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Research Article

A Scale Development Study Regarding the Effects of Organized Industrial Zones on Regional Development: The Organized Industrial Zones Perception Scale*

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ABSTRACT

One of the most crucial instruments for regional development is organized industrial zones, as these zones contribute to development in many areas, especially regarding the economy and social life in the regions where they are established. This situation has revealed the necessity to investigate the relationship between organized industrial zones and regional development. No single measurement tool has been identified in the literature review to quantify this link. Therefore, this study aims to contribute to the literature by developing a scale to explain the relationship between organized industrial zones and regional development. The sample of the study consists of 600 people aged 18 or over living in the districts where organized industrial zones are located in Trabzon, Türkiye. The programs SPSS23 and AMOS26 are used to analyze the research data. The analysis findings show the scale's item factor loadings to range between 0.606-0.860, with the total explained variance being calculated as 67.00%. The Organized Industrial Zones Perception Scale is comprised of 21 items and 5 components according to the findings from the confirmatory factor analysis (*CMIN / df* = 2.824; *RMSEA* = 0.055; *GFI* = 0.928; *AGFI* = 0.905; *NFI* = 0.923; *CFI* = 0.949; *IFI* = 0.949; *TLI* = 0.939).

Keywords: organized industrial zones, regional development, SPSS23, validity, reliability

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1. Introduction

All states on earth aim to increase the welfare of their citizens and ensure the enrichment of their country. Governments set several objectives to achieve this goal and implement various policies to achieve these objectives, with development being at the forefront of these. The concept of development refers to the upward movement of the entire social system. It has been an important issue since the beginning of the 20^{th} century and taken on a regional understanding in the last 50 years (Myrdal, 1974). The theories produced in this direction emphasize that development should start from the local level. Countries have been divided into regions, and policies have started being produced to ensure the development of underdeveloped regions, with organized industrial zones being at the forefront of these policies (Çetin & Kara, 2008).

In 1962, Bursa became the site of Türkiye's first formal industrial zone (Özden, 2016). Since then, dozens of organized industrial zones have been built to complete the industrialization movement and ensure regional development. As of the end of 2022, a total of 380 organized industrial zones are found in various stages in Türkiye (Organized Industrial Zones Supreme Organization [OSBÜK], 2023).

In addition to the benefits that organized industrial zones provide to enterprises, they are also considered to provide significant advantages to the districts and regions where they are established. These advantages are important for regional development and manifest themselves in various fields. In line with this, the question arises as to which areas of a region that have established organized industrial zones are developed by these zones. This question reveals the necessity of examining the relationship between organized industrial zones and regional development.

The literature review reveals quite a low number of studies to have examined the relationship between organized industrial zones and regional development. Çetin and Kara (2008) conducted a survey covering 30 enterprises in the Isparta Süleyman Demirel Organized Industrial Zone on the relationship between regional development and organized industrial zones. The study concluded organized industrial zones to have a limited impact on the development of the Türkiye. Koç and Bulmuş (2014) comparatively examined the impact of organized industrial zones in Kayseri and Sivas provinces on regional development. As a result of their examination, they stated organized industrial zones to be an important factor in the development of the region. Özden (2016) conducted a study examining the impact of organized industrial zones on development in Türkiye. Özden's study stated organized industrial zones to have many benefits, especially balanced regional development and private sector investments being directed to certain regions. Çelik and Dinçsoy (2019) examined the impact of the Edirne Organized Industrial Zone on the regional economy and businesses. They conducted their study by applying a questionnaire to enterprises located within and outside the Edirne Organized Industrial Zone and emphasized that, although the Edirne Organized Industrial Zone plays an important role in the development of the region, it has deficiencies that need to be completed.

As a result of the examined studies, no measurement tool was determined to exist that measures the impact of organized industrial zones on regional development. In addition, the conducted studies were observed to cover the enterprises operating in organized industrial zones, not the people of the region. The aim of this study is to develop a measurement tool for examining how organized industrial zones contribute to regional development and their impact on the people of the region through the perceptions of the people in the region.

2. Method

2.1. Sample of the Research

The research was conducted in Arsin, Akçaabat, and Beşikdüzü, the three districts in Trabzon that have organized industrial zones. The total population of these three districts consists of approximately 185,000 people. People in these three districts who are at least 18 years old make up the research sample. Upon obtaining permission from the Istanbul University Social Sciences and Humanities Research Ethics Committee E-35980450-663.05-1596371 approval number and dated January 25, 2023, the study applied the questionnaire it prepared to the participants in person between January 1-March 1, 2023. Participants were informed that the data collected in the study would be used only for scientific purposes and that participation in the study was voluntary. As a result of the research, a total of 600 questionnaires, 200 from each of the three districts, were collected, with analyses being carried out over the 600 questionnaires.

This study uses Baş's (2008) table titled "Sample Sizes Needed for Different Target Population Sizes and Error Levels" for selecting the sample. The table determined the sample size for a target population size between 100,000-1,000,000 to be at least 383 people at a 95% confidence level. When considering that the total population of the three districts accepted as the research population is approximately 185,000 people, 600 questionnaires have been concluded as being sufficient for the sample size.

Upon analyzing the participants' demographic characteristics, 386 (64.3%) of the participants were observed to be male and 214 (35.7%) to be female. When analyzing the participants' ages, 117 (19.5%) were observed to belong to the 30 years-or-under age group, 93 (15.5%) to the 31-35 age group, 107 (17.8%) to the 36-40 age group, 89 (14.8%) to the 41-45 age group, 71 (11.8%) to the 46-50 age group, and 123 (20.5%) to the 51-or-over age group. In terms of educational status, 43 (7.2%) participants are primary school graduates, 193 (32.2%) are high school graduates, 107 (17.8%) have associate degrees, 227 (37.8%) have undergraduate degrees, and 30 (5%) have postgraduate degrees. In addition, 210 (35%) of the participants are public sector employees, 195 (32.5%) are private sector employees, 108 (18%) are tradespeople 58 (9.7%) are unemployed (retired or jobless), and 29 (4.8%) are students.

2.2. Data Collection Tool

The study's authors developed the questionnaire as its data collection tool. Four questions make up the first section of the questionnaire and ask the participants about their age, gender, education level, and work status. The second section has 35 items (e.g., "Organized industrial zones increase employment in the regions where they are established"). The questionnaire form uses a 5-point Likert-type scale to evaluate the items (1 = strongly disagree, 5 = strongly agree).

The study's scale was created as a result of examining domestic and foreign studies on the relationship between organized industrial zones and regional development. In addition, the study has three main limitations. The first involves the historical and geographical limitation of the research. The research was conducted in Trabzon province between January 1-March 1, 2023. Another limitation is related to the research method. The study makes use of a questionnaire as a quantitative research method, and the interview questions are thought to be able to be added to survey questions in future studies. The last limitation of the study is the reluctance of the participants, as only 600 people participated in the research. Reaching more participants is considered to be beneficial for further studies.

The scale's design process involved four stages. In the first stage, the authors turned the issues related to the effects of organized industrial zones on regional development into scale items. The second stage involved sending the scale items to experts for their opinions. These experts are academicians working in the field of regional development and people who have been managers in organized industrial zones for several years. As a result of the expert feedback, some of the items were modified, with the questions upon which the author and experts agreed forming the scale. The third stage involved interviewing a focus group of five individuals to get their feedback regarding the final version of the scale and to find out what they thought of the data collection tool. The fourth stage involved using the final questionnaire version in a pilot study with 30 participants. Following the pilot research, the questionnaire's internal consistency and comprehensibility were determined to be suitable, thus initiating the implementation phase of the questionnaire.

2.3. Data Analysis

Two statistical package programs, SPSS 23 and AMOS 26, were used to analyze the data in the study. AMOS 26 was used for the confirmatory factor analysis, and SPSS 23 was used for all other analyses.

3. Findings

The findings obtained as a result of the data collected in the study have been evaluated in a two-stage process. The first stage analyzes the developed scale in terms of construct validity, while the second stage consists of evaluating the results from the reliability analysis of the developed scale.

3.1. Construct Validity

The Organized Industrial Zones Perception Scale can be tested in terms of construct validity by performing explanatory factor analysis (EFA) and confirmatory factor analysis (CFA; Kalaycı, 2008). The first stage performs EFA, which can be expressed as a statistical technique that gathers together the variables measuring the same construct to allow the measurement tool to be explained by fewer factors (Büyüköztürk, 2005). In order to conduct EFA, the results of two tests are important. The first one is the Kaiser-Meyer-Olkin (KMO) sampling adequacy test. The KMO test takes a value between 0 and 1 (Williams et al., 2010). In addition, the KMO test is expected to result in value greater than 0.70 (Can, 2017). Barlett's test of sphericity is the second test needed before using EFA. The factorability of the correlation matrix is expressed by the *p*-value that is produced from the Barlett sphericity test, and its value should be less than 0.05 (Çömlekçi & Başol, 2019). The results of these tests are shown in Table 1.

Table 1. *KMO Value and Barlett Test Results*

Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy		0.911
Bartlett's test of sphericity	approx. χ^2	10,433.213
	df	595
	Sig. (*p*)	0.00

Table 1 displays the findings from the Barlett's test of sphericity and KMO sampling adequacy test for the dataset generated for the study. According to Table 1, the KMO test calculated a value of 0.911 and Barlett's test of sphericity a value of $p = 0.00$. In light of this information, the data were determined to be suitable and sufficient for EFA. After this stage, EFA was begun, with principal component analysis being selected from among the factor derivation models and the varimax method from among the factor rotation methods.

The EFA revealed a 7-factor structure that accounts for 62% of the overall variability. This structure was then re-evaluated by taking into account such factors as the variables' factor loading values, whether the variables have factor loadings under more than one factor (overlap), and whether the variables provide conceptual integrity with the other variables that make up the factor. The analysis used 0.50 as the minimal acceptable factor loading value (Dugard & Todman, 2007). Factor loading of a variable under more than one factor is referred to as overlap. In this case, the overlapping variable is accepted under whichever factor for which the variable has a higher value. However, to decide on this issue, the difference between the relationship levels exhibited by the variables that overlap in different factors should exceed 0.10 (Can, 2017).

In light of these explanations, three of the questions in the analysis were excluded due to low factor loadings, another three were excluded due to overlapping items, and four were excluded due to the lack of conceptual integrity with the questions from the factors in which they were loaded. After making these changes, the analyses were conducted again on 25 items.

Table 2. *KMO Value and Barlett Test Results for 25 Variables*

Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy		0.904
Bartlett's test of sphericity	Approx. χ^2	7,449.272
	df	300
	Sig. (*p*)	0.00

Table 2 shows the KMO value and Barlett sphericity test results for 25 variables. Upon closer inspection, Table 2 reveals a KMO value of 0.904. This value shows the sample size to be sufficient, with the Barlett sphericity test calculating $p = 0.00$.

Table 3. *Rotated Component Matrix Results for 25 Variables*

	Factors				
	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
m23	.823				
m20	.808				
m22	.802				
m21	.800				
m24	.791				
m18	.788				
m25	.750				
m19	.731				
m17	.643				
m16	.634				
m14		.765			
m12		.765			
m13		.720			
m15		.683			
m11		.681			
m8		.562			
m4			.741		
m5			.740		
m7			.688		
m6			.682		
m3			.585		
m10				.801	
m9				.747	
m1					.760
m2					.757

Table 3 shows the results from the rotated components matrix for 25 variables, the factors formed by the variables according to the rotated components matrix, and the factor loadings under these five factors. One can also understood from Table 3 that the factor loadings of the variables are above the accepted value of 0.50. In line with this information, EFA was conducted again. Table 4 displays the findings from this most recent analysis.

Table 4. *Eigenvalues and Total Explained Variance of the Correlation Matrix for 25 Variables*

Factor	Initial Eigenvalues		
	eigenvalue	explained variance (%)	cumulative explained variance (%)
1	7.567	30.268	30.268
2	4.248	16.992	47.261
3	1.570	6.279	53.540
4	1.168	4.673	58.212
5	1.074	4.296	62.508

Table 4 displays the EFA results for 25 variables. Accordingly, a 5-factor structure emerged that explains 62.5% of the total variance. The first factor among these five accounts for 30.268% of the total variability, followed by the second at 16.992%, the third at 6.279%, the fourth at 4.673%, and the fifth at 4.296%.

The statistical program AMOS 26 has been used for the CFA being conducted to verify the 5-factor structure that emerged as a result of the EFA. CFA is used to develop measurement models and aims to verify a predetermined structure (Bayram, 2016). While EFA constitutes the first step in the development of a scale, CFA constitutes the second step in terms of examining whether the defined structure will work with regard to a new sample (Harrington, 2009). In the AMOS 26 package program, two values are important for examining the significance of the items. The first one is the standard regression coefficients, and these are desired to exceed 0.50 (Gürbüz, 2021). The second is the goodness-of-fit index values.

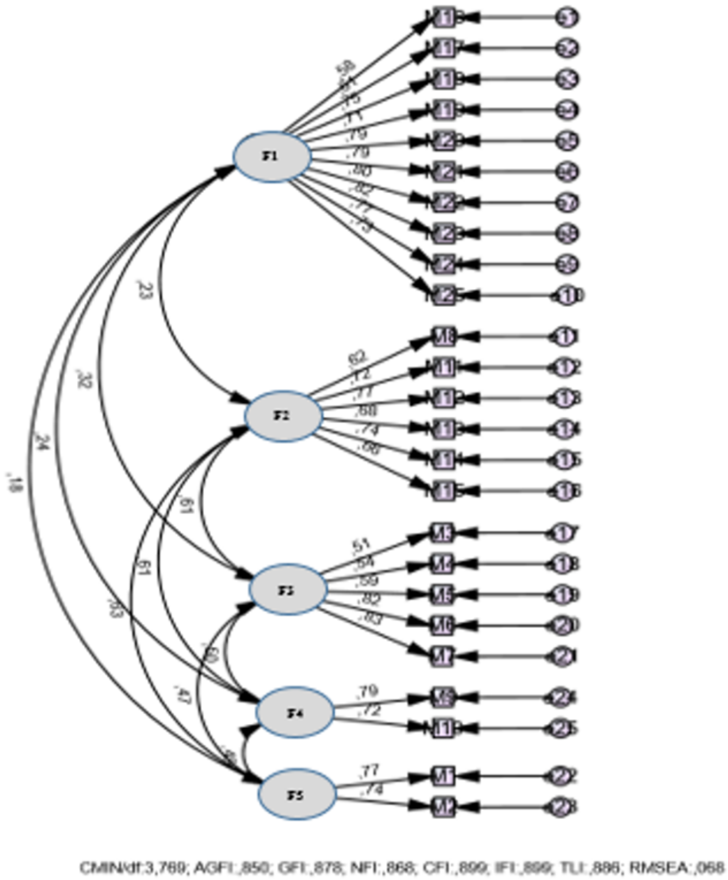

Figure 1. Confirmatory factor analysis model and results.

Figure 1 shows the CFA model and the results obtained using AMOS 26. The model includes the standard regression coefficients and goodness-of-fit index values for the items. Upon examining the standard regression coefficients for the model's items, the values are observed to exceed 0.50 (between 0.51-0.83). On the other hand, some of the goodness-of-fit index values under the model are seen to be below acceptable values for a valid model. Table 5 displays the goodness-of-fit index values derived from the model and those utilized in the CFA.

Table 5. *Goodness-of-Fit Index Values*

Index	Threshold value		Obtained Value
	Good Fit	Acceptable Fit	
CMIN / df	< 3	3 < *CMIN / df* < 5	3.769
AGFI	> 0.90	> 0.85	0.850
GFI	> 0.95	> 0.90	0.878
NFI	> 0.95	> 0.90	0.868
CFI	> 0.95	> 0.90	0.899
IFI	< 0.95	< 0.90	0.899
TLI	< 0.95	< 0.90	0.886
RMSEA	< 0.05	0.05 < *RMSEA* < 0.08	0.068

Source: Schermelleh-Engel et al., 2003; Hooper et al., 2008; Hu & Bentler, 1999.

Among the values in Table 5, *GFI, NFI, CFI, TLI*, and *IFI* were found below acceptable limits, while *CMIN / df, AGFI*, and *RMSE* were found above the cutoff level of acceptability. Therefore, to ensure acceptable goodness-of-fit values, the four items with the lowest standard regression coefficient were removed from the model, and CFA was repeated for 21 items.

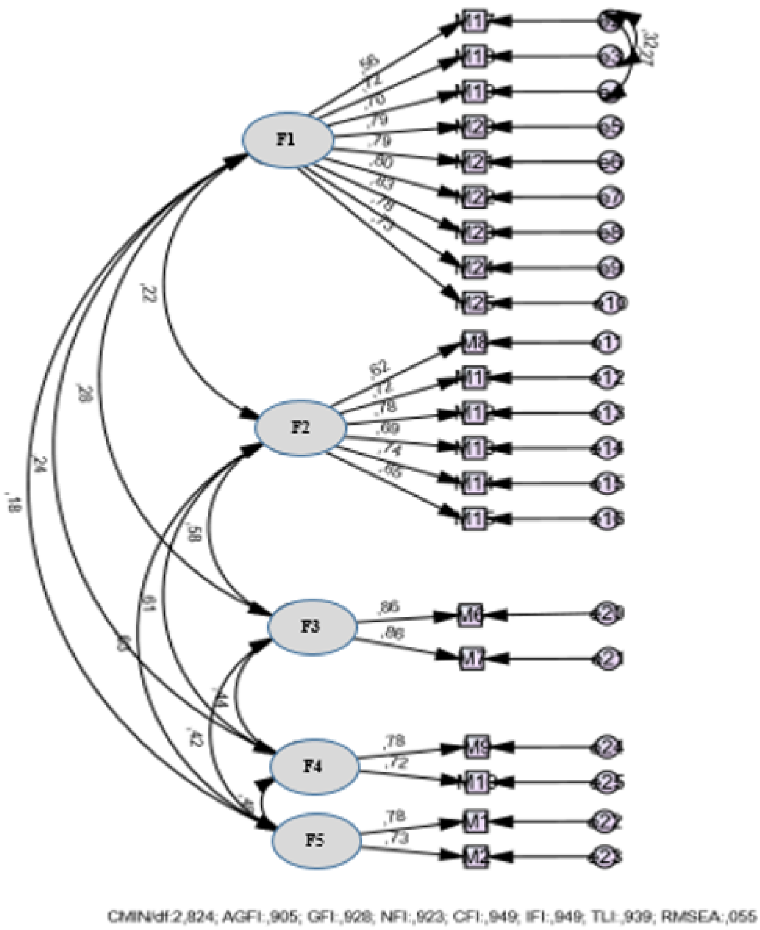

Figure 2. Confirmatory factor analysis model and results for 21 items.

Figure 2 shows the CFA model and the results for 21 items. To increase the goodness-of-fit index values in the model to acceptable levels, correction suggestions were utilized. In line with this, the items that reduced the goodness-of-fit in the model were identified, with covariances being drawn between Items M17-M18 and M17-M19 in order to ignore the covariance errors between the identified items. Figure 3 shows the standard regression coefficients of the items in the model to exceed 0.50 (between 0.56-0.86). Table 6 displays the new model's goodness-of-fit index values.

Table 6. *Goodness-of-Fit Index Values for 21 Items*

Index	Threshold value		obtained value
	Good fit	acceptable fit	
CMIN / df	< 3	3 < *CMIN / df* < 5	2.824
AGFI	> 0.90	>0.85	0.905
GFI	> 0.95	>0.90	0.928
NFI	> 0.95	>0.90	0.923
CFI	> 0.95	>0.90	0.949
IFI	< 0.95	<0.90	0.949
TLI	< 0.95	<0.90	0.939
RMSEA	< 0.05	0.05 < *RMSEA* < 0.08	0.055

When examining Table 6, the goodness-of-fit index values for the new model are seen to be *CMIN / df* = 2.824, *AGFI* = 0.905, *GFI* = 0.928, *NFI* = 0.923, *CFI* = 0.949, *IFI* = 0.949, *TLI* = 0.939, *RMSEA* = 0.055. All the calculated goodness-of-fit index values are seen to exeed the acceptable limit values. Accordingly, the Organized Industrial Zones Perception Scale, which examines the relationship between organized industrial zones and regional development through five factors and 21 items, can be said to have been properly validated.

Now that this final version of the Organized Industrial Zones Perception Scale consisting of five factors and 21 items has been confirmed by CFA, what percentage of the total variance in scores is explained by the eigenvalues of the factors and the factor loadings of the variables that make up the factors need to be determined and then lastly re-analyzed.

Table 7. *Eigenvalues and Total Explained Variance of the Correlation Matrix for 21 Variables*

Factor	Initial Eigenvalues		
	eigenvalue	explained variance (%)	cumulative explained variance (%)
1	6.824	32.496	32.496
2	3.941	18.765	51.261
3	1.163	5.538	56.799
4	1.093	5.203	62.002
5	1.050	4.998	67.000

Table 7 shows the principal component analysis to have been selected from among the factor derivation models and the varimax method from among the factor rotation methods. The Kaiser-Gutman rule accepts components whose eigenvalues are greater than 1 as factors, and this rule has been taken into consideration when determining the number of factors. Table 7 reveals five factors that account for 67% of the overall variability and that have eigenvalues greater than 1. In fact, 67% is greater than 50%, which is the expected total explained variance rate for social sciences (Beavers et al., 2013). The first factor among these five accounts for 32.496% of the total variability, followed by the second at 18.765%, the third at 5.538%, the fourth at 5.203%, and the fifth at 4.998%.

The Organized Industrial Zones Perception Scale was validated as a result of explanatory and confirmatory factor analyses and is seen to consist of five factors. After validating the scale, the obtained factors must now be named. Table 8 lists which items are under which factor, as well as the names of the scale's factors and their abbreviations.

Table 8. *Factor Names and Abbreviations, and Questions Forming the Factors on the Questionnaire*

Factor Name Abbreviations	Original Factor Name	Question Order on the Questionnaire
GE	Green Economy and Environment	17, 18, 19, 20, 21, 22, 23, 24, 25
EG	Economic Growth	8, 11, 12, 13, 14, 15
DSL	Development of Social Life	6, 7
CLU	Clustering	9, 10
IND	Industrialization	1, 2

The factor of Green Economy and Environment contributes to the scale with nine questions (i.e., items), the factor of Economic Growth with six questions, and the factor of Development of Social Life, the factor of Clustering, and the factor of Industrialization each with two questions each. Although opinions are found in the literature stating two-item structures to be weak, other opinions are also found stating that a factor can be represented by 2 items in cases where validity and reliability have been ensured (Alparslan & Ekşili, 2023). In line with this, the construct validity of the developed scale can be said to have been achieved regarding all 21 factors.

Table 9. *Items and Factor Loadings of the Organized Industrial Zones Perception Scale*

Factor 1 **Green Economy and Environment**	**(Explained Variance = 32.496%)**		
Variables	**Factor Loading**	***M***	***SD***
Organized industrial zones establish policies to identify environmental risks in advance and take measures in this regard.	0.832	3.17	1.028
Organized industrial zones ensure green efficiency in production.	0.813	2.97	1.044
Organized industrial zones establish a link between economic and environmental efficiency.	0.810	3.25	1.017
Organized industrial zones set an example for other industrial organizations and enterprises by implementing policies to encourage waste-free production (zero waste).	0.808	3.14	1.039
Organized industrial zones encourage the use and support of energy-saving products and technologies.	0.802	3.32	.992
Organized industrial zones play an important role in ensuring environmental sustainability.	0.777	3.13	1.041
Organized industrial zones contribute to an environmentally friendly regional development approach.	0.761	3.33	1.090
Organized industrial zones pioneer the use of renewable energy sources.	0.740	3.36	1.031
The establishment of organized industrial zones prevents the opening of fertile agricultural land to industry.	0.631	3.20	1.079
Factor 2 **Economic Growth**	**(Explained Variance = 18.765%)**		
Variables	**Factor Loading**	***M***	***SD***
Organized industrial zones increase exports in the regions where they are established.	0.778	4.23	.785
Organized industrial zones play an important role in attracting private sector investors to the region.	0.767	4.14	.807
Organized industrial zones contribute to enterprises benefiting more easily from public incentives.	0.725	4.03	.886
Organized industrial zones ensure the development of SMEs.	0.712	3.92	.787
Organized industrial zones increase employment in the regions where they are established.	0.689	4.30	.717
Organized industrial zones increase infrastructure investments in the regions where they are established.	0.606	3.91	1.026
Factor 3 **Development of Social Life**	**(Explained Variance = 5.538%)**		
Variables	**Factor Loading**	***M***	***SD***
Organized industrial zones play a vital role in increasing workers' incomes.	0.860	3.81	.908
Organized industrial zones play a vital role in improving the living standards of workers.	0.855	3.75	.925
Factor 4 **Industrialization**	**(Explained Variance = 5.203%)**		
Variables	**Factor Loading**	***M***	***SD***
Organized industrial zones contribute to the planned settlement of industry.	0.785	3.97	.762
Organized industrial zones ensure the discipline of industry.	0.783	3.92	.811
Factor 5 **Clustering**	**(Explained Variance = 4.998%)**		
Variables	**Factor Loading**	***M***	***SD***
Organized industrial zones bring together enterprises engaged in similar or complementary businesses.	0.834	3.92	.753
Organized industrial zones enable enterprises to produce in harmony with each other.	0.789	3.86	.758

Table 9 shows the items' factor loadings in the Organized Industrial Zones Perception Scale. The factor loadings of the scale's items range between 0.606-0.860. The analyses reveal the Organized Industrial Zones Perception Scale with five factors and 21 items to be a valid scale.

3.2. Reliability

The Organized Industrial Zones Perception Scale's internal consistency was tested using Cronbach's alpha. In addition, the study examines the item-total correlations of the scale and Cronbach's alpha results when one item is deleted. Table 10 shows Cronbach's alpha of internal consistency for the Organized Industrial Zones Perception Scale and each of its factors.

Table 10. *Reliability Results of the Organized Industrial Zones Perception Scale*

Factor	Number of Questions	Cronbach's Alpha
Green Economy and Environment	9	0.921
Economic Growth	6	0.843
Development of Social Life	2	0.849
Clustering	2	0.723
Industrialization	2	0.725
Organized Industrial Zones Perception Scale	21	0.895

Cronbach's alpha of reliability takes the following ranges (Özdamar, 2002), where:
$0.00 \leq \alpha < 0.40$ is unreliable,
$0.40 \leq \alpha < 0.60$ shows a low degree of reliability,
$0.60 \leq \alpha < 0.80$ is quite reliable,
$0.80 \leq \alpha < 1.00$ is highly reliable.

According to Table 10, the internal consistency value is 0.921 for the factor of Green Economy and Environment, 0.843 for the factor of Economic Growth, 0.849 for the factor of Social Life Development, 0.723 for the factor of Clustering, and 0.725 for the factor of Industrialization. In addition, the reliability coefficient of the scale was found to be 0.895; thus, the Organized Industrial Zones Perception Scale can be said to be highly reliable.

Table 11. *Reliability Results for the Items of the Organized Industrial Zones Perception Scale*

Items	Item-Total Correlations	Cronbach's α when item is deleted
m1	0.396	0.893
m2	0.353	0.894
m3	0.474	0.891
m4	0.489	0.891
m5	0.421	0.893
m6	0.434	0.892
m7	0.369	0.893
m8	0.487	0.891
m9	0.448	0.892
m10	0.454	0.892
m11	0.491	0.891
m12	0.501	0.890
m13	0.551	0.889
m14	0.560	0.889
m15	0.612	0.887
m16	0.593	0.888
m17	0.570	0.888
m18	0.613	0.887
m19	0.626	0.887
m20	0.560	0.889
m21	0.595	0.888

The item-total correlations range between 0.353-0.626, as shown in Table 11. This value being larger than 0.30 implies the items to have a significant degree of discriminatory power (De Vaus, 2002). The internal consistency value evidently do not decrease when any of the scale's items are removed.

Discussion and Conclusion

The relationship between organized industrial zones and regional development has been an important issue since the early 20th century. Organized industrial zones contribute to regional development in various areas, especially to the economy of the regions where they are established. For this reason, states use organized industrial zones as policy tools for eliminating regional imbalances. When evaluated in line with this, examining the positive and negative effects of organized industrial zones on regional development and their contributions to the people of the region becomes necessary.

As a result of the literature review, although many studies were found to have been conducted on organized industrial zones and regional development, few studies were found to have examined the relationship between regional development and organized industrial zones. When analyzing these studies, they are seen to generally consist of evaluations based on various indicators. Field studies using quantitative methods were found to lack a scale that has been statistically analyzed and accepted as valid and reliable. In this regard, the development of a measurement tool for measuring this relationship is thought to be able to fill an important gap in the literature.

Meanwhile, determining the impacts and positive and negative contributions of organized industrial zones on the provinces, districts, and regions where they have been established, as well as on the people living there, is just as important for researchers working in this field as it is for organized industrial zone legal entities, local governments, and policy makers. Having organized industrial zones as legal entities learn the opinions of the people who live next to and in the same area of these zones with regard to industrial zones' perceived contributions is important for maintaining the peace and being able to establish good relations with the people of that region. The fact that companies operate in an organized industrial zone, employs people from the region, and make various investments in the region is how an organized industrial zone develops a region and enriches the people of that region. By measuring the contribution of an organized industrial zone to the region and the people of the region, local governments will be able to plan for both the expectations of the people of the region, as well as for the investments and services to be made in that region. When evaluated from this perspective, the developed scale will obviously be able to contribute to other fields.

The study has been designed with these purposes and subjected the scale to exploratory and confirmatory factor analyses in order to test its construct validity. In light of the information obtained as a result of the analyses, the data in the study are seen to be sufficient in terms of sampling adequacy and to be appropriate in terms of the factorability of the correlation matrix (KMO = 0.904, Barlet's $p = 0.00$). The items on the scale were determined to have factor loading values ranging between 0.606-0.860, with the scale explaining 67% of the overall variance. The standard regression coefficients for the items on the scale have values varying between 0.56-0.86, with the scale showing acceptable goodness of fit ($CMIN / df = 2.824$, $AGFI = 0.905$, $GFI = 0.928$, $NFI = 0.923$, $CFI = 0.949$, $IFI = 0.949$, $TLI = 0.939$, $RMSEA = 0.055$).

Cronbach's alpha of internal consistency was used to test the reliability of the scale and calculated as 0.895. In addition, the item-total correlations for the items on the scale were determined to have values ranging between 0.353-0.626, with the internal consistency coefficient not increasing when deleting any single item. As a result of all the analyses, the Organized Industrial Zones Perception Scale consisting of 21 items under five factors (i.e., Green Economy and Environment, Economic Growth, Development of Social Life, Industrialization, and Clustering) is revealed to be a reliable and valid measurement tool.

Meanwhile, the research is seen to have certain limitations. The field application part of the research was conducted between January 1-March 1, 2023, in the Arsin, Akçaabat, and Beşikdüzü districts of Trabzon where organized industrial zones are located. When evaluated in this framework, the research is seen to be subject to historical and geographical limitations. Another limitation is related to the method of the research. Using the interview method in conjunction with the questionnaire would have been more beneficial for future studies based on the experience gained from a field study. The reluctance of the participants in the research constitutes another limitation in terms of the research. In this sense, although a large number of people were contacted, only a total of 600 people were able to be surveyed. While 600 people are sufficient in terms of the minimum sample number ($n = 383$) of people required to participate in the research, reaching more participants would have been more useful in terms of future studies.

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Appendix

Table 12. Organized Industrial Zones Perception Scale

No	Items	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1	Organized industrial zones ensure the discipline of industry.					
2	Organized industrial zones contribute to the planned settlement of industry.					
3	Organized industrial zones play a vital role in increasing workers' incomes.					
4	Organized industrial zones play a vital role in improving the living standards of workers.					
5	Organized industrial zones increase infrastructure investments in the regions where they are established.					
6	Organized industrial zones enable enterprises to produce in harmony with each other.					
7	Organized industrial zones bring together enterprises engaged in similar or complementary businesses.					
8	Organized industrial zones increase employment in the regions where they are established.					
9	Organized industrial zones play an important role in attracting private sector investors to the region.					
10	Organized industrial zones contribute to enterprises benefiting more easily from public incentives.					
11	Organized industrial zones increase exports in the regions where they are established.					
12	Organized industrial zones ensure the development of SMEs.					
13	The establishment of organized industrial zones prevents the opening of fertile agricultural land to industry.					
14	Organized industrial zones play an important role in ensuring environmental sustainability.					
15	Organized industrial zones pioneer the use of renewable energy sources.					
16	Organized industrial zones set an example for other industrial organizations and enterprises by implementing policies to encourage waste-free production (zero waste).					
17	Organized industrial zones establish a link between economic and environmental efficiency.					
18	Organized industrial zones ensure green efficiency in production.					
19	Organized industrial zones establish policies to identify environmental risks in advance and take measures in this regard.					
20	Organized industrial zones encourage the use and support of energy-saving products and technologies.					
21	Organized industrial zones contribute to an environmentally friendly regional development approach.					