

BUDGETARY PARTICIPATION, LOCUS OF CONTROL AND JOB SATISFACTION IN TUNISIA

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Abstract: *The relation between budgetary participation and job satisfaction has been examined in several accounting studies with conflicting results. The conflicting evidence may reflect the influence of contingency variables. The purpose of the present study is to examine the relationship between budgetary participation and job satisfaction, moderated by the personality variable, locus of control. In this study, Tunisian managers were selected because Tunisia provides an interesting cultural contrast to the U.S. on three dimensions identified by Hofstede (1980) which are considered relevant to participative budgeting issues. In contrast to the "Anglo" Cluster, the Arabic Cluster of which Tunisia is a unit differs on the dimensions of "uncertainty avoidance" and "power distance." The results of this study suggest that budgetary participation affects negatively job satisfaction. It supports, also, the moderator effect of the personality variable locus of control. Internals appear more job-satisfied under conditions of high participation. By contrast, Externals are more job-satisfied under conditions of low participation.*

Keywords: *Budgetary participation, job satisfaction and locus of control.*

Résumé: La relation entre participation budgétaire et satisfaction au travail a été investiguée dans maintes études comptables avec des résultats conflictuels. Cette absence de consensus pourrait refléter l'influence de certaines variables de contingence. Ce travail de recherche propose d'investiguer la relation entre la participation budgétaire et satisfaction au travail, modérée par la variable de personnalité, le locus of control. Les résultats de cette étude suggèrent que la participation budgétaire affecte négativement la satisfaction au travail. Ils supportent, aussi, l'effet modérateur de la variable de personnalité, locus of control sur la dite relation. Les managers dotés d'un sentiment de contrôle interne (Internals) apparaissent plus satisfaits sous les conditions d'une forte participation. Cependant, ceux dotés d'un sentiment de contrôle externe (Externals) sont plus satisfaits sous les conditions d'une faible participation.

Mots clés : *participation budgétaire, satisfaction au travail et locus of control.*

1. INTRODUCTION

The effectiveness of the management planning and control systems used in developing countries remains an important issue for many reasons. As developing countries become more industrialized, progressive local firms may import systems and techniques from the more industrialized nations; indeed, such importation may be encouraged by educational institutions and consultants. Unfortunately, the progressive local firm may be importing systems from the industrialized world without considering the potential impact of cultural differences on the success of implementing such systems.

Support for the concern about the issues outlined above is found in current definitions of culture as a "shared reality" or shared "cognitive maps" (Adler, 1983; Hofstede, 1980-87). Through the socialization process, members of a group learn the premises that make up this "subjective culture." These premises provide the essential basis for interpersonal relations leading to the effects described by Adler (1983): Culture influences organizations through societal structures such as laws and political systems and also through the values, attitudes, behaviour, goals, and preferences of participants. Thus, *the view of "reality" held by members of a group is expected to affect their perception of the budgetary process and the values that they place on participation in that process* (Hofstede, 1987).

Specially, the moderated relationship between budgetary participation and job satisfaction has attracted the interest of many researchers. Brownell (1982a) examined the effects of participative budgeting and locus of control on performance and job satisfaction in a field setting. He found that a manager's personality would mediate the effects that the budget participation process would have on job performance and job satisfaction. Using the work of Hofstede (1980, 1983) for hypotheses development, Frucot and Shearon (1991) theorized that culture might be an important variable in the budget participation-performance and budget participation-job satisfaction relationships. They tested the interrelationship of budget participation and locus of control (a personality variable) and their impact on job performance and job satisfaction of Mexican managers. They assumed that an organizational system such as budget participation would have different effects in different cultures. They suggested that foreign owned firms "may wish to exercise caution when applying participative budgeting techniques in Mexico (p. 96)."

While there is a large body of prior research on the relationship between budget participation and job satisfaction, none has specifically focused attention on participative budgeting within an Arabic country such as Tunisia. Nonetheless, it represents a fruitful area for managerial researches. Because of the strong cultural gap between Tunisia and these where were born modern managerial practices, these are likely to be inappropriate for Tunisian companies. In fact, importing management systems developed in industrial countries may create coherence problems. When management approaches are transferred and insufficient consideration given to their cultural assumptions, they are likely to miss their objectives and to prove very disappointing. Particularly, in Tunisian environment, with the recent phenomenon of internationalization of competition, Tunisian company had to improve its economic performance by adopting sophisticated managerial tools, and its social performance by giving more interest to its human resources. Thus, budgetary participation may serve to enhance managerial job attitudes such as job satisfaction and in consequence the performance of the manager who was involved in the budgetary system.

The findings of Brownell (1982) and the ostensible cultural gap between U.S and Tunisia have left several unanswered questions. (1) Can Tunisian companies expect budget participation to affect the job satisfaction of their middle-level managers? (2) Are there significant cultural differences between Tunisian managers and their US counterparts? And, (3) do these cultural differences, if they exist, lead to differences in the participation-job satisfaction relationships. The purpose of our study is to address these questions.

The remainder of this paper is organized as follows: Section 2 examines the theory for the hypothesis development. Section 3 includes a brief description of Hofstede's (1980) cultural dimensions. Section 4 outlines the research method employed and is followed by an analysis of the results of the hypothesis tests. The last section provides a discussion of the implication of the study, the limitations and suggestion for future research.

2. BUDGETING, PARTICIPATION, AND LOCUS OF CONTROL

The participation of operating managers in the budgeting process has long been one of the most

controversial issues in the budgeting and management accounting literature. Early models of the budget-setting process were autocratic in nature. A company's top management was viewed as having the responsibility for setting operating budgets issuing them to operating managers, and then holding these managers accountable for performance in accordance with these imposed budgets. Pointing to evidence of restriction of output and lack of involvement under traditional managerial systems, several social psychologists, most notably Mc Gregor (1967) and Likert (1961), argued for greater participation in decision implementation and execution.

Participation can be broadly defined as an organizational process whereby individuals are involved in, and have influence on, decisions that have direct effects on those individuals. While participation can have many contexts and settings, one in particular has, for the last decades, been of great interest to researchers in management accounting. This is the area of participation in budgeting that can be more specifically defined as a "process in which individuals, whose performance will be evaluated, and possibly rewarded, on the basis of their achievement of budgeted targets, are involved in, and have influence on, the setting of these targets (Brownell 1992 : 124).

In connection with budgeting, Becker and Green (1962), Hofstede (1967) and Swieringa and Moncur (1975) called for the participation of operating managers in budget-related activities pointing to evidence of operating manager resistance and hostility under early models of the budget-setting process, they suggested that top management share budget-setting responsibility with operating managers. That is the emergence of budgetary participation as an innovation in management accounting practices presumed to procure desirables organizational outcomes.

Extensive research has been conducted in the area of participative budgeting. The results are inconsistent in explaining linkages between participative budgeting and outcome variables such as job satisfaction and job performance. A review of some of the seminal works in the participative budgeting literature will be conducted.

In a related participative budgeting environment, Milani (1975) investigated whether (1) the degree of participation in budget-setting and performance are positively related, (2) the degree of participation in budget-setting and attitude toward the job are positively related, and (3) the degree of participation in budget-setting and attitude toward the company are positively related. Results of the study indicate that there is no significant relationship between participation and

performance. However, strong support exists for both the relationship between participation and (1) attitude toward the job and (2) attitude toward the company. Kenis (1979) reveal that managers who participate in the budgeting process appear to be more satisfied than are their counterparts. In a similar vein, Merchant (1981) reported a strongly positive relationship between participation and both motivation and attitudes. However, Brownell (1982b) found only weak evidence of positive effects of participation on job satisfaction.

Yet in spite of this long line of inquiry, the literature remains fraught with contradictions, overlap and a general lack of conclusiveness on the question of whether participation is effective or not. Particularly concerning the effects of budgetary participation on job satisfaction, the results were difficult to integrate and often conflicting. Participative budgeting research that investigates the relationships between budgetary participation and job satisfaction reveals significantly positive relationship (Milani, 1975; Brownell, 1983b; Chenhall, 1986; Frucot and Shearon, 1991; Lindquist, 1995), weak or non significant relationships (Brownell, 1982; Harrisson, 1992), and some even reveal negative relationships (Otley and Pollanen, 2000).

Various researchers suggested that the relationship between participative budgeting and job satisfaction might be contingent upon the presence of other moderating factors. Brownell (1982:124) advanced four major classes of variables-cultural, organizational, interpersonal, and individual that may influence the relationship between participation and its consequences.

Internal-external locus of control was found by Brownell (1981) to influence the effects of participation. Rotter (1966) developed the locus of control construct. The construct refers to individual differences in a generalized belief in internal versus external control of reinforcement. Those with an external locus of control see themselves as relatively passive agents and believe that the events in their lives are due to uncontrollable forces. Externals feel that the things they want to achieve are dependent on luck, chance and powerful persons or institutions. They believe that the probability of being able to control their lives by their own actions and efforts is low. Conversely, those with an internal locus of control see themselves as active agents, feel that they are masters of their fates and trust in their capacity to influence the environment. Internals assume that they can control the events in their lives by efforts and skill. It is important to mention that prior researches indicated that locus of control is a fundamental personality trait. They revealed that Internals are more satisfied than Externals when the budgetary process is

participatory and that internal supervisors or managers are more participative in their budget-setting style (Licata et al., 1986).

Brownell (1982a) examined the effects of participative budgeting and locus of control on performance and job satisfaction in a field setting. Brownell's results indicate that participation does not have a significant direct effect on job satisfaction, but that individuals' locus of control has a moderating effect on the relationship between participation and job satisfaction.

Using the work of Hofstede (1980, 1983) for hypotheses development, Frucot and Shearon (1991) tested the interrelationship of budget participation and locus of control (a personality variable) and their impact on job performance and job satisfaction. They assumed that an organizational system such as budget participation would have different effects in different cultures. Frucot and Shearon (1991) theorized that culture might be an important variable in the budget participation-performance and budget participation-job satisfaction relationships. They found that the Brownell (1982) result couldn't be generalizable to Mexican managers with regard to job satisfaction. The impact of locus of control on job satisfaction was not significant reflecting, thus, an ostensible difference in culture (between U.S and Mexico). Recently, Maria A. Leach-López et al. (2008) examine the effects of budgetary participation, and the personality variable, locus of control, on the performance and job satisfaction of Mexican managers working for US controlled maquiladoras on the US/Mexican border and within interior Mexico. This study follows the methodology employed by Frucot and Shearon (1991) and finds similar empirical results.

Despite that it attracted great attention of numerous researchers in occidental countries; little consideration had been given to budgeting in developing countries such as Tunisia. For instance, few studies interested in budgeting systems adopted by Tunisian companies were mainly exploratory. The purpose of this paper is to provide some support for a "contingent benefits" model of the effects of participation in the budgeting process. That is, the paper aims to investigate whether budgetary participation of Tunisian managers affects job satisfaction and if the managerial locus of control, as a personality variable, moderates this effect.

3. CULTURAL DIMENSIONS

Frucot and Shearon (1991, p. 85) expect budget participation to be less beneficial to job satisfaction among Mexican managers because of the high power distance and high uncertainty avoidance documented by Hofstede (1980). Harrison and McKinnon (1999, pp.494-496) indicate that high collectivism should be associated with a preference for participation. Based on Hofstede's scheme, Tunisian culture differs largely to American one where Brownell's study took place. Hofstede (1980) identified four dimensions of culture:

- **Power distance:** A measure of the degree to which cultures prefer a more autocratic structure. In an organizational context, it translates into the degree of participation that would be favored. A country scoring high on this construct would prefer a less participative style. Hofstede (1980, p.92) provides evidence that in a large PD society "close supervision [is] positively evaluated by subordinates." In a large PD society, subordinate consultation may not be as important as in a small PD society because there is a tendency for its members to accept paternalistic management (Perera and Mathews 1990). Opposite from the US, Tunisia (as a unit of Arabic Cluster) is classified as a large PD society (Hofstede 1980), and thus Tunisian managers would be expected to prefer a centralized management, and be averse to budget participation.
- **Uncertainty avoidance:** A measure of the mean anxiety level. A high anxiety level translates into less willingness to take risks and a preference for security. Organizations in a high uncertainty avoidance environment would favor rigid rules, so as to decrease uncertainty. According to Perera and Mathews (1990), the fundamental issue involved in this dimension is how a society reacts to the fact that the future is not known; whether the society tries to control the future or just let it happen. Unlike the US, Tunisia is classified as a medium UA society, thus Tunisian managers should prefer low budget participation.
- **Individualism:** A measure of the relative importance of independence from the organization. Cultures scoring high on this construct stress goals and independence. Cultures scoring low on this construct favor more dependence on the organization. Under this perspective, an individual is seen as having an identity in and of him or herself, which is separable from, and is not dependent upon, a group affiliation (Hofstede 1980). According to Perera and Mathews (1990), in an individualistic society, the employer-

employee relationship would tend to be calculative (benefit the individual), but in a collectivistic society this relationship would tend to be morally based (benefit the group). Opposite from the US, Tunisia is classified as a collectivistic society (Hofstede 1980), so Tunisian managers would be expected to prefer teamwork and team rewards.

- **Masculinity:** A measure of the relative importance to the culture of income, recognition, and advancement as compared to the importance of work relations, cooperation, and security. Femininity represents a preference for putting relationships with people before money, the quality of life, and preservation of the environment. This dimension draws attention to the existence within society of competitiveness as opposed to solidarity, and achievement motivation as opposed to relationship motivation. Some of the issues raised by this dimension are career expectations and acceptability of an autocratic manager (Perera and Mathews 1990). Both Tunisia and the US are classified as High in the Masculinity dimension (Hofstede 1980).

With respect to Hofstede's classification, Arabic countries were grouped in one Cluster. That is, to more explore the Tunisian culture, Zghal's (1990-91-94) and Ben Fadhel's (1992) studies provide particularly useful evidences on this question. With an exploratory research, Zghal identified a cultural configuration based on three variables that may explain many behaviors observed in Tunisian companies. The Tunisian culture highlights ambiguity in decision making, equity, and dignity but dislikes subordination relationship.

With respect to delegation, Zghal concluded that's rarely practiced. Tunisian top managers think that their subordinates perform better their tasks when they had, only, to execute without taking any initiative. They consider them as relatively passive agents who search, only, personal goals. Also, they dislike responsibilities and particularly decisions making. In management, the Arab manager is likely to tolerate uncertainty but does not delegate power to his subordinates.

Ben Fadhel initiated his research on Tunisian culture with a historic analysis of Tunisian values. He identified six dimensions that describe Tunisian national culture: A high collectivism, a large power distance, a high Masculinity, a small anxiety, a medium tolerance for uncertainty, and an aversion towards risk taking.

Based on Hofstede's dimensions and with reference to Zghal's (1990-91-94) and Ben Fadhel's (1992) studies, respondents from the United States and Tunisia (which is a unit of Arabic Cluster) would be classified as follows:

	U.S.	Tunisia
Power distance	Low	High
Uncertainty avoidance	Low	medium
Individualism	High	Low
Masculinity	High	High

The potential implication of this classification is: In Tunisia, a more paternalistic and autocratic leadership style (with less participation in decision making and more rules and centralization) would be preferred. In addition, more dependence of the individual on the organization is expected. Based on Hofstede's classification scheme, we would expect that the relationship between participation in the budgeting process and managerial satisfaction may be different in Tunisia than in the U.S.

Adler (1984) stresses that it is important to replicate research performed in one national culture, in order to increase our knowledge of culture's impact. To facilitate comparability, Adler also recommends that the replication in another culture follow the initial study's research method as closely as possible. Therefore, the hypotheses tested in this study follow Brownell (1982a). They can be stated as follows:

H₁: *In Tunisia, the degree of participation in the budgetary process leads to higher satisfaction.*

H₂: *In Tunisia, there will be a significant interaction between budgetary participation and locus of control affecting job satisfaction.*

4. METHOD

A questionnaire survey was used. The sample consisted of 75 middle-level managers working in 30 industrial companies. The research started with a brief interview with a senior corporate official, such as the financial vice-president, controller, or director of planning and budgeting.

This interview was used to gather data on the company(size, kind of industry...) and the

corporate planning and budgeting systems and to identify a sample of middle-level managers who were involved in budgeting.

The questionnaires were personally distributed to 93 managers involved in the study who kept them to complete on their own time. The completed questionnaires were then collected. Personal contacts with both the companies and respondents led to 83 per cent response rate. However, of the 78 questionnaires collected, three were excluded from the study for incomplete responses. The final sample size for hypotheses testing was reduced to N=75.

4.1 Variables measurement: Three variables were measured by questionnaire: budgetary participation, locus of control, and job satisfaction.

4.1.1 Budgetary participation: The six-item instrument of Milani (1975) was employed to assess budgetary participation. The instrument attempted to assess the respondent's involvement in and influence on the budget process. The scale is additive with the summed score providing a measure of the respondent's perceived degree of participation in the budgeting process.

Satisfactory reliability and validity for the scale have been reported by prior researchers (e.g. Brownell, 1982b-83, Brownell and Hirst, 1986, Chenhall, 1986, Dunk, 1989, Frucot and Shearon, 1991, O'Connor, 1995). In the current study, the Cronbach alpha coefficient was 0.95.

4.1.2 Locus of control: The internal-external scale questionnaire, developed by Rotter (1966) was employed to assess locus of control. It contains 29 questions which require a forced response between "internal and external" answers. This instrument is widely used in psychological and accounting researches and several extensive literature reviews attest to its validity and reliability (Swieringa and Moncur, 1975; Brownell, 1981-82b; Licata et al., 1986). In this study, the Cronbach alpha coefficient was 0.65.

4.1.3 Job satisfaction: Job Descriptive Index (JDI) of Smith, Kindall and Halin (1969) was chosen to assess job satisfaction. This instrument outperformed a satisfactory rate of validity (Kenis, 1979). It measures managerial satisfaction at five scales: the remuneration, the opportunity of promotion and advancement, the job itself, the relations with supervisor, and the relations with colleagues. As for reliability of the scale, the Cronbach alpha coefficient was 0.88.

5. RESULTS

As noted later, descriptive statistics for the independent variables and dependent variable are presented in Table 1, while Table 2 presents the correlation matrix among the independent and dependent variables. Table 3 presents the results of the regression analysis.

The following model was used to test the hypotheses:

$$\text{SAT} = a_0 + a_1 \text{BP} + a_2 \text{LOC} + a_3 \text{BP} * \text{LOC} + \varepsilon \quad (1)$$

Where SAT is satisfaction measure using the JDI of Smith et al. (1969),

BP is budget participation measured as the sum of the six-item scale developed by Milani (1975),

LOC is locus of control as measured using Rotter's (1966) Internal/External scale,

BP*LOC is the interaction of budgetary participation and locus of control.

5.1 Direct effect of budgetary participation

The model (1) tests the effect of participation, locus of control, and their interaction on job satisfaction. The interaction term matches the personality trait with the characteristics of the firm's budgetary process. The results of the moderated regression analysis are reported in table 3. The participation coefficient is found to be significantly negative (-0.348) and fails, hence, to show the expected sign. It suggested that participation, alone, exerts a substantial negative influence on job satisfaction of the Tunisian managers. This finding is not consistent with previous results (Milani, 1975; Kenis, 1979; Brownell, 1983; Chenhall, 1986; Frucot and Shearon, 1991; Lopez et al, 2007; Lopez et al, 2008) which attest a positive association between the two constructs. Thus, the first hypothesis is rejected. This finding is in accordance with Hofstede's framework, in which it was expected that Tunisian managers would prefer a non participative budgetary structure.

5.2 Moderating effect of locus of control

According to Sharma et al. (1981), to identify the presence and the kind of the moderator

variable, two methods may be used: sub-group analysis and moderated regression analysis-ARM. Really, these two methods are complementary because the moderated regression analysis, alone, can detect only the presence or not of an interactive effects. It doesn't permit to know how this factor influences the direct relationship. For the present study, we combined the two methods in order to know if there is any interaction between locus of control and job satisfaction and, if it exists, how it affects job satisfaction.

The matrix of intercorrelation, as provided in table 2, indicates that there is no significant correlation between independent variables. Therefore, we can use the moderated regression analysis method.

As reported in table 3, the interaction coefficient is significant at the 0.01 level. The coefficient for locus of control is positive but fails to reach significance at any reasonable level. These results indicate that job satisfaction is associated with both locus of control and participation. It's clear that there is a significant interaction between budgetary participation and locus of control in affecting job satisfaction. These results lead to a support of the second hypothesis.

5.3 Further analysis

In order to better explore the second hypothesis, a sub-group analysis was performed by devising the sample into two groups (G₁: internals and G₂: externals). The interviewee was classified as internal or external based on his number of internals and externals responses. Thus, if the most of his responses are externals, he will be classified as external and if the most of his responses are internals, he will be internal. Then, a linear regression analysis was performed on each group.

$$SAT_I = \beta_0 + \beta_1 BP_I + \varepsilon \quad \text{Where} \quad \begin{array}{l} SAT_I \text{ is standardized job satisfaction for internals} \\ BP_I \text{ is standardized budgetary participation for internals} \end{array}$$

$$SAT_E = \alpha_0 + \alpha_1 BP_E + \varepsilon \quad \text{Where} \quad \begin{array}{l} SAT_E \text{ is standardized job satisfaction for externals} \\ BP_E \text{ is standardized budgetary participation for externals} \end{array}$$

As shown in tables 4 and 5, the participation coefficients are statistically significant and show the expected sign. These results are consistent with Brownell's (1982a). They imply that satisfaction

with the particular job-aspect is higher for internals in high participation conditions and for externals in low participation conditions.

It seems that internals are significantly more satisfied with high budgetary participation. However, externals do not prefer this kind of budgeting system.

6. DISCUSSION AND CONCLUSION

This study provides evidence that cultural differences may lead to different responses to participative budgeting and that various groups within a culture may react differently to a particular budgeting system. We conclude that participation alone negatively affects the job satisfaction of the Tunisian manager. This result is, clearly, not consistent with the findings of a number of studies which focused on the influence of budgetary participation on managers' attitudes and behaviours. Particularly, it does not support Brownell (1982)'s one. This divergence may be attributed to cultural differences. These cultural differences between the US and Tunisia documented by Hofstede (1980) may reduce the benefits of participative budgeting in Tunisia.

This unexpected result may be justified as follows: First, the participative management is, relatively, recent in Tunisian companies. The managers did not, already, familiarised themselves with this new managerial practice and, so, they don't value the benefits brought by this opportunity. Second, Tunisian top managers are likely practicing a pseudo-participation and not a real participation. In other words, they are relatively involved in budgeting process but without any influence in final budgets.

A pseudo-participative process is defined as budgeting process that leads subordinates to believe that they will have some influence on the budget that is set, but in reality, their input is ignored (Libby, 1999). The pseudo-participation can have demotivating effects on subordinates (Pasewark and Welker, 1990) and can lead to dysfunctional effects (Becker and Green, 1962; Libby, 1999).

Third, studies focused on Tunisian culture (Zghal R, 1991; B. Fadhel A, 1992) allow us to describe this negative association between budgetary participation and job satisfaction as reasonable and even expected. The Tunisian culture emphasizes a rare power delegation (strong decentralization) and a refuse of responsibilities. Furthermore, based on Hofstede's (1980)

classification scheme, in Tunisia a more paternalistic and autocratic leadership style (with less participation in decision making and more rules and centralization) would be preferred (B.Fadhel Adnen, 1992). In addition, more dependence of the individual on the organization is expected. In fact, Arabic cluster of which Tunisia is a unit is classified as having high power distance, and low individualism. In such cultural climate, managers' reactions to participation are expected to be negative (Harrisson, 1992).

Based on this study's results, Tunisian firms may wish to exercise caution when applying participative budgeting techniques, perhaps involving middle-level managers in the implementation process. Bourguignon et al. (2004) indicate that when a management technique (such as participative budgeting) is exported to a new cultural environment, implementation is more successful when the ideological framework (of which the culture is a unit) is coherent with the characteristics of that technique. "When management approach are transferred and insufficient consideration given to their ideological assumptions, they are likely to miss their objectives and to prove very disappointing .The importance of local ideology should be recognised, especially in the case of management systems created and developed in ideologically different environment" (Bourguignon et al. 2004 :109).

The results support the expectation that participation is most effective for internally oriented individuals. In the area of job satisfaction, the tentative conclusion from previous Brownell's (1982) study is confirmed in the present study. Brownell identified the relationship between locus of control (a personality variable) and participation in the budgeting process as it impacts managerial satisfaction. Tunisian Internals managers are satisfied under a participative budgeting system but Externals are not. The reactions of managers to budgetary participation differ clearly according to their personal traits. Internals, because they behave as active members of the group and aim to be involved in the decisional process of the company, they prefer a participatory budgeting system where they will have some influence on the budget that is set jointly. Thus, this participatory system gives them opportunities to influence the environment and be an active agent in consequence. Also, Externals managers seem refusing responsibilities. They prefer receiving and executing top management's orders. They, even, perform better under an autocratic decisional system. Thus, they react negatively to budgetary participation.

The result of this study has practical as well as theoretical relevance. At the practical level, it recommends to the designers of budgeting systems that they ought not to give high budgetary

participation indiscriminately to subunit managers. They must consider the personal characteristics of managers involved in this budgeting system. As regards theory development, the results of this study suggest the fruitfulness of considering other contingency variables in researching the effects of participative budgeting. As Brownell (1982) argued, participation in the budgetary process might be contingent on four groups of variables: cultural, organizational, interpersonal, and individual. Future research should focus attention on all four groups of contingency factors in order to develop a comprehensive and integrated model specifying the conditions under which budgetary participation will produce favorable outcomes. Our study has common limitations found in this type of research. Each variable is measured with an established scale, but each of these scales contains some level of measurement error and each observation is dependant on the subject answering truthfully and accurately. There is also the potential weakness of using self-reported measures of budget participation. Self-reported levels of participation may be more relevant than external measures of participation because it should be the subject's perception of budget participation that influences behavior.

Since, only industrial companies were examined, the result may not be generalized to non industrial companies (such as companies of services, commercial companies...). The survey approach as well has limitations, such as the lack of control over who responds to the questionnaires (Nouri and Parker, 1996). Further, the distribution of questionnaires was not random. In order to insure the managers' collaboration in this research, we were obliged to use our acknowledgements in some companies. Normally, to examine the cross-cultural generalizability of a prior research's findings, we had to follow the same methodology employed by the former. Unfortunately, this condition was not respected in this study. While Brownell (1982a) used the Minnesota Satisfaction Questionnaire (MSQ), the Job Descriptive Index was adopted to assess job satisfaction in the current research. Notwithstanding these limitations, this research provided a supportive evidence of the need to recognize the existence of important moderating effects of the personality variable, locus of control, on the relationship between participation and job satisfaction. Further research is obviously needed to expand our understanding and awareness of other individual characteristics that complement design features of budgetary control systems. Indeed, the more basic question of what control system features are appropriate to manage activities that face differing environmental and cultural circumstances still remains largely unanswered.

Table 1: Descriptive statistics for measured variables

	N	Possible range	Actual range	Mean	Std.deviation	variance
Budgetary participation	75	15-75	15/74	52,733	15,919	253,414
Job satisfaction	75	19-95	33/92	63,613	13,4816	181,754
Locus of control	75	-15/15	-11/12	0,53	5,7945	33,58

Table 2: Matrix of intercorrelations between independent variables

	BP	LOC	BP*LOC
Correlation	1		
Sig. BP	-	-----	-----
N	75		
Correlation	.089	1	
Sig. LOC	.225	-	-----
N	75	75	
Correlation	.137	.045	1
Sig. BP*LOC	.12	.35	-
N	75	75	75

Table 3: Regression results

Coefficients	Value	Std.deviation	t	Probability
constant	-0.182	0.122	-1.49	n.s
Budgetary participation	-0.348	0.124	-2.807	< 0.05
Locus of control	0.177	0.125	0.158	n.s
Interaction coefficient	1.46 E-02	0.14	4.115	< 0.01
Adjusted R ² =0.085				

Table 4: regression results for internals

Coeff	Value	Std. deviation	t	prob
β_0	7.851E-02	0.128	0.615	n.s
BP _I	0.412	0.15	2.75	< 0.01
Adjusted R ² = 0.157				

Table 5: regression results for externals

Coeff	Value	Std. deviation	t	prob
α_0	-0.625	0.132	-4.719	< 0.01
BP _E	-0.862	0.117	-7.36	< 0.01
Adjusted R ² = 0.61				

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