A Study on Developing the Organizational Obedience Scale Based on Exploratory and Confirmatory Factors Analysis

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Abstract

In this study, it is aimed to develop an organizational obedience scale that gives information about the obedience tendencies of white-collar employees working in the private sector. In this framework, thirty-one item seven-point Likert-type scale consisting of general expressions was prepared to measure obedience, which is the basis of employee behavioral tendencies. This scale was applied to the employees of small and medium-sized enterprises operating in the Marmara Region and academicians working at the university. The data obtained from the questionnaires, which were accepted as valid as a result of the examination, were analyzed with the SPSS 22 program. Within the scope of the analysis, the validity and reliability values of the scale were examined and valid findings were obtained as a result of the Cronbach-Alpha (α) value, KMO value and Barlett's test of sphericity. In addition, the convergent and divergent validity of the scale was also demonstrated by the findings. In summary, it was concluded that the Exploratory (EFA) and Confirmatory Factor Analysis (CFA) of the Organizational Obedience Scale, which was tried to be developed, were at the level of validity and reliability that could reveal the obedience levels of private and public sector employees.

Keywords

Organizational obedience
Agentic State Theory
Theory of Conformism
Scale development.

Introduction

The concept of obedience means that employees in the field of organizational behavior comply with legal authority and organizational expectations. According to the definition made by Webb (1981), it is a conscious behavior in which the person assumes little responsibility or assertion. From another point of view, it involves submitting one's will to the management and demands of another or group, regardless of their demands or wishes, due to inequality of power in mild forms such as obedience, conformity, and consent (Lukes 2005:29-37).

The purpose of this paper is to show the peril aspect of obedience. Especially, this study focuses on the fact that obedience behavior that reflects our reflexive side that we encounter as a routine behavior in work environments and it examines what kind of results it produces at the point of whether it is affected or affected by external variables like other behaviors. When the Milgram experiments and other studies have examined, it has been discovered that the factors affecting obedience are environmental, individual and cultural aspects. Factors such
as the power of authority, responsibility of people, level of knowledge, size of the group in the environment, consensus of the group, loyalty to the group, position and prestige, the effect of establishing face-to-face communication were taken into account when creating dimensional expressions (Guandong, 2002; Kağıtçibaşı, 2010; Milgram, 1965). In the beginning, it is possible to make the following inferences while creating expressions that gain meaning for obedience on the basis of dimension such as: The fact that obedience to authority is imposed on people, that people internalize this reality over time and strengthen it with their emotions, and that this judgment is decisive in the pattern of the scale. So, instead of using implicit expressions that respondents can respond with their internalized feelings and thoughts, a scale draft was created with clearly prepared statements to measure their direct tendencies.

**Milgram Experiments**

In this study, the first reference point of the concept of "obedience", which is the subject of scale development, is experimental studies conducted by Stanley Milgram, which has a great impact in the social psychology literature. The statement “Stanley Milgram's experiments on obedience to malevolent authority are the most important social psychological research in this generation” supports these experiments (Brown, Harvard University). In his research Milgram tried to find the answer to this question; “Can ordinary normal people be led to immoral acts such as inflicting severe pain on another innocent person? This point, which the obedience behavior draws attention to, made Milgram think and he was interested in examining the first obedience study of Sidis (1898); Inspired by the work of Frank, Cartwright, Raven, Lippitt, and White, as well as Asch, Lewin, and Sherif (Milgram, 1974:5). Within this aspect, nineteen experiments were conducted by Milgram of which seven were in Yale University and remaining was in a office in Bridgeport (Zimbardo, 2007; Milgram, 1963; 1976). In order to test the effect of punishment on learning, according to the instruction given to the teacher (real person), the student (the so-called student) will be given a word pair and asked to recite it by heart. If the student who is expected to give the correct answer gives a wrong answer, the teacher (real subject) will be asked to give him a shock for each wrong answer. Due to the setup of the experiment, the student often gives wrong answers and is exposed to electric shock every time (Milgram, 1974). Expressing that he has a heart condition to the increasing shock, he punches the wall and screams. During the experiment, all of the real subjects went up to 300 volts, 5 people reported that they could not exceed 300 volts, and 4 real subjects did not want to continue after 315 volts (Griggs 2017:33). 92.5% of the subjects continued to shock with the instruction given by the experimental assistant. 65% of the subjects participating in the study by Milgram (1974) did not hesitate to punish students, thinking that they served for science and they, under the influence of the authority, increased the violence to the highest level with a shock of 450 volts (Meeus & Wraaijmakers, 1986:311). This point, which Milgram wants to reach, is to show the level of people's compliance with the authority, to determine whether there is a limit or not, and to try to measure the reaction of the individual in the face of authority orders that make it difficult in terms of moral or ethics (Hamachek, 1976). Experiments are exploratory studies that reveal the causes of obedience, the environmental factors affecting the level of obedience, and the frightening aspects of obedience's limitlessness and they reflect the sense of real World (Cassell, 2005:352). The possible consequences of
Milgram's experiments are generally debated and deeply disturbing and these results created an explanation that people followed the orders of powerful leaders without question. Apart from Milgram experiments, there are laboratory studies of Zimbardo et al. (1971), The Mantell (1971), Meeus and Raaijmakers (1995), Sheriden and King. Also, it was noted that social genocides such as The Holocaust, Abu Ghraib, My Lai, Raunda are also examined in terms of obedience (Badhwar 2009:258; Southard 2014:3). In 1976, obedience studies were conducted in America and Austria, and later in 11 different countries (Blass, 2009).

In addition to the Milgram reference, another noteworthy point is obedience behavior, especially in organizational behavior studies based on organizational structures such as employees; is less accepted than the types of compliance and conformity (Paulsen, 2018:4). In fact, this concept is expressed within the scope of "types of social influence", which is one of the field topics of social psychology. This explanation points out the necessity of focusing on the obedience behavior of the employees, especially on the basis of the organization. First of all, considering other studies that currently measure employee attitudes and behaviors; it is to note that Graham (1991) Organizational Citizenship Behaviour (OCB) scale, which includes identification and compliance sub-dimensions, was developed by Organ (1988) and Padsakoff et al., (2009). Later; it is known that the obedience sub-dimension was also added to the OCB scale by Dyne et al., (1994) and is still used today.

Also, there is no comprehensive measurement study to measure the obedience perception of employees in terms of environment, authority and group in organizations. Yet, it is noted that there are very few empirical studies describing the destructive aspect of obedience. Thus, there is a need to develop a scale showing the obedience behaviour tendency determined by the subordinate-superior relationship in institutions. In the lower dimensions of the scales such as The F scale, Harrison (1991); Authoritizian scale, Rigby (1984); Social power, Raven (1965); Paternalistic leadership scale Farh and Cheng (2000), which is based on the authoritarian personality and leadership as well as Organizational Citizenship, statements describing obedience were encountered and also reviewed.

In the social life, especially in business, answer to several inquiries such as what level of obedience is and at what level should it be maintained? What is the limit of obedience and should it have a limit? What are the positive and negative aspects of obedience? What consequences might an increase in obedience have? were sought and a research was conducted to determine the obedience tendencies of white-collar workers working in different sectors. It is possible to state that it is formed by the basic and intermediate belief system as a result of attitudes and thoughts or an internal evaluation. The phenomenon of acting and interacting with others, which is the factor that prompts the person to obey; this case; are also designed by situational variables, mental models and social norms. The meaning that the individual attributes to relationship with authority; as well as acting and interacting with others might be the outcome of the individual's thought or not.

It is clear that both conditions cannot exist simultaneously in the same individual (Paulsen 2018:15). Thus, the concept of obedience forms the basis of other types of behavior such as identification, compliance and acceptance but it has a complex structure (Milgram, 1965). The desire to obey, which is created in the individual as a result of the interaction of the organization and environmental factors, can have different aspects. For
instance, responsibility shifts invariably upwards in the minds of subordinates (Russell, 2009:179). According to Milgram, people tend to enter a situation where, when given orders by authority, they place responsibility for their actions on the authority figure (Haslam & Reicher, 2007; Reicher, et al., 2012). Placing the subordinate-superior interaction with different aspects of the feeling of obedience in the individual, the relationship established with the authority; can be revealing in terms of whether it will produce blind, harmful or destructive, unquestioning, coercive and crime results. Briefly; it is important to analyse the undisclosed nature of obedience behavior related to the degree of personal responsibility of subordinates to authority and their choices in response to the demands of authority (Passini, 2009:97-98).

**Milgrams’ Autonomous and Compliance Theories**

Milgram developed two theories based on the results of his research. According to the Theory of Instrumentation, which is the first of these, “The essence of obedience is that a person sees himself as a tool that realizes the wishes of another person and does not hold himself responsible for his actions” or “slipping the middleman” from the pressure of the role of “intermediary” or mediating from one's individual purpose to someone else's purpose. It is the process of following instruction for (Milgram 1974:132-134). Also, it is the individual's trying to get rid of the negativity of his immoral behaviors by attributing the responsibility of his behavior to someone other than himself and doing this with a tendency to change his area of responsibility (Bandura 1991:157-162). Milgram has proven that obedience works with the whole process after the change of opinion, also called critical shift, takes place in the person. In the obedience process, when a person sees himself as a pawn, he will act as a pawn and will accept all the instructions given as a duty without thinking about the consequences (Conway & Schaller, 2005; Modigliani and Rochat, 1995). Moreover, it was pointed out that there is a remarkable parallelism between the results of the Milgram experiments and the results of Martin Seligman's learned helplessness experiments (Badhwar 2009:257). The second theory developed by Milgram is the "Compliance Theory".

In an environment of uncertainty, if the individual does not have any experience on the subject and does not have sufficient knowledge, he/she leaves the decision to the opinion of the group he/she is in or to the person he/she considers as superior. In Milgram's (1974) research, two ingrained human behaviors actually conflict with each other. People have learned not to harm others and to obey authority that is considered legitimate. Individuals pay attention to and need social norms in order to comprehend social situations accurately and respond effectively, especially in times of uncertainty (Cialdini 2001:76-81). When evaluated from this point of view, the fact that people or institutions that have assumed authority in different areas of society ensure that their destructive orders and wishes are fulfilled by ordinary people by using persuasion, suggests the possibility that they may harm others or the environment.

**Other Obedience Studies**

Related to obedience, eg; Burger carried out an experiment similar to the Milgram experiments (2009), but with a shock level of 150 volts (Twenge, 2009); there are studies that were repeated later in eleven different countries
(Blass, 2009). The power of the authority in the Milgram (1963) experiment, which is taken as a reference, has been evaluated as the effect of white collars (Edenborough & Edenborough, 2011:37). In another study, four short case scenarios for randomly selected citizens living in Moscow, Russia, Tokyo and Japan were shared and the relationship between autonomy, compliance and obedience behaviors and the level of responsibility of lower and middle managers was examined (Hamilton & Sanders, 1995). There are many cases where the danger dimension of obedience has been encountered and experienced in the health sector. It was stated that nurses, who were reluctant to say the mistake in order not to get into an argument due to the current perceived authority of the doctor, obeyed (Krackow & Blass 1995:585; Hofling et al., 1966:17). In addition, it was observed that 77% of the so-called board members of a pharmaceutical company supported the marketing of a harmful drug because the chairman of the board supported it (Brief et al., 1991:380-396).

As a result of another study conducted in the financial field, the tendency of CFOs to manipulate was determined by the instruction given by the CEO (Bishop et al., 2016:20-41). Fraud has been found in large company research such as Enron, WorldCom, “Deepwater Horizon” and Johnson & Johnson”, Ford Motor Company, McDonalds (Ghoshal & Bartlett, 1995; Southar, 2014; Chong 2010:185-186), which has led to increased interest in business ethics. It has been discovered that these behaviors cause serious harm to investors and others, indicating the pressure of obedience from the upper levels of the hierarchy (Robinson, 2014:41; Buttross et al., 2011:1-31) In addition, private business activities (Kelman & Hamilton 1989). Various institutions, including airline companies (Tarnow, 2000), have been shown by the results of the analysis to create some destructive actions as a result of obedience. It was concluded that the interaction between job and task complexity has an impact on audit decisions (Cahyaningrum 2015:95). the obedience tendencies of people increase when they identify with a group or individual who has authority when they hear it most (Huo et al. 1996:40-45). Finally; there are other studies that have been conducted in government (Kelman & Hamilton, 1989; Rogers, 1986), the military (Kelman & Hamilton 1989; Fiske at al., 2004; Bartone 2004; Laupa et al., 1995) and have been associated with subversive acts.

**Conceptual Analysis of Scale Development**

Besides the Milgram reference, another point that draws attention; Obedience behavior, which is expressed within the scope of "types of social influence", which is one of the field topics of social psychology, is especially related to organizational structures, for example, in organizational behavior studies based on the employee; identification is less accepted than the types of adoption and adaptation (Paulsen, 2018:4). This explanation points out the necessity of focusing on the obedience behavior of the employees, especially on the basis of the organization. Dimensioning the feeling of obedience created by the subordinate interaction in the individual with different aspects, especially the relationship established with authority. It can be revealing in terms of whether it will produce blind, harmful or destructive, unquestioning, coercive and criminal results.

In short, it is important to analyze the latent structure of the obedience behavior related to the degree of personal responsibility of the subordinates and the choices they make in the face of the demands of the authority (Passini & Morselli, 2009:97-98). Apart from this, no comprehensive measurement study has been found to measure the
obedience perception of the employees in terms of environment, authority and group in organizations, and even it has been noticed that there are very few empirical studies explaining the destructive aspect of obedience. From this point of view, the need to develop a scale that shows the obedience behavior tendency determined by the subordinate-supervisor relationship in institutions has arisen. At what level is obedience in the corporate field, especially in business life, and at what level should it be maintained? What is the limit of obedience and should it have a limit? What are the positive and negative aspects of obedience? What consequences might an increase in obedience have? Answers were sought throughout the study and research was conducted to determine the obedience tendencies of white-collar workers working in different sectors.

Dimensions of Organizational Obedience

In this section; it is pointed out that in Milgram’s (1974) research, by instructions given by authority during experiment such as “1) please continue. 2) you need to continue for the experiment. 3) It is absolutely essential that you continue. 4) you have no choice, you "have to” continue” it was noted that the participant's increased shock current to the so-called student from 15% to 450 volts, the increasing pressure of the authority with each instruction, combined with factors such as the environment and the strength of the situation, led to different levels of obedience to the participant. Considering all these factors affecting the level of obedience, dimensions explaining the latent variable of obedience were tried to be obtained through conceptual diversification.

Crime of Obedience: Demonstrating unethical, illegal and harmful behavior by obeying a person or organization considered to be an authority means committing a crime of obedience. Crime of obedience occurs when a subordinate's leader makes an immoral and unlawful decision and executes it enthusiastically and willingly, that is, when he ensures his obedience (Carstenand & Uhl-Bien, 2013:49-61). According to Kelman and Hamilton (1989), actions taken in response to orders from authority and considered illegal or immoral by the majority of the community widely occurs in many aspects of the society. In the study conducted by Carstenand and Uhl-Bien (2013); it is stated that people may tend to commit the crime of obedience because they do not feel the power to resist unethical instructions with the perception that their authority is strong (Javaid, 2020). Often the obedience of others around us is evident. The aim here is to normalize the situation and protect oneself by acting with group, in a sense, without the driving force of the orders. In many studies to understand that ordinary people can commit illegal and immoral acts against the orders of the authority, it was proven that the crime of obedience has been committed (Kelman & Hamilton, 1989; Hamilton & Sanders, 1999). The example for the question “Subordinates who follow the contradictory instructions of the managers in the business world, can they commit the crime of obedience with the results it produces?” would be the Watergate scandal. Even if it is not life threatening, employees in private or public companies who fulfill the contrary instructions of the managers for any decision or operational activities; are considered to be set an example for the crime of obedience with the results they created (Hamilton & Sanders, 1999). Psychological adjustments come into play to relieve the burden of committing immoral orders. This thought aroused curiosity about the level of such a potential for danger underlying the hierarchical social structure in organizations. From this point of view, the negative side of obedience is a clue in checking whether the authority demands, which are
seen as a social order provider, are legal or not. From this point of view, the concept of obedience crime was considered as a sub-dimension.

**Coercive Obedience:** This concept of obedience is that in the subordinate-superior relationship, the manager forces the subordinate to obey the order or change a behavior with the threat of punishment or punishment. It turns into behavior with physical, verbal, psychological and material violence and creates a compelling effect on the person (Çalışkur, 2016:35). When the legitimacy of the authority figure is not recognized, some manipulations can compel the adherents to obey by using emotional violence or force. But it may not be clear whether it is true choice or a superficial sense of duty to obey. One person activates another in a certain direction and can create some outward appearances but one person or authority cannot control another person's intrinsic motivation. Yet, the desire to think or feel is tried to be achieved by applying force. The most important thing is that one person cannot force another person to respect and trust him/her. For example, an employer may informally make employees who openly object to management decisions feel that they will not receive the expected reward. As a result of fear and pressure, people have to comply. Thus, this can be explained by compulsive obedience. In McMyler's (2016) study, type of social influence on belief and action states that obedience has two senses. The first of the senses is the state of obedience to a forced job whereas the second sense is obedience to work, which is applied in accordance with authoritarian directives and does not contain coercion. McMyler says that it is necessary to evaluate the accuracy of the reason as well as the reason for the instruction given to a subordinate and draws attention to actions taken in response to coercive threats. Thus, as another dimension, statements describing coercive obedience were added to the scale draft.

**Blind Obedience:** Considering the underlying reasons for obedience, there are four different types of obedience that can be considered as “blind obedience”: (1) the obedience of someone who does not consider whether obedience is morally acceptable (2) respectful obedience to the ruler (3) the obedience of the individual who is unaware of the many conditions of the situation constituting a particular authority and (4) quick, instant, or unquestioning obedience. Acting in ignorance also means acting unconsciously and without question (Wenker, 1978:195). Acting unconsciously is a type of behaviour that prevents a person from individual development, independent thinking and producing new ideas. It is a type of behavior that prevents objection in unapproved situations and it also means “being lost in authority” (Özkan & Polat, 2017:117). Apart from any pressure or coercion, it can be said that compliant people obey without questioning in accordance with orders and instructions (Hauerwas & Pinches, 1997). Subjects in Milgram's experiment, knowing that an innocent victim would be harmed, continued to deliver extreme shock, being in full conforming to authority. This is evidence for this fact. Hauerwas and Pinches (1997) state that regarding directives given by the figure, who does not effectively exercise her authority, by using force, in the context of a great responsibility, they are result of blind obedience. On the other hand, regarding the obedience tendency of children, Benjamin and Simpson (2009) reviewed the studies of Isaacs (1930), Norsworthy and Whitley (1933), Symonds (1934), and Teagarden (1940) and concluded that while some psychologists and child-care experts warn of the dangers associated with blind obedience, it has proven to be the most important factor in most people's qualities.
They mentioned that it is important to advise children on how to obey, rather than forcing them to obey. Yet, it is stated that the only obligation of young children who are adults today is the secret obedience (Hall, 1904: 451). In modern societies that have undergone transformation and democratization from the past to the present, blind obedience and complete lack of control of authority are rare. For instance, in the trial where he was accused for genocide, Eichmann said that he and other officials blindly accepted the decision, without the need for any coercion or persuasion, that the Führer had orders (Arendt, 2014:56). As Wittgenstein said, normally most people follow rules more than choices. This understanding can be explained with the metaphor of blind obedience. This description means to be bound by the rules that are thought to be normative and objective, without making any interpretations or attributing meanings. Wittgenstein drew attention to how rules work in practice, reminding that the notion of blind obedience requires further critical examination (Lugg, 2011:391).

**Destructive Obedience:** Whether obedience is a genetic trait or a learned behavior or not, it can also mean leaving our decision-making capacity to others. Thus, it means that we tend to mental models that enable us to free ourselves from responsibility for our actions when confronted by authority figures (Werhane et al., 2013:43). For the moment mentioned as a result of Milgram's research, "The statement that "a legitimate authority can make someone else do the desired behavior programmed to be destructive" draws attention to the danger of the situation. (Zeigler et al., 2013:161). In addition to this, according to the statement that the obedient subject did not see himself in any situation contrary to the experimental instructions and therefore not responsible for its own actions, there are statements such as "I wouldn't have done it alone; I was doing it as I was told" which means that the person states that he is not responsible for his actions. It is the rationalization of excessive obedience to subversive authority. Such evidence has also been found in the results of other studies. For instance, from the perspective of a legal expert analyzing the Enron scandal, It is mentioned that there is no authority or preventive rules to prevent negative behaviors just as the participants in the Milgram experiment had no clue or reason to disobey authority. Traits such as obedience to order, loyalty to authority, discipline that seem innocent and are actually very valuable but such scandals in business life reveal how destructive these characteristics can be when they are misdirected.

In case the orders given constitute an element of crime, this situation causes the crime of obedience to be committed. In an investigation regarding thirty-seven serious plane crashes; 81 percent of cases resulted in a conclusion that the first officer is not following or resisting the captain properly (Zimbardo, 2007). In about seventy-five plane crashes that Tarnow examined, it was found that faults were caused by excessive obedience. It was also concluded that excessive obedience could cause 25% of all aircraft crashes (Tarnow, 1999:125-138). The ideal characteristics necessary for the survival of organizations and societies, such as devotion to authority, loyalty and obedience to instructions and rules, and discipline can also carry the potential for serious hazard. This fact becomes evident with such scandals in business life. In order to make inferences, it is necessary to emphasize on the fact that the orders given constitute an element of crime causes the crime of obedience to be committed. Yet, results of the actions taken in this direction reveal the destructive aspect of obedience and this implies how inclined individuals are to the orders of an authority, even when it conflicts with their own will or moral principles (Cassell, 2005:352). For this reason, destructive obedience constitutes the third dimension to be included in the scale.
Unquestioned Obedience: State of Unquestioning means taking action without thinking about how and why, accepting everything that results from it. The concept of unquestioning, which is frequently encountered in business life, is the reflection of thought with behavior. Today, managers are expected to lead both workers and employees. Especially in institutions that act according to authority, there is an expectation that the managers representing the authority will follow the instructions given by their subordinates without question. It is seen that the concept of authority is classified according to the characteristics of managers and leaders with today's understanding, and especially some types of leadership are included in some studies in terms of unquestioning expectation. For instance, 138 leaders with narcissistic traits ignore others' perspectives or their well-being (Conger and Kanungo, 1998). They demand privilege and private knowledge and demand unconditional obedience (O'Connor et al., 1995). With this expectation, they create abuse over the autocracy they have. (Maccoby, 2000:70). The paternalistic leadership type, on the other hand, has authoritarian, benevolent and moral dimensions and shows similar tendencies (Farh and Cheng, 2000). Such leaders have a leadership style that demands control and unquestioning obedience over his subordinates. Thus, leadership types and the power obtained with the authority cause practices that ignore the questioning of subordinates. Employees also participate in these practices by showing unconditional obedience. The fifth dimension of the scale was determined as unconditional obedience.

Method

Many studies that determine the scale development stages have been closely examined. It has been observed that the summary and detailed stages suggested by many researchers in the scale development process have common points. Scale development process; It is summarized in three basic stages (Schwab, 1980:3-43; Erdemir, 2008) as creating the item pool, structuring the scale, and evaluating it. According to Devellis (2003:60-101), who is frequently cited in the literature, the scale development process consists of eight stages. These stages are as follows: (a) clearly identifying the variable to be measured, (b) establishing the item pool, (c) determining the type of measurement, (d) expert opinion evaluation, (e) inclusion of valid items in the scale, (f) application of specific sampling scale items, (g) evaluation of items; and (h) optimizing the scale length.

The development of the Organizational Obedience Scale was carried out systematically in accordance with the methodological order mentioned (Slavec & Drnovsek, 2012). While the first pilot phase is described step by step below, it has also been tried to explain how the developed organizational obedience scale was decided and how it was created: (a) First, the conceptual explanations of other social influence types that are semantically similar and differentiated from obedience in the literature have been questioned and the sub-dimensions of other relevant scales, which included expressions with semantic content about obedience, were examined. (b) Then, deductive and inductive approaches were considered for literature research. This type of application, which also means making the test soundly, also makes it possible to increase the content or content validity of the scale (Schwab, 1980). In addition, clear and precise expressions were arranged in a way that would show integrity in terms of formality and language (Tezbaşaran, 2008:12-13). At the stage of item creation, special care was taken to include emotional, cognitive and operational (behavioral) components of these attitude-reflecting items (İnceoğlu, 2010). First of all, approximately one hundred and forty-four items were compiled.
On the other hand, since it is recommended to start with an item pool that is at least three or four folds the number of items to be included in the final scale (Slavec & Drnovsek, 2012:55), the statements attained were reviewed from this perspective. In the second stage of the methodological interrogation of statements, specified expressions were reviewed by experts as very convenient (5) suitable (4) possible (3) not suitable (2), not suitable at all (1). An empty space was left on the table created to receive the suggestions of the experts regarding the expressions so it was possible to make corrections and clarifications. 

(c) These items to be measured in a seven-point Likert type. (d) Why does one obey? What are the benefits of obedience and the factors affecting it? To what extent do people submit to obedience, when obedience to authority is good or bad? What behaviors may be regarded as obedience? Is there a limit or should there be a limit to obedience? These questions were asked separately to a group of ten experts and expressions with a score of three or more were included in the set and other values were kept in a separate set. All the answers from the experts were then combined into a single table. Some of the statements were rearranged according to the results of the opinions and in the light of new information obtained from the literature readings and this information was added to seven reverse items and sixty-seven statements so that a total of seventy-four statements were made ready for piloting. Moreover, the conditions and environment in which people live have an important effect on the formation of the behaviors applied by the person. So, the factors such as the living environment, personality traits, the groups involved, and whether there was an element of pressure were also taken into account in the scale expressions. Before the validity and reliability analyzes, to ensure that whether statements obtained from the item pool measure the same variable or not. (e) A pilot study was conducted with seventy-four statements. In the first pilot study, among those who answered the above-mentioned ideal seventy-four-item scale outline. (f) The answers of one hundred and twenty-eight out of one hundred and forty-nine people were accepted as valid. (g) Items were evaluated by statistical analysis. SPSS 22 was used in scale construction studies for statistical analysis. (h) As a result of the item analysis, the expressions constituting the final form were discovered and a 31-item scale draft was prepared. Statistical analysis of the resulting draft scale is explained below:

**Sampling and Data Collection**

The first test participants consisted of randomly selected volunteers among master's and PhD students studying at the Social Sciences Institute (SBE) of a foundation university. In addition to face-to-face interviews as a method of obtaining data, communication was also provided online. In statistical applications, once responder-centered scale, which is one of the forms of scale application, shall be used, it is recommended to use an attitude scale (Torgerson, 1958). So, in this study, a Likert attitude scale was used to determine the power of each statement to measure the attitude or opinion that is intended to be measured. Technically, the Likert rating developed by Rensis Likert in (1932) was used to scale the items. A 7-point rating was deemed appropriate for the scale to reach high validity and reliability values (Preston & Colman, 2000:12).

Scale development draft form was drafted by seventy-four items, seven of which are inverted, and demographic characteristics of the participants such as gender, education level, position, total working time, sector and company working time. However, the statement that “a study based on data that is not fully valid hinders scientific efforts” (Loving & Agnew, 2001) should be taken into consideration. Thus, in case the participants
gave false answers or avoided giving honest answers due to the social desirability tendency during the pilot implementation, sub-dimension of the social desirability scale, the self-deception, with a thirteen-statement internal consistency coefficient of .95 was added to the scale form (Akin, 2010:771-784).

In addition, data reflecting more valid results from the participants were evaluated by excluding surveys with random answers because they take a long time. As stated in the methodology, a total of seventy-four-statement draft scale forms were retested (re-tested) at four-week intervals to the participants in the pilot study (Davis, 1989:320; McNamara & Darley, 1938:653). Responses were obtained from forty-three people with e-mail information in order to show the constancy and stability of the responses given according to time. When the averages are compared, there is a statistically significant difference of 0.68 between the test repetitions, according to the results of the dependent sample t-test analysis.

Construct Validity

The data set, in the first trial consists of the responses received from randomly selected graduate and PhD students studying at the university’s Social Sciences Institute (SBE), and it was used to develop theory (exploratory factor analysis) and test theory (confirmative factor analysis) (Rennie, 1997). Internal consistency and relevance are important in construct validity. Since there was an opinion that validity should be defined on the axis of construct validity and considered as an evidence collection process (Sireci & Foulkner-Bond, 2014), the study continued on this basis (Kelecioglu & Sahin, 2014).

Exploratory and Confirmatory Factor Analysis

The purpose of factor analysis is to obtain reduced dimensions by determining the best of the items that are predicted to explain the concept. In other words; main purpose is to create a valid and reliable item set that can measure the whole structure with a minimum of three dimensions and a small number of dimensions (Brown, 2009). It is almost impossible to find unrelated factors so factor extraction was performed with varimax rotation, which is accepted as an orthogonal method, in order to generate the most appropriate number of considered “independent” factors (Keiffer, 1998). As a result of this vertical rotation, it was noted that the expressions could be collected under five factors. In order to obtain this result, first of all, Kaiser-Meyer-Olkin (KMO) proficiency measurement, which measures the applicability of Explanatory Factor Analysis, and Bartlett's Sphericity test were examined. The results are as follows: Cronbach Alpha: 0.91, KMO: 0.76, and Barlett's test were significant. In order to determine the best questions of the scale, items with a correlation value (r value) higher than 0.30 were examined, and items with a value below 0.40 were removed from the scale to further increase the effect on the total correlation.

For the next step, the KMO of the twenty-three items obtained as a result of the reduction is 0.84 and the Cronbach Alpha is 0.91. The structure of the scale was obtained in the first place with seven factors and the explanation rate of the total variance was 64.838%. Since it was determined that it was suitable for factor analysis but it is evident that the last two dimensions did not provide sufficient reliability with three statements
each. In the next stage, conceptual studies continued. Afterwards, it was decided to go to the pilot again by increasing the 23 items to 55 items with the additional items produced. The second pilot respondents are seventy-one different people who are different from the first pilot participants, who are also studying at master's and PhD degrees.

As a result of the second pilot analysis, the statements that best explained the scale resulted in 31 items. The reliability rates of factor analysis on the basis of dimensions were found to be the highest 94.7% and the lowest 82.3%. The results of CFA conducted on seventy-one people show the validity of the scale statistically. But there is a loss of size in dimension. Yet, the number of participants has been increased in order to avoid loss of dimension in terms of logical analysis.

Along with the suggestion that the number of samples be greater than the number of variables, which is stated in the precondition regarding the number of samples and expressions, great care has been taken to ensure that this figure is at least 1 to 5 (Kalaycı, 2006:321, Hair et al., 2010:95-96). Therefore, there are suggestions to make analyzes on a minimum of 200 people. Thus, thirty-one-item scale was administered to a total of 247 people and although the validity number was 224, the answers given by 213 people were processed in order to obtain more reliable data.

**Results**

*Explanatory Analysis* of the 31-item scale data answered by 213 people in the last pilot study was repeated and the KMO sample adequacy measurement value of 0.857 indicates that it is appropriate to analyze the relevant data group. The Bartlett Test of Sphericity was used to test the hypothesis whether the correlation matrix is a similar matrix and this hypothesis was rejected at the p<0.001 level. This result indicates the existence of a relationship between the items and indicates the suitability of the data for factor analysis.

| Table 1. The KMO and Bartlett Test Results of the Organizational Obedience Scale (n=515) |
|-----------------------------------------------|-----------------------------------------------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | .886                                          |
| Bartlett's Test of Sphericity                  | Approx. Chi-Square 8245.915                   |
|                                              | Df 465                                        |
|                                              | Sig. .000                                     |

Then, factors with an eigenvalue greater than 1 were considered significant (Yaşlıoğlu, 2017:77) and As a result of the factor analysis carried out depending on this explanation, it was determined that the eigenvalue of the Organizational Obedience Scale was greater than 1 and it was noted that it consisted of 5 factors explaining 66.04% of the total variance (Ertaş, 2019). Later, the scale was applied to 515 people by increasing the number of participants. As a result, when the dimensions of the developed scale are examined, it is understood that the factor structure has not deteriorated. The structure and factor loads of the scale over the main sample of 515 people, which were accepted as research data, are given in the tables below.
After the exploratory factor analysis, as the second step, the covariance matrix was prepared to test the five-factor structure and Confirmatory Factor Analysis was performed using the AMOS program (Schumacker & Beyerlein, 2000:629-636). Maximum Likelihood (ML) was chosen as the statistical method with the Amos 22 application. According to the results of the confirmatory factor analysis obtained, it was seen that Organizational Obedience measures five implicit constructs in total.

In summary, the five sub-dimensions obtained can be scored on their own. Standardized coefficients and error values obtained by confirmatory factor analysis for the Organizational Obedience Scale, Revised Form are
shown in Appendix. According to the results of the confirmatory factor analysis obtained, it was seen that Organizational Obedience measures five implicit constructs in total.

<table>
<thead>
<tr>
<th>Dimensions of Org. Obedience</th>
<th>Number of Items</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>O_B</td>
<td>9</td>
<td>.796</td>
</tr>
<tr>
<td>O_D</td>
<td>6</td>
<td>.782</td>
</tr>
<tr>
<td>O_U</td>
<td>3</td>
<td>.789</td>
</tr>
<tr>
<td>O_C</td>
<td>6</td>
<td>.877</td>
</tr>
<tr>
<td>O_CO</td>
<td>3</td>
<td>.788</td>
</tr>
</tbody>
</table>

In summary, the five sub-dimensions obtained can be scored on their own. Statistics researchers, model fit; power and significance of the calculated parameters; explained variance in observed and implicit internal variables; They state that it can be evaluated within the framework of different fit indices, taking into account the criteria of the extent to which the observed data matrix and the expected data matrix agree (Weston & Gore, 2006).

<table>
<thead>
<tr>
<th>Table 4. Goodness of Fit Values related to the Sub-dimensions of the Organizational Obedience Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>x²/df</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>O_B</td>
</tr>
<tr>
<td>O_D</td>
</tr>
<tr>
<td>O_U</td>
</tr>
<tr>
<td>O_C</td>
</tr>
<tr>
<td>O_CO</td>
</tr>
</tbody>
</table>

As a result of the analyses made, the hypothesized model fit well with the data. While some sources accept a high value such as $\chi^2$/df=5 (Wheaton et al., 1977), some sources accept a very low value such as $\chi^2$/df=2. (Tabachnick & Fidell, 2007:285). The RMSEA value is the nonconformity test. In some studies in the early 2000s, values below 0.06 are considered good, while in others, 0.07 is accepted as a threshold value (McQuitty, 2004). Bentler and Bonnet (1980) emphasize that a CFI index greater than .95 and close to 1 indicates a good model fit. Reviewing GFI and CFI and RMSEA values; model and data fit of the scale is medium-high. Therefore, it can be said that the Revised Form of the Organizational Obedience Scale has construct validity.
Table 5. Obtained Fit Values of the Organizational Obedience Scale

<table>
<thead>
<tr>
<th></th>
<th>Perfect fit</th>
<th>Acceptable fit</th>
<th>Obtained Fit Values</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>1. order (27 items)</td>
</tr>
<tr>
<td>$X^2$</td>
<td>978.939</td>
<td>1062.935</td>
<td></td>
</tr>
<tr>
<td>$df$</td>
<td>306</td>
<td>311</td>
<td></td>
</tr>
<tr>
<td>$X^2/df$</td>
<td>0 ≤ $c^2/df$ ≤ 2</td>
<td>2 ≤ $c^2/df$ ≤ 3</td>
<td>3.17</td>
</tr>
<tr>
<td>GFI</td>
<td>0.95 ≤ GFI ≤ 1</td>
<td>0.80 ≤ GFI &lt; 0.95</td>
<td>.88</td>
</tr>
<tr>
<td>CFI</td>
<td>0.97 ≤ CFI ≤ 1</td>
<td>0.95 ≤ CFI &lt; 0.97</td>
<td>.90</td>
</tr>
<tr>
<td>RMSEA</td>
<td>0 ≤ RMSEA ≤ 0.05</td>
<td>0.05 ≤ RMSEA &lt; 0.08</td>
<td>.06</td>
</tr>
<tr>
<td>NFI</td>
<td>0.95 ≤ NFI ≤ 1</td>
<td>0.90 ≤ NFI &lt; 0.95</td>
<td>.86</td>
</tr>
<tr>
<td>SRMR</td>
<td>0 ≤ SRMR &lt; 0.05</td>
<td>0.05 ≤ SRMR &lt; 0.10</td>
<td>.09</td>
</tr>
<tr>
<td>AGFI</td>
<td>0.90 ≤ AGFI ≤ 1</td>
<td>0.85 ≤ AGFI &lt; 0.90</td>
<td>.88</td>
</tr>
</tbody>
</table>

The study of Hu and Bentler (1999), which is frequently cited on fit indices, was taken as reference. $p>0.05$, $X^2$ = Chi-Square; $df$ = Degree of Freedom; GFI = Goodness of Fit Index; CFI = Comparative Fit Index; RMSEA = Root Mean Square Error of Approximation. Source: Scherbelleh-Engel, K. and Moosbrugger, H. (2003).

**Discussion and Conclusion**

It was applied to 515 people, consisting of white-collar institution employees operating in the fields of production, health and finance, and academicians working in universities in the Marmara Region. This sample number consists of 210 male and 305 female participants. 333 participants are generation Y between the ages of 20-35, and the other 182 people are generation X between the ages of 36-67. While the working time of 386 people in the same workplace varied between 1 and 5 years, it was observed that the other participants had more than 5 years of work experience. 294 people who participated in the survey work under the manager, while the others are in different management levels. 59 lower managers, 119 middle level managers and 43 senior managers participated in this research.

Since the destructive aspects of obedience on societies are emphasized in sociology and social psychology, it is necessary to investigate whether there is a destructive aspect in organizations as well. As there is no comprehensive study of "Organizational Obedience" in terms of Organizational Behavior and Organizational Psychology, it is necessary to bring to the literature a scale development study that can measure the obedience tendencies and levels of the employees of the institution. In the twenty-first century world, hazardous dimension of obedience is uncontrollable and destructive. In particular, this subject is a research topic that should be emphasized in terms of displaying the damage it can cause to individuals, groups, organizations or societies. Some of the expressions created are as follows: "I follow my manager's instructions, even if it's against the rules" or "I follow my manager's instructions even if it is against the law" Like these are items that attempt to directly measure the latent focus but are explicitly stated. During the item creation phase, these expressions are also expected to reflect participant attitudes whereas extreme care was taken to include emotional, cognitive and operational (behavioral) components (İnceoğlu, 2010). Based on obedience, which is the reason for the scale development, a rating was made according to the level of violence and Consecutive dimensions have been.
established, from blind obedience to destructive obedience and these concepts are named according to the meaning they cover. Examining the interaction of the developed obedience scale and other variables will contribute to the field of organizational behavior.

Obedience has a goal and at the same time, disobedience must be limited by preventive measures whenever possible. In fact, if it does not meet the need, the authority may need to be revised in terms of interaction with the subordinate. Yet, it is possible that the facts and problems about the organizations are covered by the silence of the employees and the behavior of obedience. Many live cases and experimental field studies have shown the perils aspects of the obedience disposition. It is clear that it has negative consequences in varying degrees, from the level of social slaughter with a large sphere of influence to taking actions that may have a small impact in a workplace. As a result; the application of the scale, which consists of 27 items, in different sectors and on different samples is important in terms of being valid on a dimension basis.

References


Meeus, W., H., & Raaijmakers, Q., A. (1986). Administrative obedience: Carrying out orders to use


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**Author Information**

<table>
<thead>
<tr>
<th>Güler Ertaş Çapan</th>
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<td></td>
</tr>
</tbody>
</table>

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# Appendix. Organizational Obedience Scale

The following statements are scale statements that will show your level of agreement from 1 (Strongly Disagree) to 7 (Strongly Agree) and explain the above headings. Please carefully read and mark each question that will show your level of participation. Thank you for your valuable contribution.

<table>
<thead>
<tr>
<th>ITEMS</th>
<th>LEVEL OF PARTICIPATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>I follow every instruction of my supervisor when performing a job that I do not know much about.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>If everyone else in my workplace behaves a certain way, I believe that is &quot;proper behaviour&quot;.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>I don't need to know the reason/rationale for every rule or instruction in my workplace.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>I do what I'm told at my workplace, I don't get involved.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>I follow my manager when I don't know what to do.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>I believe that employees should do what their managers say, even if they don't know why.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>I believe that all norms and rules set by an organization should be accepted.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>I believe that the rules set by a manager should be followed no matter what.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>Whatever the demands of our managers are, it is our primary duty to meet these demands.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>When there is uncertainty, my manager knows best.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>Employees are intermediaries in charge of carrying out the instructions of the managers.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>As it is my duty, I take the given instruction to the end without questioning it.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>Because of my manager's expertise, I do whatever he says about the job.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>I accept any instruction given by my manager as a duty.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>My motivation to follow the instructions given by my manager increases even more.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>I don't mind if my manager uses business relationships for personal benefit.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>I do not mind if my manager sometimes takes advantage of his subordinates for personal gain.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>I think my manager can use his authority for personal benefit.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>I would rather be the punisher than the person punished in my workplace.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>In my workplace, I follow orders that I have to obey, even if it goes against my moral values.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>I follow the instructions given by my manager, even if it is against the law at my workplace.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>I follow the instructions given by my manager, even if it is against the rules and procedures in my workplace.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
</tbody>
</table>
Items of Factors:

1-2-3-4-5-6-7-8-9 (Blind obedience).
10-11-12-13-14-15 (Destructive obedience).
16-17-18 (Unquestioned obedience).
25-26-27 (Coercive obedience).