

# Developing Perception Management Scale (Administrator Version) : A Study on Validity and Reliability<sup>1</sup>

DOI: 10.26466/opus.689102

\*

Sümevra Dilek Uylas\* - Türkan Argon \*\*

\* Dr, Abant İzzet Baysal Üniversitesi, Eğitim Fakültesi, Bolu/Türkiye

E-Mail: [sumeyradilekuylas@gmail.com](mailto:sumeyradilekuylas@gmail.com)

ORCID: [0000-0002-5151-3733](https://orcid.org/0000-0002-5151-3733)

\*\*Prof. Dr, Abant İzzet Baysal Üniversitesi, Eğitim Fakültesi, Bolu/Türkiye

E-Mail [argon\\_t@ibu.edu.tr](mailto:argon_t@ibu.edu.tr)

ORCID: [0000-0002-0744-8647](https://orcid.org/0000-0002-0744-8647)

## Abstract

*The purpose of this study is to develop a measuring instrument for identifying the usage levels of administrators' perception management. The research was implemented on 295 primary and secondary school teachers in Akyazı and Hendek districts of Sakarya province in 2016. During the development of the scale, the processes of reviewing related literature, creating item pool, getting expert opinions, conducting preliminary tests, and conducting validity and reliability analyses were carried out. As a result of the exploratory and confirmatory factor analyses, it was determined that the scale consists of 3 factors and 16 items. The first factor consists of 5, the second factor consists of 5 and the third factor consists of 6 items. In order to determine the distinguishing characteristics of the scale items, the supergroup and sub-group of 27% were evaluated with the independent samples t-test, and it was concluded that the difference was statistically significant. For the reliability of the scale, the Cronbach's alpha reliability method was used. In the analysis, it was found that the Cronbach's alpha reliability coefficient for the total of the scale was .88, for the identifying existing perception factor was .88, for the constituting impression and influence factor was .75, for constituting and directing perception factor .73, and the 3 factors explained 55.99% of the total variance. Confirmatory factor analysis indicates these results:  $\chi^2=291.99$ ,  $df=101$ ,  $p=.0000$ ,  $\chi^2/df=2.89$ ,  $RMSEA=.08$ ,  $NFI=.93$ ,  $NNFI=.95$ ,  $CFI=.96$ ,  $IFI=.96$ ,  $SRMR=.06$ ,  $GFI=.89$ ,  $AGFI=.85$ . Validity and reliability studies have shown that the scale is valid and reliable.*

**Keywords:** Administrator, Teacher, Perception Management, Scale Developing

<sup>1</sup> Bu makale Sümevra Dilek UYLAS'ın doktora tezinden üretilmiştir

## Algı Yönetimi Ölçeği (Yönetici Versiyonu)'nin Geliştirilmesi: Geçerlik ve Güvenirlik Çalışması

\*

### Öz

Bu çalışmanın amacı, yöneticilerin algı yönetimi kullanım düzeylerini belirlemek için bir ölçeği geliştirmektir. Araştırma 2016 yılında Sakarya ili Akyazı ve Hendek ilçesinde 295 ilköğretim ve ortaokul öğretmeni üzerinde gerçekleştirilmiştir. Ölçeğin geliştirilmesi sürecinde, ilgili literatürün taranması, madde havuzu oluşturma, uzman görüşleri alma, ön deneme çalışması yapma, geçerlik ve güvenilirlik analizleri yapma işlemleri gerçekleştirilmiştir. Yapılan açımlayıcı ve doğrulayıcı faktör analizi sonucunda ölçeğin 3 faktörden ve 16 maddeden oluştuğu saptanmıştır. Birinci faktör 5, ikinci faktör 5, üçüncü faktör 6 maddeden oluşmaktadır. Ölçek maddelerinin ayırt edicilik özelliklerini belirlemek için %27'lik üst ve alt gruplar "bağımsız gruplarda t testi" uygulanmış ve farkın istatistiksel olarak anlamlı olduğu sonucuna ulaşılmıştır. Ölçeğin güvenilirliği için Cronbach alpha güvenilirliği yöntemi kullanılmıştır. Analizlerde ölçeğin toplamı için Cronbach alpha güvenirlilik katsayısının .88, mevcut algının belirlenmesi faktörü için .88, izlenim oluşturma ve etkileme faktörü için .75, algı oluşturma ve algıyı yönlendirme faktörü için .73 olduğu ve 3 bileşinin toplam varyansın %55.99' unu açıkladığı görülmüştür. Doğrulayıcı faktör analizinden elde edilen sonuçlar;  $\chi^2=291.99$ ,  $df=101$ ,  $p=.0000$ ,  $\chi^2/df=2.89$ ,  $RMSEA=.08$ ,  $NFI=.93$ ,  $NNFI=.95$ ,  $CFI=.96$ ,  $IFI=.96$ ,  $SRMR=.06$ ,  $GFI=.89$ ,  $AGFI=.85$ . Yapılan geçerlik ve güvenilirlik çalışmaları, ölçeğin geçerli ve güvenilir olduğunu göstermiştir.

**Anahtar Kelimeler:** Yönetici, Öğretmen, Yönetici Algı Yönetimi, Ölçek Geliştirme

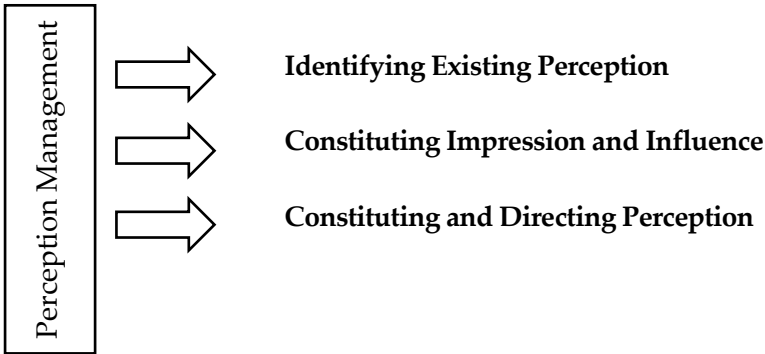
## Introduction

Leaving the ages behind in which power was effective by forcing, humanity can affect and transform social perception processes to the end with the production and use of information in recent years (Işık, 2014). Therefore, in these days of the information age, creating perception or directing perception activities that are aimed through perception management attract the attention of governments, nations, states, military institutions or enterprises (Minister and Keefe, 2012). In short, like every concept that has changed over time, changes have taken place in management activities adopted by states, institutions or individuals. Management activities aimed at reaching the determined goals with the easiest and least harm have turned into a way of convincing and arousing desire towards the determined goals instead of putting public pressure on the societies. While people who are expected to be affected think that they act according to their own will at the end of this process, they are provided with a carefully prepared perception management activities to think in this way.

Johansson and Xiong (2003) define perception management as a concept representing controlling and improving data acquisition, which provides wider content, higher benefit and less uncertainty from the outside world; Tutar (2008) defines it as a function that increases the communication/interaction opportunities between the internal and external organizational environment, provides the communication flow between the internal and external environment of the organization together with the effective management of organizational behavior and, in short, facilitates the achievement of the organizational goals; Özsalmanlı and Pank (2013) define it as controlling and improving the flow of information coming from the environment in order to obtain useful and less blurred data; and Işık (2014) defines it as an administrative process aiming to gain superiority by using different elements. The US Department of Defense, the creator of the concept of perception management, makes this definition as following: "It is the actions to convey or deny selected information by affecting the thoughts, emotions, motives, intelligence, and logic systems and leaders of the masses so that the purpose is to direct their behavior and thoughts towards the demands of the originator's objectives" (Öksöz, 2013). Perception management is actually a communication area focused on, according to some, persuading the individuals or communities in

their target to think in the desired way (Özdağ, 2015) and according to others, convincing target audiences in line with their own demands and interests and transforming them into an item they will use for their own purposes (Gürhan, 2012). As a result of the above explanations on perception management, perception management can be defined as “the whole set of tactics used to enable the individual or organization to act in line with the specified personal or organizational purposes” in short.

There are two main reasons why organizations are interested in perception management. The first is to deal with events that increase perception towards the organization, and the second is to cope with the events that can create threats against the organization (Elsbach, 2006). A successful perception management process consists of three stages. These are the stages of identifying existing perceptions, constituting impression and influence, constituting and directing perception. It is important for a successful perception management process to continue as a careful and planned process without any of the stages of perception management being skipped and passed over. Also, it should be kept in mind that the perception management stages should be maintained in order. In determining these stages used in the research, the opinions of scientists in educational sciences, social sciences, psychology and management science were consulted and the perception management literature was reviewed.



*Figure 1. Stages of perception management*

The subject of perception management in educational organizations is a subject that has been studied as much as almost no other than a few studies in Turkey. Apart from Turkey, no other study on the subject has been found in other countries. The studies carried out in Turkey are the studies of Demireli, Işık and Mammadov (2014), Soykan (2016) and Atalay (2016). There may be two reasons why no other study on perception management related to educational organizations has been found in other countries. The first is the probability that the level of accessibility of the studies carried out in papers, theses, books, and the internet environment is low; and the second reason is that the concept of perception management is more likely to be used in Turkey compared to other countries. Therefore, the frequent mention of perception management concept in political implementations in Turkey particularly in recent years has raised the question of whether it is used in educational organizations. The question of whether perception management practices are used in the Turkish education system has brought the question of what kind of characteristics the administrators who carry out perception management practices have. In this context, it was understood that some personal and social skills required for leaders to be effective were determined by some researchers (Cherniss, 1998; Ryback, 1998; Goleman, Boyatzis & McKee, 2002; Cooper & Sawaf, 2003). In this context, several different skills of education managers and leaders who are more successful than others are regulating emotions, high persuasiveness, high motivation for success, tendency to show different attempts unlike monotony, and having self-confidence (Cherniss, 1998).

As a result of the reviews, it has been seen that the concept of perception management has been studied very little in the field of education. However, perception management is one of the possible concepts to be used in educational organizations which is anthropocentric. It is thought that understanding perception management by educational administrators will contribute positively to educational organizations. Many studies (Johansson and Xiong, 2003; Callamari and Reveron, 2003; Parry, 2004; Near, 2004; Uğurlu, 2004; Kopp, 2005; Çayoğlu, 2010; Hügül, 2011; Kınacı, 2011) have revealed how important and necessary it is to use perception management, which is a very effective management technique in today's organizations. The purpose of this study is to develop a measuring instrument for identifying the usage levels of administrators' perception management.

## Method

### *Research Group*

The pilot application of the developed draft scale was distributed to 320 teachers in Akyazı and Hendek districts of Sakarya province, and item analysis was conducted with 295 people by excluding the errant ones out of 300 collected questionnaires. Kline (1994) stated that the group size required for factor analysis should be at least twice the number of items (as cited in Büyüköztürk, 2009), and Tabachnick and Fidell (2013) stated that 300 people would be good for factor analysis, 500 people would be very good, and 1000 people would be perfect. Tavşancıl (2002) stated that the number of items should reach 5 or 10 times more people in factor analysis. Accordingly, at least 8-fold of the 36 scale items to be applied in the study were targeted, and the pilot scheme was conducted with 295 questionnaires. In order to perform factor analysis on 295 questionnaires collected with the pilot scheme, the data were entered into SPSS for Windows 21.0 software.

### *The Process of the Research*

The steps followed during the development of the Perception Management Scale are as follows: Reviewing the relevant literature, creating the item pool, presenting the draft scale form to the expert opinion, content validity and construct validity. While the related literature was being reviewed, the literature for the scale to be developed was tried to be determined by examining the domestic and foreign literature in detail. After evaluating the accessed literature, the stage of forming the item pool was started. At the stage of determining the item pool, the opinions of the academics who had conducted studies on perception management were taken. The opinion of the author of the Organizational Perception Management book, Kimberly D. Elsbach, was taken to develop the Perception Management Scale (Administrator Version). After the literature review and academics' opinions were taken, an item pool was created by the researcher. After the item pool has been created, A semi-structured interview protocol consisting of open-ended questions for administrators and teachers working Hendek district of Sakarya province was pre-

pared and distributed to 254 teachers and 22 administrators in Hendek district to increase the scale content validity and to get the opinions of the target audience of the scale. The analysis of the interview protocols consisting of open-ended questions was carried out by the content analysis method, which is one of the qualitative research techniques. The new items that have been created have been added to the item pool. Thus, the item pool increased to 125 items.

A draft scale was prepared with 125 items in the item pool. Firstly, the scale, which was evaluated with 2 experts in educational sciences and 1 expert in psychology, was reduced to 86 items. The 86-item pool was reduced to 36 items with the opinion of 6 experts in the field of educational sciences and 1 linguist. A draft scale was tried to be created with the help of the feedback from the experts, and a 3-point Likert type scale was used to obtain the opinions of the experts (Appropriate, Partially Appropriate, Not Appropriate). It has been determined how many people have approved the possible options of each item by combining all the forms returned from the experts in a single form. The items whose content validity ratio is less than .80 are not included in the study.

In the content validity stage, a 36-item draft scale form was applied to a group of 25 people outside the sampling group with a one-to-one interview for linguistic evaluation, and it was determined that all the items were clearly understood in line with the feedback. In the study, whether the data are suitable for factor analysis was examined by Kaiser-Meyer-Olkin (KMO) for the sampling adequacy test and Bartlett's test of sphericity. Exploratory factor analysis (EFA) was used to determine the construct validity of the scale, and confirmatory factor analysis (CFA) was used to test the accuracy of the factor structure reached as a result of this EFA. Internal consistency (Cronbach Alpha) values were calculated for the reliability study of the scale. In addition, the independent samples t-test was performed in 27% supergroup and subgroup in order to determine item-total score correlation and discriminative characteristics of scale items. The model fit of the scale obtained in EFA was examined with CFA. Multiple fit indices ( $\chi^2$ ,  $sd$ ,  $\chi^2 / sd$ , RMSEA, CFI, GFI, AGFI, SRMR, NFI) were used in CFA. The scale was finalized after all these analyses.

## Findings

### *Validity of the Scale*

Item-total correlations were firstly calculated in order to determine the factors such as to what extent all the scale items measure the desired characteristic to be measured, and to what extent the scale is sufficient in distinguishing individuals. Then, independent samples t-test was applied to determine the significance of the difference in the item scores of the 27% sub-group and 27% supergroup according to the total score. The purpose of comparing the scores of individuals in the sub- and supergroups (27%) of the test with the independent group t-test is to determine whether the answers given to that item differ between the supergroup and sub-group, that is, the power of discrimination of the item (Ergin, 1995; Büyüköztürk, 2009). For this, the total scores obtained from the scale were ascended sort, and the 27% super- and sub-groups were determined. As a result of the t-test, the items that had no significant difference between the item scores were removed from the scale as they were insufficient to distinguish the desired characteristic. Independent samples t-test values were calculated from the scores of both groups and are indicated in Table 1.

*Table 1. T-test results related to 27% sub-group and supergroup difference of perception management scale (administrator version) items*

Scale Item Nu	Draft Scale Item Nu	Group	N	$\bar{X}$	P	df	t
1	1	Sub-group	82	2.00	.00	162	-34.64
		Supergroup	82	4.64	.00	162	
2	2	Sub-group	82	2.42	.00	162	-23.06
		Supergroup	82	4.68	.00	162	
3	3	Sub-group	82	2.21	.00	162	-14.64
		Supergroup	82	4.19	.00	162	
4	4	Sub-group	82	2.19	.00	162	-13.24
		Supergroup	82	4.13	.00	162	
5	5	Sub-group	82	2.95	.00	162	-10.31
		Supergroup	82	4.37	.00	162	
6	6	Sub-group	82	2.37	.00	162	-6.48
		Supergroup	82	3.59	.00	162	
7	7	Sub-group	82	2.35	.00	162	-10.21
		Supergroup	82	3.91	.00	162	
8	11	Sub-group	82	2.98	.00	162	-5.50
		Supergroup	82	3.69	.00	162	
9	12	Sub-group	82	3.13	.00	162	-4.31
		Supergroup	82	4.04	.00	162	



Developing Perception Management Scale (Administrator Version) : A Study on Validity and Reliability

10	15	Sub-group	82	2.46	.00	162	-3.99
		Supergroup	82	3.15	.00	162	
11	24	Sub-group	82	2.17	.00	162	-3.26
		Supergroup	82	2.73	.00	162	
12	27	Sub-group	82	2.12	.00	162	-7.43
		Supergroup	82	3.25	.00	162	
13	28	Sub-group	82	2.62	.00	162	-4.71
		Supergroup	82	3.37	.00	162	
14	30	Sub-group	82	2.63	.00	162	-3.36
		Supergroup	82	3.13	.00	162	
15	32	Sub-group	82	2.57	.00	162	-3.67
		Supergroup	82	3.24	.00	162	
16	36	Sub-group	82	2.86	.00	162	-6.91
		Supergroup	82	4.01	.00	162	

When Table 1 is examined, it is understood that there are significant differences between the 27% sub-group and 27% supergroup according to the t-test results done to determine the distinguishing characteristics of the scale items ( $p < .01$ ). The significant differences mean that the items in the scale have the desired distinguishing feature (Brownlow, 2004; as cited in Demir & Koç, 2013). In Table 2, factor analysis results and corrected item-total correlations related to perception management scale are given.

The item analyzes of 16 items determined by factor analysis and forming three dimensions were made. Accordingly, when the item-total test correlations in the dimensions of identifying existing perception, constituting impression and influence, constituting and directing perception are evaluated, it can be seen that these values vary between  $r=.35$  and  $r=.72$ . The fact that the item-total correlations are ,30 and higher than this value is the evidence of the validity of scale items (Nunnally and Bernstein, 1994; as cited in Güldüren, Çetinkaya and Keser, 2016). In addition, Büyüköztürk (2009) and Özdamar (1999) stated that the item-total correlation values should not be negative and should be at least 20. As a result of the analyses made on reliability in this study, it is seen that the item-total correlation coefficient is not below .35. This shows that the items serve the purpose of measuring the property to be measured.

**Table 2. Perception management scale (administrator version) factor analysis results and corrected item-total correlations**

Perception Management Scale (Administrator Version) Items	Factors			Corrected Item Total Correlation
	1	2	3	
S3	0.85			.64
S2	0.83			.72
S4	0.81			.67
S1	0.79			.65
S5	0.54			.56
S27		0.66		.59
S28		0.66		.43
S30		0.62		.35
S32		0.57		.39
S24		0.56		.39
S36		0.56		.52
S11			0.74	.38
S12			0.73	.58
S6			0.68	.49
S7			0.60	.60
S15			0.45	.36
Kaiser-Meyer Olkin Test (KMO)		0.87		
Bartlett's test of sphericity		1970.60		
	1			
Eigenvalue	2	5.94		
	3	1.56		
	3	1.45		
Explained Variance	1	37.12		
	2	9.75		
	3	9.10		
Total:		55.99		

Kaiser-Meyer-Olkin (KMO) test and Bartlett's test of sphericity were applied to test the suitability of the research for factor analysis (Çokluk, Şekericioğlu & Büyüköztürk, 2010). KMO is expected to be higher than 0.60 for the data set to be suitable for factor analysis (Büyüköztürk, 2009). In this study, the KMO test value was found to be 87, Bartlett's test of sphericity value was 1970.60 ( $p < 000$ ). All these results suggest that the data are suitable for factor analysis. In addition, 3 factors explain 55.99% of the total variance. When the literature is analyzed, the fact that the variance explained regarding the multi-factor scale structures is in the range of 40% to 60% is considered adequate in the social sciences (Tavşancıl, 2002).

Perception Management Scale (Administrator Version) consists of three sub-dimensions as “Identifying Existing Perceptions”, Constituting Impression and Influence” and “Constituting and Directing Perception.” The first sub-dimension consists of 5 items, the second sub-dimension consists of 5 items and the third sub-dimension consists of 6 items. It can be seen in Table 2 that the factor load values of the scale range between .45 and .85. It is stated that factor loads varying between .30 and .45 can be taken as the lower cutpoint in the determination of factors in scale development (Büyüköztürk, 2009). In this study, the cutpoint was accepted as .45, and items with a factor load below .45 were excluded from the pool. The fact that the factor load value is higher than .45 is a very good criterion.

Comrey and Lee (1992; as cited in Tekin and Yaman, 2008) group the factor loads obtained at the end of the Varimax rotation during the factor analysis phase as following:

- between 0.32-0.44; bad,
- between 0.45-0.54; normal,
- between 0.55-0.62; good,
- between 0.63-0.70; very good
- 0.70 and above; perfect

According to this explanation, 6 items are excellent, 4 items are very good, 4 items are good, and 2 items are normal in this research. The eigenvalue line graph of factor analysis can be seen in Figure 2.

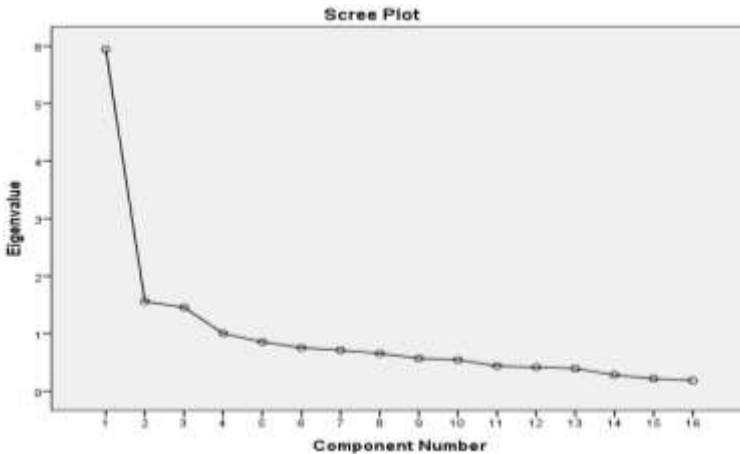


Figure 2. Perception management scale (administrator version) eigenvalue line chart

When the eigenvalue line graph is examined, it is seen that the scale is three-dimensional, as in the results of exploratory factor analysis. It was decided to test this three-factor structure by confirmatory factor analysis.

**Table 3. Pearson's Product-Moment Correlation Analysis Results to Determine the Relationships between Factors**

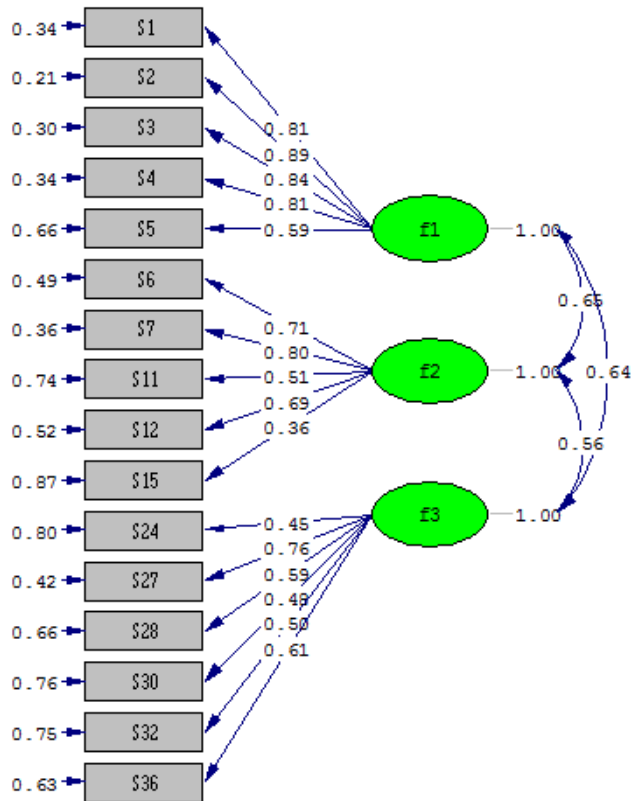
	1	2	3	4
Identifying Existing Perception	1,00			
Constituting Impression and Influence	.541**	1.00		
Constituting and Directing Perception	.531**	.449**	1.00	
Perception Management Total	.853**	.798**	.807	1.00

\*\*p<.001

As a result of Pearson's Product-Moment Correlation analysis conducted to determine whether there is a significant relationship between the factors, it was determined that there is a positive and significant relationship between the factors. The fact that there is a positive relationship between the two variables means that if the values related to the variable X increase, the values related to the variable Y also tend to increase, or if the values related to the variable X decrease, it means that the values related to the variable Y also tend to decrease (Büyüköztürk, 2009). These relationships are the highest among the sub-dimensions of identifying existing perception and directing perception ( $r=.541$ ;  $p < .001$ ) and the lowest among the sub-dimensions of constituting impression and influence and constituting and directing perception ( $r=.449$ ;  $p < .05$ ). When the correlation coefficients of the sub-dimensions are evaluated, it is seen that there is a medium level relationship between  $r=.541$ ,  $r=.531$ ,  $r=.449$ , and when the correlation coefficients of the sub-dimensions with the scale total score are analyzed, it is seen that there is a high-level relationship between  $r=.853$ ,  $r=.798$ ,  $r=.807$ . These results prove that all factors are in the same structure. Correlation coefficients are defined as high level of relationship between 0.70 and 1.00, moderate between 0.70 and 0.30 and low between 0.30 and 0.00 (Büyüköztürk, 2009).

Confirmatory Factor Analysis was conducted to test the construct validity of the model. Confirmatory factor analysis is highly functional for the researchers in terms of handling apparent hypotheses like the number of factors or extents underlying its items, connections between absolute items or factors and the link between factors. To put it another way, with CFA, researchers

assess “measurement hypotheses” regarding the scale’s internal structure. Furr and Bacharach (2008) propounded that CFA provides researchers to measure the degree to which their assessment hypotheses are consistent with the factual data of the scale. The conclusion of confirmatory factor analysis indicated that the three-dimensional model was well fit ( $\chi^2=291.99$ ,  $df=101$ ,  $p=.0000$ ,  $\chi^2/df=2.89$ ,  $RMSEA=.08$ ,  $NFI=.93$ ,  $NNFI=.95$ ,  $CFI=.96$ ,  $IFI=.96$ ,  $SRMR=.06$ ,  $GFI=.89$ ,  $AGFI=.85$ ). Factor loadings and path diagram for the Perception Management Scale (Administrator Version) are displayed in Figure 3.



Chi-Square=291.99, df=101, P-value=0.00000, RMSEA=0.080

Figure 3. Confirmatory Factor Analysis of the Perception Management Scale (Administrator Version)

The results of the confirmatory factor analysis verify that the scale has a three-dimension structure. The value of SRMR indicates perfect harmony.

The fact that the rate of  $\chi^2/df$  is lower than 5 (Sumer, 2000) expresses that the model is coherent with real data. The fact that the values of IFI, CFI, NNFI are higher than .95 indicates perfect harmony. GFI and AGFI values should be between 0 and 1. But it should be .90 or higher for good harmony (GFI, AGFI>.90 perfect harmony; GFI> .85 and AGFI> .80 is acceptable harmony (Jöreskog & Sörbom, 2004). It can be said that this study is enough for moderate compliance. In this study, it was focused on the CFI, NFI and NNFI values, in case the values of GFI and AGFI indexes can be affected by the size of the sample (Şimşek, 2007). When it is evaluated in this direction, it can be said that the scale is at an acceptable coherence level.

### **Reliability**

The Cronbach's alpha internal consistency reliability coefficients of the scale were .88 for the whole scale. It is .88 for identifying existing perception factor, .75 for constituting impression and influence, and .73 for constituting and directing perception.

**Table 4. Reliability coefficients for the whole scale and sub-dimensions determined as a result of factor analysis**

<b>Scales and Sub-dimensions</b>	<b>Cronbach'sAlfa</b>
Identifying Existing Perception (Items 1, 2, 3, 4 and 5.)	.88
Constituting Impression and Influence (Items 6, 7, 8, 9 and 10.)	.75
Constituting and Directing Perception (Items11, 12, 13, 14, 15 and 16.)	.73
Perception Management Total	.88

### **Discussion**

The main purpose of this study was to develop a measuring instrument for identifying the usage levels of administrators' perception management. According to Exploratory Factor Analysis (EFA) and confirmatory factor analysis (CFA), the research sustained that the Perception Management Scale (Administrator Version) was valid and reliable ( $\chi^2=291.99$ ,  $df=101$ ,  $p=.0000$ ,  $\chi^2/df=2.89$ ,  $RMSEA=.08$ ,  $NFI=.93$ ,  $NNFI=.95$ ,  $CFI=.96$ ,  $IFI=.96$ ,  $SRMR=.06$ ,

GFI=.89, AGFI=.85). The Cronbach's alpha internal consistency reliability coefficients of the scale were .88 for the whole scale. It is .88 for identifying existing perception factor, .75 for constituting impression and influence, and .73 for constituting and directing perception.

Kaiser-Meyer-Olkin (KMO) test and Bartlett's test of sphericity were applied to test the suitability of the research for factor analysis. In this study, the KMO test value was found as .87, Bartlett test of Sphericity value as 1970.60 ( $p < .000$ ). All these results show that the data are suitable for factor analysis. KMO is expected to be higher than 0.60 for the data set to be suitable for factor analysis (Büyüköztürk, 2009). The data of the Perception Management Scale (Administrator Version) was analyzed with EFA, and it was seen that it has a three-factor structure. 3 factor explains 55.99% of the total variance. Büyüköztürk (2009) expressed that factor load values higher or equal to .45 is a good criterion for the selection. When the factor loads of items were analyzed, it is seen that factor loads of all items are higher than .45 and they are between .45 and .85. The item analyzes of 16 items determined by factor analysis and forming three dimensions were made. Accordingly, when the item-total test correlations in terms of identifying existing perception, constituting impression and influence, constituting and directing perception are evaluated, these values vary between  $r = .35$  and  $r = .72$ . Item-total score correlation explains the relationship between the score obtained from scale items and total score of the test (Büyüköztürk, 2009). Being .30 or higher of item-total correlation is proof for items' validity (Nunnally & Bernstein, 1994; as cited in Güldüren, Çetinkaya & Keser, 2016). This shows that the items indicate that they serve the purpose of measuring the property to be measured. It was determined that the scale's correlations of the corrected item-total score were between .35 and .72, this also indicates that the items have validity.

Since there has been limited number of studies in national and international literature related to the perception management in educational organizations until 2017 and there has been a need for a measurement tool on subject, we decided to develop Perception Management Scale (Administrator Version). In this context, this study is a unique one and the scale is a unique scale on the subject in the field. No measurement tool was reached in the literature until the Perception Management Scale (Administrator Version) was developed. One of the pros of the scale is that it can be used in any institution or organization that has a manager or administrator. The item of the scale are

not developed only for educational institutions. Also the fact that the scale consists of a couple of items makes it easier to conduct.

The findings of this research are useful instruments within Turkey, and they will shed light on future researches. But this research is limited to the teachers working in state primary and secondary schools in Akyazı and Hendek districts of Sakarya province in 2016 so the generalizability of these results cannot be accurate with all populations in Turkey. Another limitation of this research is that the scale was only used in educational organizations. In order to generalize the results of this research, further inquiries should be conducted with different populations and in different countries. Furthermore, future research should aim to investigate different individuals as well as a wider age range to attempt to confirm the factor structure of the scale. Although further research is needed, the findings of this study reveal that Perception Management Scale (Administrator Version) is an effective tool for assessing administrators' perception management usage levels in the Turkish context with successful psychometric strength. As a result, findings of the reliability and validity tests indicate that the Perception Management Scale (Administrator Version) is a valid data collection tool for assessing administrators' perception management usage levels in Turkey.

## References

- Atalay, A. (2016). *Okul müdürlerinin algı yönetimine ilişkin öğretmen görüşleri*. Yayınlanmamış yüksek lisans tezi. Ankara: Ankara Üniversitesi Eğitim Bilimleri Enstitüsü.
- Bakan, İ. and Kefe, İ. (2012). Kurumsal açıdan algı ve algı yönetimi. *Kahramanmaraş Sütçü İmam Üniversitesi İİBF Dergisi*, 2(1), 19-35.
- Büyüköztürk, Ş. (2009). *Sosyal bilimler için veri analizi el kitabı* (10.Baskı). Ankara: Pegem A Akademi.
- Callamari, P., and Reveron, D. (2003). China's use of perception management. *International Journal of Intelligence and Counterintelligence*, 16(1), 1-15.
- Cherniss, C. (1998). Social and emotional learning for leaders. *Educational Leadership*, 55(7), 26-28.
- Cooper, R. and Sawaf, A. (2003). *Liderlikte duygusal zeka: Yönetim ve organizasyonlarda duygusal zeka*, (trans. Z.B. Ayman Ve B. Sancar) İstanbul: Sistem Yayıncılık.



- Çayoğlu, H. (2010). *Algılama yönetimi ve marka kimliği ilişkisinde marka algısının incelenmesine yönelik bir araştırma*. Yayımlanmamış yüksek lisans tezi. İstanbul: Marmara Üniversitesi Sosyal Bilimler Enstitüsü.
- Çokluk, Ö., Şekercioğlu, G. and Büyüköztürk, Ş. (2010). *Sosyal bilimler için çok değişkenli istatistik SPSS ve Lisrel uygulamaları*. Ankara: Pegem A Yayıncılık.
- Demirçelik, E., Işık, K. and Mammadov, E., C. (2014). Eğitim örgütlerinde algı yönetimi. 9. *Ulusal Eğitim Yönetimi Kongresi Bildiriler Kitabı*, Ankara: Pegem Akademi.
- Elsbach, K. D. (2003). Organizational perception management. *Research in Organizational Behavior*, 25, 297-332.
- Elsbach, K. D. (2006). *Organizational perception management*. London. Lawrence Erlbaum Associates, Publishers.
- Goleman, D., Boyatzis, R., ve McKee, A. (2002). *Primal leadership: Realizing the power of emotional intelligence*. Boston, MA: Harvard Business School Press.
- Güldüren, C., Çetinkaya, L., and Keser, H. (2016). Ortaöğretim öğrencilerine yönelik bilgi güvenliği farkındalık ölçeği (BGFÖ) geliştirme çalışması. *İlköğretim Online*, 15(2), 682-695.
- Gürhan, F. (2012). *Müzeçilikte algı yönetimi ve eğitim Topkapı Sarayı örneği*. Uzmanlık tezi. İstanbul: Kültür ve Turizm Bakanlığı Topkapı Sarayı Müzesi Müdürlüğü.
- Hügül, H., (2011). *Algı Yönetimi ve Medya: İnegöl Olaylarının Basında Sunuluşunun Algı Yönetimi Kapsamında Analiz Edilmesi*. Yayımlanmamış yüksek lisans tezi. Ankara: Kara Harp Okulu Komutanlığı, Savunma Bilimleri Enstitüsü.
- Işık, Y. (2014). *Algıyı yönetmek*. İstanbul: Sis Yayıncılık.
- Johansson, L. R. M. and Xiong, N. (2003). Perception management: an emerging concept for information fusion. *Information Fusion*, 4(3), 231-234.
- Jöreskog, K. G. and Sörbom, D. (2004). LISREL 8.7 for Windows (Computer Software) U.S.A, Lincolnwood, Illinois: Scientific Software International Inc.
- Kınacı, S. (2011). *Türkiye’de polis algısı ve algılama yönetimi: bir alan araştırması*. Yayımlanmamış doktora tezi. İstanbul: Marmara Üniversitesi Sosyal Bilimler Enstitüsü.
- Kline, P. (1994). *An easy guide to factor analysis*:. New York: Routledge.
- Kopp, C. (2005). Classical deception techniques and perception management vs. the four strategies of information warfare. *Draft paper*.

- Özdağ, Ü. (2015). *Algı yönetimi-propaganda, psikolojik savaş, örtülü operasyon ve enformasyon savaşı*. Ankara: Kripto Yayınları.
- Özdamar, K. (1999). *Paket programlar ile istatistiksel veri analizi I*. (2. Baskı). Eskişehir: Kaan Kitabevi.
- Özsalmanlı, A., Y. ve Pank, Ç. (2013). Kamu yönetiminde etik açısından algılama yönetimi ve önemi. *Hukuk ve İktisat Araştırmaları Dergisi*, 5(2), 47-61.
- Parry, R. (2004). Bush's Perception Management Plan. 02.04.2015 tarihinde <https://consortiumnews.com/2004/111804.html> adresinden erişilmiştir.
- Ryback, D. (1998). *Putting emotional intelligence to work: Successful Leadership is more than IQ*, Butterworth-Heinemann, Woburn.
- Soykan, Ş. (2016). *Eğitim kurumlarında algılama yönetimi ve tercih edilebilirlik üzerine bir durum çalışması: Antalya ili merkez ilçelerinde bulunan fen liseleri örneği*. Yayımlanmamış yüksek lisans tezi. Antalya: Akdeniz Üniversitesi Eğitim Bilimleri Enstitüsü.
- Şimşek, Ö. F. (2007). *Yapısal eşitlik modellemesine giriş: Temel ilkeler ve LISREL uygulamaları*. Ankara: Ekinoks.
- Tabachnick, B. G., and Fidell, L. S. (2013). *Using multivariate statistics* (6th ed.) Boston: Pearson.
- Tavşancıl, E. (2002). *Tutumların ölçülmesi ve SPSS ile veri analizi*. Ankara: Nobel Yayıncılık.
- Tekin, S., and Yaman, S. (2008). Hizmet-İçi eğitim programlarını değerlendirme ölçeği: Öğretmen formunun geliştirilmesi. *Ahi Evran Üniversitesi Kırşehir Eğitim Fakültesi Dergisi*, 9(3), 15-26.
- Tutar, H. (2008). *Örgütsel algılama yönetimi*. Ankara: Seçkin Yayıncılık.
- Uğurlu, Ö. (2004). *Algı yönetimi olarak halkla ilişkiler*. Yayımlanmamış yüksek lisans tezi. Ankara: Gazi Üniversitesi Sosyal Bilimler Enstitüsü.
- Yakın, M. (2004). *Reklamda algı yönetimi*. Yayımlanmamış yüksek lisans tezi. İzmir: Ege Üniversitesi Sosyal Bilimler Enstitüsü.

## Ekler

### Ek. 1 Algı Yönetimi Ölçeği (Yönetici Versiyonu)

Algı Yönetimi Ölçeği (Yönetici Versiyonu)		Hiçbir zaman	Nadiren	Ara sıra	Sık sık	Her zaman
		1	2	3	4	5
1	Kurum yöneticisi benimle iletişim kurmaya çalışır.					
2	Kurum yöneticisi beni tanımaya çalışır.					
3	Kurum yöneticisi mevcut düşüncelerimi öğrenmeye çalışır.					
4	Kurum yöneticisi hedeflerimi anlamaya çalışır.					
5	Kurum yöneticisi davranışlarımı gözlemler.					
6	Kurum yöneticisi kendi niteliklerini tanıtır.					
7	Kurum yöneticisi güvenimi kazanmaya çalışır.					
8	Kurum yöneticisi kendini sevdirmeye çalışır.					
9	Kurum yöneticisi hedefleri doğrultusunda inandırıcı olmaya çalışır.					
10	Kurum yöneticisi beni bir amaca yönelik ikna etmeye çalışır.					
11	Kurum yöneticisi farkında olmadığım bir durumu fark etmemi sağlar.					
12	Kurum yöneticisi belirlenen amaçlara yönelik hareket edip etmediğimi kontrol eder.					
13	Kurum yöneticisi kurumdaki bilgi akışını yönetir.					
14	Kurum yöneticisi beni kurumun çıkarları doğrultusunda yönlendirir.					
15	Kurum yöneticisi savunduğu fikirlerin doğruluğuna beni inandırır.					
16	Kurum yöneticisinin ortaya attığı bir fikir bir süre sonra kurum çalışanları tarafından onaylanır.					

### Kaynakça Bilgisi / Citation Information

Uylas, S. D. and Argon, T. (2020). Developing perception management scale (administrator version) : A study on validity and reliability. *OPUS–International Journal of Society Researches*, 16(30), 3302 - 3320. DOI: 10.26466/opus.689102