

## Effects of Procedural Justice Perception, Budgetary Control Effectiveness and Ethical Work Climate on Propensity to Create Budgetary Slack

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**Abstract:** *Because of the increasing importance of effective and productive management of public organizations, budgetary slack is started to be seen as an important problem for public organizations. In order to contribute the solution of this problem, the current study investigates the effects of budgetary control effectiveness, ethical work climate and managers' procedural justice perception on propensity to create budgetary slack in public organizations. The data is obtained through questionnaire responded by 465 managers who work in different public organizations. The results of the analyses show that effectiveness of budgetary control, ethical work climate and procedural justice perception of managers have a statistically significant and negative impact on managers' propensity to create budgetary slack in public organizations. Budgetary control and ethical work climate affect managers' perception of procedural justice. In addition, it is inferred from the study that the perception of procedural justice has partial mediation effect between effectiveness of budgetary control, ethical work climate and propensity to create budgetary slack.*

**Keywords:** Budgetary slack, Budgetary control, Procedural justice, Ethical work climate, Public organizations.

**JEL Classification:** M40, M41, M42, L20, L30

### 1. Introduction

Because budgetary slack has an important place in management and behavioral accounting, lots of researches on factors affecting propensity to create budgetary slack has been conducted. As an example of these factors investigated in literature, the followings could be given: information asymmetry, budgetary participation, budget emphasis, national culture, pay scheme, management control system, environmental uncertainty, control system monitoring, job-relevant information, religion, goal commitment, etc. (Young, 1985; Waller, 1988; Chow, Cooper and Haddad, 1991; Nouri and Parker, 1996; Linn, Casey, Johnson, & Ellis, 2001; Kren, 2003; Lau and Eggleton, 2004; Wu, 2005; Sulaiman and Adnan, 2005; Adnan and Sulaiman, 2006; Maiga and Jacobs, 2007).

According to Dunk (1993), budgetary participation, information asymmetry and budget emphasis have negative relationship with budgetary slack. According to another study, budgetary participation, national culture, performance evaluation style and information asymmetry jointly affect budgetary slack (Lau and Eggleton, 2004). In addition, Nouri and Parker (1996) assert if both organizational commitment and budgetary participation are high, budgetary slack could be reduced, and if employee's organizational commitment is low, the

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relation between budgetary participation and budgetary slack will be positive (Nouri and Parker, 1996).

Maiga and Jacops (2007) reported that distributive and procedural justice have an impact on trust and budget goal commitment of managers, and trust and budget goal commitment negatively affect managers' propensity to create budgetary slack. Langevin and Mendoza (2010) conducted a study that suggests testable propositions questioning how increasing perceived justice and some dimensions of budgeting systems reduce budgetary slack and data manipulation. According to these propositions, fair budgeting system will reduce unethical behavior, and managers perceiving the budgeting process is entirely fair, will be less inclined to create budgetary slack and manipulate data. According to Langevin and Mendoza (2010), four elements called as implementation of controllability principle, budgetary participation, quality of feedback and multiple performance measurement can provide fairer budgeting system. In addition, this study includes some propositions about how variables such as trust in supervisors and goal commitment affect the relationship between justice perception and propensity to create budgetary slack. Little, Magner and Walker (2002) posit that procedural justice related to budget positively affects organizational citizenship behavior and performance of managers, and it negatively affects the propensity to create budgetary slack.

Budgetary slack is generally observed during the participatory budgeting process. The type of participation to budgeting process in public and private sector organizations is quite different. In private organizations, participation appeared as a negotiation for extra budget, however; in public organizations, managers request the budget amounts (these amounts are determined by units' managers) for their units from the top management of their organizations or other governmental organizations. At this process, managers could request slack budget for some reasons such as protecting themselves against uncertainties or the possibility of cutoff.

Busch (2002) examined the concept of slack in public organizations and pointed out the similarities and differences among organizational slack, budgetary slack and discretionary slack. According to Busch (2002), to increase productivity, efficiency and quality with public administration reforms, it is necessary to evaluate new techniques, management information systems and organizational forms; and at this point, the concept of slack may be useful. Therefore, the issue of slack in public organizations should be investigated, and new methods should be developed to measure it. Considering the complexity and differences in their managements, the factors affecting the propensity to create slack in public organizations should be evaluated separately from private sector organizations. Busch and Gustafsson (2002) examine the differences between public and private sector organizations in terms of slack by comparing one public and one private sector organization working in the same market with the same technology. Results of this study (Busch and Gustafsson, 2002) show that the amount of slack in public organization is higher than private sector organization has, and management control system applied in public organization is not sufficient to reduce the level of slack.

Busch (2002) and Busch and Gustafsson (2002) examined the concept of slack in public organizations in general; however, factors affecting budgetary slack creation in public organizations have not been examined yet. One of the greatest obstacles to efficient use of resources in public organizations is that budgetary slack is considerably high. Therefore,

budgetary slack should be handled with all aspects, and it should be investigated which factors have an impact on propensity to create budgetary slack in public organizations.

In order to contribute to the elimination of this deficiency in the literature, the current study focused on the factors affecting the propensity to create budgetary slack in public organizations. In this context, the objectives of the study are as follows: 1) to investigate the effects of budgetary control effectiveness, ethical work climate and procedural justice perception on managers' propensity to create budgetary slack in public organizations, 2) to examine whether the perception of procedural justice has mediation effect on the relationship between ethical work climate, effectiveness of budgetary control and propensity to create budgetary slack, 3) to provide input for new strategies to reduce budgetary slack creation in public organizations. To achieve the given purposes, the relationships among ethical work climate, effectiveness of budgetary control, perception of procedural justice and propensity to create budgetary slack are investigated through the data obtained from different public organizations in Turkey via questionnaire, and research hypotheses and model have been established. The remainder of study is designed as follows: In the second section, the variables are examined conceptually and the findings of previous studies are presented. In this section, hypotheses and research model are also developed. The following section provides information about the research method and results of analyses. In the last section, the results are summarized and interpreted.

## **2. Literature and Hypotheses**

### **2.1. Propensity to Create Budgetary Slack**

Budgetary slack has been widely studied from different perspectives in management and behavioral accounting. There are different definitions for budgetary slack in literature. Some of these definitions are presented below:

*"... The difference between planned performance targets and real performance capabilities is budgetary slack" (Douglas and Wier, 2000; 267).*

*"... Budgetary slack is defined as the amount by which a subordinate understates his productive capability when proposing a budget against which his performance will be evaluated" (Young, 1985; 831)*

*"... Budget slack is defined as budget resources controlled by a manager in excess of optimal to accomplish his or her objectives. It is evident as overstated expenses, understated revenues, or underestimated performance capabilities." (Kren, 2003, 144).*

These definitions were made on the basis of private sector. Busch (2002, 154) describes budgetary slack as "a conscious overestimate of the costs ex ante". Busch's definition is based on costs, because public organizations generally don't gain commercial income. This study is based on the Busch's definition of budgetary slack, because it investigates managers' propensity to create budgetary slack in public organizations.

Many approaches have been proposed regarding to budgetary slack affecting the efficiency of budgeting process. Some researchers claimed that budgetary slack is caused by deficiencies in the process of resources allocation (Schiff and Lewin, 1970; Onsi, 1973; Riahi-Belkaoui, 1994). According to Schiff and Lewin (1970), subordinates tend to create budgetary

slack by underestimating the revenues and exaggerating the costs. Self-interests of lower level managers have determinative power on this tendency (Nouri and Parker, 1996). According to another approach (Onsi, 1973), the expenditure of prosperous organizations are inclined to increase due to presence of budgetary slack. However, the situations which businesses go bad, it is likely found different ways to diminish expenditure of organizations. Slack play an important role in this diminution of expenditure. According to same approach (Onsi, 1973); budgetary slack serves as a balance device for the system of organization against changes in its environment. Dunk (1993) indicates that budgetary slack is the issue of conjuncture.

## **2.2. Perception of Procedural Justice**

Today, organizational justice that has been studied on for many years appears as an important determinant of work-related attitudes and behaviors (Cropanzano, Byrne, Bobocel and Rupp, 2001). Researchers generally evaluate organizational justice in two classes; distributive justice and procedural justice. Distributive justice refers to the perceptions of employees related to the fairness of organizational outcomes (Walumbwa, Cropanzano, Hartnell, 2009; Li and Cropanzano, 2009). Procedural justice is related to employees' perceptions regarding to the fairness of procedures applied in all processes of resource allocation. Some researchers separately evaluate the interpersonal relationship aspect of procedural justice, and they also include interactional justice in this classification. Interactional justice refers to the aspect of organizational justice related to the interpersonal relationship faced during the implementation of procedures (Bagdadli, Roberson and Paoletti, 2006).

Niehoff and Moorman (1993), Leventhal (1980) and Leventhal, Karuza & Fry (1980) define the fair procedures on the basis of six rules: consistency, bias suppression, accuracy, correctability, representativeness and ethicality. Even if one procedure meets one of these rules, employees think it as a fair procedure (Niehoff and Moorman, 1993). Some researchers suggest that employees involved in processes in organization have higher perception of justice (Thibaut and Walker 1975; Lind and Tyler, 1988; Folger and Konovsky, 1989). However, managers tend to mislead process consciously to make budgeted performance of their unit more accessible or to be allocated more resources (Van der Stede, 2000; Magner, Johnson, Little, Staley & Welker, 2006). At this point, both fair budgetary procedures and implementation of these procedures in a fair manner play an important role to reduce managers' propensity to create budgetary slack (Little et al., 2002; Magner et al., 2006; Staley and Magner, 2007). Because manager perceiving that the procedures are fairly set and implemented in the budgeting process, refrains from the behavior that would causes injustice in implementation of procedures. As a result, the higher managers' perception of procedural justice, the less propensity to create budgetary slack.

***H<sub>1</sub>: Managers' perception of procedural justice negatively affects managers' propensity to create budgetary slack.***

Managers' perception of distributive justice is the output arising when propensity to create budgetary slack turns into actual budgetary slack, rather than the factors influencing propensity to create budgetary slack. Because if manager has low perception related to fair implementation of procedures, the probability of creating budgetary slack would be higher. This would lead to unfair resources allocation (Magner et al., 2006), and if the manager perceives that, their perception of distributive justice would decreases. Because we

investigate the factors affecting managers' propensity to create budgetary slack, the perception of distributive justice isn't included in this study.

### **2.3. Ethical Work Climate**

Schneider and Rentsch (1988) describe the concept of climate as "the ways organizations operationalize routine behaviors and the actions that are expected, supported and rewarded". Ethical climate also defined as "the prevailing perceptions of typical organizational practices and procedures that have ethical content (Victor and Cullen, 1988; 101)". Ethical climate has functions such as determination of organization's ethical values and expected behaviors (Kitapçı and Elçi, 2005), guiding in an efficient way, providing and formation of communication, and leading to individuals' behaviors (Buckley, Weise, Frink, Howard & Berkson, 2001). In order to shape ethical perceptions and behavior of organization's members, some instruments are used such as codes, policy documents, formal education programs and messages of top management (Schwepker, Ferrell and Ingram, 1997; Weaver and Trevino, 2001).

Schwepker (2001) indicated that if sales staff positively perceive ethical work climate, it causes positive interaction between job satisfaction and organizational commitment. Deshpande (1996) found that most of the managers in non-profit organizations believe that success is associated with ethics (cited in Appelbaum, Deguire and Lay, 2005). Treviño and Weaver (2001) also indicated that justice and ethics interact with each other. Lau and Wong (2009) indicated that principle climate due to its relation with rules and procedures, positively influences the procedural justice of organization's member. In addition, if perception of employees on managers' necessity to behave ethically increases, managers have to meet high fairness standards (Folger, 1987; cited in Rousseau, 1995). Buckley et al. (2001) claimed if one organization doesn't have ethical climate, the situation describing as unfairness will increase. Accordance with those researchers, it could be stated that ethical work climate has a positive impact on managers' perception of procedural justice.

***H<sub>2</sub>: Ethical work climate in public organizations positively affects managers' perception of procedural justice.***

Luft (1997) asserts that majority of undesired behaviors regarding to accounting could be explained with the help of alternative preferences such as justice and ethics. Treviño and Weaver (2001) stated when members of the organizations believe the presence of organizational justice and ethics, they will not behave unethically. Creating ethical work climate in organization and acceptance of it by employees could prevent self-interested behavior (Luft, 1997). Because budgetary slack creation is a kind of self-interested behavior, ethical work climate will be effective on budgetary slack creation. The following hypothesis is formed for the relationship explained above:

***H<sub>3</sub>: Ethical work climate in public organizations negatively affects managers' propensity to create budgetary slack.***

### **2.4. Effectiveness of Budgetary Control**

Control is the prosperous implementation of power to affect behaviors (Bruns and Waterhouse, 1975). The budgeting process provides some advantages to the organizations especially for planning (Rusth, 1994) and control (Schiff and Lewin, 1970; Rusth, 1994),

spreading expectations of top managements to subordinates, evaluation, coordination, communication and decision making (Joshi, Mudhaki and Bremser, 2003).

A number of studies have investigated the relationship between budgetary control that is crucial for control system (Ting-ting, Guo-gang and Zeng-biao, 2009) and variables regarding to organization. Among them, studies examining the role of budgetary control in performance evaluation of managers and subordinates have a big place (Hopwood, 1972, 1973; Otley, 1978; Brownell, 1982, 1985; Dunk, 1989; Otley and Pollanen, 2000). Dunk and Lysons (1997) assert that specific environmental factors influence the relationship between participative budgetary control and departmental performance of public organizations.

Bruns and Waterhouse (1975) examined the relationship between budgetary control and organizational structure, and found that high participation and perceived control is related to structuring of organizational activities. According to same study, budget could be used as a means of control in centralized and decentralized management forms. According to Child (1973), centralized organization form, reduces control effectiveness. Berland (2001) stated that budgetary control will provide better performance in a static environment. Some researchers stated that, when environmental uncertainty is high, budgetary control isn't adequate itself and other control systems should be applied together with it (Chenhall, 2003; Otley, 1978). According to this, budgetary control is more effective in public organizations operating in a static environment in comparison with private sector organizations.

According to Merchant (1985), managers' propensity to create budgetary slack is influenced from formation and application method of budgeting system. Onsi (1973) stated that budgetary slack arises from pressure and utilizing the degree of attaining budgeted values as a main principle for performance assessment. In another study (Halioui and Leclere, 2008), it is suggested that more attention on budgetary goals for rewarding and punishment, raises the occurrence of budgetary slack. Yücel and Günlük (2007) claimed that in an environment implemented tight budgetary control; performance will be negatively affected from this. Callahan and Waymire (2007) asserted that tight budgetary control is not effective on performance; however, optimum level of budgetary control will be more beneficial. Because it provides more information to the managers, and the more information improves the ability of managers to detect slack, accounting control system would reduce the budgetary slack (Lau, 1999). If members of organization notice this situation, they don't attempt to create budgetary slack (Lau, 1999). If According to Lau (1999), if accounting controls are advanced and tight, budgetary slack will reduce. Van der Stede (2001, 2001) obtained consistent results with Lau (1999), and concluded that tight budgetary control provides decrement in budgetary slack. Hassel (1991) found that the effectiveness of accounting control could be different in multinational organization's domestic and foreign units due to differences in their environment.

Niehoff and Moorman (1993) posited that monitoring positively affects the justice perception of employees. According to Luft (1997), dissatisfaction with perceived injustice increases transaction cost, and accounting information affects the perception of justice. Because effective budgetary control in organization includes procedures, it strengthens employees' perception of procedural justice. Hypothesis 4 is developed for the relationship between effectiveness of budgetary control and perception of procedural justice.

***H<sub>4</sub>: The effectiveness of budgetary control in public organizations positively affects managers' perception of procedural justice.***

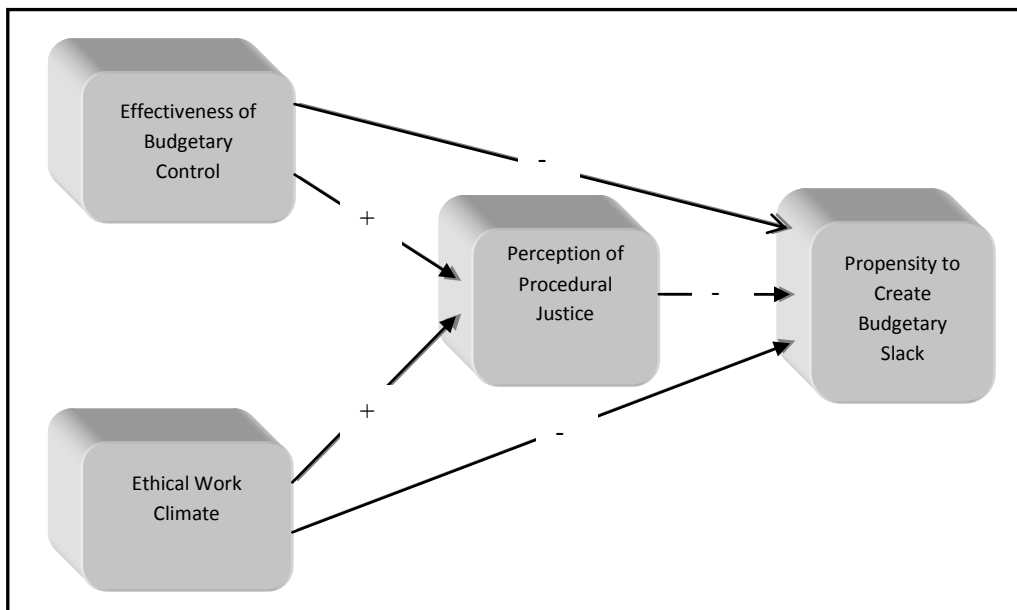
The effectiveness of budgetary control would affect the managers' propensity to create budgetary slack in two ways. First, if managers perceive that budgetary control is effective, they will reduce or give up their propensity to create budgetary slack. Because, the managers know that if they create budgetary slack, it will be detected. Secondly, thanks to effective budgetary control, budgetary slack may be detected. So, budgetary slack creation could be prevented. Because we investigate propensity to create budgetary slack, we only took into account the first effect. In this study, the impact of budgetary control effectiveness on propensity to create budgetary slack is hypothesized as below:

***H<sub>5</sub>: The effectiveness of budgetary control in public organizations has a negative effect on managers' propensity to create budgetary slack.***

As it is stated before, managers perceiving budgeting process as fair, will have less propensity to create budgetary slack. Because manager perceiving that the procedures are fairly set and implemented in the budgeting process, refrains from the behavior that would causes injustice in implementation of procedures. As a result, the higher managers' perception of procedural justice, the less propensity to create budgetary slack. Because of all relations clarified above, perception of procedural justice is predicted as a mediator variable\*, and all these relations hypothesized as follows:

***H<sub>6</sub>: Perception of procedural justice has mediation effect on the relationship between ethical work climate, effectiveness of budgetary control and managers' propensity to create budgetary slack.***

Figure 1: Research Method



\*A mediating variable transmits the effect of an independent variable on a dependent variable (MacKinnon, Fairchild and Fritz, 2007, 593). Baron and Kenny (1986, 1177) emphasize that "to establish mediation, the following conditions must hold: First, the independent variable must affect the mediator in the first equation; second, the independent variable must be shown to affect the dependent variable in the second equation; and third, the mediator must affect the dependent variable in the third equation. If these conditions all hold in the predicted direction, then the effect of the independent variable on the dependent variable must be less in the third equation than in the second. Perfect mediation holds if the independent variable has no effect when the mediator is controlled".

### 3. Research Method and Analyses

In present study, the data is collected from managers working in public organizations in Turkey between September-November 2010. In order to collect data, the questionnaire was developed by using Likert-tipe scale, and the necessary analyses are conducted with the help of SPSS statistical package program.

#### 3.1. Measurement

To measure managers' propensity to create budgetary slack in public organizations, the scale is adapted from Onsi's (1973) scale that its validity is proven by previous studies including Lau (1999), Ueno and Sekaran (1992), Staley and Magner (2007). To measure the perception of procedural justice, six scales adapted from procedural justice scale of Niehoff and Moorman (1993) are used. The validity of Niehoff and Moorman' scale is also proven with the studies in literature (Moorman, Blakely and Niehoff, 1998; Nadiri and Tanova, 2010; Çakar and Yıldız, 2009). We developed five new scales to measure effectiveness of budgetary control in public organizations. Validity and reliability of these new scales are proven by the result of current study. To measure ethical work climate, five statements are adapted from the scale developed by Schwepker et al. (1997) on the basis of Qualls and Puto's (1989) study. The questionnaire is firstly applied to 50 managers in public organizations and pre-tested. In line with the results of pre-test, questionnaire is finalized. The questionnaire is applied 615 managers, but 465 of them are used in analyses.

#### 3.2. Analyses and Results

Factor analysis revealed a structure with four factors. These factors explain 68,554% of total variance. This rate is over the acceptable lower limit (0.60) for explained total variance in social science (Nakip, 2003, 412). The results of Kaiser-Meyer-Olkin (0.877) and Barlett test show that the results of analysis are significant (Mitchell, 1994, 6). Cronbach  $\alpha$  value is used to measure reliability of variables. Cronbach  $\alpha$  value of variables are as follows: propensity to create budgetary slack 0,752; perception of procedural justice 0,879; ethical work climate; 0,843, effectiveness of budgetary control 0,944 and Cronbach  $\alpha$  value of all factors 0,829. All Cronbach  $\alpha$  value are over 60% that is acceptable lower limit (Nunnally, 1978; Malhotra, 1993). Factor loadings and Cronbach  $\alpha$  values regarding to variables are presented in Table 1.

Correlation analysis is applied to investigate relationship among four variables. Results of correlation analysis designated statistically significant and positive relationship among perception of procedural justice, effectiveness of budgetary control and ethical work climate. However, these three variables have statistically significant and negative relationship with propensity to create budgetary slack. Mean, standard deviation and correlation values of variables are given in Table 2.



**TABLE 1: Factor Loadings**

Factors and Scales (Cronbach $\alpha$ : 0,829)	Factor 1	Factor 2	Factor 3	Factor 4
<b>PBC: Effectiveness of Budgetary Control (Cronbach <math>\alpha</math>: 0,944; Eigenvalue: 6,785)</b>				
PBC1	,899			
PBC2	,892			
PBC3	,887			
PBC4	,872			
PBC5	,792			
<b>PJ: Procedural Justice (Cronbach <math>\alpha</math>: 0,879; Eigenvalue: 2,370)</b>				
PJ1		,836		
PJ2		,815		
PJ3		,812		
PJ4		,790		
PJ5		,655		
PJ6		,648		
<b>EWC: Ethical Work Climate (Cronbach <math>\alpha</math>: 0,843; Eigenvalue: 2,135)</b>				
EWC1			,839	
EWC2			,823	
EWC3			,811	
EWC4			,682	
EWC5			,613	
<b>PCBS: Propensity to Create Budgetary Slack (Cronbach <math>\alpha</math>: 0,752; Eigenvalue: 1,735)</b>				
PCBS1				,841
PCBS2				,802
PCBS3				,755

**Table 2: Mean, Standard Deviation, Correlation Coefficients**

Variables	Means	Standard Deviation	1	2	3	4
1 Propensity to Create Budgetary Slack	3,4509	0,83336	1,00			
2 Effectiveness of Budgetary Control	3,6632	0,77451	-0,259(**)	1,00		
3 Procedural Justice	3,2864	0,83849	-0,261(**)	0,400(**)	1,00	
4 Ethical Work Climate	3,8000	0,69729	-0,224(**)	0,369(**)	0,373(**)	1,00

\*\* Correlation is significant at the 0.01 level (2-tailed).

### 3.3. Test of the Hypothesis

In our study, we utilized from regression models to examine relationship among managers' propensity to create budgetary slack, perception of procedural justice, effectiveness of budgetary control and ethical work climate. At first stage, effects of budgetary control effectiveness and ethical work climate on the perception of procedural justice will be investigated. At second stage, the effects of budgetary control effectiveness, ethical work climate and perception of procedural justice on the propensity to create budgetary slack will be investigated independently from each other.

**Table 3: Regression Analysis Results of Step 1**

Step	Independent Variable	$\beta$	t	F	R <sup>2</sup>	Adjusted R <sup>2</sup>	Sig.
1	Effectiveness of Budgetary Control	0,304	6,868	64,772	0,219	0,216	0,000
	Ethical Work Climate	0,261	5,905				0,000

Dependent Variable: Perceived Procedural Justice

The regression model investigating the impact of budgetary control effectiveness and ethical work climate on perception of procedural justice, is statistically significant ( $F=64,772$ ;  $p=0,00<\alpha=0,01$ ). Effectiveness of budgetary control ( $\beta=0,304$ ;  $p=0,00<\alpha=0,01$ ) and ethical work climate ( $\beta=0,261$ ;  $p=0,00<\alpha=0,01$ ) have statistically significant and positive effect on managers' perception of procedural justice. When  $\beta$  parameters are examined, it is seen that the effect of budgetary control effectiveness on perception of procedural justice is more in comparison with the effect of ethical work climate. These results support Hypotheses 2 and Hypotheses 4.

Table 4: Regression Analyses Results of Step 2

Step	Independent Variable	$\beta$	t	F	$R^2$	Adjusted $R^2$	Sig.
2	Effectiveness of Budgetary Control	-0,259	-5,766	33,251	0,067	0,065	0,000
2	Ethical Work Climate	-0,224	-4,952	24,519	0,050	0,048	0,000
2	Perception of Procedural Justice	-0,261	-5,808	33,730	0,068	0,066	0,000

Dependent Variable: Propensity to Create Slack

The results of analyses show that all regression models are statistically significant ( $F=33,251$ ,  $p=0,00<\alpha=0,01$ ;  $F=24,519$ ;  $p=0,00<\alpha=0,01$ ;  $F=33,730$ ;  $p=0,00<\alpha=0,01$ ). The effectiveness of budgetary control ( $\beta=-0,259$ ;  $p=0,00<\alpha=0,01$ ), ethical work climate ( $\beta=-0,224$ ;  $p=0,00<\alpha=0,01$ ) perception of procedural justice ( $\beta=-0,261$ ;  $p=0,00<\alpha=0,01$ ) have statistically significant and negative effect on propensity to create budgetary slack. These results of the regression analyses provide strong evidence for Hypotheses 1, Hypotheses 3 and Hypotheses 5.

Hypothesis 6 assumes that perception of procedural justice has mediation effect between effectiveness of budgetary control, ethical work climate and propensity to create budgetary slack. Baron and Kenny (1986, 1176) stated that some conditions are necessary to be able to mention from the existence of mediator variable: "...a) variations in levels of the independent variable significantly account for variations in the presumed mediator, b) variations in the mediator significantly account for variations in the dependent variable, and c) when Paths a and b are controlled, a previously significant relation between the independent and dependent variables is no longer significant, with the strongest demonstration of mediation occurring when "independent variable-dependent variable" path is zero. When "independent variable-dependent variable" Path is reduced to zero, we have strong evidence for a single, dominant mediator. If the residual "independent variable-dependent variable" Path is not zero, this indicates the operation of multiple mediating factors."

Accordance with the explanation of Baron and Kenny (1986), the effect of each independent variable together with the perception of procedural justice on propensity to create budgetary slack will be examined separately at third stage. Finally, the joint effect of budgetary control effectiveness, ethical work climate and perception of procedural justice on propensity to create budgetary slack will be investigated at fourth stage. The results of the regression analysis are presented in Table 3 and Table 4.

**Table 5: Regression Analyses Results of Stage 3 and 4**

Step	Independent Variable	$\beta$	T	F	R <sup>2</sup>	Adjusted R <sup>2</sup>	Sig.
3	Effectiveness of Budgetary Control	-0,184	-3,814	24,633	0,096	0,092	0,000
	Perception of Procedural Justice	-0,187	-3,874				0,000
3	Ethical Work Climate	-0,148	-3,079	21,915	0,087	0,083	0,002
	Perception of Procedural Justice	-0,206	-4,288				0,000
	Effectiveness of Budgetary Control	-0,156	-3,134				0,002
4	Ethical Work Climate	-0,108	-2,195	18,164	0,106	0,100	0,029
	Perception of Procedural Justice	-0,158	-3,170				0,002

Dependent Variable: Propensity to Create Slack

The results of analyses show that regression models are statistically significant (F=24,633,  $p=0,00 < \alpha=0,01$  and F=21,915,  $p=0,00 < \alpha=0,01$ ; F=18,164,  $p=0,00 < \alpha=0,01$ ). After the perception of procedural justice is included in regressions, the  $\beta$  parameter of budgetary control effectiveness decreased to “-0,184 ( $p=0,00 < \alpha=0,01$ )” in third stage and “-0,156 ( $p=0,002 < \alpha=0,01$ )” in fourth stage. Likewise, ethical work climate’s  $\beta$  coefficient decreased to “-0,148 ( $p=0,002 < \alpha=0,01$ )” in third stage and “-0,108 ( $p=0,029 < \alpha=0,05$ )” in fourth stage. According to these results, the perception of procedural justice has partial mediation effect on the relationship between the effectiveness of budgetary control and propensity to create budgetary slack, and also, between ethical work climate and propensity to create budgetary slack. Consequently, results support hypothesis 6. Perception of procedural justice reduces the impact amount of both independent variables on propensity to create budgetary slack very close to each other. (It reduces the effect of budgetary control effectiveness 0.75; and it reduces the effect of ethical work climate 0.76). All results support to Hypothesis 1 and 3. In other words, budgetary control effectiveness and ethical work climate have statistically significant and negative effect on propensity to create budgetary slack.

#### 4. Conclusion

In this study, it is investigated the effects of budgetary control effectiveness, ethical work climate, procedural justice perception on propensity to create budgetary slack. The data obtained from managers working in public organizations via questionnaire, was examined with the help of factor and regression analyses. In this study, scales are generally adapted from previous studies and their validity and reliability is proven by different studies. However, we developed new scale to measure effectiveness of budgetary control. The results of present study proved the reliability and validity of new developed scale. The scales of variables are presented at Annex 1.

The analyses displayed that the effectiveness of budgetary control, ethical work climate, perception of procedural justice have negative impact on managers’ propensity to create budgetary slack. So, it could be inferred that formation or improvement of ethical work climate, increasing the effectiveness of budgetary control and increasing managers’ procedural justice perception would reduce managers’ propensity to create budgetary slack. The results of current study are consistent with the results of previous studies (Merchant, 1985; Niehoff and Moorman, 1993; Rousseau, 1995; Luft, 1997; Lau, 1999; Van der Stede, 2000, 2001; Buckley et al., 2001; Treviño and Weaver, 2001; Lau and Wong, 2009). The results give important clues to prevention of budgetary slack that is quite common and a serious obstacle to the effective use of budget in public organization.

When the results of regression analyses are examined, it is seen that perception of procedural justice has the greatest impact on managers’ propensity to create budgetary slack

in comparison with other variables. The perception of procedural justice is respectively followed by the effectiveness of budgetary control and ethical work climate. It is gathered from the study that perception of procedural justice is partial mediator variable in the relationship between the effectiveness of budgetary control and propensity to create budgetary slack, and also in the relationship between ethical work climate and propensity to create budgetary slack. This mediation effect considerably reduces the effects of both independent variables on the propensity to create budgetary slack approximately at the same amounts.

When managers working in public organizations perceive that tight budgetary control is applying, they would abstain from self interested behaviors like budgetary slack creation due to the consideration of that their behavior such as budgetary slack creation will be detected (Lau, 1999; Van der Stede, 2000, 2001). However, there are also some researchers who suggest that budgetary slack arises from pressure and using the degree of attaining to budgeted profit as main criteria in performance evaluation (Onsi, 1973). When managers perceive that the process determining the output acquired by them is fair, they don't tend to self-interested behavior (Little et al., 2002; Magner et al., 2006; Staley and Magner, 2007). In addition, a manager adopted ethical work climate would not tend to unethical behavior (Luft, 1997).

As a result, effectiveness of budgetary control, ethical work climate and perception of procedural justice are important factors affecting the creation of budgetary slack in public organizations. For this reason, it will be beneficial to make new regulations to increase perception of procedural justice and effectiveness of budgetary control. It will also be beneficial to make necessary things to establish ethical work climate that is accepted by employee and guided to them, open to the innovation. Because it is not provided adequate efficiency in public organizations; today, there is an increasing interest in new public management and privatization. For this reason, these kinds of researches' results should be taken more into account.

The study has some limitations. Primarily, this study examines the managers' propensity to create budgetary slack in public organizations. Due to differences between public and private sector organizations, the generalization of this study's results to private sector organizations will not give accurate results. Therefore, generalizability of findings should be considered in this context. In this study, we only investigate the effects of budgetary control effectiveness, ethical work climate and perception of procedural justice on managers' propensity to create budgetary slack. However, other factors that could affect propensity to create budgetary slack are excluded from study. Another limitation is that managers do not want to give information or give incorrect information related to the budget in the field of their responsibility.

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### **Annex 1: Scales**

#### **Procedural Justice Perception Scale** (adapted from Niehoff and Moorman, 1993)

1. When work-related decisions are taken, decisions are clarified and additional information is provided if it is requested by employees.
2. Work-related decisions are applied to all employees affected from them.
3. Before work-related decisions are taken, all employee concerns are listened.
4. To make work-related decisions correctly, accurate and complete information is collected.
5. Employees are allowed to challenge or appeal work-related decisions made by managers.
6. Work-related decisions are made in a biased manner.

#### **Budgetary Control Effectiveness Scale**

1. Appropriateness of requested funds to the requirements is controlled carefully.
2. It is controlled carefully whether the expenses are actually necessary.
3. Appropriateness of expenditures to the budget discipline is controlled carefully.
4. It is controlled carefully whether the requested funds are used in accordance with requirements.
5. The requested budget amounts are examined carefully.

#### **Ethical Work Climate** (adapted from the ethical work climate scale of Schwepker, Ferrell and Ingram (1997) that is based on the scale developed by Qualls and Puto, 1989)

1. My organization enforces the policies related to ethical behavior.
2. My organization enforces a code of ethics.
3. My organization has policies related to ethical behavior.
4. The top management of my organization explicitly expresses that unethical behavior not be tolerated.
5. My organization has formal and written code of ethics.

#### **Propensity to Create Budgetary Slack Scale** (adapted from Onsi, 1973)

1. Unit manager tends to ask more budget than necessary for unexpected conditions.
2. The unit manager tends to maintain high budget amount against the possibility of deduction.
3. Manager tends to maintain high budget amount for unforeseen needs or requirements.