alone. The correlation coefficient of the similar scale is also important. This coefficient was determined as 0.902. This is a high value. In other words, it can be said that both the candidate scale and the similar scale measure similarly. Considering the test-retest coefficient, a high value of 0.911 is seen. This high value indicates that the measuring ability of the candidate scale is similar or unchanged at different times.

Results

12 expert opinions were sought for the scale items of this study. In this sense, KGI values should be above 0.56. In the study, items with values above 0.78 were included in the study. If the item had KGI values below 0.78, it was excluded from the study. 24 items out of 64 items were removed in this way. At this stage, the candidate scale form has 40 items. Finally, the minor requests of the experts whose suggestions were consulted were fulfilled.

Items in the candidate scale have KGI (I-CVI) values between 0.81 and 1.0. The scope validity index is 0.9333. The content validity index of the whole scale is higher than 0.80. Therefore, this indicates a highly positive result (Polit and Beck, 2006, p. 54).

The obtained KMO value is 0.954. This value increases the acceptability of the sample. Bartlett test sphericity analysis result is $\chi = 8.053.988$ and $p = 0.000$. Statistically, this value is significant. In other words, it indicates that the sample size is perfect. On the other hand, percentages of variance and line graph are presented. This process is important in determining the number of factors as seen in Figure 1. Principal Components Analysis was applied. At the same time, the conversion method with varimax was applied. According to the result obtained, a three-factor table with an eigenvalue higher than 1 and explaining 73.918% of the total variance is seen. As seen in Table 3, Factor 1 explains 41.095% of the total variance. Factor 2 explains 16,870% of the total variance. Factor 3 explains 15.952% of the total variance.

A high variance value indicates that the content is excellent. It is important in the explanation of variance that the majority can be explained by the variances in the analysis. Especially in social sciences, similar values are not seen much. Therefore, a variance value between 40% and 60% is considered appropriate. In this study, the variance value of 73.918% is considered appropriate and sufficient.

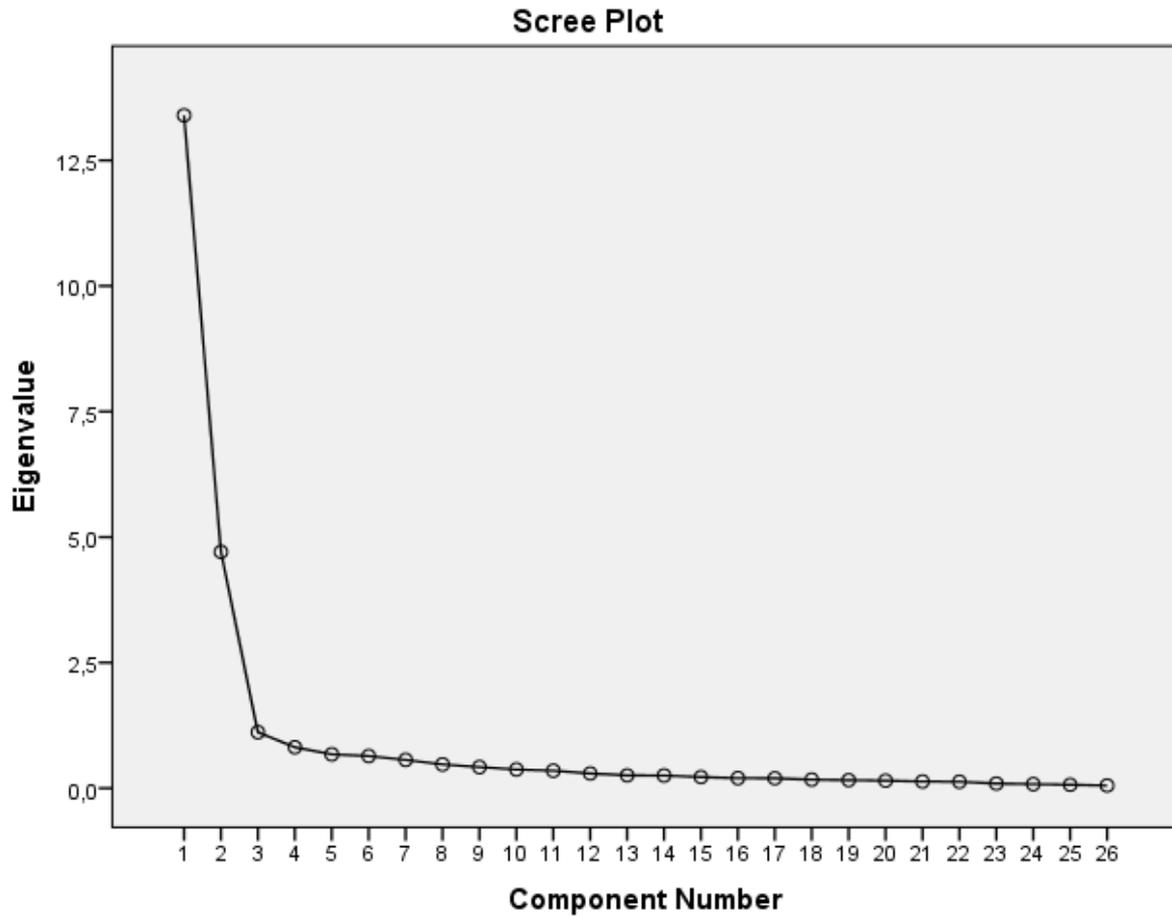


Figure 1. Economic Justice Scale Eigenvalue Scree Plot

When the determined eigenvalues of the items were combined, Figure 1 above was obtained. The determination of the factor numbers depends on the determination of the breakpoints. Looking at Figure 1, points with high break values indicate three factors. This means that the candidate scale has a three-factor structure. On the other hand, the variance value was calculated both with and without applying the varimax method. The calculated percentage of the scale with one factor was 51,531 when the method was not applied yet. When the method was applied, the calculated percentage of a single factor was 41,095 as seen in Table 2. In this study, only those with a value of 1 and above were taken into account in determining the number of factors. This is already suggested in the literature. Naturally, this gives a higher variance value of 73.918% for the scale.

Table 2. Total Variance Explained

Comp.	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	13,3985	51,531	51,531	13,398	51,531	51,531	10,685	41,095	41,095
2	4,706	18,100	69,631	4,706	18,100	69,631	4,386	16,870	57,966
3	1,115	4,287	73,918	1,115	4,287	73,918	4,148	15,952	73,918

4	,816	3,139	77,057
5	,674	2,593	79,649
6	,641	2,466	82,115
7	,565	2,172	84,287
8	,474	1,822	86,109
9	,420	1,617	87,725
10	,374	1,437	89,162
11	,349	1,342	90,504
12	,294	1,130	91,634
13	,256	,987	92,621
14	,254	,976	93,597
15	,222	,854	94,452
16	,201	,773	95,225
17	,198	,762	95,987
18	,173	,664	96,651
19	,161	,621	97,272
20	,150	,577	97,849
21	,134	,515	98,364
22	,129	,497	98,860
23	,094	,361	99,221
24	,081	,312	99,533
25	,068	,262	99,794
26	,053	,206	100,000

Extraction Method: Principal Component Analysis.

Examining The Factors and Giving Entitles

As a result of the research, correlation values were examined and some items were removed. Accordingly, the correlation values of items 3,5,9,11,15 and 33 were low. Therefore, these items were not included in the evaluation in the candidate scale. It has been understood that the 16th and 40th items have the same root. Therefore, these items were not taken into consideration. The factor loads of items 21, 22, 26, 27 were low. Therefore, these items were excluded from the scope. Two factors overlapped in items 2 and 13. Therefore, these items have been removed. Table 4 shows all of them. Questions 29, 28, 23, 24, 30, 38, 25, 36, 39, 32, 37, 35, 31, 34 measure social justice. Questions 18, 14, 17, 20, 19, 08, 10 measure distributive justice, and questions 12, 7, 6, 1, 4 measure participatory justice.

Table 3. Factor Structure and Factor Loads of Articles (n = 838).

	Factor		
	1	2	3
q29	0.940		
q28	0.926		
q23	0.917		
q24	0.914		
q30	0.882		
q38	0.880		
q25	0.879		
q36	0.868		

q39	0.857	
q32	0.846	
q37	0.845	
q35	0.790	
q31	0.716	
q34	0.710	
q18		0.839
q14		0.805
q17		0.748
q20		0.724
q19		0.706
q08		0.701
q10		0.688
q12		0.791
q07		0.776
q06		0.768
q01		0.723
q04		0.690

Table 4. Economic Justice Scale Error and Goodness of Fit Values (n = 838).

Fitness Indices	Reference Value		Calculated Value	Fitness
	Good Fitness	Acceptable Fitness		
χ^2/SD	$0 < \chi^2/SD \leq 2$	$2 < \chi^2/SD \leq 3$	2,36	Acceptable
RMSEA	$0 < RMSEA \leq 0,05$	$0,05 < RMSEA \leq 0,08$	0,06	Acceptable
RMR	$0 < RMR \leq 0,05$	$0,05 < RMR \leq 0,10$	0,02	Good
NFI	$0,95 < NFI \leq 1,00$	$0,90 < NFI \leq 0,95$	0,96	Good
NNFI	$0,97 < NNFI \leq 1,00$	$0,95 < NNFI \leq 0,97$	0,98	Good
CFI	$0,97 < CFI \leq 1,00$	$0,95 < CFI \leq 0,97$	0,97	Good
GFI	$0,95 < GFI \leq 1,00$	$0,90 < GFI \leq 0,95$	0,97	Good
AGFI	$0,90 < AGFI \leq 1,00$	$0,85 < AGFI \leq 0,90$	0,86	Acceptable

The RMR of the candidate scale is 0.02. The NFI value of the candidate scale is 0.96. The NNFI value of the candidate scale is 0.98. The CFI value of the candidate scale is 0.97. The GFI of the candidate scale is 0.97. The AGFI value of the candidate scale is 0.86. The GFI and AGFI values of the candidate scale vary between 0 and 1 as seen in the Table.

If there is no match, the value should be 0. If the fit is perfect, the value is 1. As it is known, values higher than 0.95 indicate perfect fit. Values higher than 0.90 indicate good fit. On the other hand, if the GFI value is higher than 0.90, it indicates that the fit is acceptable. If the GFI value is higher than 0.95, it indicates a good fit. Likewise, an AGFI value higher than 0.85 indicates that the fit is acceptable. An AGFI value greater than 0.80 indicates good fit.

The Economic Justice Scale can be considered as a good model according to the results of the CFA analysis. The pathway diagram concerning the sub-factors of the candidate scale is clearly seen in Figure 2 below.

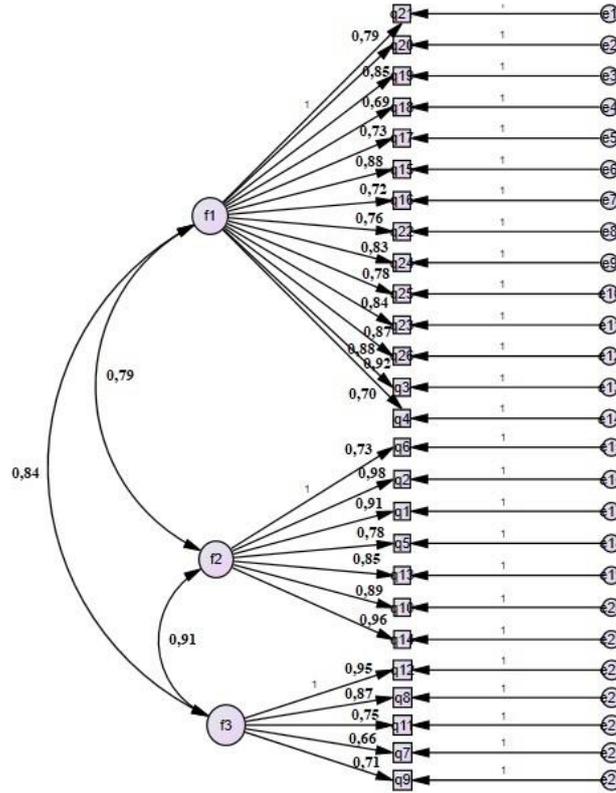


Figure 2. Model Tested in Confirmatory Factor Analysis.

The above figure shows the variation of the substance charges. According to Figure 2, the substance loads in all dimensions are indicated. Accordingly, item load values in terms of social justice factor vary between 0.69 and 0.92. In terms of the distributive justice factor, item load values vary between 0.73 and 0.98. In terms of participatory justice factor, the item load value is 0.66 and 0.95. As a result of the analyzes made in this direction, the general t values are within the framework of 8.335 and 22.528 values. That is, significant t values are observed at the $p < 0.01$ level.

Social Justice Attitudes Scale was used as a similar scale in this study (Cirik, 2015). As can be seen in Table 5, the correlation coefficient (r) between the Similar scale and the Candidate Scale was calculated as 0.902 as a result of the analyzes made. It can be said that there is a high degree of agreement between this value and the two scales.

Table 5. The Correlation Between the Economic Justice Scale and Social Justice Scale.

Scales	Number (n)	Mean±Standard Deviation	r	p
Economic Justice Scale	526	92,437 ± 10,103	0,902	0,000
Social Justice Scale	526	1119,389 ± 11,682		

Reliability

As stated before, some items were removed from the candidate scale during the analysis. For example, a value of 0.50 was considered appropriate in the study as a high reliability limit. For this reason and

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for other reasons, 14 items were excluded from the study. As a result, a candidate scale with 26 items and 3 dimensions was obtained.

According to the analyzes, the candidate scale has a total score average of 124,185. The standard deviation value is 18.06. The item value averages vary between 4,683 and 4,853 values. The total correlation values of the items are specified between 0.501 and 0.741 values. Item and factor correlation values were calculated within the framework of 0.688 and 0.940 values. Considering the consistency criterion, 27% of the upper-lower group is expected to have a positive perspective. The 73% group has a negative attitude towards the scale. It is in question that both groups give different scores in terms of items. This difference is also significant ($p < 0.05$). The mean scores of the items differ significantly ($p < 0.001$). Candidate scale items have common factor variances (h^2) varying between 0.749 and 0.993. The common factor variance should be between 0 and 1. It contributes to the total variance. Items with a common factor variance of less than 0.20 should definitely be excluded from the study or the candidate scale. In this study, all items with a value below 0.50 were excluded from the candidate scale to ensure high reliability.

Cronbach Alpha Coefficient

The candidate scale has a Cronbach Alpha coefficient of 0.938 (Table 6). The Cronbach Alpha coefficient for the first dimension of this scale was calculated as 0.911. The Cronbach Alpha coefficient for the second dimension of the scale is 0.887. The Cronbach Alpha coefficient for the third dimension of the scale was determined as 0.869. Considering these data, the internal consistency criterion is excellent when the candidate covers all dimensions of the scale. At the same time, the internal consistency values between the dimensions are at a very good level.

Table 6. Cronbach Alpha Coefficients of Total Economic Justice Scale and Factors.

Factors or Scale	Cronbach Alfa	N
Factor 1: Social Justice	0.911	14
Factor 2: Distributive Justice	0.887	7
Factor 3: Participatory Justice	0.869	5
Economic Justice Scale	0.938	26

Stability

The scale was applied to a group of 132 members twice, with a break of three weeks for testing and retesting. As it is seen in Table 8, the value obtained with the Pearson product moment correlation equation is calculated as 0.802 ($p: 0.000$).

Table 7. Correlation Analysis of the Test-Retest Scores of the Economic Justice Scale

Economic Justice Scale	Mean	Standart Deviation	r	P
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First Measurement	98.865	9.14		
Second Measurement	96.372	10.86	0.802	0.000

The high test–retest correlation value shows that the measurement ability of the scale does not change with time.

Conclusion

Our goal was to investigate and explain the concept of economic justice. A reliability and validity analysis was conducted to develop a scale that measures perceptions of economic justice. The result of the study is that, the economic justice scale a valid and reliable measurement tool. Thus, the economic justice scale is an original scale that was developed by following all the stages of the scale development method. In addition, the research model can also serve as a model for researchers in the field.

A total of 838 unemployed people, minimum wage earners, disabled people, uninsured workers, retired people and the most disadvantaged people living in different cities of Turkey participated in the research. The findings and results because the study was conducted on the most disadvantaged groups and in different cities. It can be argued that the scale can be applied to all groups with different incomes in society.

Moreover, the validity and reliability of the scale should be tested when applied to different groups and samples. The questions of the scale that emerged from the analysis of the data obtained from the participants are listed in Table A1 below.

The development of the economic justice scale, drew on numerous national and international publications. This situation strengthens the international qualification of the scale and may allow it to be used internationally. Cultural characteristic of Turkish society can increase the validity and acceptance of economic justice. Of course, the perception of economic justice may be different in different societies for people with different incomes.

Why is it important to develop an economic justice scale? Economic justice has been the subject of heated debate, especially since the last quarter of the twentieth century. Even today, politicians, legislators, economists and academics do not have a common vision of how to achieve this ideal. Moreover, on such an important issue, the question of who is in what place in the process remains unanswered. In other words, there is no yardstick that determines the level of policies or governments in achieving the goal of economic justice. Therefore, it is necessary to ascertain the perceptions of different groups in society on economic justice. This is necessary to develop sound policies and make rational decisions.

Economic inequalities, and more specifically income inequality, take a deepening course. According to the United Nations and the World Health Organization, economic inequalities are at the beginning of the three major crises that humanity has been dragged into. This problem is tried to be kept on the agenda with Oxfam's reports, Poverty indexes and similar publications. However, while the global wealth is constantly increasing, the gap between the rich and the poor is constantly

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widening both in the country with the world's largest economy such as the USA (Sandel, 2009, p. 34), in the third world countries and in Turkey. There are many studies in the literature to draw attention to this problem. These studies are generally aimed at determining poverty rates or detecting inequality in income distribution. However, no scale has been developed in the literature to measure people's reactions or perceptions to this problem. Therefore, in this study, it was tried to develop a scale to measure people's perception of economic justice to fill this serious gap in the literature. In this way, both an important gap in the literature will be filled and it will be possible to look at economic inequalities research from a different perspective.

The scale that is being developed has certain limits. First of all, the scale was applied throughout Turkey. The second limit concerns the participants who support the scale. Accordingly, individuals whom Rawls calls the most disadvantaged constitute the target of this research. It is an important determinant that the minimum wage workers are included in this group, because the rate of those working with minimum wage is 37 percent in Turkey. For this reason, the fact that the participants are composed of elements such as minimum wage workers, uninsured workers, the most disadvantaged, retired employee is important in terms of revealing the perception of justice in the most accurate way.

We believe that the Economic Justice Scale will provide versatile support for future research. The scale was developed within the framework of Turkish society; the scores of variables such as inequality, poverty, and justice in the Turkish economy are in the lower ranks globally. The application of the scale in different societies can naturally yield different results. Besides, studies can be conducted to determine how the scale of economic justice changes depending on important variables such as education, health, political participation, democracy and meritocracy. In addition, an economic justice scale study to be applied at the beginning and end of the term can determine the correctness of the policies adopted.

Factors	Statement No	Economic Justice Scale Statements	Totally Disagree	Disagree	No Decision	Agree	Totally Agree
Social Justice	1	In a society where everyone has the same income, one cannot speak of justice.					
	2	The reason for the gap between high and low earners may be fair.					
	3	Economic policy supports people to live as human beings as they deserve.					
	4	The minimum wages/salaries for workers are fair.					

	5	The social assistance provided by the government is sufficient.					
	6	The aim of economic policy is not to make the rich richer and the poor poorer.					
	7	The economic system is capable of developing social solidarity.					
	8	Stockpiling in economic life is something the government tries to prevent.					
	9	The more social welfare in a society, the more unequal the distribution of income.					
	10	In society, social interests are as important as individual interests.					
	11	The government tries to prevent monopolization in economic life.					
	12	Opportunism in economic life is tried to be prevented by the government.					
	13	In economic activities, parties prioritize both their own interests and the interests of the other party.					
	14	The fair functioning of economic activities is a primary condition of government.					
Distributive Justice	15	The view that "higher earners deserve to get what they earn more than lower earners" is not prevalent in society.					
	16	The opinion that "those who are not successful in business deserve to be low-income earners" is not prevalent in society.					
	17	Individuals deserve the "earnings" from economic activity.					
	18	The priority of economic policy is to establish justice in economic life.					
	19	It is common in society for high-income individuals to provide financial assistance to low-income individuals or those in need.					
	20	Economic activities are safeguarded by the legal system.					
	21	The fairness of economic activities depends on the consent of those involved.					
Participatory Justice	22	It is not an irrational behavior to give someone money for free.					
	23	It is not right to buy and sell everything in economic life like a commodity.					
	24	A person may incur losses as a result of fair economic activity.					
	25	Individuals engage in the economic activities they desire to the extent that their financial strength permits.					

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	26	The government provides opportunities for individuals or groups with low income or need to participate in economic activities.					
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