

VALIDITY AND RELIABILITY STUDY OF A POVERTY PERCEPTION SCALE

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ABSTRACT: Poverty and inequality in income distribution are among the most important obstacles to economic development and increased prosperity. Furthermore, with globalization, poverty continues to be a problem for future generations in countries where economic and technological differences are gradually widening. The motivation of the study was the limited number of scales in the literature aimed at measuring the perception of poverty. In this study, in terms of individuals receiving financial aid from the state, a poverty perception scale with 33 items consisting of three subdimensions of absolute poverty, relative poverty, and human poverty was developed and examined for validity and reliability. As the first step in this process, an item pool was created. After providing the content validity of the items presented to experts for their evaluation, a pilot study was carried out for the elimination of potential errors and deficiencies, and the 33-item scale was finalized. The study was carried out with the analysis of 650 people residing in Ağrı city center and different districts and receiving social aids. In order to specify the discrimination power of the survey items, the item-total correlation was calculated, and then the significance of the differences between the item means of the upper 27% and lower 27% groups was investigated utilizing the t-test. Corrected item-total score correlations ranged from 0.577 to 0.711. The results of the test revealed that all the differences between the item means of the upper and lower groups were significant. To specify the construct validity of the scale, first, Exploratory Factor Analysis (EFA) was conducted, and a three-factor structure obtained, explaining 75.48% of the total variance. Reliability criterion Cronbach's Alpha (CA) value of each dimension and the CA rate for the overall questionnaire resulted as expected, above 0.70. Model fit of the item-factor structure acquired by EFA was examined through confirmatory factor analysis (CFA), and following the good fit decision regarding the fit indices, it was observed that the three-factor structure of the scale was verified. Based on these results, it was concluded that the poverty perception scale was a valid and reliable measurement tool.

Keywords: Poverty, Poverty Perception Scale, Validity, Reliability

I. INTRODUCTION

Today, poverty is a problem for both developed and developing countries. There is no clear agreed-upon definition of poverty. In general, it can be defined as the inability of people to acquire the goods and services necessary for their survival. Poverty has a multidimensional nature; it would be wrong to express it simply as people being hungry or unable to reach foodstuffs to get adequate nutrition.

Generally defined, poverty means that individuals maintain their lives below a certain level of economic well-being (O'Connor, 2001). Poverty, at the same time, is a highly relative concept. Concerning poverty, it is very difficult to find common criteria that can be valid for every individual, every society, every period. Poverty can change according to the place and time of living. In the same period, in different countries, people are classified as rich or poor by different criteria (UNDP, 2005).

Poverty occurs when a person's standard of living is below the standard generally accepted in society. Therefore, a poor person cannot experience the lifestyles and habits of society due to their insufficient income. Thus, it leads to "deprivation of everyday life", "inability of being at the desired level" (Alkire, 2002). About half of the world's population lives below the \$2 poverty line. Poverty, in Turkey, as in all the world, is a problem that cannot be ignored.

Considering the education, health, human rights, environmental, political, and social participation dimensions of human life, it is not possible to evaluate poverty as a purely economic phenomenon. Defining poverty merely based on income and calorie needs might cause the social and moral dimensions of the problem

to be ignored. Therefore, in defining poverty, it should also be considered that the person is deprived of the means and facilities that will enable them to lead a quality life (Nussbaum, 2011).

The effects of poverty manifest themselves both economically and socially. A poor person has difficulties economically in living and making a living, cannot meet their needs at the desired level, cannot meet the economic and social needs of themselves and their families, and cannot socially position themselves and their families in the society as they wish (Alkire & Santos, 2014).

Poverty is very difficult to measure due to the fact that poverty varies by country and years and is a complex phenomenon. It was stated that the first thing to be determined in order to measure poverty was who would be considered poor, and the second was the poverty line (Acemoglu & Robinson, 2012).

There are two different approaches to measuring poverty. In the first one, the direct approach, unsatisfied basic needs are directly observed, and the observed situation is compared with the normative situation. In the indirect approach, on the other hand, the resources owned by the household are compared with the resources required to meet basic needs. The first approach measures the extent of the poverty problem, while the second one measures both the extent and the intensity of poverty (Aktan & Vural, 2002: 18).

In the literature, there are only a few measurement tools to measure the perception of poverty, which has been the motivation for the study. The study aims to develop a scale for measuring the perception of poverty and present it to the literature by making validity and reliability analyses. The scale developed in this study is based on three basic definitions of poverty. The poverty definitions discussed are as follows:

Absolute Poverty: Absolute poverty is the state below the minimum income and expenditure level required to meet the most basic needs of individuals or households. The concept of absolute poverty also includes the condition in which the basic needs of individuals such as clothing and accommodation are not met. Briefly, absolute poverty is the inability of individuals to meet their most essential consumption needs for the continuation of their lives (Jolliffe et al., 2016).

Absolute poverty is determined by a common poverty line that does not change according to time and place, and that can be applied to every country. For absolute poverty, which is used to make cross-country comparisons, the different conditions of the countries and the differences in their income distribution are not taken into account, and a global poverty line that can be applied to every country is determined. World Bank determined the daily costs required for people to survive in absolute poverty for all countries. The daily cost of living is sometimes as low as \$1 a day (Spicker, 1990; Aktan & Vural, 2002). For Eastern European Countries, including Turkey, the absolute poverty line can rise to \$ 4 a day. In this context, absolute poverty is defined as "the minimum consumption level that an individual needs in order to survive physically" and "the minimum income level".

Relative Poverty: Relative poverty is when an individual has an income below the income level required to afford the goods and services to live at a certain standard of living, such as public transportation, drinking water, health, education, and cultural activities (Fosu, 2015). In other words, relative poverty is that individuals have income and expenditure below the average welfare level of the society (Gradin, 2009). Families who have an income less than half the income of an average family in the community are poor. In relative poverty, the rate of an individual's participation in sociocultural life is taken into consideration, and human is acknowledged to be a social being. Therefore, the concept of relative poverty focuses on differences in the distribution of income and wealth rather than the absolute income level of different groups (Hanson et al., 2013).

The understanding of relative poverty is based on the intellectual foundations that do not find it adequate for income to meet only biological needs but at the same time, consider it necessary that it should be at a level to provide an individual with a life worthy of human dignity. Even though relative poverty is above the absolute poverty level, how much it is above this level will vary according to the socioeconomic development level of the society (Fortuijn & Ostendorf, 2004).

Human Poverty: The concept of human development is considered by regarding the fundamental rights of people such as individual freedom and personality along with the fundamental rights that people should have in their lives, rather than the monetary income that individuals earn (Sinding, 2009). Thus, it is clear how important the human factor is in development. Human poverty does not deal with the monetary income aspect of poverty in particular but its social dimension. What is meant by this concept is that individuals are deprived of options such as leading a quality life, continuing their lives in a healthy and long life, and being productive (Bradshaw, 2006). In other words, it is when individuals are deprived of their basic human needs. Human poverty occurs due to factors affecting the lives of individuals, such as low life expectancy, lack of basic health and education opportunities, deficiencies in employment, and preventable but untreated diseases. In addition to these, infrastructure deficiencies, inability to access goods and services, and insufficiency of clean drinking water are also within the scope of human poverty (O'Connor, 2001).

II. VALIDITY AND RELIABILITY ANALYSES OF THE POVERTY PERCEPTION SCALE

3.1. Purpose and Importance of the Research:

While not reducing it to a general statement, poverty is the state of being unable to meet individual needs. The scope of these needs is the availability of some demographic, social, and geographic factors that might differ from individual to individual and also affect these differences. Determination of poverty, in all its aspects, is similar to performing a comprehensive appraisal of a large organization. Hence, plain and simple, a scale with high validity and reliability was required. The study aimed to develop a scale with adequate validity and reliability for directly measuring poverty perception as well as revealing the interactions between other poverty-related variables; to present it to researchers, politicians, non-governmental organizations, and other interested parties working on poverty; and to make a contribution to the literature on this subject. Furthermore, the simplicity and comprehensibility of the questions of this scale regarding absolute, relative, and human poverty pave the way for researchers to access the application area of an easy and coherent method.

3.2. Research Universe and Sample:

In the study, the population was determined from the people living within the provincial borders of Ağrı and receiving cash assistance from the government and was created based on the data obtained from the activity reports of Ağrı Governorship Social Assistance and Solidarity Foundation between 01.01.2020 and 01.06.2020. During the research, 168,110 people in total were within the scope of public financial aid in the city of Ağrı. Of these, 650 participants were determined as the sample by the targeted sampling method. The questionnaires were applied by face-to-face survey method between 15.01.2020 and 30.01.2020, and a total of 677 questionnaires were completed. Since it was noticed during the data entry stage that some of the participants did not answer most of the questions, these questionnaires were not included in the analysis, and a total of 650 questionnaires were used in the research. The number of samples to be drawn from a certain population was determined as 384, for a sampling error of 0.05, and when $p=0.50$ and $q=0.50$.

3.3. Assumptions and Constraints

It was accepted that the individuals participating in the study expressed their true emotions and opinions while responding to the scale questions. It was admitted that the participants responded to the questionnaire voluntarily and filled in the questionnaire truthfully and completely. It was accepted that the respondents understood the expressions in a literal sense while answering the scale questions. Any conceptual errors that could have occurred were ignored. Certain hardships were encountered in increasing the size of the survey sample, and besides, people hesitated to participate. It is possible to mention their reluctance towards participation in the survey as a considerable constraint. As another constraint, people who did not check their emails during the survey period and those who did not fill in the majority of the questions on the scale were not included in the sample.

3.4. Reliability Analysis of the Survey

In order to check the reliability of a scale, Cronbach's Alpha, Split, Parallel, and Absolute Parallel (Strict) are the most frequently used tests. Obtaining a value above 70% as a result of the Cronbach's Alpha test signifies the effectiveness of the survey (Brown, 2006). In this study, the results of the reliability analysis of the questionnaire were determined as Cronbach's Alpha= 0.923, Parallel= 0.923, Split= 0.922-0.924, and Strict= 0.922.

3.5. Percentage Distributions of Descriptive Information about Participants

40.6% of the participants were male, and 59.4% were female. 57.1% of the participants were married, 11.4% were single, 2% were divorced, and 29.5% were widowed. While 44% of the participants were illiterate, the education status of 14.9% of the participants was literate, 24.5% was primary school, 9.2% was secondary school, 5.2% was high school, and 2.2% was higher education. 5.4% of the participants had a profession, 94.6%, on the other hand, had no profession.

3.6. Stages of the Scale Development Process

The validity and reliability analysis of the scale was conducted in six stages. In the design of these steps, the scale development processes suggested by Hambleton & Patsula (1999) were utilized. The processes in question were not implemented as they were, they were adapted to the characteristic of this study, and their certain stages were rearranged.

Stage 1: Literature Review

The concept of poverty has emerged as an important research subject in the literature in recent years. Within this context, the researches on poverty were reviewed and it was observed that there were too few survey studies on poverty in the international literature. Nevertheless, a pool of questions was created benefiting from previous studies.

Stage 2: Translation of Some Items into Turkish

In this step, some expressions on the scale, obtained in English from different sources, were translated into Turkish by five academicians with advanced Turkish-English language skills, who had field studies on

poverty. The academicians helping with translation were given detailed information about the research purpose and the scale structure before translation. No scale related to poverty could be found, yet the items were selected taking inspiration from questions asked in some survey studies.

Stage 3: Selection of Items

In this step, the items translated by the five academicians from English to Turkish were combined with the items written by us to produce the item pool. Afterward, the item pool was inspected with the guidance of the two academicians with publications on the subject. Following the comments, some items were eliminated, and the first form of the scale was created with 33 questions in total, including absolute poverty (17 questions), relative poverty (6 questions), and human poverty (10 questions).

Stage 4: Turkish Language Check

At this step, the selected scale items were checked by an expert who published researches in the field of Turkish Language and Education in order to prevent any semantic shifts or comprehension difficulties, and some expressions were revised further to their remarks.

Stage 5: Discussion on Items and Content Validity

In this study, the items were examined by ten academicians (experts) who were lecturing and published articles on poverty and development at Marmara University, Istanbul University, and Yıldız University, and their opinions were asked. The experts were requested to evaluate their answers regarding the suitability of the items for the scale with a 5-point rating scale (1: not relevant, 2: somewhat relevant, 3: quite relevant, 4: highly relevant). Blanks were left under items to allow the experts to make remarks, and they were informed that they could also make corrections on the items when necessary. After collecting information from experts, the results of the technique by Davis (1992) were used to decide which items were suitable to be included. At this stage, content validity ratios were determined for each item. Content validity ratio (CVR) is the result obtained by subtracting one from the ratio of the number of experts rating an item as "essential" to half of the total number of experts expressing an opinion on the item.

$$CVR = (N_E / N/2) - 1$$

N_E : the number of experts rating the item as essential, N : number of experts participating in the research

According to the analysis results, the lowest CVR value was detected as 0.60. The Content Validity Index (CVI) value of the scale was 0.96. The Content Validity Ratio (CVR) and Content Validity Index (CVI) obtained after taking expert opinions are given in Table 1.

Table1: The Content Validity Ratio and Content Validity Index of Scale Items

	Not Relevant	Somewhat Relevant	Quite Relevant	Highly Relevant	CVR
Q1	0	0	0	10	1
Q2	0	0	0	10	1
Q3	0	1	1	8	0.80
Q4	0	0	0	10	1
Q5	0	1	1	8	0.80
Q6	0	0	0	10	1
Q7	0	0	0	10	1
Q8	0	0	5	5	1
Q9	0	0	5	5	1
Q10	0	0	3	7	1
Q11	0	0	3	7	1
Q12	0	0	0	10	1
Q13	0	1	0	9	0.80
Q14	0	1	0	9	0.80
Q15	0	0	0	10	1
Q16	0	0	0	10	1
Q17	0	0	0	10	1
Q18	0	0	1	9	1
Q19	0	0	1	9	1
Q20	0	0	0	10	1
Q21	0	0	1	9	1
Q22	0	0	0	10	1
Q23	0	0	1	9	1
Q24	0	0	0	10	1
Q25	0	0	0	10	1

Q26	0	0	0	10	1
Q27	0	0	1	9	1
Q28	0	0	2	8	1
Q29	0	0	0	10	1
Q30	0	0	1	9	1
Q31	0	0	1	9	1
Q32	0	2	1	7	0.60
Q33	0	0	0	10	1
CVI					0.96

According to the CVR equation: if half of the experts rated the item in the scale as "Relevant", CVR=0; if more than half of the experts rated as "Relevant", CVR>0; and if less than half of the experts rated as "Relevant", CVR<0. If the CVR yields a value of 0 (zero) or negative (less than zero), an item with such a value has no content validity. In this study, the values for each item were CVR>0, the content validity of the items was provided, no item was eliminated.

Stage 6: Pilot Application

At this stage, 50 participants were surveyed using the pilot application version of the scale. Exploratory Factor Analysis (EFA) was performed utilizing Principal Components Analysis on that data set generated on SPSS in order to check the coherence between the dimensions on the scale. For the pilot data, Cronbach's Alpha value was 0.792; for EFA, KMO= 0.884, and Bartlett's test (p)= 0.000; thus, it was understood that if the number of data increased, a smooth reduction process could be performed and the reliability of the questionnaire would increase. After the pilot application, the questionnaire was applied to a sample of 650 people. The questionnaire data were first examined by item discrimination analysis.

3.7. Item Discrimination Analysis

Within the framework of validity analysis of measurement tools, it is advised to examine the discrimination power of the items and item-total correlations. Both analyses are used to interpret the extent to which the items serve the purpose of the scale. This is related to the fact that measurement tools serve the purpose of classifying and ranking items in terms of the extent to which each item has the measured properties, and clearly distinguishing the differences between them (Wilson et al., 2012:199). The reliability of the scale was also approved by means of the item-total correlation values and the item discrimination values of 27% lower (n= 176) - upper (n= 176) groups. Table 2 shows the item-total correlation values for each item and the t-test value of the difference between 27% lower-upper group scores.

Table 2: Item-Total Correlation Values of Each Item and T-Test Values of the Difference Between 27% Lower - Upper Group Scores

Item No	Corrected Item-Total Correlations	Significance Test (t-test) of the Difference between Lower 27% - Upper 27%
Q1	.655*	4.853*
Q2	.613*	5.884*
Q3	.679*	6.290*
Q4	.606*	5.331*
Q5	.655*	6.734*
Q6	.641*	4.055*
Q7	.701*	6.342*
Q8	.612*	4.996*
Q9	.628*	8.258*
Q10	.577*	7.751*
Q11	.635*	8.327*
Q12	.590*	6.559*
Q13	.620*	7.368*
Q14	.703*	5.045*
Q15	.668*	7.901*
Q16	.705*	8.465*
Q17	.647*	9.115*
Q18	.618*	6.448*
Q19	.622*	5.499*

Q20	.711*	4.227*
Q21	.633*	5.741*
Q22	.599*	6.445*
Q23	.611*	7.066*
Q24	.613*	6.532*
Q25	.692*	5.330*
Q26	.678*	7.102*
Q27	.690*	6.449*
Q28	.702*	5.803*
Q29	.708*	6.573*
Q30	.675*	7.389*
Q31	.710*	8.225*
Q32	.700*	6.551*
Q33	.677*	8.506*

*Significant at 0.05

When the findings in Table 2 are examined, it is seen that item-total correlations vary between .577 and .711, and all correlations are significant at the 0.05 level. In this case, it is seen that every item has a positive and moderate association with the general total of the scale, supporting the thesis that the items are compatible with the scale. In addition, it is seen that the calculated t-test values range from 4.055 to 9.115, and all of the t-values are significant at the 0.05 level. Therefore, the significance of the t-values shows that all of the items are discriminating items.

3.8. Exploratory Factor Analysis Results

Factor analysis is a multivariate statistical method that intends to find and explore a small number of unrelated and conceptually meaningful new variables (dimensions, factors) by assembling p number of interrelated variables. In the exploratory factor analysis process for the scales, firstly, the fitness of the data for factor analysis was examined. Accordingly, the Kaiser-Meyer-Olkin (KMO) sampling adequacy value of the data set was found to be 0.934, above 0.70, which is considered to be a good level. The results of Bartlett's sphericity test measuring the consistency of the items/variables subjected to analysis were found to be statistically significant ($\chi^2= 6782.44$ and $p= .000$). After the tests, it was determined that the sample to be used for exploratory factor analysis was sufficient, and it was suitable for factor analysis.

After the suitability of the data set was confirmed by tests, principal component analysis was applied utilizing the "Varimax" rotation as a factor retention method in order to reveal the factor structure. A 3-factor structure was determined in the factor structure, explaining 75.48% of the total variance. As stated by Çokluk et al., (2010) in their study, the variance explained in multi-factor patterns being between 40% and 60% is considered adequate in research conducted in social sciences. As the five dimensions explain, in total, 75.48% of the change in variance, explanation rates of the factors were sufficient. Anti-image matrix diagonal values were found to be over 0.50. Hence, it was not necessary to eliminate any questions.

As noted by Costello & Osborne (2005) in their study, the questions with a value below 0.20 in the Extraction column following the factor analysis ought to be eliminated from the analysis because of their little effect on variance change. There was no elimination in this study and all questionnaire questions were used since there was no question with a value below 0.20 for the three factors. The CA value was found to be 0.913 only for the questions covering the poverty scale.

Table3. Exploratory Factor Analysis Results of the Poverty Perception Scale

Factor 1: Absolute Poverty	Explained Variance: 29.82	Cronbach's Alpha (CA):0.912
	Factor Loading	If the item is deleted, CA
1.I consume enough meat and meat products.	0.673	0.910
2.I consume enough fruit and vegetables.	0.509	0.911
3.I consume enough milk and dairy products.	0.702	0.904
4.Nobody in the family is thin due to inadequate food intake.	0.731	0.909
5.The house where our family resides has proper conditions to live a decent life.	0.598	0.902
6.The house we live in is sheltered and safe.	0.604	0.896

7.The house we live in is cleaned regularly, and it is clean.	0.623	0.905
8.The toilet is outside, available for common use.	0.665	0.887
9.People in the house have the opportunity to bathe and clean regularly.	0.711	0.910
10.We go to the doctor or hospital regularly for our health checks.	0.708	0.872
11.When we have a health problem, we can easily get treatment.	0.680	0.894
12.There is no illiterate person in our family.	0.632	0.845
13.In our family, girls go to school.	0.725	0.902
14. We support the education of children in our family.	0.599	0.901
15.When there is a problem in our family, we can easily learn about our rights and what to do from government officials.	0.644	0.890
16.We can easily access and benefit from social services.	0.651	0.903
17.When necessary, I can easily buy the necessary clothing materials.	0.703	0.906
Factor 2: Relative Poverty	Explained Variance: 23.56	Cronbach's Alpha (CA):0.910
	Factor Loading	If the item is deleted, CA
1.I live a more comfortable life compared to the people around me.	0.714	0.903
2.My income status is better compared to the people around me.	0.728	0.900
3.Compared to the people around me, I can spend on food more comfortably.	0.693	0.904
4.I can afford school expenses more comfortably than the people around me.	0.687	0.902
5.Compared to the people around me, I can make my health expenses without any difficulty.	0.702	0.905
6.The house I live in is cozier and more comfortable compared to the people around me.	0.644	0.906
Factor 3: Human Poverty	Explained Variance: 22.10	Cronbach's Alpha (CA):0.909
	Factor Loading	If the item is deleted, CA
1.I am not exposed to discrimination for any reason (sect, political opinion, nationality, religion, etc.) around me.	0.721	0.903
2.I benefit from education services without any problems.	0.664	0.901
3.I benefit from health services without any problems.	0.682	0.900
4.The growth (weight, height) of the children in the family is proceeding normally.	0.595	0.897
5.I think my life will be more than 70 years.	0.705	0.885
6.I am not under any threat of terrorism or violent attack.	0.713	0.900
7. There are individuals in my family who are unemployed.	0.724	0.905
8.There have been no child deaths in my family for the last ten years.	0.608	0.906
9.Electricity is available where I live.	0.613	0.880
10.I have access to clean water where I live.	0.681	0.879

EFA results show the percentage in total variance explained by each factor, Cronbach's Alpha (CA) value of each factor, factor weight value of each question, and CA values if the item is deleted. As can be seen in Table 1, total explanatoriness was determined as 75.48% with the variance explanation percentages of absolute

poverty 29.82%, relative poverty 23.56%, and human poverty 22.10%. In the literature, it is considered appropriate to have a total explanatory range between 40% and 60%.

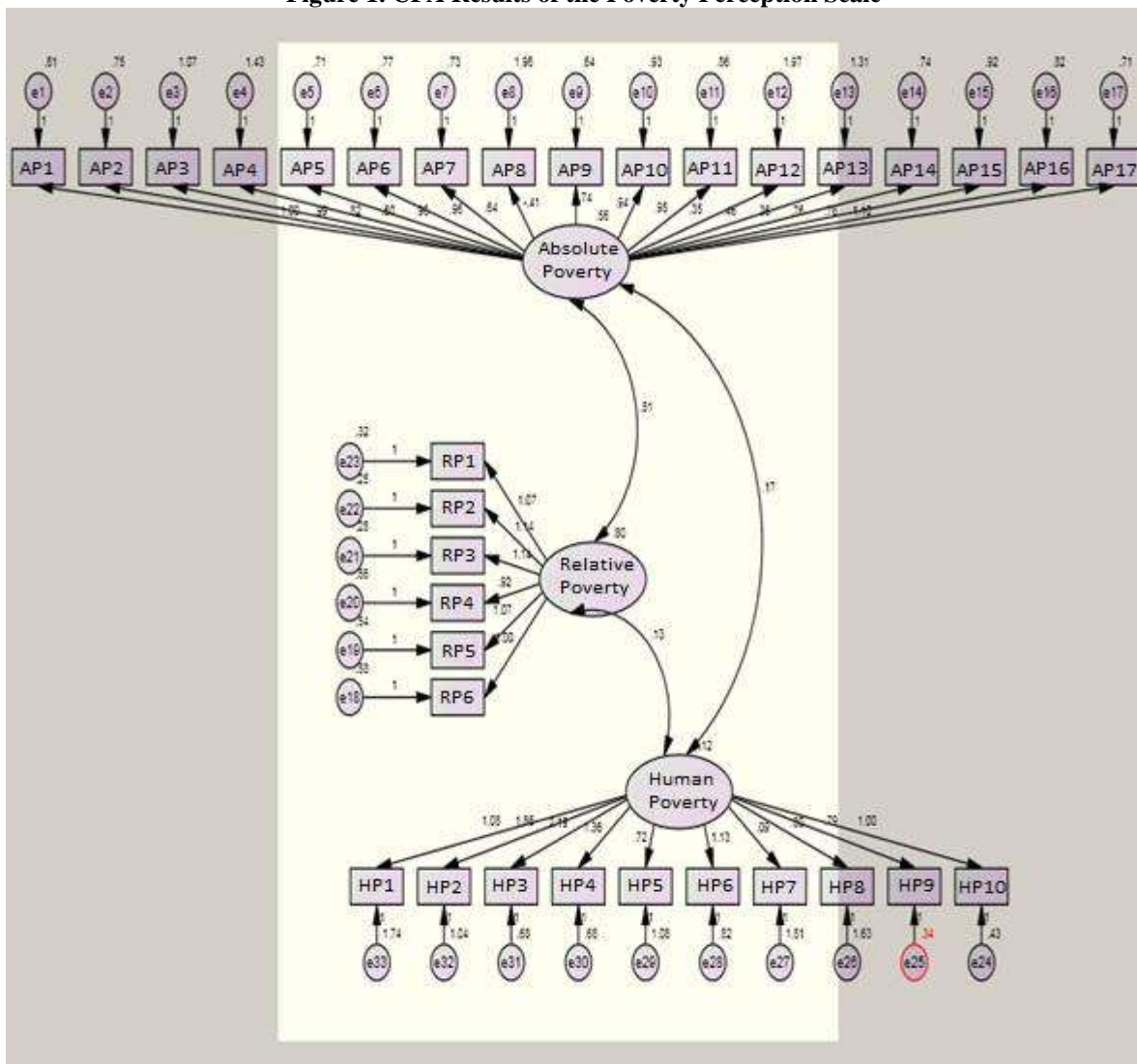
Another suitability condition for factor analysis is that the reliability coefficient CA= 0.913 for the poverty scale should not be greater than the CA value calculated individually for every factor. In this study, CA: 0.912 for absolute poverty, CA: 0.910 for relative poverty, and CA: 0.909 for human poverty provided the necessary suitability. Additionally, information on what the CA value would be when each question was deleted was also provided. As can be seen, there was no result falling below 70% for any question. The first stage of the scale validity test was completed by giving the CA values that occurred when each item was deleted, and suitability was confirmed. Pursuant to the literature, confirmatory factor analysis (CFA) was additionally applied to verify the scale validity.

3.9. Confirmatory Factor Analysis Results

Confirmatory factor analysis (CFA) is frequently employed in the development of measurement models, and it is an analysis method that provides great convenience. CFA is a process for creating a *latent variable* (factor) based on variables observed through a preformed model. It is usually employed in the process of scale development and validity analysis or for verifying a pre-established structure (Long, 1989).

In this part of the research, CFA was applied to test the compatibility between the factors determined by EFA and the factor structures determined by the hypothesis. The purpose of measurement models is to specify in what way and to what extent *latent variables* called factors (as a measuring tool) are explained by a group of observed variables. After building the CFA model, AMOS 23.0 software was employed to test latent factors and interdependent effects between them.

Figure 1. CFA Results of the Poverty Perception Scale



In order to check whether the model required any improvements, the modification index was examined, and apparently, there was no need for modification.

Table4. Fit Indexes of the CFA Model

Measurement (Fit Statistics)	Good Fit	Acceptable Fit	Research Model Value	Fit Status
General Model Fit				
X^2 /sd	≤ 3	$\leq 4-5$	2.18	Good fit
Comparative Fit Statistics				
NFI	≥ 0.95	0.94-0.90	0.935	Acceptable fit
TLI (NNFI)	≥ 0.95	0.94-0.90	0.961	Good fit
IFI	≥ 0.95	0.94-0.90	0.982	Good fit
CFI	≥ 0.97	≥ 0.95	0.960	Acceptable fit
RMSEA	≤ 0.05	0.06-0.08	0.034	Good fit
Absolute Fit Indices				
GFI	≥ 0.90	0.89-0.85	0.931	Good fit
AGFI	≥ 0.90	0.89-0.85	0.926	Good fit
Residual-Based Fit Index				
RMR	≤ 0.05	0.06-0.08	0.032	Good fit

It was determined in this research that the model could be interpreted because of obtaining the acceptable or good fit results for every criterion. According to Table 4, $X^2/sd=2.18$; thus, the result was a "good fit" as it provided the condition ≤ 3 . NFI= 0.935, it was between the specified limits of 0.94-0.90; in this case, "acceptable fit" was achieved. TLI (NNFI)= 0.961; the result was a "good fit" since it provided ≥ 0.95 . IFI= 0.982; it was a "good fit" since it provided the condition ≥ 0.95 . CFI= 0.960; it was an "acceptable fit" since it provided ≥ 0.97 . RMSEA= 0.034; it was a "good fit" as it provided ≤ 0.05 . GFI= 0.931; it was a "good fit" as it provided ≥ 0.90 . AGFI= 0.926; it was a "good fit" as it provided ≥ 0.90 . RMR= 0.032; it was a "good fit" as it provided ≤ 0.05 .

III. CONCLUSION

Determination of poverty is an important problematique. Despite the presence of various numerical methods, there are still serious gaps in the literature in terms of scales. Therefore, the developed poverty perception scale will fill these gaps and also become a frequently referred scale in the field of social sciences. In this study, the scale development processes suggested by Hambleton & Patsula (1999) were employed first.

The sample of the study consisted of 650 people residing in Ağrı city center and different districts and receiving social aids. For this research, the literature on poverty was reviewed, and the item pool was constructed following the comments of the experts. In line with the evaluations of experts, the content validity of the item pool questions was measured and obtained as 0.96. Subsequent to the required revisions, a pilot survey was implemented. After the pilot survey, some expressions were corrected to develop the final questionnaire form, and the data collection phase was initiated.

In order to specify the discrimination power of the survey items, the item-total correlation was calculated, and then the significance of the differences between item means of the upper 27% and lower 27% groups was investigated utilizing the t-test. Corrected item-total score correlations ranged from .577 to .711. The results of the test revealed that all the differences between the item means of the upper and lower groups were significant. To specify the construct validity of the scale, first, Exploratory Factor Analysis (EFA) was conducted. For the items, factor loadings varied between 0.509 and 0.731. It was determined that the subdimensions accounted for 75.48% explanatory in the overall total with the variance explanation percentages of absolute poverty 29.82%, relative poverty 23.56%, and human poverty 22.10%. The general reliability coefficient value CA= 0.923 was supposed not to exceed the CA value computed individually for all factors. In this study, CA: 0.912 for absolute poverty, CA: 0.910 for relative poverty, and CA: 0.909 for human poverty provided the necessary suitability. As can be seen, there was no result falling below 70% for any dimension. There was no item in the extraction column with a value lower than 0.20; the diagonal values of the anti-image matrix resulted in over 0.50; therefore, no questions had to be removed.

In the other phase of the study, in terms of the fit indexes of the CFA model, $X^2/sd=2.18$; thus, the result was a "good fit" as it provided the condition ≤ 3 . NFI= 0.935, it was between the specified limits of 0.94-0.90; in this case, "acceptable fit" was achieved. TLI (NNFI)= 0.961; the result was a "good fit" since it provided ≥ 0.95 . IFI= 0.982; it was a "good fit" since it provided the condition ≥ 0.95 . CFI= 0.960; it was an

"acceptable fit" since it provided ≥ 0.97 . RMSEA= 0.034; it was a "good fit" as it provided ≤ 0.05 . GFI= 0.931; it was a "good fit" as it provided ≥ 0.90 . AGFI= 0.926; it was a "good fit" as it provided ≥ 0.90 . RMR= 0.032; it was a "good fit" as it provided ≤ 0.05 .

Consequently, the validity and reliability analyses of the "poverty perception scale", which was designed in a 5-Likert type and included a total of 33 items with three subdimensions, were completed. The outcomes of the analyses revealed that the scale had a satisfactory degree of validity and reliability. It is thought that this scale can be utilized as it is in order to determine the poverty perception of individuals as a valid and reliable measuring instrument and can make contributions to the literature. It can be suggested to conduct studies with more extensive samples and different groups and make comparisons.

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