

NEED FOR ACHIEVEMENT, STYLE OF BUDGETING AND MANAGERIAL PERFORMANCE IN A NON GOVERNMENT ORGANIZATION (NGO): EVIDENCE FROM AN ORIENTAL CULTURE

**Badiul Alam, Dhaka Commerce College, Bangladesh
Lokman Mia, Griffith University, Australia**

ABSTRACT

While there has been considerable research on employee performance-related impact of budgeting style, the research is mostly concentrated within manufacturing organizations in the West. There is a dearth of such research (i) in other types of organizations such as non-government organizations and (ii) in other than Western cultures. In this light, the present study was conducted in a non-government organization (NGO) operating in Bangladesh – a country of oriental culture.

NGOs are private organizations that pursue activities to relieve suffering, promote interests of the poor, protect the environment, provide basic social services, and undertake community developments (Operational Directive 14.70, World Bank). NGOs are typically value-based organizations, which depend in whole or in part, on charitable donations and voluntary services. An NGO in Bangladesh generally starts as a donor funded enterprise with the aim of creating sustainable employment opportunities for, and eradicating poverty as well as illiteracy of, the poor within the country. Thus, NGOs in Bangladesh are critically important non-government organizations for the country's employment and economic growth.

The participants in the study were 114 field officers (managers) having budgetary responsibilities in a large NGO in Bangladesh. This study focused on investigating if the managers' need for achievement and the NGO's budgeting style had an impact on their performance. The results reveal that the budgeting style acted as an intervening variable in the relationship between field officers' need for achievement and performance. The results also indicate that the performance-related impact of a budgeting style is independent of culture.

Keywords *Need for achievement, budgeting style, and managers' performance.*

1. INTRODUCTION

By providing specific goals and standards, a budget plays an important role in motivating employees to attain better performance (Milani, 1972). The idea to get employees involved in formulation of the budgets that affect them has been recognised since the seminal study by Argyris (1952). Following Argyris's study, budgeting style (participative and other) has been one of the most researched topics in management accounting. Participative budgeting, participation in budgeting, and budget participation are used interchangeably to mean participative style of budgeting (Maloney and Mia, 1999). Given that budgets provide a mechanism for effective planning and control in organisations (Flamholtz, 1983; Otley, 1978, Emmanuel, et al., 1990), it is important to identify the style of budgeting which are appropriate for an organization given the organization's goals and the environment or culture in which it operates. For example, would an organisation's participative budgeting style be useful in improving managers' performance in an environment of oriental culture? Previous researchers suggest that if an organisation's budgeting system and its environment are not consistent, even a sophisticated budgeting system may not be able to assist in achieving the intended results (Flamholtz, 1983; Kren and Liao, 1988, Maloney and Mia, 1998). The question is what style of budgeting (participative or other) should be implemented under what type of environment? This paper reports the results of a study that concentrated on participative style of budgeting (henceforth, budget participation) and attempted to answer the above question. Under participative style of budgeting managers involve themselves in order to influence the determination of their budget (Maloney and Mia, 1998).

Prior research has investigated some factors affecting employees' participation in budgeting. Shields and Young (1993), for instance, investigate the impact of information asymmetry between superior and subordinate on subordinate's budget participation. In another study, Shields and Shields (1998) investigate the impact of multiple variables on managers' budget participation. However, in spite of potentially important impact of need for achievement on effectiveness of budget participation (Magner et al., 1996; Klich & Feldman, 1992; Brett et al., 1990; Meglino, 1987), our literature review indicated that with only one exception, the potential role of managers' need for achievement on the effectiveness of

their budget participation has been ignored. Shields and Shields' (1998) review of the budget participation literature reinforces the finding of our literature review as none of the large number of studies (included in the Shields and Shields' review) investigates the possible relationship between need for achievement and budget participation. The exception is Subramaniam et al. (2002). They investigate the impact of need for achievement on managers' budget participation, which in turn impacts the managers' organizational commitment in hotel industry. We argue that managers' need for achievement may lead to (or act as an antecedent of) their budget participation, which in turn may positively influence their performance. Moreover, most (if not all) of the prior studies (e.g., Brownell, 1981; Govindarajan, 1986; Gul, et. al., 1995; Maloney and Mia, 1998) on the impact of budget participation on outcome variables such as managers' performance were conducted in manufacturing firms in the West. Therefore, it is not clear if the prior research findings would generalize to firms operating in an oriental culture such as in Bangladesh. This study is an attempt to addressing the gap in the literature.

Culture may be viewed as the collective programming of the mind which distinguishes the members of one human group from another; it is an interactive aggregate of common characteristics that influences a human group's response to its environment (Hofstede, 1980). Relevant previous research (Frucot and Shearon, 1991; Harrison, 1992, 1993, 1994; Cow et al., 1996; O'connor, 1995; Lau et al., 1995 and 1997) studied the impact of budget participation on employee performance taking into consideration cultural differences. While these studies generally focused on the differences among Anglo-American and other cultures, our extensive review of the relevant literature revealed that Indian culture was ignored. This is in spite of Hofstede's (1980) results indicating Indian culture is significantly different from the Western (e.g., Australian) culture. Most recently, Patiar (2005) confirms Hofstede's findings. Note, historically Bangladesh was a part of Greater India, therefore its culture has close similarities to Indian culture. Patiar reports that Indian culture is significantly different from Australian culture on 'power distance', an important cultural dimension. Previous researchers (Hofstede, 1980, 1991; Harrison, 1992, 1993; Lau et al., 1995 and 1997) report that cultural difference in terms of 'power distance' is an important factor influencing employee reaction to participation in their organization's affair such as budgeting.

2. THEORY AND HYPOTHESES.

2.1. Need for achievement and budget participation. Need for achievement is an individual level variable; it is defined as "the personal striving of individuals to attain goals within their social environment" (Cassidy & Lynn, 1989, p.301). Need for achievement may play an important role in influencing a manager's budget participation, which is an important means for information gathering and processing (Brownell, 1982, Hopwood 1976). Budget participation refers to the extent to which employees in an organization have the opportunity to get involved in formulation of budgets for which the employees are responsible to implement. Recent studies indicate that an individual's need for achievement has implications for their information seeking and feedback behavior (Klich & Feldman, 1992; Brett et al., 1990). Given that budget participation is an important organizational process through which managers may exchange job-relevant information (Magner et al., 1996), it is possible that managers' need for achievement may affect their desire for participation in budget setting. Similarly, Ravlin and Meglino (1987) report that need for achievement acts as a motivating factor for employees to participate in budget setting as it facilitates their performance improvement. Yet, our literature review suggested that there has been inadequate attention given to the influence of need for achievement on managers' participation in budgeting.

We contend that individuals with high need for achievement are likely to desire participation in budget setting because they are motivated to perform well. Individuals high in achievement needs have been characterized as 'realistic' and generally having occupational goals that are congruent with their abilities (Weiner, 1992). They are also found to be flexible in seeking detailed information and feedback from a variety of sources to help in their pursuit of excellence (Klich & Feldman, 1992). Increasing participation in budget setting is one of the sources, which may be useful for managers with high need for achievement because it helps them gain appropriate job-relevant information and set more challenging yet attainable targets. Hypothesis one presents the argument.

H₁. There is a positive association between managers' need for achievement and their budget participation.

2.2. Budget participation and performance. Following Argyris (1952), budget participation has been one of the most researched topics in management. Researchers have investigated the relationships between budget participation and outcome variables including performance, job satisfaction, motivation and attitudes mainly in manufacturing industries (see Shields and Shields, 1998). Prior studies suggest that budget participation yields benefits through a greater exchange of information, better coordination of activities and development of 'team' spirit (Hopwood, 1976; Mia, 1988). Shields and Young (1993) argue that budget participation allows subordinate managers to contribute their personal knowledge to budgeting. Similarly, Subramaniam et al (2002) suggest that through participation in budget-setting, individuals can gain job-relevant information that may help them to set appropriate goals. In the process of participation in budget-setting, managers can gain job-relevant information that may help them to set appropriate goals and make necessary decisions. Participation in budget setting helps managers understand more clearly their role expectations, responsibilities, authority levels and the system of performance evaluations, which reduce their role ambiguity. Previous research reports that reductions in managers' role ambiguity are associated with their improved performance (see Chenhall & Brownell, 1988; Kren, 1992; Maloney and Mia, 1998). Hypothesis two presents the above discussions.

H₂. There is a positive association between managers' budget participation and performance.

2.3. Need for achievement and performance. Need for achievement has long been recognized to influence job performance. Locke (1982, 1991) suggests that a sense of achievements promote good job performance. Better performance results from employees' passion for achievement (Hogan and Hogan, 1996). Likewise, Klich & Feldman (1992) also note individuals having high need for achievement care about doing an even better job and want accurate feedback. Previous researchers (Matsui et al, 1982) report that managers with high need for achievement set harder goals and held higher expectations of performance than those with lower need for achievement.

Employees with high need for achievement are potentially useful members of a firm in that they desire to excel in competition, tend to be independent, and have an interest in excellence (Ward, 1993). Kukla (1972), for example, found individuals with high need for achievement take personal responsibility for success and generally perceive themselves as high in ability. This attribution for success increases their feeling of self-worth. It also helps explain prior findings that individuals with high need for achievement volitionally undertake achievement-oriented activities when an opportunity arises (Weiner, 1992). Hypothesis three summarizes the discussion.

H₃. There is a positive association between managers' need for achievement and performance.

3. METHOD

3.1. Research site. This study was conducted in one of the largest NGOs in Bangladesh having over 500 area field officers (managers) in charge of rural development activities (education, training, disbursement and recovery of loans, and skill development programs) and firms including agriculture, fisheries and poultry.

3.2.1. The data collection. Initially, a letter was written to the general manager (GM) of the selected NGO. The letter explained the purpose of the study, asked the GM to nominate area field officers (managers) to take part in the study and solicited the GM's permission to contact the nominated field officers. A sample of the questions used for the data collection was attached to the GM's letter for information. Within four weeks of posting the letter, the GM was contacted by telephone asking if he would nominate the NGO's field officers to participate. In total, 250 field officers were nominated by the GM and supplied the field officers' names and addresses. Subsequently, each of the nominated field officers was sent a package that contained (i) a personal letter to each of the field officers explaining the purpose of the study, the potential benefit of the study, and offering an assurance of confidentiality of their responses, (ii) a copy of the questionnaire and (iii) a self-addressed stamped envelope for returning the

completed questionnaire direct to one of the researchers. Out of the 250 nominated field officers, 113 fully completed and returned the questionnaire. Therefore, the final sample of the study is 113 yielding a response rate of over 40%.

3.2.2. Measurement of variables

3.2.2.1. Need for achievement. A modified version of the Steers and Braunstein's (1976) Manifest Needs Questionnaire was used to assess the field officers' need for achievement. The Manifest Needs Questionnaire has been modified in previous studies and the modified version of the instrument was used in a number of subsequent studies (see Spangler, 1992). For the present study, the modified version of instrument consisting of eight items was used to assess the managers' need for achievement (often expressed as concern for achieving excellence at work). Examples of these items include participants' responses to "I try very hard to improve on my past performance at work", "I seek to take on extra responsibilities whenever feasible on each task", "I am conscious of the work of my co-workers and I try to outperform them" and "I tend to do my best when my goals are complex and difficult".

Participants were asked to respond to each item in the instrument on a five-point Likert scale ranging from 1 (representing a low need for achievement) to 5 (representing a high need for achievement). A manager's score for the variable was the average of the manager's response to each of the eight items in the instrument. Table 1 presents the descriptive statistics for the variable. The Cronbach alpha for the measure in the study was 0.72, which indicates an acceptable internal reliability. A factor analysis of the items in the instrument revealed that all eight items loaded on one factor having an eigenvalue of 2.77 and explaining 34.60% of the variance.

Table 1: Descriptive Statistics

Variables	Mean	Std.dev	Actual Range		Theoret. Range	
			Min	Max	Min	Max
Budget participation	3.26	0.66	1.33	4.83	1	5
Need for achievement	3.10	0.60	1.38	4.25	1	5
Performance	2.98	0.96	1.00	5	1	5

3.2.2.3. Budget Participation. The six-item instrument developed by Milani, (1975) was used to measure the field officers' (managers') participation in budgeting. The instrument is employed using a 5-point Likert-scale anchored at both ends. A manager's overall score for participation in budgeting is the average of the manager's score on each of the six items in the instrument. A reliability check of the instrument for the study has produced a Cronbach (1951), alpha of 0.91, which is considered highly satisfactory. Table 1 presents the descriptive statistics for the variable. A factor analysis of the items in the instrument has produced a single factor with an eigenvalue of 2.28 and the factor accounts for 38% of the variance.

3.2.2.4. Managerial performance: This was measured using the overall dimension of the Mahoney, et al (1963) self-assessment instrument assessing managerial performance. While the self-rating of performance has been criticised for bias (see Mia, 1988), the method was adopted for assessing performance in the current study for two reasons. Firstly, according to Heneman (1974), there is a high correlation between self-rating and superior's rating of subordinate managers' performance. Secondly, it is difficult (in deed not possible) to obtain the objective measures of managers' performance due to the complex and confidential nature of the information. Moreover, Mahoney et al.'s (1963) instrument has been widely used in management accounting and strategic management research (Otley, 1978; Brownell, 1983; Brownell & McInnes, 1986; Govindrajan 1986; Gul & Chia, 1994). It may also be noted here that self-ratings to measure manager performance have been subjected to some criticisms. But we share Dunk's (2003) view that these criticisms are ill-founded (see also Mia et al, 2005; Venkatraman and Ramanujan, 1987; Neter et al., 1985; Nunnally, 1981).

4. Results

The Correlation between variables presented in Table 3 reveals absence of multicollinearity between the variables, so use of the following regression models to test the hypotheses were considered appropriate.

Table 2: Inter-correlation matrix for the variables

Variables	1	2	3
1. Need for achievement	1.00		
2. Budget Participation	0.56**	1.00	
3. Performance	0.26*	0.31**	1.00

* Significant at $p < 0.05$, two tailed.

4.1. Test of the hypotheses

A path analytic technique was used to test the model of the study. In the model, the relationships between variables are specified by a series of path coefficients (P_{ij}), which are equivalent to standardised beta coefficients (β). The R_n ($n=a$, and b) in the model denotes the unexplained variance associated with X_2 , and X_3 respectively. The model is presented in equation form as follows:

$$X_2 = P_{21}X_1 + P_{2a}R_a \quad (1), \text{ and}$$

$$X_3 = P_{31}X_1 + P_{32}X_2 + P_{3b}R_b \quad (2),$$

The path analysis involved running two regression equations - one for X_2 , and the other for X_3 in the model. A significant advantage of the path model is that it reveals both the direct relationship, and the indirect relationship via X_2 , between need for achievement (X_1) and managerial performance (X_3).

The first regression equation was applied to test hypothesis H_1 , which predicts that there is a positive impact of need for achievement on Managers' budget participation. This equation used budget participation (X_2) as the dependent variable and need for achievement (X_1) as the independent variable. The results presented in Table 3 indicate a positive and significant relationship ($\beta_1=0.56$, $p < 0.001$) between need for achievement and managers' budget participation, thereby supporting hypothesis H_1 . The model explains over 34% of the variance in the managers' budget participation.

Table 3: The results of regressing managers' participation against need for achievement.

Variables	Coeffi (β) Value	t-value	Signif.Level $p <$
Need for achievement (β_1)	0.56	7.10	0.001
R. Square = 31.04%; Adjusted R. Square = 30.42%; $F_{1,112} = 50.41$; $P=0.001$			

The second regression equation was applied to test hypothesis H_2 and H_3 . This equation used managers' performance (X_3) as the dependent variable and budget participation (X_2), and need for achievement (X_1) as independent variables. The results presented in Table 4 reveal a positive and significant relationship ($\beta_2=0.24$, $p < 0.02$) between the budget participation and their performance, thereby supporting hypothesis H_2 . However, the relationship between managers' need for achievement (X_1) and their performance (X_3) is not significant, thus hypothesis H_3 was not supported. In other words, the relationship between need for achievement (X_1) and managerial performance (X_3) was largely indirect via managers' budget participation (X_2).

Table 4: The results of regressing managers' performance against budget participation and need for achievement.

Variables	Coeffi (β) Value	t-value	Signif.Level p <
Need for achievement (β_1)	0.12	1.10	NS
Budget participation (β_2)	0.24	2.28	0.02
R. Square = 10.72%; Adjusted R. Square = 9.11%; $F_{2,11} = 6.66$; $P=0.002$			

5. Discussion and limitations

The significant and positive relationship between the field officers' need for achievement and their budget participation supports the fundamental argument in the paper that managers' need for achievement is an important antecedent of budget participation. Therefore, the results extend prior research on identifying the antecedents and consequences of budget participation (see Shields and shields 199..). In other words, the results indicate that managers with high need for achievement compared to their counterpart with low need for achievement are more likely to participate in budget setting even in an oriental culture. Therefore, it is arguable that the relationship is independent of culture (Oriental or Western). The significant and positive relationship between managers' budget participation and their performance replicates the similar results on this relationship reported in previous studies conducted in the Western culture.

The results also reveal that the positive impact of employees' budget participation on their performance exists not only in manufacturing organizations but also in other types of firms including NGOs. The lack of significant direct relationship between need for achievement and performance (hypothesis 3) reveal that managers' with high need for achievement need a media to act on achieving their desire for improved performance and participative style of budgeting provides the media.

Just like other studies conducted in field settings, the following limitations to the current study are worth mentioning. First, the study was based on one NGO only, therefore caution is required to generalise the results to other NGOs. Future research would benefit from conducting such study in multiple NGOs to improve generalizability of the results. Second, while considerable care was taken in selecting the sample, participation in the study by managers was voluntary. Thus, there is potential for self-selection (response) bias in the sample. For example, it is plausible that high performing managers might have decided to participate in the study; whilst those that were less successful might have abstained. Moreover, the NGO in the study is one of the largest in the country. There are many relatively small NGOs in Bangladesh. Work environment in small NGOs may be different from that in large NGOs. Therefore, the results of the study may not be applicable to small NGOs. Third, although extensive care was taken in devising measures for the variables in the model, there is possibility for improvement. For example, managers' performance in the study was measured using a single-item questionnaire. A multi-item measure would make the results more informative. Future studies would benefit from taking care when formulating the research design, so as to avoid this problem.

References

- Abernethy, M.A., and Stoelwinder, J.U. (1991). "Budget Use, Task Uncertainty, System Goal Orientation and Subunit Performance: A Test of the "Fit" Hypothesis in Not-For-Profit Hospitals", *Accounting, Organizations and Society*, 16, 105-120.
- Argyris, C., (1952). The impact of budget on people. The Controllership Federation, New York.
- Brett, J.B., Feldman, D.C. and Weingart, L.R., (1990). Feedback-seeking behaviour of new hires and job-changers. *Journal of Management*, 16: 737-749.
- Brownell, P. (1981). Participation In Budgeting Locus Of Control And Organizational Effectiveness. *The Accounting Review*, October : 844-860.
- Brownell, P. (1982). The Role Of Accounting In Performance Evaluation In Budgetary Participation, and Organization Effectiveness. *Journal of Accounting Research*, 20(1) : 12-27.
- Brownell, P. (1983). Leadership style, budgetary participation and managerial behaviour. *Accounting Organisation and Society*, 413-426.
- Brownell, P., & McInnes, M. (1986). Budgetary participation, motivation and managerial performance, working paper, Australian Graduate School of Management.
- Cassidy, T., and Lynn, R. (1989). A multifactorial approach to achievement motivation: The development of a comprehensive measure. *Journal of Occupational Psychology*, 62: 301-312.

- Chenhall, R.H. and Brownell, P., (1988). The Effect of Participative Budgeting on Job Satisfaction and Performance: Role Ambiguity as an Intervening Variable, *Accounting, Organizations and Society*, , PP. 225-233.
- Chow, C. W., Kto, Y. Merchant, K.A. (1996). The use of organisational controls and their effects on data manipulation and management myopia: A Japan vs U.S. comparison. *Accounting, Organizations and Society*: 175-192.
- Cronbach, L.J.(1951). Coefficient Alpha and Internal Structure Of Tests, *Psychometrika*, September: 297-334.
- Emmanuel, C., Otley, D., and Merchant, K., (1990). *Accounting for Management Control*, 2nd Edition. (London: Chapman and Hall).
- Flamholtz, E. G., *Accounting, Budgeting and Control Systems in Their Organizational Context: Theoretical and Empirical Perspectives. Accounting, Organizations and Society*, 1983, PP. 153-174.
- Frucot, V. and Shearon, W.T. (1991). Budgetary participation, Locus of Control, and Mexican managerial performance and job satisfaction. *The Accounting Review*, 66: 80-99.
- Govindarajan, V J., (1986). Impact of participation in the budgetary process on managerial attitude and performance: Universalistic and contingency perspectives. *Decision Sciences*, 496-516.
- Gul, F.A., Tsui, J.S.L., Fong, S.C.C., and Kwok H.Y.L. (1995). Decentralization as a Moderating Factor in The Budgetary Participation-Performance Relationship: Some Hong Kong Evidence. *Accounting And Business Research*, 25(98): 107-113.
- Gul, F., & Chia, Y., (1994). The effects of management accounting systems, perceived environment uncertainty and decentralization on managerial performance: A test of three-way interaction. *Accounting Organisation and Society* 19, (4/5), 413-426.
- Harrison, G.L. (1992). The cross-cultural generalizability of the relation between participation, budget emphasis and job-related attitudes. *Accounting, Organizations and Society*: 17: 175-192.
- Harrison, G.L. (1993). Reliance on accounting performance measures in superior evaluative style- the influence of national culture and personality. *Accounting, Organizations and Society*: 18: 319-339.
- Hofstede, G. H. 1980. *Culture's Consequences: International Differences in Work-Related Values*. Beverly Hills, Calif: Sage.
- Hofstede, G. H. (1991).
- Hogan, J. and Hogan, R. (1996). *Motives, Value and Preferences*. Hogan Assessment Systems, Tulsa, OK.
- Hopwood, A. (1976). *Accounting and Human Behaviour* (Englewood Cliffs, N.J.: Prentice-Hall.
- Kilch, N.R. and Feldman, D.C. (1992). The role of approval and achievement needs in Feedback seeking behavior. *Journal of Managerial Issues*, 4(4): 554-570.
- Kren, L., (1992). Budgetary Participation and Managerial Performance: The Impact of Information and Environmental Volatility. *The Accounting Review*, July, pp. 511-526.
- Kren, L. & Liao, W. M., (1988). The Role of Accounting Information in the Control of Organizations: A Review of the Evidence, *Journal of Accounting Literature*, pp. 280-309.
- Kukla, A., (1972). Attributional determinants of achievement-related behaviour. *Journal of Personality and Psychology* 21, 166-174.
- Lau, C.M, Low, L.C. and Eggleton, I.R.C. (1995). The impact of reliance on accounting measures on job related tension and managerial performance: Additional evidence. *Accounting, Organizations and Society*: 19: 359-381.
- Lau, C.M, Low, L.C. and Eggleton, I.R.C. (1997). The interactive effect of budget emphasis, participation and task difficulty affecting managerial performance: A cross-cultural study. *Accounting, Auditing and Accountability Journal*, 10: 175-197.
- Locke, E.A. (1982). *A New Look at Motivation: Theory V. Tech. Rep. No. GS-12*. University of Mary land, College Park.
- Locke, E.A. (1991). The motivation sequence, the motivation hub, and the motivation core. *Organisational Behaviour and Human Decision Processes*, 50: pp. 288-299.
- Magner, N., Welker, R. B., and Campbell, T. L. (1996), "Testing a model of cognitive budgetary participation processes in a latent variable structural equations framework. *Accounting And Business Research*, pp. 27: 41-50.
- Maloney, S., & Mia, L., (1998). The style of budgeting and employee behaviour: Some additional evidence. *The International Journal of Business Studies*, 49-63.
- Matsui, T., Okada, A., Kakuyama, T., (1982). Influence of achievement need on goal setting, pay and feedback effectiveness. *Journal of Applied Psychology* 67, 645-648.
- Mia, L., Iselin, E., and Sands, J. (2005). The performance effect of benchmarking and the balanced scorecard approach in performance reporting: an exploratory study, *International Journal of Business Research*, Vol. 4, pp. 32-41.
- Mia, L., 1988. Managerial attitudes, motivation and the effectiveness of budget participation. *Accounting, Organizations and Society* 13, 465 – 475.
- Mia, L., (1984). Budgetary Participation and performance, an unpublished PhD dissertation, University of Queensland.
- Mahoney, T.A., Jerdee, T.H., and Carroll, S.J., (1963). *Developments of Managerial Performance: A Research Approach*. South-Western Publishing Co., Cincinnati

- Milani, K., (1975). The Relationship of Participation in Budget-Setting to Industrial Supervisor Performance and Attitudes: A Field Study. *The Accounting Review*, April, pp. 274-284.
- Neter, J., Wasserman, W., AND Kutner, M.H. (1985). *Applied Linear Statistical Models*, Homewood, IL: Irwin.
- Nunnally, J. C., *Psychometric Theory*. McGraw Hill, New York, 1967.
- Dunk, A.S. (2003). Financial and Nonfinancial Performance: The Influence of Quality of IS information, Corporate Environmental Information, Product Innovation and Product Quality, Working Paper, University of Canberra.
- O'Connor, N. (1995). The influence of Organisational culture on the usefulness of budget participation by Singaporean Chinese managers. *Accounting, Organizations and Society*: 19: 383-403.
- Otley, D., (1978). Budget Use and managerial Performance. *Journal of Accounting Research*. pp. 122-149.
- Patiar, A.K. (2005). Market competition, transformational leadership, management accounting systems information and performance in hotels: A cross-cultural study: An unpublished PhD dissertation, Griffith University.
- Ravlin, E.C. and Meglino, B.M. (1987). Effect of values on perception and decisionmaking: A study. *Journal of Applied Psychology*, Washington, 72: pp. 666.
- Shields, J.F. and Shields, M.D. (1998). Antecedents to Participative Budgeting. *Accounting, Organizations and Society*, 23 (1): 49-76.
- Shields, M., & Young, S. (1993). Antecedents and consequences of participative budgeting: Evidence on the effects of asymmetrical information. *Journal of Management Accounting Research*, 5, 265-280.
- Spangler, W.D., (1992). Validity of questionnaire and TAT measures of need for achievement: two meta analyses. *Psychological Bulletin* 112 (1), 140-154.
- Steers, R.M. Braunstein, S., (1976). a behaviorally-based measure of manifest needs in work settings. *Journal of Vocational Behaviour* 9, 251-266
- Subramaniam, N., McManus, L. and Mia, L. (2002). Enhancing hotel managers' organisational commitment: an investigation of the impact of structure, need for achievement and participative budgeting, the *International Journal of Hospitality Management*.
- Venkatraman, N. and Ramanujan, V. (1987). Measuring Business Economic Performance: An Examination of Method Convergence, *Journal of Management* (Spring), 109-122.
- Ward, E.A., (1993). Generalizability of psychological research from undergraduates to employed adult. *Journal of Social Psychology* 133 (4), 513-519.
- Weiner, Y. (1982). Commitment in organizations: A normative view. *Academy of Management Review* 7, 418-428.
- Winata and Mia, (2005). Information Technology and the Performance Effect of Managers' Participation in Budgeting: Evidence from the Hotel Industry, *International Journal of Hospitality Management*, Vol. 24, pp. 21-39.
- World Bank Operational Directive 14.70,

AUTHORS' PROFILES

Mr. Badiul alam is Associate Professor of Management, Dhaka Commerce College, Dhaka, Bangladesh. Prof. Alam obtained his Masters in Commerce from Dhaka University, Bangladesh.

Dr. lokman Mia is Professor of accounting, Griffith University, Australia. Professor Mia obtained his PhD from the University of Queensland, Australia, and his MBA from Indiana University, Bloomington, USA.