

## ORGANIZATIONAL PSYCHOLOGY

www.orgpsyjournal.hse.ru

# The moderator role of self-control in the effect of future time perspective on procrastination behavior

**Ersin IRK** 

ORCID: 0000-0002-2160-8053

**Ahmet MUMCU** 

ORCID: 0000-0001-6610-5073

Tokat Gaziosmanpaşa University, Tokat, Türkiye

Abstract. *Purpose*. This study investigates the moderator role of self-control level in the effect of future time perspective on procrastination behavior. *Study design*. This research encompassed 194 professional accountants in the central district of Tokat (Türkiye). The sample consists of 156 men and 38 women. In addition, the average age of the research sample is 36; 70% are between 36 and 55. The study used three scales that different researchers developed: "Future time perspective" by Ph. G. Zimbardo and J. N. Boyd; "The general procrastination tendency scale" by D. Ç. Çakıcı, and "The Turkish version of the brief self-control scale" developed by J. P. Tangney with colleagues. This study utilized from AMOS, SPSS Process Macro statistical programs to gather the data. *Findings*. According to the findings obtained in the research data, it has been determined that the future time perspective has a negative and significant effect on the procrastination behavior. It has been also observed that the self-control level of the employees has a moderator role in this negative relationship. It has been assessed that the moderator effect that emerged in employees with low self-control levels was higher than those of employees with medium and high levels of self-control. *Value of results*. This study has offered various suggestions for field practitioners and researchers to enhance scientific communication.

**Keywords**: future time perspective, procrastination behavior, self-control.

#### Introduction

Procrastination behavior generally refers to individuals delaying a previously planned task to do it later (Steell, 2007). Procrastination behavior in the workplace defines the delay in initiating or performing a task (Ferrari, Tiece, 2000). It has been acknowledged that the chronicity of procrastination behavior negatively affects the physical and mental health of the individual (Milgram, Tenne, 2000). The reasons leading to procrastination behavior have been the subject to various studies in the literature. A great deal of variables such as future time perspective (Gupta et al., 2012), self-control (Ariely, Wertenbroch, 2002), hierarchical career plateau (Uysal, Yılmaz, 2020), role conflict and self-evaluation (Senecal et al., 2003) have a profound effect on procrastination behavior.

When taken into consideration of previous studies, it has been already recognized that procrastination is related to not doing the work on time, it is noteworthy for the individual to plan the

Address: Taşlıçiftlik Campus, 60250, Tokat, Türkiye.

time effectively. Therefore, it has been figured out that the individual's high future time perspective should reduce the procrastination behavior. In the literature, it has been observed that there are some related studies that have found a negative relationship between future time perspective and procrastination behavior (Strathman et al., 1994; Gupta et al., 2012) or manifested a meaningless relationship (Jones et al., 1996). In other words, although the person has a future time perspective, they can show procrastination behavior. These findings suggest that there is another variable modulating the relationship between the two variables.

One of the moderator variables that can explain the relationship between the variables is the self-control variable. As a matter of fact, self-control refers to the mental processes which allow the individual to invalidate thoughts and feelings, thus enabling the behavior to change in an adaptive way from moment to moment (Inzlicht et al., 2014). Some individuals are able to carry out the mentioned mental processes more effectively and can choose the more suitable one among the alternatives. When the related literature is examined, it has been observed that there is an inverse relationship between self-control and time management (Bertrams et al., 2010). In other words, individuals with low self-control cannot use time effectively. As a result, procrastination behavior emerges.

To sum up, the fact that the individual has low or high self-control will help to explain the relationship between future time perspective and procrastination behavior. This study aims to determine whether self-control has a moderator role in the effect of future tense perspective on procrastination behavior.

#### Literature review

#### Procrastination tendency

Procrastination, which is a behavior that people frequently exhibit in their daily lives, could be defined as delaying the work planned to be done at a certain time for no reason. Procrastination behavior is typically observed as optional in nature; that is, it involves the voluntary selection of a behavior or task according to other options (Gupta et al., 2012, p. 196). The behavior of procrastination in the workplace means taking things slow, postponing until tomorrow or leaving it for later (Kaplan, 2018, p. 289).

The procrastination tendency may not be experienced at the same rate in each individual. The relationship between people's characteristics and procrastination tendencies has been the subject of many studies, but these studies do not demonstrate the same results. For instance, the studies showing that women tend to procrastinate more than men (Vestervelt, 2000; Pychyl et al., 2002); There are some other studies showing that men tend to procrastinate more than women (Balkıs, Duru, 2009; Kandemir, 2014; Aydoğan, Özbay, 2012). There were different results regarding whether demographic factors creates significant difference on procrastination at work in previous studies or not. A. Baltacı stated that there was a significant difference between gender, marital status, age, professional seniority and procrastination behavior in his study with school administrators and suggested that the findings were compatible with the literature (Baltacı, 2017). J. Wang with colleagues found no significant difference in procrastination at work related to gender, age, education, full-time work experience, working hours per week, occupations, or job position (Wang et al., 2021).

Procrastination at work can be defined as "postponing work-related actions by taking non-work-related actions during working hours" (Metin et al., 2016, p. 256). Antecedents of procrastination at work include personality factors and situational factors (Mosquera et al., 2022). There are a lot of research on procrastination in the workplace. These studies generally show that procrastination has negative consequences at work. In one of the studies conducted on the subject, it was found

that there was a positive relationship between work stress and procrastination (Beheshtifar, 2011). Procrastination at work negatively affects employees' performance and work engagement. As can be understood the behavior of procrastination in the workplace one of the important factors of negative affecting employees' performance (Metin et al., 2019).

#### **Future time perspective**

Time perspective can be defined as "a multidimensional construct related to individuals' ability to predict future events and reflect on the past" (Lennings et al., 1998, p. 629). From the point of this tradition, scientists have focused on individual differences in past, present and future time perspectives, and the extent to which individuals focus on one of these time perspectives when making decisions in different life areas (Andre et al., 2018, p. 2) and the results of this focus. The behavior of people with a time perspective is determined by a compromise or balancing between the contents of meta schematic representations of past experiences, present desires, and future outcomes (Zimbardo, Boyd, 199, p. 1272). It has been already recognized that individuals are aware that they do not base their feelings, thoughts and behaviors only on the present, but that their past experiences or expectations for the future also affect their present behaviors (Yasin, Sunal, 2016, p. 80). Ph. G. Zimbardo and J. N. Boyd conceptualized this situation in five dimensions with the theory of time perspective. These five dimensions are constructed for the past, present and future. He classified past time perspectives (past-positive / past negative), present time perspectives (present hedonistic / present fatalistic) and future perspectives. The positive time perspective in the past refers to individuals who are focused on the good days in the past, depending on traditions and rituals. The negative time perspective in the past describes individuals who think that actual negative experiences or past events will have a pessimistic reflection on the present. The present hedonistic time perspective describes individuals who have an orientation towards pleasure and impulsivity at the moment, with little regard for future outcomes. The present fatalistic time perspective refers to individuals who focus on the present from the perspective of hopelessness and helplessness (Zimbardo, Boyd, 1999). The future-oriented time perspective describes thinking about the future and weighting the consequences of an individual's actions (Ortiz, Davis, 2016, p. 318–319).

#### **Self-control**

A great deal of definitions of self-control have been developed in the literature. Self-control, controlling and managing one's emotions, thoughts and behaviors in order to establish harmonious relationships with other people; It can be mentioned as disobeying enthusiasm, controlling negative emotions, being able to work and preventing impulsive behaviors (Rosenbaum, 1980). Within the context of the definitions, self-control behavior basically takes place in the same way. There is an ideal action that the individual wants to do and there is something that encourages the individual to deviate from this ideal action (Ameriks et al.,1980, p. 966). What is critical for situations that require self-control is that a response is clearly superior, and the response is psychologically stronger (Duckworth, 2011, p. 2639). Therefore, self-control can be defined as attempts to override or change one's dominant reaction tendencies (Schmeichel and Zell, 2007, p. 743).

#### **Hypothesis development**

V. Arnold with colleagues, to provide insight into the human decision processes underlying decision-making under varying levels of time pressure, argued that time pressure on accountants increases errors (Arnold et al., 1997). It is a profession in which there is a constant race against time, since it is necessary for the accountants to be trained before the deadline for the jobs, they are responsible for each term. The obligation to complete the work that needs to be done on time, especially requires the employees to finish the work at hand. This situation obliges employees not to procrastinate. Although the nature of the profession requires a race against time, the characteristics

of individuals show that some employees will be more successful than others in this race. Within the context of the studies on the time perspective approach, it has been emphasized that they show individual differences in time focus (Doğruyol, Olgaç, 2018, p. 205). Each individual cannot perceive the future consequences of their present behavior in the same way; therefore, their future time perspectives also differ (Simons et al., 2004, p. 121–122). It can be mentioned that future tense perspective is a personality trait in this sense. Time perspective has been acknowledged as a personality trait that is regarded to have an effect on procrastination (Specter, Ferrari, 2000; Jackson et al., 2003; Ferrari, Díaz-Morales, 2007; Gupta, et al., 2012; Sirois, 2004; Díaz-Morales, Ferrari, 2015; Kaplan, Koçyiğit, 2019; Liu, Feng, 2019; Meng et. al., 2021). From the point of the literature, we assume that accountants' procrastination training will change depending on their perception of future time perspectives. In line with this prediction, our H1 hypothesis has been formed as follows.

H1: The future time perspective has a negative and significant effect on the procrastination behavior of employees.

Individuals with high self-control are more adept at regulating behavioral, emotional and attentional impulses to achieve long-term goals (Duckworth, 2011, p. 2639). Particularly in terms of negative expectations about the future, in case of procrastination, self-control will come into play and prevent the emergence of procrastination behavior. In terms of having positive expectations about the future, self-control will prevent the individual from getting complacent and prevent the occurrence of procrastination behavior. From the point of this prediction, the H2 hypothesis was formed as follows.

H2: Self-control levels of employees have a moderating role in the relationship between future time perspective and procrastination behavior.

### Methodology

The study has a descriptive research type and deduction analysis technique. The research model was created within the framework of the relational model based on causality. The research population consists of 247 certified public accountants. A simple sampling method was preferred as the sampling method. The survey form was prepared according to a 5-point Likert-type rating scale. A survey form was applied to 194 certified public accountants in the universe. Research data were obtained in a time of two months (January and February) in 2022. SPSS Process Macro and AMOS statistical software programs were used to analyze the research data.

#### Model of the research

The purpose of this study is to determine the moderating role of self-control of certified public accountants on the effect of future time perspective on general procrastination behavior. The research model of the study was designed for this purpose. Each variable in the research model was subjected to validity and reliability analysis. In the analyses made, it is determined that organizational variables have a single-factor structure. Based on these findings, the research model is shown in Figure 1.

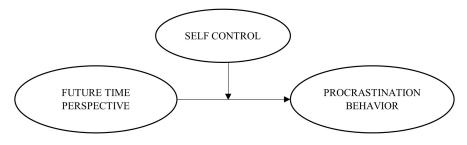


Figure 1. Research model

#### Population and sample

The research universe of the study consists of certified public accountants registered with the Tokat Chamber of Certified Public Accountants. The total number of Certified Public Accountants members in the universe was determined as 248. Research data were obtained by the online survey method. An online survey form was delivered to all members by targeting an integer number in the research. After a two-month period, feedback was obtained from 194 certified public accountants members in the research universe.

Ethics committee approval was obtained for the study from Tokat Gaziosmanpaşa university social and human sciences ethics committee (commission date 30.11.2021 — Decision No. 3..10). In addition, informed consent forms were signed by the survey respondents. The formulation n = (Nt2pq) / (d2(N-1) + t2pq) was examined in order to determine the adequacy of the sample size in the study to represent the universe (Yazıcıoğlu, Erdoğan, 2004). As a result of the calculations based on the 95% confidence interval and 5% margin of error, it is possible to say that 194 employees can represent the universe. Certified public accountants were chosen as the research universe in the study.

Certified public accountants are among the self-employed. Most of the employees in this occupational group work in their own offices as their own bosses. Based on this situation, they must perform their daily business activities by performing their own self-control. Apart from that, certified public accountants work according to the daily and limited time periods in terms of the nature of the work they do. Arranging employment entry and exit documents, preparing monthly service declarations, month-end employee payrolls, tax returns, etc. works are within the scope of important works that have a legal obligation to be fulfilled within certain time periods. This shows that certified public accountants should manage their time in work and family life in a planned and efficient way. Finally, it is possible to say that if certified public accountants show procrastination behavior, they will face serious problems in business life.

For this reason, certified public accountants need to have a future time perspective and self-control. All these mentioned points reveal that certified public accountants sampling is an appropriate choice in a study to be conducted in terms of organizational variables discussed in the study. Demographic characteristics of the research sample in the universe are presented in Table 1.

When the findings obtained from Table 1 are examined, it has been determined that most of the accounting professionals in the sample group are male and graduate. Apart from this, it is seen that most of the employees have a financial advisory certificate and are between the ages of 36–45.

Parameters		f	%	Parameters		f	%
Gender	Female	38	19,5	Marital status	Married	123	63,4
	Male	156	80,5		Single	71	36,6
Education	High school	17	8,8	Age (years)	20-35	19	9,8
	Graduate	7	3,6		36-45	82	42,2
	Bachelor	160	82,4		46-55	53	27,3
	Master	10	5,15		56-65	40	20,6
Length of Employment	0-5	60	30,9				
	6-10	45	23,2				
	11–15	39	20,1				
	16-20	20	10,3				
	21 and more	29	15				

Table 1. Demographic characteristics of certified public accountants in the research sample

#### Measure

The questionnaire form used to obtain the research data was prepared according to a 5-point Likert-type rating scale. Due to the ongoing pandemic conditions, time and place constraints

during the data collection process, the online survey method was preferred. The first part of the questionnaire used in the study includes the future time perspective scale, the general procrastination tendency scale, and the self-control scale. In the second part, in order to determine the demographic characteristics of respondents, questions of gender, age, marital status, education level and length of employment were asked. In this part of the study, general information about future time perspective, procrastination behavior and self-control scales, validity and reliability analysis results are given.

#### **Future time perspective**

The Future Time Perspective Scale developed by Ph. G. Zimbardo and J. N. Boyd was used in the study; the scale created by the researchers was adapted into Turkish by A. Eren and K. V. Tezel (Zimbardo, Boyd, 1999; Eren, Tezel, 2010). The measurement tool consists of a single factor and a total of 13 items. Three statements in the scale are reverse coded items. First, reverse-coded expressions were transformed. As a result of the primary level confirmatory factor analysis performed to reveal the structural validity of the scale, items that distorted the goodness of fit values of the scale and could not reach the required factor load was removed from the model. Two modifications were made to increase the goodness of fit of the model. After this process, the model's p < 0.001 significance level was  $x^2/df$ : 1.610, RMSEA: 0.056, NFI: 0.955, CFI; 0.958, GFI: 0.943 goodness of fit index values were determined. These results reveal that the scale has good and acceptable goodness-of-fit index values. As a result of the reliability analysis, the Cronbach alpha internal consistency coefficient of the future time perspective scale was determined as 0.776.

#### Procrastination tendency

The General Procrastination Tendency Scale developed by D. Ç. Çakıcı was used in the study to determine the perceptions of employees about procrastination behavior. The purpose of the scale is to determine the work habits of the employees. The scale consists of a total of 18 statements. As a result of the analyses made by the researcher, it was stated that it could be used as one-dimensional (Çakıcı, 2003, p. 65). To reveal the structural validity of the scale, primary level confirmatory factor analysis was performed. First, four items that distorted the model's goodness of fit and did not reach the required factor load were excluded from the analysis. As a result of the analyses performed, the model's p < 0.001 significance level was  $x^2/df$ : 1.371, RMSEA: 0.044, NFI: 0.964, CFI; 0.975, GFI: 0.932 goodness of fit index values were determined. The Cronbach's alpha internal consistency coefficient of the scale was found to be 0.889.

#### Self-control

The Turkish version of the Brief Self-Control Scale developed by J. P. Tangney with colleagues was used in the study (Tangney et al., 2004). As a result of the validity and reliability study for Turkish version, developed a 13-item and single factor measurement tool. Seven items in the scale were reverse coded (Nebioğlu et al., 2012). Analyses made by the, the Cronbach alfa internal consistency coefficient of the scale was 0.85, and the test-retest reliability coefficient was 0.87. As a result of the analysis, three items that distorted the model's goodness-of-fit values were excluded from the analysis. Two modifications were made to increase the goodness of fit of the model. As a result of the primary confirmatory factor analysis, at p < 0.001 significance level  $x^2/df$ : 1.560, RMSEA: 0.054, NFI: 0.962, CFI; 0.986, GFI: 0.982 goodness-of-fit index values were determined. Based on these determinations, it has been revealed that it has good fitness index values. The Cronbach's alpha internal consistency coefficient of the scale was found to be 0.790.

In the research, after the structural validity analyses, convergent validity analysis was done. Convergent validity analysis provides the validity that states that the expressions of organizational variables are related to each other and the factor they create. To ensure convergent validity, the composite reliability (CR) value must be greater than the average variance extracted (AVE) and the

AVE value must be greater than 0.5 (Yaşlıoğlu, 2017, p. 82). To test the convergent validity of the scales in the model, the average variance extracted values and the composite reliability values are shown in Table 2. Based on the statistical results, it was determined that the model also provided convergent validity.

Table 2. Convergent validity analysis results of research scales

Variables	AVE	CR
Future time perspective	.63	.72
Self-control	.68	.76
Procrastination tendency	.52	.64

### **Findings**

Before proceeding to the analyses for testing the research hypotheses, it is necessary to check whether the data show a normal distribution. For this reason, firstly, the normality distribution of the data was tested in the study. The skewness and kurtosis coefficients were examined to determine whether each scale expression in the questionnaire showed a normal distribution. It was determined that the skewness and kurtosis coefficient values of each item in the questionnaire were between (–3) and (+3) confidence intervals and showed a normal distribution. After this analysis, the relations between the research variables were tested with correlation analysis. In addition, the mean and standard deviation values of organizational variables are also given.

Table 3. Correlation analysis

Variables	M	SD	1	2	3
1. Future time perspective	4.39	.51	1		
2. Self-control	4.05	.60	.601**	1	
3. Procrastination tendency	1.88	.70	569**	507**	1

*Note*: \*\* — correlation is significant at the p < .01 level.

When the findings obtained from Table 3 are examined, all relationships between organizational variables are at the p > 0.01 significance level. A positive relationship was found between future time perspective and self-control (r = .601), and a negative relationship was found between future time perspective and procrastination behavior (r = .569). In addition, a negative relationship was found between self-control and procrastination behavior (r = .507).

After this stage of the study, statistical analyses related to testing the research hypotheses were started. SPSS Process Macro statistical application developed by Andrew F. Hayes was used to test the research hypotheses. SPSS Process Macro application presents the mediator and moderator effects in tables in an easy and practical way. It determines confidence intervals in hypothesis tests with the Bootstrap method, which it uses as an application analysis technique. It performs the significance tests of the research hypotheses with these confidence intervals. K. J. Preacher and A. F. Hayes stated that analyses based on the derivative sampling method gave more valid and reliable results in models that deal with the mediator and moderator relationship (Preacher, Hayes, 2008). In this study, Model 1 was chosen to test the regulatory effect in the research hypotheses. The findings obtained with SPSS Process Macro are shown in Table 4.

Looking at the findings from Table 4, it was found that the future time perspective has a negative and significant effect on procrastination behavior ( $\beta = -1,4904$ ;  $\beta = .0001$ ), and self-control has a negative effect on procrastination behavior, ( $\beta = 1.4816$ ;  $\beta = .0024$ ), the interactional effect of future time perspective and self-control together on procrastination behavior is positive ( $\beta = .2635$ ;  $\beta = .2635$ ).

.0136). Based on these results, H1 is supported. According to the findings obtained from the table, it was determined that the model was statistically significant and the predictive power of explaining procrastination behavior of all research variables included in the regression analysis was ( $R^2 = .3861$ ; p = .0000). The change in the regression coefficient ( $\Delta R^2 = .0200$ ) as a result of the interaction (p = .0136) is statistically significant. The moderator effect of self-control in the research model is illustrated by the graph shown in Figure 2.

Table 4. Findings of the research hypotheses

Variables	β	S.E.	t	p	Confidence interval			
variables		3.E.			LLCI	ULCI		
Future time perspective (X)	-1.4904	.3828	-3.8936	.0001	-2.2454	7353		
Self-control (W)	-1.4816	.4810	-3.0801	.0024	-2.4305	5328		
Interactive effect (X.W)	.2635	.1058	2.4898	.0136	.0547	.4723		
The moderator effect of self-control								
Low self-control (1)	6040	.0988	-6.1127	.0000	7990	4091		
Medium self-control (2)	4004	.1190	-3.3662	.0009	6351	1658		
High self-control (3)	2447	.1629	-1.5025	.0346	5660	0766		
Rate of change in R2 as a resu	$\Delta R^2$	F	n	р				
.0200								
6.1922			.0136					
194								
Model	R		R2	MSE	F	р		
Model summary	.621	.4	.3861	.3096	39.83	.0000		

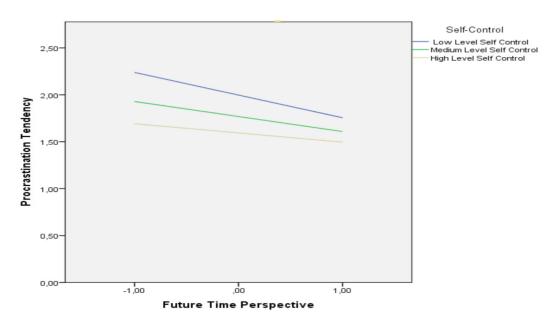


Figure 2. The moderator effect of self-control on the effect of future tense perspective on procrastination behavior

In the moderator effect (slope test) graph presented in Figure 2, the negative effect of the future time perspective on procrastination behavior differs according to low, medium and high self-control. In line with the findings obtained from Table 5, the negative effect of the future time perspective on the procrastination behavior was observed in personnel with low self-control level ( $\beta$  = -6040; p < .001), and in personnel with medium self-control level ( $\beta$  = -.5004; p < .001) and in personnel with high self-control level ( $\beta$  = -.2447;  $\beta$  = .005). These results reveal that self-control has a moderator role in the effect of future time perspective on procrastination behavior. Based on these findings, H2 is supported.

#### **Discussion and conclusion**

Employees who exhibit high levels of procrastination tend to spend a significant portion of their working hours in non-work activities. This may cause employees to not complete their daily, weekly, or monthly tasks on time. Or it causes them to spend longer on tasks they must finish on time and rush their work. All these issues reveal that procrastination can prevent employees from completing their work on time, causing their job performance to decrease. Research shows that employees with a high tendency to procrastinate have problems engaging in the job, and their performance remains below the ideal level (Metin et al., 2018; Metin et al., 2019).

Employees may have to prepare daily, weekly, and even monthly business plans. Especially for employees who work under intense work tempo and time pressure, such as professional accountants, procrastination tendencies are important in terms of completing their work on time. There are many factors that affect the procrastination behavior of employees. Future time perspective is one of these factors (Liu, Feng, 2019). However, the fact that employees have a future time perspective alone will not affect their procrastination tendencies. In other words, the individual should not only be able to plan the future effectively but also be able to comply with this plan. Therefore, the fact that there is a moderator factor between the future time perspective and procrastination behavior will help to understand the interaction more accurately. Self-control is a variable associated with both variables in the literature (Meng et al., 2021). Based on these explanations, the aim of the research is to determine whether self-control has a moderator role between future time perspective and procrastination behavior.

The research findings obtained as a result of the analysis revealed that accountants' having a future time perspective affects their procrastination behavior in a significant way. This result supports the relevant literature (Liu, Feng, 2019). This result adds to the existing literature examining the determinants of procrastination behavior. Another result we obtained from the research findings is that the self-control levels of the accountants have a significant moderator role in the effect of the future time perspective on procrastination behavior. It was found that students' future time perspectives affect their bedtime procrastination behavior and self-control plays a mediating role (Mao et al., 2022). Similarly, revealed the moderator effect of self-control on individuals' bedtime behaviors (Meng et al., 2021).

Temporal motivation theory is one of the most critical theories to explain procrastination behavior. The theory explains the reasons for procrastination behavior by considering the change in individuals' intertemporal preferences within the framework of motivation theories. Theory suggests that any person prioritizes activities that promise the highest utility, at least in that person's perspective for that particular time. In other words, people tend to procrastinate when they think the task's utility is low (Siaputra, 2010, p. 208). In a study trying to explain procrastination, especially in the context of temporal motivation theory with the reason for this behavior under four main factors (Steel, 2007). One of these factors is sensitivity to delay. Variables representing this dimension are distractibility, impulsiveness, and self-control. As a result of the research, it was determined that individuals who are prone to procrastination have low self-control (Steel, 2007; Steel et al., 2022). In this context, self-control may be an essential moderator variable in a correlational study between future time perspective and procrastination behavior.

The fact that the employee only has a future time perspective may be insufficient to reduce the procrastination behavior. The level of self-control of the individual will enable him to reveal his individual will at the point of realization of the planned behavior. This situation reveals that the high or low level of self-control of the employees can moderate the relationship between concepts. The findings from Table 5 support this situation. In Table 5, the effect of accountants' future time perspective on procrastination behavior differs significantly at three levels of self-control. As seen in Figure 2, the interaction direction is negative at all three levels. The point to be considered here is that the negative effect of the future tense perspective on procrastination behavior was highest in individuals with low self-control levels. The procrastination tendencies of the accountants in this group with a low self-control level are at a higher level than the other self-control groups. At this point, the fact that accountants with low self-control gain a future time perspective affects their procrastination behavior more. On the other hand, the effect of future time perspective on procrastination behavior is lower in accountants with high self-control levels.

Self-control is a stable feature or similar individual ability that continues over time (Schmeichel, Zell, 2007, p. 744). Therefore, it should be accepted as an individual characteristic that should be controlled in the accounting professional that constitutes the research sample and in the recruitment of personnel belonging to the accounting profession. Self-control awareness is a concept that should be considered even in choosing a profession (Sarı et al., 2017). In this sense, it should be stated that the professional importance of the concept of self-control in accounting education should be emphasized and that students should be prevented from showing procrastination behavior. In addition, employees in professions that need to work within an important and timely plan should have a future time perspective to provide time management. While establishing the performance system, placing the criterion of completing the work on time among the evaluation criteria will affect the employees' future perspectives and prevent them from putting their procrastination tendencies into practice.

In this research, the effect of some personality characteristics on procrastination behavior among accounting professionals, who work in a time-oriented profession, was determined. In other words, it is important for accounting staff to possess a future time perspective and self-control skills. This finding is something that should be taken into consideration when recruiting. The results of this research contribute to the literature on the individual antecedents of procrastination behavior.

This study has the basic limitations. Due to time and space constraints, the study was carried out on members of a single professional chamber. It is seen that researchers generally carry out studies on the relationship between future time perspective and procrastination behavior in students, teachers, and academics (Mao et al., 2022; Jin et al., 2019). However, organizational variables that constitute the subject of research have important individual and organizational consequences for other professionals in business life. For this reason, studies on inter-conceptual relations should be studied in different occupational groups.

#### References

- Andre, L., Vianen van, A. E., Peetsma, T. T., Oort, F. J. (2018). Motivational power of future time perspective: Meta-analyses in education, work, and health. *PloS one*, *13*(1), e0190492.
- Ameriks, J., Caplin, A., Leahy, J., Tyler, T. (2007). Measuring self-control problems. *American Economic Review*, *97*(3), 966–972.
- Ariely, D., Wertenbroch, K. (2002). Procrastination, deadlines and performance: Self control by pre-commitment. *Psychological Science*, *13*, 219–224. doi:10.1111/1467-9280.00441.
- Arnold, V., Hayne, S., Sutton, S., Smith, C. (1997). Accountants and Time Pressure: The Materiality Decision. In *Proceeding of the Americas Conference on Information Systems*. Association for Information System.
- Aydoğan, D., Özbay ve, Y. (2012). Akademik erteleme davranışının benlik saygısı, durumluluk kaygı, öz-yeterlik açısından açıklanabilirliğinin incelenmesi. *Pegem Eğitim ve Öğretim Dergisi, 2*(3), 1–9.

- Balkıs, M., Duru, E. (2009). Prevalance of academic procrastination among pre-service teachers, and its relationship with demographics and individual preferences. *Journal of Theory and Practice in Education*, *5*(1), 18–32.
- Baltacı, A. (2017). Erteleme davranışı eğilimi ve beş faktörlü kişilik özellikleri arasındaki ilişkiler: okul yöneticileri üzerine bir araştırma. *Uluslararası Güncel Eğitim Araştırmaları Dergisi, 3*(1), 56–80.
- Beheshtifar, M., Hoseinifar, H., Moghadam, M. (2011). Effect procrastination on work-related stress. *European Journal of Economics, Finance and Administrative Sciences, 38*(38), 59–64.
- Bertrams, A., Englert, C., Dickhäuser, O. (2010). Self-control strength in the relation between trait test anxiety and state anxiety. *Journal of Research in Personality, 44*(6), 738–741. https://doi.org/10.1016/j.jrp.2010.09.005.
- Çakıcı, D. Ç. (2003). *Lise ve üniversite öğrencilerinde genel erteleme ve akademik erteleme davranışının incelenmesi* (Master's thesis, Ankara Üniversitesi Eğitim Bilimleri Enstitüsü). (in Turkish)
- Díaz-Morales, J., Ferrari, J. (2015). More time to procrastinators: the role of time perspective. In M. Stolarski, N. Fieulaine, W. Beek van (Eds.), *Time perspective theory: review, research and application* (305–321). Switzerland: Springer International Publishing.
- Doğan, Z., Nazlioğlu, E. H. (2010). Muhasebe Meslek Mensuplarında Tükenmişlik Sendromu Üzerine Bir Araştırma. *Is, Guc: The Journal of Industrial Relations & Human Resources, 12*(3). (in Turkish)
- Doğruyol, B., Olgaç, A. (2018). Gelecek Zaman Perspektifi Ölçüm ve Kavramsallaştırmalarına Yeni Bir Bakış. *Psikoloji Çalışmaları*, *38*(2), 201–217. (in Turkish)
- Duckworth, A. L. (2011). The significance of self-control. In *Proceedings of the National Academy of Sciences*, *108*(7), 2639–2640.
- Eren, A., Tezel, K. V. (2010). Factors influencing teaching choice, professional plans about teaching, and future time perspective: A mediational analysis. *Teaching and Teacher Education*, 26(7), 1416–1428.
- Gupta, R., Hershey, D. A., Gaur, J. (2012). Time perspective and procrastination in the workplace: An empirical investigation. *Current Psychology*, *31*(2), 195–211.
- Ferrari, J. R., Díaz-Morales, J. F. (2007). Procrastination: Different time orientations reflect different motives. *Journal of Research in Personality*, 41(3), 707–714.
- Hayes, A. F. (2018). *Introduction to Mediation, Moderation, and Conditional Process Analysis. Second Edition: A Regression-Based Approach.* New York: The Guilford Press.
- Inzlicht, M., Schmeichel, B. J., Macrae, C. N. (2014). Why self-control seems (but may not be) limited. *Trends in cognitive sciences, 18*(3), 127–133.
- Jones, J. M., Banicky, L., Lasane, T., Pomare, M. (1996). *The temporal orientation scale*. Unpublished measure available from T. Lasane, Department of Psychology, St. Mary's college, St. Mary's City, MD.
- Jackson, T., Fritch, A., Nagasaka, T., Pope, L. (2003). Procrastination and perceptions of past, present, and future. *Individual Differences Research*, 1(1), 17–28.
- Jin, H., Wang, W., Lan, X. (2019). Peer attachment and academic procrastination in Chinese college students: a moderated mediation model of future time perspective and grit. *Frontiers in psychology,* 10, 2645.
- Kandemir, M. (2010). Akademik erteleme davranışını açıklayıcı bir model. *Pegem Eğitim ve Öğretim Dergisi*, *4*(3), 51–72. (in Turkish)
- Kaplan, M. (2018). İş erteleme: demografik özellikler açısından farklılıkların analizi. *Nevşehir Hacı Bektaş Veli Üniversitesi SBE Dergisi*, 8(2), 287–309. (in Turkish)
- Kaplan, M., Koçyiğit, N. (2019). *Çalışanların zaman yönelimlerinin iş yerinde erteleme davranışı* (prokrastinasyon) üzerine etkileri. Eregli International Science and Academic Congress. (in Turkish)

- Lennings, C. J., Burns, A. M., Cooney, G. (1998). Profiles of time perspective and personality: Developmental considerations. *The Journal of Psychology, 132*(6), 629–641.
- Liu, P., Feng, T. (2019). The effect of future time perspective on procrastination: the role of parahippocampal gyrus and ventromedial prefrontal cortex. *Brain Imaging and Behavior, 13*(3), 615–622.
- Mao, B., Chen, S., Wei, M., Luo, Y., Liu, Y. (2022). Future time perspective and bedtime procrastination: The mediating role of dual-mode self-control and problematic smartphone use. International *Journal of Environmental Research and Public Health*, 19(16), Article 10334.
- Meng, D., Zhao, Y., Guo, J., Xu, H., Zhu, L., Fu, Y., Mu, L. (2021). The relationship between bedtime procrastination, future time perspective, and self-control. *Current Psychology*, 1–10.
- Metin, U. B., Taris, T. W., Peeters, M. C. (2016). Measuring procrastination at work and its associated workplace aspects. *Personality and Individual Differences*, 101, 254–263.
- Metin, U. B., Peeters, M. C., Taris, T. W. (2018). Correlates of procrastination and performance at work: The role of having "good fit". *Journal of Prevention & Intervention in the Community, 46*(3), 228–244.
- Metin, U. B., Taris, T. W., Peeters, M. C., Korpinen, M., Smrke, U., Razum, J., Kalorava, M., Baykova, R., Gaioshko, D. (2019). Validation of the procrastination at work scale. *European Journal of Psychological Assessment*, *36*(5), 767–776.
- Milgram, N., Tenne, R. (2000). Personality correlates of decisional and task avoidant procrastination. *European Journal of Personality, 14,* 141–156.
- Mosquera, P., Soares, M. E., Dordio, P. (2022). The thief of time and social sustainability: Analysis of a procrastination at work model. *Revista de Administração de Empresas*, *62*(5), e2021–0313.
- Nebioglu, M., Konuk, N., Akbaba, S., Eroglu, Y. (2012). The investigation of validity and reliability of the Turkish version of the Brief Self-Control Scale. *Klinik Psikofarmakoloji Bülteni-Bulletin of Clinical Psychopharmacology*, 22(4), 340–351.
- Ortiz, D. A. C., Davis, M. A. (2016). Future and past negative time perspective influences on job satisfaction and organizational commitment in Mexico and the United States. *Management Research: Journal of the Iberoamerican Academy of Management*, 14(3), 317–338.
- Preacher, K. J., Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior research methods*, 40(3), 879–891.
- Pychyl, T. A., Coplan, R. J., Reid, P. A. (2002). Parenting and procrastination: gender differences in the relations between procrastination, parenting style and self-worth in early adolescence. *Personality and Individual Differences*, 33(2), 271–285.
- Rosenbaum, M. A., (1980) A schedule for assessing self-control behaviors: Preliminary findings. *Behavior Therapy*, 11(1), 109–121.
- Schmeichel, B. J., Zell, A. (2007). Trait self-control predicts performance on behavioral tests of self-control. *Journal of personality*, 75(4), 743–756.
- Senecal, C., Julien, E., Guay, F. (2003). Role conflict and academic procrastination: A self-determination perspective. *European Journal of Social Psychology*, *33*(1), 135–145.
- Siaputra, I. B. (2010). Temporal motivation theory: Best theory (yet) to explain procrastination. *Anima Indonesian Psychological Journal*, *25*(3), 206–214.
- Simons, J., Vansteenkiste, M., Lens, W., Lacante, M. (2004). Placing motivation and future time perspective theory in a temporal perspective. *Educational psychology review*, *16*, 121–139.
- Sirois, F. M. (2004). Procrastination and intentions to perform health behaviors: The role of self-efficacy and the consideration of future consequences. *Personality and Individual Differences, 37*(1), 115–128.

- Specter, M., Ferrari, J. (2000). Time orientations of procrastinators: Focusing on the past, present, or future? *Journal of Social Behavior and Personality*, 15(5), 197.
- Steel, P. (2007). The nature of procrastination: a meta-analytic and theoretical review of quintessential self-regulatory failure. *Psychological bulletin*, *133*(1), 65–94.
- Steel, P., Taras, D., Ponak, A., Kammeyer-Mueller, J. (2022). Self-regulation of slippery deadlines: the role of procrastination in work performance. *Frontiers in Psychology, 12,* 783–789.
- Strathman, A., Gleicher, F., Boninger, D. S., Edwards, C. S. (1994). The consideration of future consequences: Weighing immediate and distant outcomes of behavior. *Journal of Personality and Social Psychology*, 66, 742–752.
- Tangney, J. P., Baumeister, R. F., Boone, A. L. (2004) High self-control predicts good adjustment, less pathology, better grades, and interpersonal success. *J Pers*, 72(2), 271–324.
- Teuchmann, K., Totterdell, P., Parker, S. K. (1999). Rushed, unhappy, and drained: An experience sampling study of relations between time pressure, perceived control, mood, and emotional exhaustion in a group of accountants. *Journal of Occupational Health Psychology, 4*(1), 37–54.
- Taysı, K. (2012). Muhasebe meslek mensuplarında tükenmişlik sendromu üzerine Kırklareli ilinde bir araştırma (Master's thesis, Trakya Üniversitesi Sosyal Bilimler Enstitüsü). (in Turkish)
- Uysal, H. T., Yilmaz, F. (2020). Procrastination in the workplace: The role of hierarchical career plateau. *Upravlenets, Ural State University of Economics, 11*(3), 82–101.
- Vestervelt, C. M. (2000). An examination of the content and construct validity of four measures of procrastination (Doctoral dissertation, Carleton University).
- Wang, J., Li, C., Meng, X., Liu, D. (2021). Validation of the Chinese version of the procrastination at work scale. *Frontiers in Psychology*, *12*, 726595.
- Yaşlıoğlu, M. M. (2017). Sosyal bilimlerde faktör analizi ve geçerlilik: Keşfedici ve doğrulayıcı faktör analizlerinin kullanılması. İstanbul Üniversitesi İşletme Fakültesi Dergisi, 46, 74–85. (in Turkish)
- Yasin, F., Sunal, A. B. (2016). Zaman Yönelimi ile İlişki Problemlerine Verilen Tepkiler Arasındaki İlişkide İlişki Doyumunun Aracı Rolü. *Türk Psikoloji Dergisi, 31*(78), 79–94. (in Turkish)
- Yazıcıoğlu, Y., Erdoğan, S. (2004). SPSS uygulamalı bilimsel araştırma yöntemleri. Detay Yayıncılık, Ankara. (in Turkish)
- Zimbardo, P. G., Boyd, J. N. (1999). Putting time in perspective: A valid, reliable individual-differences metric. *Journal of Personality and Social Psychology*, 77(6), 1271–1288.

Received 26.12.2022

# Роль самоконтроля в связи между перспективой будущего и прокрастинационным поведением

ИРК Эрсин

ORCID: 0000-0002-2160-8053

МУМЧУ Ахмет

ORCID: 0000-0001-6610-5073

Университет Токат Газиосманпаша, Токат, Турция

Аннотация. Цель. В этом исследовании исследуется модерирующая роль уровня самоконтроля во взаимосвязи между перспективой будущего и прокрастинацией. Дизайн исследования. В исследовании приняли участие 194 профессиональных бухгалтера центрального района Токат (Турция). Выборка состояла из 156 мужчин и 38 женщин. Средний возраст исследуемой выборки составляет 36 лет; 70% находятся в возрастной когорте от 36 до 55 лет. В исследовании использовались три шкалы, разработанные разными исследователями: «Перспектива будущего» Ф. Г. Зимбардо и Дж. Н. Бойда; «Общая шкала склонности к прокрастинации» Д. Ч. Чакиджи и «Турецкая версия краткой шкалы самоконтроля», разработанная Дж. П. Тангни с коллегами. В этом исследовании для сбора данных использовались статистические программы AMOS, SPSS Process Macro. Выводы. Согласно результатам, полученным в ходе исследования, установлено, что временная перспектива будущего значимо и негативно связана с прокрастинационным поведением. Было обнаружено также, что уровень самоконтроля сотрудников играет модерирующую роль в этих негативных отношениях. Установлено, что модерационный эффект, возникающий у сотрудников с низким уровнем самоконтроля, был выше, чем у сотрудников со средним и высоким уровнем самоконтроля. Ценность результатов. Это исследование открывает различные возможности для улучшения научной коммуникации между практикующими специалистами и академическими исследователями.

**Ключевые слова:** временная перспектива будущего, прокрастинационное поведение, самоконтроль.