

EFFECTS OF BUDGETARY CONTROL AND JUSTICE PERCEPTIONS ON THE RELATIONSHIP BETWEEN BUDGETARY PARTICIPATION AND PERFORMANCE

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ABSTRACT

This study was based on the data collected through surveys conducted with 256 managers in companies in Kazakhstan, Kyrgyzstan, and Uzbekistan. The findings revealed that budgetary participation and procedural justice perception affected performance positively. In addition, performance was affected negatively in environments where rigid budgetary control was practiced, in which case budgetary participation was important compared to flexible budgetary participation environments. The effect of procedural justice perception on the relation between budgetary participation and performance, on the other hand, was negative. Managers considered budgetary participation more important in environments where justice was perceived as high compared to environments where justice perception was low, which decreases the effect of participation on performance. Therefore BP and PJ are intermediary variables.

INTRODUCTION

The rapid environmental changes that companies face today affect not only production systems, equipment changes, and new technology usage but also organizational structure, and management philosophies. Companies are constantly developing strategies that give priority to innovation in order to compete in today's intensively competitive market. High competition and rapid environmental changes require information to meet managers' needs to understand these changes and relevant organizational changes. Management accounting provides information that is needed to make decisions regarding management activities and strategy. Strategic decision process affects management accounting procedures and management control systems that help control strategies. Therefore, strategy and management accounting are inextricably linked (Dixon, 1998:273).

Information that Management Accounting Control Systems provides (hereafter MACS) helps managers, by monitoring companies' changing environmental circumstances, to compare opportunities and threats in the market so that they can obtain added value against competitors (Bromwich, 1990). In successful implementation of the developed strategies, management control systems that are appropriate for the strategy have an important place. Nowadays one of the cases that are dealt with in management literature is which of processes and mechanisms are useful in strategically adapting to environmental changes. However, just a few studies have been conducted to analyze the role of management on strategic changes of organizations. The studies conducted often reveals that budgets are used in ways such as determining & managing strategic priorities, coordination & control, performance & rewarding, and ensuring lower echelon executives' commitment on strategic priorities (Abernethy and Brownell, 1999).

In some studies, especially the ones conducted in developed countries, offer evidence to show that management accounting control systems fail to make necessary changes and new management accounting implementations in order to adapt to rapid changes in production methods and technologies (Kaplan, 1993; Kaplan, 1983; Lucas, 1997). MACS receives criticism for its inadequate ability to adapt to rapid changes. From this perspective, it is suggested that MACS should be forced to adapt strategically in a way that it produces data reports regarding competition and market in order to be beneficial on strategic level (Dixon, 1998). Yazdifar (2003) summarized criticism about MACS in literature as follows: (a) deficiencies in cooperating with organizational strategic planning, (b) concentration on short-term measurement, (c) performance evaluation based on financial data, (d)

irrelevant and repetitious reports, (e) poor job product costing, and (f) overhead planning, control and allocation.

Despite criticisms, it is known that MACS and budgets still have a wide range of application. In spite of critics, budgeting play important role in management control system. Clarke and Toal (1999) suggest that budgets are still essential and can, for example, be incorporated as part of the financial component of the Balanced Scorecard. Dugdale (1994) UK, Chenhall and Smith (1998) and Boon and Christodoulou (1996) Australia, Anderson and Lanen (1999) India asserts that budgets are useful for distribution of strategic priorities and formal strategic planning. A few studies conducted in developing countries such as Malaysia, India, Singapore and China reported that budgets are still the most important management accounting tool (Ahmed, et al., 2003; Sulaiman, et al., 2004). Guilding et al. (1998) New Zealand and UK, Blansfield (2002) US, Joshi, et al. (2003) Bahrain reports that budgeting is used for planning and control.

Hansen and Van der Stede (2004) points out that budgeting is not used sufficiently in areas such as operational planning and strategy development, and that budgeting is criticized without adequate studies that emphasize these aspects. In their study, researchers focused on two important dimensions of budgets: short-term benefits about operational planning and related performance evaluation, and long-term benefits about strategy development and communicating related objectives. It is reported in a study conducted with 57 managers from production companies that budgeting is, outside of its other purposes, used to develop long-term strategies. Budgeting is used more in departmentalized companies to develop strategies. These findings confirm previous studies (Merchant, 1981; Gul and Chia, 1994).

Budgeting is important for attaining targeted performance results in strategic orientation of companies as well as for its direct and indirect relation with strategy. Successful budgeting provides support required in carrying out budget objectives of units and managers. Budget's positive effects on performance of managerial, department, and organization were discussed in various studies. Therefore, analyzing and understanding the factors affecting the relation between budgeting implementations and performance are important for company performance and carrying out strategic objectives.

When some studies conducted in developing Asian

countries are considered, it is may be seen that Central Asian countries that were founded as independent republics after dissolution of the USSR are on the agenda of the world by their rich natural resources. They experience restructuring process that countries like China, Russia and Korea experienced recently. In these countries, private sector has been formed in the last 10 years, and the process of switching from central planning to market economy still continues. Private sector enterprises benefit from budgets used in company management frequently in many fields like planning & control, coordination & communication, performance measurement, resource allowance & inspection.

Because of its common usage as a communication and control tool, budgets are the source of affinity shown in studies related to analysis of budgetary implementations. Lack of research in this subject in less developed and developing countries is evident. Nevertheless, budgets are frequently used in resource allowance and in inspection of whether resources are used effectively. For this reason, first of all, the effect of practicing participatory approach in budgetary process on perceived performance of budget execute departments was analyzed in our study. Another aspect of the study is the effect of budgetary control and procedural justice perception on the relation between budgetary participation and performance. In this context, with Central Asian sampling from Kazakhstan, Kyrgyzstan and Uzbekistan that still have socialist business culture, this study aims to reveal how relations between variables were affected by this situations. Furthermore, the mediating role of procedural justice perception as a variable was analyzed.

LITERATURE AND HYPOTHESES

Budgets are known to have an important role to transmit the expectations of top management to lower levels. According to Bremser (1988) budgets are used to communicate top managements expectations to managers and employees. Parker and Kyj (2006) claim that budgetary participation affects vertical information sharing, organizational commitment, role ambiguity and performance, directly as well as indirectly. The budgets process provides for coordinated planning among different functional areas (Flamholtz 1983; Bremser, 1988; Douglas, 1994). Moreover, budgets could be used as a control mechanism to regulate the behavior (Abernethy and Stoelwinder, 1991), and as a dialogue, learning, and idea machine (Burchell et al., 1980).

Budgeting is a method for financial control, which involves the planning and use of a budget. A budget expresses the expectations of a company presented in economic terms for a future time period. The budget is thereafter approved by the superior manager after possible revisions. Hence, the budgeter is in this process the subordinate manager who is responsible for the realization of the budget, that is, has a budget responsibility (Charpentier, 1998). For this reason, budget based control means managers' evaluations according to budgetary goals. From this point of view, managers' perceptions of being able to participate in determination of process of budgets and making use of the budgetary sources affect their behaviors that they will have against predetermined budgets.

From the behavioral point of view, budgets are divided in two types: Participatory and Imposed. The ability to participate in budgetary processes or to affect these processes is explained as Participator budget whereas budgets that are accepted and made to be applied are evaluated as Imposed. For this reason, perceptions related to the determination of budgets, or running of fund allocation processes and fairness of their results affect justice perception in budget processes.

When different sources are taken into consideration benefits of the budgets include activity planning, coordination and communication between departments, help to allocate resources, motivation to objectives, assessment and control of results, and performance evaluation of departments or managers (Fisher et al. 2002; Blocher et al., 2002; Hilton, 2002; Hansen and Mowen, 2002).

Although there are much benefits of budgets, critics of budgets claim that budgets are bad for business are no longer convenient are defective as a planning and control mechanism in today's complex and highly uncertain business environment and are ineffective (McNally, 2002; Stewart 1990). Kaplan (1993) and Johnson and Kaplan (1987) criticize the traditional budgets that are no longer appropriate given changes in technology and the rapidly changing business.

Prendergast (2000) has suggested that budgeting for planning and control purposes have number of problems. First, a lot of forecasting is involved in the budgeting process. Second, budgets are increasingly inaccurate as a result of shorter product life cycles and the rapidly changing business environment. Finally, budgets are the cause of creating budgetary slack by subordinates. Another major criticism of budgets is the over-emphasis on short-term profits at the expense

of continuous long-term improvements such as new product development and customer satisfaction. McNally (2002) criticizes the budgets for taking too much time and money.

In spite of the critics of budgeting, Clarke and Toal (1999) and Pierce and O'Dea (1998) subscribe to the view that budgets are still relevant to today's business environment.

In this content, budgeting benefits and its possible negative effects on attitudes and behaviors of managers are still among the subjects of strategic management control systems that are being researched. There are studies conducted in developed countries, some revealing drawbacks of budgeting. Nevertheless, relatively fewer numbers of studies conducted in less developed or developing countries that do not have enough capital stock confirm that budgeting still is important in these countries. Consequently, for the sampling between under-developed or developing countries, the budgetary participation and performance relation is primarily taken into consideration.

Budgetary Participation and Performance

Budgetary participation define as a process whereby subordinates are given opportunities to get involved in and have influence on, the budget setting process (Brownell, 1982). Subordinate's participation in the budget-setting process is thought to have both attitudinal and behavioral consequences. Budgetary participation is important tools for planning and motivating subordinate performance. Participation of subordinates in the process of budget preparation also motivates them to achieve budget goals. Budgetary participation also serves as an informational function whereby subordinates are given an opportunity to gather exchange and disseminate job-relevant information to superior manager. Usually, subordinates have some private information about the operational activities. If the organization can use the subordinates' private information, it can improve the superior's coordination and evaluation of organizational activities.

These two effects of budgetary participation are explained by psychological and cognitive perspective theories. Psychological theories suggest that participation is related to performance through identification and ego-involvement with the budget goals. This, in turn, leads to enhanced motivation and commitment to the budget. This situation increases commitment and makes the subordinates' accept the

budget goals by positively affecting their trust, sense of control and ego-involvement. As a result, budget related performance increases (Brownell and McInnes 1986; Murray 1990; Shields and Shields, 1998). Participation may enable companies to make better decisions and obtain higher performance as it creates better communication through improved exchange of information, which is a widely accepted explanation of cognitive perspective (Chenhall and Brownell, 1988; Kren, 1992; Shields and Young, 1993; Magner et al., 1996; Shields and Shields, 1998; Chong and Chong, 2002).

Ahmed (2005) classifies advantages of budgetary participation whereby allowing subordinate managers to participate in the creation of that part of the budget which is related to their responsibilities.

- (a) Encourage to achieve target.
- (b) Reduce information asymmetry.
- (c) Improve communication and control.
- (d) Reduce dysfunctional behaviour.
- (e) Better reward management.

When this classification is taken into consideration, motivational and informational dimensions of budgetary participation are observed. Achieving targets, management that rewards and decreasing dysfunctional behaviours are related to motivational dimension while decreasing information asymmetry and improving communication and control are related to information dimension. Through these advantages, budgetary participation helps improve performance by assisting managers not only in ensuring organizational motivation but also in enabling better communication and control (Shields and Shields, 1998).

When studies that were conducted in terms of both approaches are taken into consideration, budgetary participation is observed to have usually a positive effect on performance. (Brownell and McInnes 1986; Chenhall and Brownell, 1988). For instance, Chenhall and Brownell (1988) propose that budgetary participation makes determining the methods for planning and evaluation easy by providing a clear understanding of expectations and goals. By making performance results more evident, it also decreases role ambiguity and increases performance.

While a common consistency is observed in the studies on the basis of informational role of budgetary participation, opposite findings could be found in the studies related motivational effect. Research findings vary ranging from positive to negative to no correlations

between budgetary participation and performance.

When literature is examined, a reason offered for the negative effect is pseudo-participation, which occurs when budgetary participation is not voluntary whereby subordinates may outwardly accept the budget goals and decisions while they may in fact be against it. As a result, various negative motivational results, mainly low performance, emerge (Chenhall and Brownell, 1988). Consequently, top management has a responsibility to ensure effective budgetary participation.

Negative correlation between budgetary participation and performance increases when there is more central decision making (Gul et al., 1995). Various factors may cause this negative correlation, including some factors that make budgetary participation difficult in especially less developed countries.

In less developed countries, budgetary applications fail due to reasons such as budgets being used as pressure tool, central decision making, lack of job security, and managers' lack of training (Ahmed, 2005). Such reasons prevent participators from showing their real effort that affects performance even if budgetary participation is high, which is pseudo-participation.

Considering the characteristics of the sampling, which is the fact that the formation of private sector and employees' transition into company management and control culture independent of public companies are still in progress, having a say is expected to create a significant motivational effect in performance perception of managers.

The first hypothesis to be tested:

H1: Because budgetary participation provides an opportunity for participants to reflect their personal initiative to budgeting processes, it has a positive effect on participants' performance perception.

Budgetary Participation and Procedural Justice

When discussed from the perspective of organizational behaviour, the term justice is related to whether the employees in organization are treated fairly or not. Behind this lies the perception of justice effecting organizational results in various ways. According to Greenberg (1987), when employees come across a situation that they believe to be unfair, they try to establish their attitudes and behaviours in a way that

will eliminate injustice. From this point of view, employees consistently judge whether decision-making mechanisms and processes are fair or not, which forms procedural justice perception.

From budgeting point of view, procedural justice is related subordinates' perception of fairness of the process used by their superiors to evaluate their performance, to communicate performance feedback and to determine subordinates' rewards (Lau and Lim, 2007). The effects of procedural justice on budgetary participation have recently been the subject of many studies as that effect provides budgetary advantages.

Most of the previous studies confirm that perception of procedural justice has a positive effect on performance in budgetary participation process (Brownell, 1982; Earley & Lind, 1987). More recent studies, on the other hand, offer findings of negative or no relations (Lindquist, 1995). As to Libby (1999) the reason for the conflicting results observed in research findings is due to not knowing clearly whether the procedural justice affects the performance directly or not. Some findings justify that assumption by pointing out the moderating effect of procedural justice.

When subordinates' procedural justice perceptions are high, then their participation in budgeting processes are relatively unimportant. But when their justice perceptions are low, participation becomes very important because of the belief that by taking part in a process that they expect to be unfair, subordinates can show attitudes and behaviours that will eliminate injustice. The relation between justice perception and budgetary participation stem from that. Increased participation may lead to increased communication and cooperation, which then lead increased performance.

H2: Procedural justice variable used in this study has a direct effect on performance.

H3: Procedural justice perception has an indirect effect on performance by affecting budgetary participation.

Budgetary Participation and Budgetary Control

The budgeting literature has shown great interest in understanding possible effects of budgetary control styles. Rigid budgetary control styles are known to cause subordinates to show dysfunctional behaviours such as budget games. Rigid control system means that a subordinate's performance is evaluated primarily

on his/her ability to attain budgetary objectives during each reporting period. Subordinates who are assessed in terms of whether s/he reaches budget goals tries to set a gap between the predetermined goals and the ones s/he can really reach. The reason for this is that his/her current position will be negatively affected in case s/he cannot reach the goals (Van der Stede, 2001).

Brownell (1982) suggests that when budgetary control is high, budgetary participation should increase accordingly. When budgetary control is rigid, subordinates would want to know assessment criteria in detail. Therefore, as the budgetary control increases, budgetary participation of subordinates is also expected to increase. Brownell (1982) advocates that budgetary participation is an important moderating variable in the relation between type of budgetary control and subordinates' performance.

In some studies, findings show that budgetary performance and budgetary participation, when taken together, have no meaningful common interaction with performance. However, in the same studies, the effects of these two variables, when taken separately, could be observed on performance. According to Brownell's (1982) findings, budget applications that include budgetary control have no direct effect on performance, while budgetary participation affects performance directly and negatively. But in cases where budgetary control is high, there is a meaningful positive relation between performance and budgetary participation. In a similar study, while Dunk (1989) reports that budgetary participation and control do not have a meaningful effect on managerial performance, he states that in situations which budgetary control is high, the increase in budgetary participation affects the performance in reverse way. In their study Brownell and Dunk (1991) assert that budgetary participation, control and task ambiguity do not have an direct effect on performance but situations in which budgetary control is high, budgetary participation increases performance and this relation is negatively correlated with task ambiguity.

Differing from Brownell and Dunk (1991), the study conducted by Otley and Pollanen (2000) reveals that budgetary participation, control and task ambiguity directly affect performance negatively but in situations where there is a combined interaction of variables, the effects differ. According to the study, while budgetary participation, control and task ambiguity affect performance negatively, in a situation where budgetary control is high, participation makes positive contribution to performance. One of the reasons for

this increase in performance could be related to procedural justice: since budgetary control enables subordinates to participate more in budgeting process, their perception of procedural justice is positively affected by budgetary control.

H4: Budgetary control in this study has a direct effect on performance perception.

H5: Budgetary control perception causes indirect performance effect by affecting budgetary participation.

H6: Budgetary control has a positive effect on procedural justice.

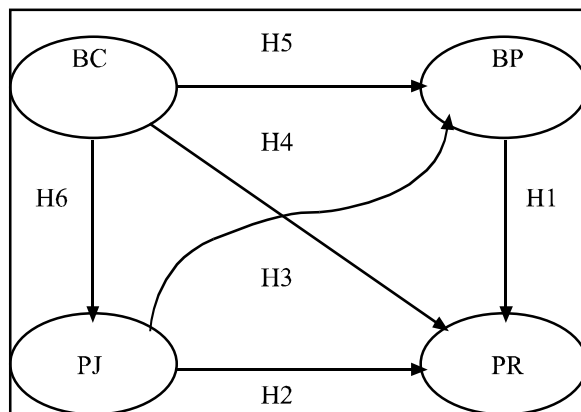


Figure 1 : Research model and hypotheses

METHODOLOGY

Data Collecting Procedure

Data were obtained from private sector companies operating in Almati in Kazakhstan; Bishkek and Jalalabat in Kyrgyzstan; and Fergana in Uzbekistan. The companies had at least 40 employees and used budgeting applications.

Undergraduate students trained in surveying visited randomly selected companies and collected data from 293 managers through questionnaires. No distinction was made in terms of responsibility area among managers. After removing invalid data, 256 filled questionnaires were included in analysis: 182 from Kazakhstan, 44 from Kyrgyzstan, and 30 from Uzbekistan.

Managers participated in survey were between 22 and 63 years old, and have 1 to 42 years of job experience. The median was 40 for age and 16 for experience. Number of employees varied between 40 and 3000,

and the median was 120. 17,3 % of the participants were female, and 82,7 % were male. 35,7 % of companies stated that they use 1-3 annual plans, 30,3 % 3-5 and 34,0 % 5 and longer.

Liket 5 scale was used and Structural Equation Model (SEM) Analysis carried out in LISREL environment. Since data taken from the countries except from Kazakhstan is not sufficient to have a solution in SEM analysis on country base, analysis according to countries was not made.

Measures

Budgetary participation was measured by using Milani's (1975) six-item measurement instrument. The items measured subjects' perceptions of the amount of influence and involvement that a manager has on a jointly-set budget. The items "How often do you state your requests, opinions, and/or suggestions about the budget to your superior without being asked?" and "How much influence do you feel you have on the final budget" were excluded as they showed low reliability in factor analysis. Cronbach's alpha for the scale was 0.70.

Allocated budgets affect the activity results of related departments, so they are related to performance. The performance evaluated in the results referred to the performance results of the department/unit that the subordinate was responsible for. For this reason, how the subordinate perceived the relation between his/her department's performance and the outcome of the budgeting process that s/he participated was examined. The items that Mia and Clark (1999) adapted to measure the effect of MACS data content on unit performance was used in collecting data. After eliminating the items through reliability and factor analysis, the following items were included in the analysis: The outcomes of your department/unit (a) are successful in reaching the goals related to quality, (b) are successful in reaching the goals related to unit cost/cost reduction, (c) are successful in reaching the goals related to budget purposes, and (d) are successful in reaching the goals that are related to personnel development (Cronbach's alpha for the scale was 0.60).

The six-item scale used in this study was adapted from Magner and Johnson (1995), who also adapted five items of the scale from Leventhal (1980). These items were related to consistency across person and time, accuracy, correctability, ethicality, and bias suppression. Items number 2 and 3 were excluded as they weakened the reliability by attributing more than one variable in factor analysis. After the reliability analysis of

scales, Cronbach’s alpha for the scale was 0.44. In the measurement of budgetary control variable, the 7-item scale of Van der Stede (2000) was adapted. For each item, high values indicate rigid budgetary control while low values indicate flexible budgetary control. Items 5, 6, and 7 were excluded as factor and reliability analysis showed that they attributed more than one variable, as a result of which, Cronbach’s alpha for the scale was 0.60.

Factor analysis results regarding dependent and independent variables are shown in Figure 1. While basic statistic values concerning the model prior to factor and reliability analysis of independent variables were $CFI=0.67$, $NFI=0.56$, $NNFI=0.62$, $X^2=369$ $df=149$, after the regulation, these values were $CFI=0.91$, $NFI=0.81$, $NNFI=0.88$, $X^2=81$ $df=51$, which showed that the model improved significantly and offered statically acceptable values. This also indicates that reliability in and inter factors were ensured in terms of independent variables. In the analysis made for the dependent variable, similar process was applied. As a result, the values were

$CFI=0.79$, $NFI=0.72$, $NNFI=0.70$, $X^2=58$ $df=20$. After the regulation, the values improved as they showed $CFI=0.97$, $NFI=0.96$, $NNFI=0.92$, $X^2=5$ $df=2$. As the analysis results state, inner and outer reliability and validity of the variables used in the analysis of the model provide acceptable limits with similar applications.

When correlation and descriptive statistics of variables are taken into consideration (Table 1) it is possible to conclude that relations form a meaningful correlation on $P<0.01$ level, and that participants’ perceptions were generally above the average. Descriptive and correlation results obtained by using the indicated scales are presented in Table 1.

	BP	PJ	BC	Mean	Std. Dev.
BP	1.00			3,8437	,70502
pj	0,22*	1.00		3,6885	,51438
BC	0,35*	0,61*	1,00	3,6563	,51438
PR	0,31*	0,47*	0,23*	4,0508	,51910

* Correlation is significant at the 0.01 level

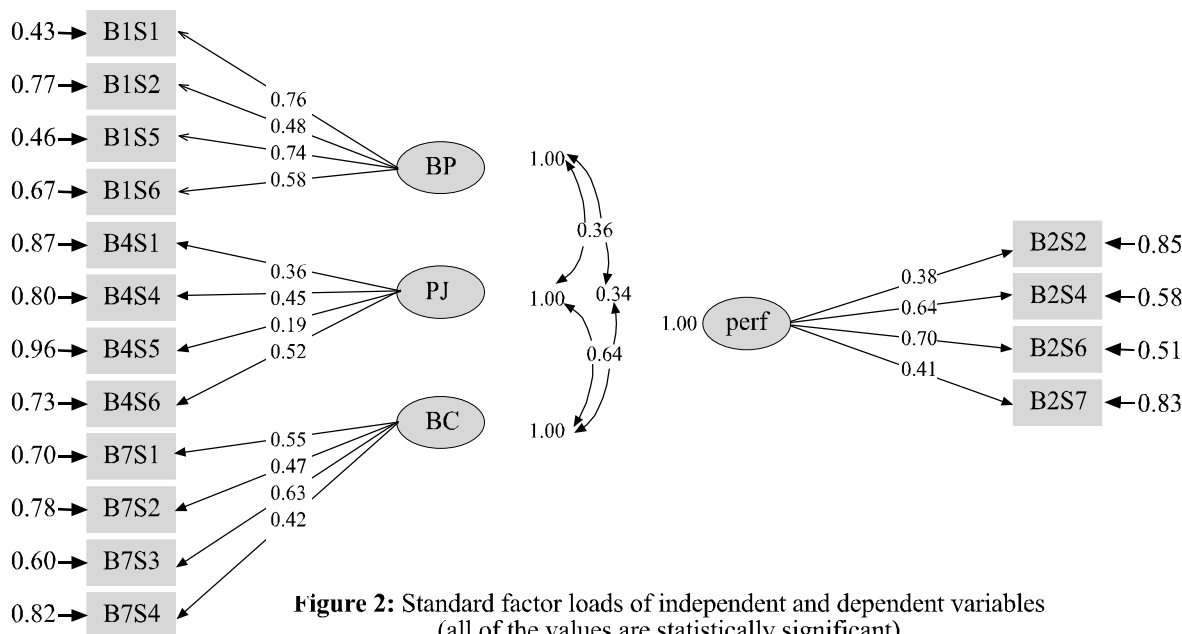


Figure 2: Standard factor loads of independent and dependent variables (all of the values are statistically significant)

Results

Basic regression equation to be used to test hypothesis:

$$PR = \beta_0 + \beta_1 BP + \beta_2 PJ + \beta_3 BC + e \quad (\text{Equation 1})$$

PR: Business Unit Performance Perception

BP: Budgetary Participation Perception

PJ: Procedural Justice Perception

BC: Budgetary Control Perception

When β_i values are meaningful statistically in Equation

1, it will mean that H1, H2, and H4 hypotheses are supported.

Additionally, variables affecting BP and PJ were analyzed. Table 2 shows the result of that additional analysis and Equation 1.

Table : Model statistics for total effects of BP, PJ, and BC on performance.

Model 1	Standardized Beta	t	R ²
BP	0.10	2.56*	0.29
PJ	0.55	2.16*	
BC	-0.10	-1.01	
Model 2	Standardized Beta	t	R ²
PJ	0.25	1.37	0.12
BC	0.49	3.54*	
Model 3	Standardized Beta	t	R ²
BC	0.32	0.20*	0.37

* t value is significant at the 0.01 level
 Model 1: $PR = \beta_1 \times BP + \beta_2 \times PJ + \beta_3 \times BC$
 Model 2: $BP = \beta_1 \times PJ + \beta_2 \times BC$
 Model 3: $PJ = \beta_1 \times BC$
 Coefficients show total (direct + indirect) effects.

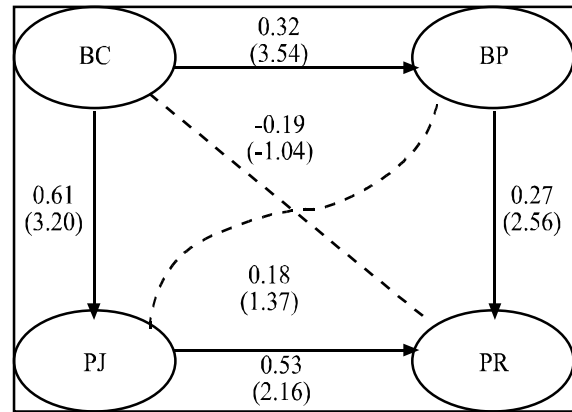
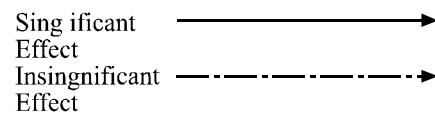


Figure : Basic hypotheses of Model 1 and standardized beta coefficients.



As also shown in Figure 3, among the variables that were expected to affect performance, BP (0.27) and PJ (0.53) have a statistically significant, direct and positive effect on performance. BC (-0.19) has no direct and statistically significant effect on performance. However, it is important to note that standardized beta coefficient of BC was negative, and that the possible relation between BC and performance are the opposite. Variable coefficients show that PJ was more effective on performance than BP. According to these results, H1 and H2 were accepted while H4 was rejected. When other variables were considered, BC (0.35) has a statistically significant, direct and positive affect on BP. PJ (0.18) shows a positive effect on BP, but this was not statistically significant. Therefore, H5 was accepted while H3 was rejected. The results regarding the relation between PJ and BC (0.61) confirms a statistically significant strong positive relation. The fact that R² was 37% also confirms this close relation. Therefore, H6 was accepted.

Additional analysis showed that BC has 0.22 (t=2.40) standard value effect on performance. This value indicates that BC has an indirect effect on performance through PJ and BP. Considering these indirect effects, independent variables' effects on performance are shown in Table 2.

When the total effects of independent variables on performance are taken into consideration, R² of Model 1 was %29. This value is generally above R² suggested in similar previous studies (Brownell 1982, %34; Dunk 1989, %20; Brownell and Dunk 1991, %27; Otley and Pollanen, %18). In addition, %12 of BP model and %37 of BC model in R² are positive evidence to support strong relation between variables.

Interaction variables must be added to Equation 1 in order to test the effects of interval variables. After this addition, Equation 2 was obtained as following.
 (Equation 2)

$$PR = \beta_0 + \beta_1 BP + \beta_2 PJ + \beta_3 BC + \beta_4 BP \times BC + \beta_5 BC \times PJ + \beta_6 BP \times PJ + e$$

When β_4 is significant in Equation 2, this indicates whether BC is high or not makes any difference regarding BP's effect on performance. β_5 indicates BC's effect on the relation between PJ and performance, and β_6 indicates PJ's effect on the relation between BP and performance.

Table 3: Direct and indirect effects of BP, PJ, and BC on performance.

Model	Standardized Beta	t
BP	1.170	2,69*
BJ	1.436	3,34*
BC	-0.994	-2,37*
BPxPC	1.272	2,71*
BCxPJ	0.375	0,72
BPxPJ	-2.536	-4,36*

* t value is significant at the 0.01 level
Model: $PR = \beta_1 \times BP + \beta_2 \times PJ + \beta_3 \times BC + \beta_4 \times BP \times BC + \beta_5 \times BC \times PJ + \beta_6 \times BP \times PJ + e$

When indirect effects of variables are taken into consideration, Table 3 shows that direct effects too become stronger in terms of standardized betas. Each of the perceptions of BP (1.17), PJ (1.43), and BC (-0.99) have direct effect on performance. BC has a

negative effect on performance while BP and PJ have positive effect. In addition, interaction variables too affect performance. Accordingly, when BC is high, BP affects performance more (1.27) compared to when BC is low. When PJ is high, BP affects performance less (-2.53) compared to when PJ is low.

CONCLUSIONS

Findings obtained from the study aimed at investigating the effects of PJ and BP in the relation between BP and performance through examining the data collected from Kazakhstan, Kyrgyzstan and Uzbekistan revealed that there is a significant positive relation between BP and performance. Another variable that has a direct effect on performance is PJ perception. PJ and BP affect performance directly while BC affects performance indirectly through PJ and BP.

When the effects of BP and PJ variables are taken into consideration, rigid or flexible BC does not have a direct effect on performance. However, in the interaction model that considers interaction among variables, it is seen that rigid BC's direct effect causes performance to decrease. Flexible budgetary applications contribute to performance positively. Type of BC has also an effect on BP, which makes BC a variable that has an indirect effect on performance. Rigid BC affects performance positively by increasing BP. What causes this situation is the motivational effects that stem from the willingness to participate in performance evaluation and resource distribution, which rigid BC applications create.

PJ perception has a direct positive effect on performance. When there is high PJ perception, managers consider BP less important. When PJ perception is low, participation becomes important. This indicates that when managers believe that resources will be distributed fairly in the budgeting process, they do not consider BP important, and that they consider BP important when PJ is low. In BC, on the other hand, the opposite is true. When there is rigid BC, BP's effect on performance increases while BP's effect on performance decreases in flexible BC. Therefore BP and PJ are intermediary variables in relation between BC and performance. From this perspective, the present study confirms the findings of Dunk (1989). When the findings are evaluated generally, it is evident that budgeting processes, BP, and PJ are still important for the companies that were the sampling of this study.

Even though they are culturally very similar due to the policy of USSR, the study was conducted in

different countries, which may make important contributions to understanding the role of national and organizational factors in culture in terms of the relation between participation and performance. From this perspective, future studies should also investigate culture.

Furthermore, budgetary applications are also important for Turkey. When factors that effect budgetary processes are better understood, budgets, which are commonly used in Turkish companies, will be more effective.

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