

## Budget participation in Malaysian local authorities

Sofian Kochik

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# **BUDGET PARTICIPATION IN MALAYSIAN LOCAL AUTHORITIES**

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**Doctor of Philosophy**

**ASTON UNIVERSITY**

**MAY 2011**

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# **BUDGET PARTICIPATION IN MALAYSIAN LOCAL AUTHORITIES**

### **ABSTRACT**

This study examines the effect of budgetary participation on departmental performance via budget adequacy, organisational commitment and role ambiguity. The responses of 108 budget preparers and budget users drawn from a cross-section of Malaysian local authorities, to a questionnaire survey were analysed by using mediation analysis, path analysis and Pearson Product-Moment Correlation technique. The results suggest that budget adequacy, organisational commitment, and role ambiguity are important links in the process. The results of this study suggest that the relationship between budget participation and departmental performance is statistically, significantly, positively and marginally correlated. Of more interest was the finding that budget adequacy, organisational commitment, and role ambiguity are important intervening variables in the relationship between budget participation and departmental performance. The test for mediation effect, demonstrated that budget adequacy, organisational commitment, and role ambiguity had partially mediated the relationship of budget participation and departmental performance. These three variables act as partial mediators when they significantly reduced or decreased the path coefficient of budget participation and departmental performance rather than eliminating the relationship.

Furthermore, the test for direct and indirect effect of budget participation on departmental performance, suggests that budget participation predicted or affected departmental performance more strongly in the indirect way than it did in a direct way. This suggests that, even though the correlation between budget participation and departmental performance was significant, the path interpretation suggests that the correlation arose because budget participation was correlated with other variables that have direct effect upon departmental performance not budget participation itself directly predicted departmental performance. Therefore, there is enough evidence to suggest that budget participation of budget preparers and budget users affects departmental performance of Malaysian local authorities indirectly via budget adequacy, organisational commitment and role ambiguity. Among the indirect effects, the link between budget participation, budget adequacy, organisational commitment, role ambiguity and departmental performance may be the most important in term of this study's contribution.

The decomposition of the observed correlation between budget participation, budget adequacy, organisational commitment and role ambiguity showed that budget

participation of budget preparers and budget users of Malaysian local authorities in the budget setting has direct effect on budget adequacy, organisational commitment and role ambiguity. Budget adequacy and organisational commitment was directly related. However, the relationship of role ambiguity and organisational commitment in this study was indirectly related. This suggests that participation of budget preparers and budget users in the budget setting of Malaysian local authorities lead to decrease role ambiguity that provide adequate budgetary supports, which lead to increase organisational commitment and thus enhance departmental performance.

In relation to the strength of the relationships of the variables undertaken for the study, the overall relationships between variables are significant and positively related except that of role ambiguity relationship. The relationships of role ambiguity with budget participation, budget adequacy, organisational performance and departmental performance are negatively related.

**Keywords:** Budget participation, budget adequacy, organisational commitment, role ambiguity and departmental performance.

## **DEDICATION**

This thesis is dedicated with affection to my wife Noorul Ain Zawawi and my five lovely children, Farah Hanan, Loqman Hakim, Ahmad Anuar, Muhammad Aiman and Sarah Yasmin Aston. They are all truly a blessing in my life.

## **ACKNOWLEDGEMENTS**

First and foremost, I would like to express my deepest appreciation to my supervisor Dr. Paul Collier, who was not only my thesis supervisor, but also an admired mentor. Dr. Paul Collier embodies the wisdom and spirit of a true scholar. I thank you for all the guidance, support, and encouragement without which, this would not have been possible.

I would also like to thank a myriad of Finance, Accounting, and Law Department academic staff, especially Professor Dr. Samuel Aryee the Director of Research Degrees Programme and Professor Dr. Alan Lowe the Research Convener for providing valuable insights during research in progress report seminars. I also wish to thank my fellow doctoral students for their help and support in completing my study.

Finally, I would like to thank my wife, Ain, without whose love and support I could never have achieved the completion of this thesis. You have been more supportive than I could ever have imagined possible, even when it meant sacrificing your own needs temporary. I thank you from the bottom of my heart for being my wife, a mother, and a friend.

I would like to thank also my children for their understanding and love during the past few years. Their support and encouragement was in the end what made this thesis possible. Last but not least, thanks to Public Services Department of Malaysia and the Accountant General of Malaysia for funding and supporting my studies.

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# **CHAPTER 1**

## **INTRODUCTION**

### **1.1 Introduction**

This study attempts to investigate the issue related to budgeting participation practices in Malaysian Local Authorities. Management accounting literature put forward the finding of the relationship of budget participation and performance. Empirical findings have shown that the result is equivocal. Results range from strong positive effect of participation on performance (Merchant, 1981; Brownell, 1982), to unclear or insignificant effects (Milani, 1975; Kennis, 1979) to even negative effects (Bryan and Locke, 1967). This study focuses on budget preparers and budget users' participation in the budget setting of Malaysian local authorities at group level variables and its effect on departmental performance of Malaysian local authorities. Budget adequacy, organisational commitment and role ambiguity variable, which may have direct or indirect effect on the relationship of budget participation and departmental performance of Malaysian local authorities, were included in this study. In this context, this study attempts to examine, firstly how far budget adequacy, organisational commitment and role ambiguity mediates the relationship of budget participation and departmental performance of Malaysian local authorities. Secondly it is to examine whether budget preparers and budget users' participation in the budget setting of Malaysian local authorities have direct or indirect effect on departmental performance of Malaysian local authorities. Thirdly is to examine the effect of budget preparers and budget users'

participation in the budget setting on budget adequacy, organisational commitment and role ambiguity as well as the effect of budget adequacy, organisational commitment and role ambiguity of budget preparers and budget users on departmental performance of Malaysian local authorities. Fourthly, is to examine the linkage and strength of the relationships between the variables undertaken in this study.

Intervening variable model approach was used to examine the effect of budget adequacy, organisational commitment and role ambiguity on the budget participation relationship with departmental performance of Malaysian local authorities. This approach views that budget participation and departmental performance (focal variables) are not directly related (Chenhall and Brownell (1988, pp. 225 and 226); Murray, 1990). Chenhall and Brownell (1988) argued that there is no theoretical argument, which can support simple, direct effects of participation on performance. Instead, according to them, the effects of participation if any, are indirect and are conveyed to performance (outcome criteria) via some intervening constructs or variables which links the variables. The present study will use Chenhall and Brownell (1988) intervening variable model view to explain the effects of three intervening variables, budget adequacy, organisational commitment and role ambiguity, on the budget participation and departmental performance relationship of Malaysian local authorities.

## **1.2 Research Background**

In Malaysian context, the local authority lies under the purview of The Ministry of Housing and Local Government. Every local authority is an autonomous body under

section 13 of the Local Government Act 1976. They are much involved in the development of councils they cover and thus become one of the important agencies in the development of a city, town and district council. Hence their efficiency and effectiveness of resource allocation that are being funded through budget allocation process will greatly affect the economic growth of the country at the macro level. The efficiency and effectiveness of their resources utilization is being determined by their efficiency and effectiveness in managing public fund.

Even though some Malaysian local authorities were set up for more than 50 years ago, there have been only a few limited research studies made on the internal management processes of local authorities especially in the area of budgeting in Malaysia. The efficiency and productivity of budgeting administration as well as the internal management system and their impact on the budget administrative system in Malaysian local authorities has been a neglected area in the study of Malaysian local government finance. Furthermore, many accounting researchers in Malaysia have ignored the management accounting aspect of Malaysian Local Authorities despite various changes taking place throughout the sector. (Tayib et al, 2001). This lack of research especially is the major motivator to carry out this study. Second, very few studies have examined the effect of mediating variables on the relationship of budget participation and performance at group level variables (Brownell (1983), Chenhall (1986) and Poon et al (2001) especially in public sector organisation in developing countries like Malaysia. This group level study needs to be conducted to find out whether there are any significant differences of results or findings on the budget participation and departmental performance

relationship and the three intervening variables undertaken for this study which have different sample group, research interest and variables of interest which according to previous studies contributed to inconclusive results. In this study, a model is developed to show how budget adequacy, organisational commitment and role ambiguity act as intervening variables in the link between budget participation and departmental performance. The finding may give an indication on how far the influence and impact of budget participation of budget preparers and budget users have, over their departmental performance in relation to other variables such as budget adequacy, organisational commitment and role ambiguity. The results of the study may provide some input to Malaysian local authorities as they move forward into a new more challenging managerial environment and attempt to improve their current budgeting systems. The finding of the study will be useful for giving guidance in developing a model that could explain how budget participation of budget preparers and budget users of Malaysian local authorities could be improved and enhanced departmental performance by considering other variables that has direct and indirect effect on budget participation and departmental performance relationship. As indicated by this study, budget participation may lead to budgets that provide adequate budgetary support and thus facilitate employee and enhance departmental performance. Budget participation may also increase organisational commitment, which could lead to positive work outcomes such as a higher departmental performance. Budget participation may also be most helpful in decreasing manager's role ambiguity and that decreased role ambiguity subsequently improves departmental performance. This model will be helpful in providing reliable information to top management of Malaysian local authorities in enhancing participative budgetary

system in their organisation that would then aid in planning for development of the infrastructure and other social activities of the local authorities. Finally, it may also strengthen the performance measurement processes of the Malaysian local authorities.

### **1.3 Research Problem**

This research deals with the general topic of participation in decision making with particular emphasis on participation of budget preparers and budget users in the budget setting of Malaysian local authorities via budget adequacy, organisational commitment and role ambiguity over their departmental performance. Participation in the budgeting process has been of great interest to management accounting researchers because they want to examine the link between participation in the budget setting process and organisational performance (Merchant 1981). The purpose of this research is to examine the effect of budget adequacy, organisational commitment and role ambiguity on the relationship between budget participation and departmental performance. Additionally this research will also examine the impact of budget participation on departmental performance and the linkage and strength of the relationship between the variables.

The importance of subordinates' budget participation as a mean of improving performance has been studied extensively in the behavioural accounting literature (Brownel 1981, 1982; Brownel 1986; Chenhall & Brownel 1988; Kren 1992; Magner 1996; Nouri & Parker 1998). It is argued that the act of participation in the budgeting process serves as a function by inducing subordinate to accept and commit to their budget goals (Hoftede 1968; Merchant 1981). Murray 1990; Magner et al. 1996; Nouri and

Parker 1998, further suggested that budget participation also serves an informational function whereby subordinate can gather, exchange and disseminate job-relevant information to facilitate their decision making process and to commit their private information to organisational decision makers. Several researchers have noticed that allowing subordinates to participate in the budgeting process may result in the disclosure of private information which would result in more accurate budgets (Merchant, 1981; Chow et al, 1988; Murray, 1990) that improved organisational performance and enhanced performance.

It has been argued that negative behaviour at work might be tied to the manner in which work is designed and the manner in which people are managed. Beer, Spector, Lawrence, Mill and Walton (1984) believed that management choices concerning work system will have strong effect on the level of motivation, performance and loyalty towards organization. Hence, it could be said that the effectiveness and efficiency of budget administrative procedures and practices, and supervision by highly committed budget personnel within well-executed work systems, would provide a vital role in determining the successful implementation and maintenance of the budget administrative system. A committed employee's definite desire to maintain organizational membership could have a clear relationship to the motivation to participate in and be receptive to change. Normally the productivity and work quality of the individual employee would also increase (Beer et al, 1984). Therefore, the issues that can be associated with the performance of budget expenditure are the efficiency and productivity of budget

administration system that has direct effect on the adequacy of the budget, commitment and clarity of the people involved in implementing the agreed budget.

The need for involvement, for commitment and not least, the participation of the lower members of the organisation is viewed as a vital feature of these modern approaches to budgeting (Hopwood, 1974). Discussion on the issues of participation and its relationship with the implementation of decisions, interpreting the findings in terms of commitment, role ambiguity and clarity, motivation and involvement has been widely studied by many researchers to name a few such as Brownell, Dunk, Nouri and Parker. It has long been recognised, that many seemingly ideal solutions to organisational problems have been ineffective. This is because the people who have had to implement them have resisted it. Therefore it should not be surprising that many discussions of participation in decision making, as well as a lot of managerial interest in the subject have focused on the possibility that subordinate participation increases the probability that decisions will be effectively implemented and consequently enhances their performance. Thus, it is commonly assumed that employees will perform at higher level in a participatory situation.

Although the value of participation in budgeting has been widely assumed, research findings have been somewhat mixed (Greenberg & Nouri, 1994). Results range from strong positive effects of participation on performance (Brownell, 1982, Nouri and Parker 1998), to unclear or insignificant effect (Milani, 1975; Kenis, 1979), to even negative

effect (Stedry, 1960; Bryan and Locke, 1967). The inconclusive results were due to different sample groups, research settings, and variables of interest.

In relation to the conflicting result, Brownell (1983) and Chenhall (1986) argued that budget participation literature has too narrowly focused on individual level variables. In this regard, Brownell (1983) and Chenhall's (1986) argument was to be consistent with the finding of Poon et al (2001). They found, only two out of 39 published empirical studies between 1980 and 1995, investigating the effect of budgetary participation and performance at the group level. They concluded that, although budgetary participation, by definition involves interaction between participants, has frequently ignored interpersonal processes and thus suggests research between budget groups are particularly useful in getting the understanding of budget participation effectiveness. In line with their suggestion, this study will look into budget users and budget preparers' participation in budget setting which focused on group level variable and its effect on departmental performance of Malaysian local authorities.

The participative budgeting literature has provided a link between participative budgeting and employee performance (Melani 1975; Kenis 1979; Merchant 1981; Brownell 1982a). Further more, Clinton and Hunton (2001), found a link between the degree of participative congruence in the budgetary process and organisational performance. By examining the linkage between participative budgeting and employee organisational performance, previous researchers have attempted to determine whether participative budgeting leads to higher employee performance (Melani 1975; Kenis 1979; Merchant 1981; Brownell 1982a) or higher organisational performance (Clinton and Hunton 2001).



Very few studies have been conducted on the effects of budget adequacy, organisational commitment and role ambiguity on the relationship of budget participation and performance. Nouri and Parker (1998) studied the intervention effect of budget adequacy and organisational commitment on the relationship between budget participation and job performance. Whereas Chenhall and Brownell (1988) studied the intervention effect of role ambiguity on the relationship between budget participation and job satisfaction and job performance. Budget adequacy for example has been hypothesised as an important variable in the budgeting process, as it is perceived by employees as an adequate resources to fulfil their job requirement and in accomplishing their tasks (Nouri & Parker, 1998), subsequently increase their bonding and commitment with the organisation and thus enhances their job performance. Similar findings were also significant with organisational commitment and role ambiguity. These two variables have been found to be negatively related and act as intervening variables in the budget participation relationship with performance by Nouri and Parker (1998) as well as Chenhall and Brownell (1988). In other words, these variables showed strong effect in improving performance by partially mediates the relationship of budget participation and performances. Both studies showed that budget participation has direct effect on budget adequacy, organisational commitment and role ambiguity and the three intervening variables have direct effect on performance. These findings however are based on the studies in private sector in developed country which focused on the individual level variables and have been conducted for more than ten years ago using job performance as the outcome criteria. There is no study that has been conducted to examine the effect of these three intervening variables on budget participation relationship with departmental

performance at group level variables such as budget preparers and budget users in developed or developing countries like Malaysian local authorities which have different setting, culture and sampling. This study can be regarded as the first attempt to explore the budgetary participation of budget preparers and budget users in the budget setting and its effect on departmental performance of Malaysian local authorities via budget adequacy, organisational and role ambiguity as intervening variables. With new development in information computer technology and the wide spread usage of computer in the budgeting process both private and public sectors either in developed or in developing countries, therefore it is timely, that a study be conducted in public sector organisations like Malaysian local authorities, the organisations that have direct impact on the people with a bureaucratic administrative structure on the impact of budget participation on departmental performance via adequacy, organisational commitment and role ambiguity. Thomson (1967) as cited in William et al (1990) challenged researchers to examine budgetary behaviour in such public organisations, as the budgetary behaviour may be different in these organisations compared to the behaviour in profit-making and less bureaucratic organisations. Since the public service sectors organisation are differ considerably from manufacturing and merchandising sectors, particularly with respect to the orientation of their establishment and clients, it is plausible the research findings on the impact of budgetary participation on performance will not be generalised to these sectors. Therefore, there is considerable lack of theory development and corresponding empirical investigation addressing the effect of budgetary participation on employees' attitude and behaviour or participation's effect on outcome criteria such as departmental performance via intervening variables such as budget adequacy, organisational

commitment and role ambiguity in public sector organisations, like local government in developing countries. Hence, there is a pressing need for more research reflecting the reality of public sector organisations in general and in particular public sector organisations in developing countries like Malaysia to be conducted. Besides that, as mentioned earlier most previous studies, on the effect of budget participation on performance as commented by Brownell (1983) and Chenhall (1986), has narrowly focused on individual level variables. Thus, this study will provide additional outlook at group level variable on departmental performance of budget preparers and budget users of Malaysian local authorities. Further examination of the linkages and the relationship between budget participation and performance by using departmental performance as an outcome criteria and its relationship with budget adequacy, organisational commitment and role ambiguity as intervening variables, in public sector organisations setting in developing country, Malaysia at group level variables will better explain the link between budget participation and performance.

In this study, the individual level factors (budget participation; budget adequacy; role ambiguity; organisational commitment) were hypothesised to have an impact on organisational level factors (departmental performance) because the respondents in this study were the budget preparers and budget users which are directly involved and have an influence in the budget setting. Both parties were involved in the establishment of predetermined goals or standards of performance for their organisation, reporting of actual performance results and the evaluations of performance in terms of the predetermined standards. Participative budgeting helps to provide them the challenge and

sense of responsibility to accomplish the desired results. It is also to increase the probability that the goals of the budget will be internalised by them, that they will accept these goals as their own. Therefore, the departmental performance will be determined by their commitment, clarity of their roles and also the ability to gain adequate budget in the budgeting process.

Following Brownell (1983) and Chenhall (1986) and the findings of Poon et. al., (2001) as mentioned above, and their call for research between budget groups are particularly useful in understanding budget participation effectiveness not only on departmental performance but also on other variables such as budget adequacy, organisational commitment and role ambiguity which have also influence the overall performance of a department or organisation. Hence, a systematic examination of the impact of budgetary participation on performance via budget adequacy, organisational commitment and role ambiguity relying on sample drawn from public service sector organisation in developing country like Malaysia will provide a different setting, and most importantly, it will provide further insight into the condition under which participative budgeting is effective.

In relation to the intervening variables used in this study, the justification for choosing the budget adequacy, organisational commitment and role ambiguity as a construct are as follows. It is crucial to understand the effects of budget adequacy, organisational commitment and role ambiguity on the relationship of budget participation and performance. This is because Malaysian local authorities have been implementing participative budgeting all these years, thus research findings that budgetary participation

enhances budget adequacy and organisational commitment and reduces role ambiguity will have important implications for Malaysian local authorities, other public sector organisations in Malaysia and other developing countries generally. As indicated from the literature review, most public sector organisations in the world are facing budget deficit particularly the local governments. Various issues such as scarce resources due to a decline in external funding from central government, a limited capacity to increase rate revenue, and escalating expenditures are common management problems in most local governments in the world (Bellamy et al. 1995). Therefore, budget is a constraint in public sector organisations, thus this issue is important and relevant to be addressed and examined in the Malaysian context. This study will enable to explore the problem of budget adequacy in Malaysian local authorities. Is budget adequacy a problem in Malaysian local authorities? If so, how far does budget adequacy affects departmental performance of Malaysian local authorities? Furthermore, several researchers have noted that allowing subordinates to participate in the budgeting process may result in the disclosure of private information which would result in more realistic plans and more accurate budgets (Merchant, 1981; Chow et al, 1988; Murray, 1990). The study by Nouri and Parker, 1998 on the role of budget adequacy and organisational commitment on the relationship of budget participation and job performance confirmed previous studies mentioned above on the positive effect of participation of subordinate in providing information about the level of budgeted resources needed to perform successfully. However, empirical study examining the role of budget preparers and budget users in providing adequate budget and its relationship between budget participation and departmental performance has been neglected in developing countries like Malaysia.

Reaffirming and reconfirming the positive and negative linkages of previous finding on variables undertaken in this study is highly warranted and important to enrich the participative budgeting literature. Therefore this study makes explicit contribution to the budgeting literature by fulfilling the gap in the budgeting literature by examining the role of budget adequacy, organisational commitment and role ambiguity at group level variables and their impact on the relationship between budget participation and departmental performance of Malaysian setting, particularly in the Malaysian local authorities.

## **1.4 Research Objectives**

The objectives of this research are to:

- (1) To examine the role of budget adequacy, organisational commitment and role ambiguity of budget preparers and budget users of Malaysian local authorities in mediating or intervening the relationship of budget participation and departmental performance of Malaysian local authorities.
- (2) To examine whether budget participation, budget adequacy, organisational commitment and role ambiguity of budget preparers and budget users of Malaysian local authorities has direct or indirect effect on departmental performance of Malaysian local authorities.
- (3) To examine whether budget participation of budget preparers and budget users of Malaysian local authorities has direct or indirect effect on budget adequacy,

organisational commitment and role ambiguity of budget preparers and budget users of Malaysian local authorities.

- (4) To determine the strength of the relationship between budget participation, budget adequacy, organisational commitment, role ambiguity and departmental performance of Malaysian local authorities.

## 1.5 Research Questions

The following are the main research questions developed in this thesis.

*Research Question 1: What is the relationship between budget participation and departmental performance of Malaysian local authorities?*

*Research Question 2: What is the relationship between budget participation and the three mediating variables (budget adequacy; organisational commitment; role ambiguity)?*

*Research Question 3: What is the relationship between the three mediating variables and departmental performance of Malaysian local authorities?*

*Research Question 4: What is the relationship of budget adequacy and organisational commitment of Malaysian local authorities?*

*Research Question 5: What is the relationship of role ambiguity and organisational commitment of Malaysian local authorities?*

In order to answer the five research questions stated above, this thesis formulated nine hypotheses as listed below:

Hypothesis 1(H1) is formulated to answer Research Question 1:

*H1: There is a positive relationship between budget participation and departmental performance of budget preparers and budget users of Malaysian local authorities.*

Three hypotheses (H2; H3 and H4) are formulated to answer Research Question 2:

*H2: There is a positive relationship between budget participation and budget adequacy of budget preparers and budget users of Malaysian local authorities.*

*H3: There is a positive relationship between budget participation and organisational commitment of budget preparers and budget users of Malaysian local authorities.*

*H4: There is a negative relationship between budget participation and role ambiguity of budget preparers and budget users of Malaysian local authorities.*

Further, H5, H6 and H7 are formulated to answer Research Question 3:

*H5: There is a positive relationship between budget adequacy and departmental performance of budget preparers and budget users of Malaysian local authorities.*

*H6: There is a positive relationship between organisational commitment and departmental performance of budget preparers and budget users of Malaysian local authorities.*

*H7: There is a negative relationship between role ambiguity and departmental performance of budget preparers and budget users of Malaysian local authorities.*



Two hypotheses (H8) and (H9) are formulated to answer Research Question 4 and Question 5 respectively:

*H8: There is a positive relationship between budget adequacy and organisational commitment of budget preparers and budget users of Malaysian local authorities.*

*H9: There is a negative relationship between role ambiguity and organisational commitment of budget preparers and budget users of Malaysian local authorities.*

The following section explains the significance of this thesis on theory and practice.

## **1.6 Significance of Research**

The study of budgetary participation and its effects on managerial attitudes and behaviour has occupied the attention of accounting researchers (Chenhall and Brownell, 1988). Although the volume of research in the area is quite large, study results have been diverse and generally inconclusive (Shields and Young 1993). With regard to performance, results range from strong positive effects of participation on performance (Brownell, 1982; Nouri and Parker, 1998) to unclear or insignificant effects (Milani, 1975; Kenis, 1979) to even negative effects (Bryan and Locke, 1967). Budgetary participation of employees in the budget setting, has been found to decrease, as well as to increase performance. Identifying the factors that influence budget participation and performance relationship is important to be examined at group level variables in public sector organisation like Malaysian local authorities. The findings from this study could improve our understanding of the process by which budget participation influences departmental performance. These new findings will make an additional contribution to the body of

knowledge in the area of participative budgeting and its effects on departmental performance via budget adequacy, organisational commitment and role ambiguity at group level variables from Malaysian local authorities' perspective.

It has been found that limited studies on the effects of budgetary participation of employees in the budget setting has been conducted in public sector organisations especially in developing countries. As mentioned earlier, most previous studies were focused on individual level variables and have been conducted in private sector organisations in developed countries like United State of America, Britain, Australia and New Zealand. In an area where studies of budgetary participation in developing countries are scarce, the attempt of this research to examine the effects of budget adequacy, organisational commitment, and role ambiguity on the relationship between budgetary participation and departmental performance in public sector organisations that focussed on group level variables is warranted. The results of this study would further test the constructs developed by previous studies, by investigating their applicability in different environment and organisations. More importantly this research will reveal some important findings towards complementing of previous studies in the effect of budget participation of employees in the budget setting on performance.

Secondly, this study is different from other previous studies, which highly focussed on individual performance. Most studies concentrated on the managerial and job performance measurement, which are individually focussed. This study focuses on group level performance at departmental performance level. We adopted departmental

performance measurements from Van de Van and Ferry (1980) designed and developed specifically to assess performance in public sector organisation. These elements focused on the quantity or amount of work produced, the quality or accuracy of work produced, the number of innovations or new ideas by the units, attainment of unit production or service goal, efficiency of unit operations and lastly morale of unit personnel.

Finally, the results of the study may also provide some input to Malaysian Local Authorities as they move forward into a new more challenging managerial environment and attempts to improve their current budgeting systems. The finding of the study will be useful for giving guidance in developing a model that could explain how budget participation of budget preparers and budget users could be improved and enhance departmental performance of Malaysian local authorities. As indicated by this study, budget participation may lead to budgets that provide adequate budgetary support and thus facilitate employee and enhance departmental performance. Budget participation may also increase organisational commitment, which could lead to positive work outcomes such as a higher departmental performance. Budget participation may also be most helpful in decreasing manager's role ambiguity and that decreased role ambiguity improves departmental performance. This model will be helpful in providing reliable information to top management of Malaysian local authorities in enhancing participative budgetary system in their organisation that would then aid in planning for development of the infrastructure and other social activities of the local authorities Finally it may also strengthen the performance measurement processes of the Malaysian local authorities.

## **1.7 Organisation of Chapters**

The research is divided into seven chapters, including this Introduction Chapter and the rest of this research is organised as follows. Chapter Two reviews the literature on the theory of budgeting in particular the role and function of budgeting in management planning and control. The theory of participative budgeting is also discussed quite extensively in this chapter, as it is very important and relevant to this study. The theory of budget adequacy, organisational commitment, role ambiguity and departmental performance is examined and discussed in this chapter. This is important to link the theory with participative budgeting. Finally a brief review on the issues and problems of budgeting in local authorities is also highlighted.

Chapter Three discusses the budgeting system of Malaysian local authorities. Some prevailing problems as well as weaknesses were also highlighted in this chapters.

Chapter Four discusses and develops various hypotheses regarding the proposed relationship of the constructs in this study based on past literatures. The hypotheses on the proposed relationships are based on the theoretical framework presented in chapter two and the model adopted as illustrated in Figure 4.1.

Chapter Five presents a comprehensive description of the methodology employed to quantitatively investigate the conceptual models of budgetary participation of budget preparers and budget users of Malaysian local authorities. These include the general data collection issues, theoretical justification for the description of the research design,

operational definitions of the variables, as well as data analysis and measurement. Details of mediating effect analysis and path analysis were also provided.

Chapter Six presents the results of the descriptive analysis of the response from the main survey. Mediation analysis was conducted to examine how far budget adequacy, organisational commitment and role ambiguity mediates the relationship of budget participation and departmental performance of Malaysian local authorities. The findings indicate that budget adequacy, organizational commitment, and role ambiguity partially mediated the relationship. Path analysis was used to test the effects of participation, budget adequacy, organizational commitment and role ambiguity on departmental performance of Malaysian local authorities. Pearson Correlation and Regression Analysis were used to test the relationship between the variables.

Chapter Seven provides the discussion for this study and Chapter Eight summarises the conclusions drawn from this study in terms of its implications for theory and practise.

## **1.8 Summary**

This chapter described the research background, the research problems and outlined the structure of this thesis. The purpose of the study is to examine the budget participation relationship in a large and complex public sector organisation, in a developing country which is Malaysian local authorities focusing on budget preparers and budget users at group level variables. This study also examines the intervening effect of budget adequacy, organisational commitment and role ambiguity on the budget participation and

departmental participation performance relationship. In the next chapter, the international literature on budgeting is reviewed that informed the development of the research framework used in this thesis.

## **CHAPTER 2**

### **BUDGETING IN MALAYSIAN LOCAL AUTHORITIES**

#### **2.1 Malaysian local authorities' budgeting system.**

In its continuing effort to improve efficiency in budgeting, the Federal Treasury of Malaysia introduced Modified Budgeting System (MBS) in 1990 to replace the Program and Performance Budgeting System (PPBS) that has been used since 1969. Prior to that Traditional Budget was used. The Modified Budgeting System (MBS), which in effect is the final phase of Program and Performance Budgeting System (PPBS) advocates a concept of 'let managers manage' – a decentralization of authority giving the president of the local authorities greater autonomy in financial management. Local authorities set their own targets, prioritize their programs and conclude an understanding with the State Treasury on proposed achievable targets. Under the system, the State Treasury will undertake periodic evaluation on the programs and activities of the local authority to determine performance against targets.

The main source of revenue for local authorities in Malaysia comes from Assessment Taxes. Other resources as provided under Section 39 of the LGA 1976, include rentals, licenses and permits, service charges, interest and dividends, fines, sale of goods fees,

and other support services charges. The expenditure budget has two major components, operating (supply and charged) expenditure and development expenditure.

In achieving national development goals, the roles of planning are integrated. The successive Five Year Malaysia Plans formulate operational goals and strategic means of achieving them. The Malaysian Plans were the blue prints for development covering all aspects of the national economy. The plans outlined an action oriented agenda of policies, programs and projects to eradicate poverty and restructure society. Development projects like housing, shopping malls, swimming pools, gymnasiums, community halls and markets require substantial sums of money to build and maintain. Normally, the federal government, with little help from state government provides the financing for most of the development projects carried by local authorities by way of grants.

The budget year is from 1st January to 31st December. In January of each year, the State Financial Officer issues a circular prescribing guideline for the preparation of the budget estimates for the following year. The circular sets out, the expenditure budget policy, prescribes the formats to be used and the timetable for submission of the budget proposals. Each local authority will formulate their own budget by calling each individual division to come out with estimates on both expenditure and revenue budget. Several meeting will be held by each individual divisional head in order to formulate estimates for his division through participation of budget preparers and budget users. Estimates for the local authority will be compiled by the financial management division before it is table in the local authority's management meeting chaired by the president for approval. This estimation will later be examined by the councils before it is submitted to state



financial office for endorsement. Then, it is tabled in the state assembly house for approval.

## **2.2 Issues of Budgeting in Malaysian local authorities**

The Local Authorities being a service provider to the public should not be immune from pressure that drives an organization to successfully provide quality services that satisfied the customers and stakeholders. Public sector services are experiencing pressures as a result of financial constraints, legislative changes, criticism of standards and political tension. Together with internal pressure, the desire for improved quality of service has become a major concern in the era of global competition. Thus, quality has become the importance force leading to organizational success in national and international market.

There are two types of customers to public services, such as in local authorities according to Donnelly et al, (1995). They are the recipients or users of services, which make either little or no financial contribution towards their provision, or those who have to pay for a particular public service but do not experience its benefits through direct used. Currently, there are altogether 146 Local authorities in Malaysia, consisting of 8 city halls, 23 town councils, 115 district councils and 11 local councils. In Malaysian context, the local authority lies under the purview of The Ministry of Housing and Local Government. Every local authority is an autonomous body under section 13 of the Local Government Act 1976. They are much involved in the development of councils they cover and thus become one of the important agencies in the development of a city, town and district council. Hence their efficiency and effectiveness of resource allocation that being funded

through budget allocation process will greatly affect the economic growth of the country at the macro level. The efficiency and effectiveness of their resources utilization is being determined by their efficiency and effectiveness in managing public fund.

Even though some Malaysian local authorities were set up for more than 50 years ago, there have been only a few limited research studies made on the internal management processes of local authorities especially in the area of budgeting in Malaysia. The efficiency and productivity of budgeting administration as well as the internal management system and their impact on the budget administrative system in Malaysian local authorities has been a neglected area in the study of Malaysian local government finance. There are many issues related to budgeting problems in Malaysian budgeting systems as highlighted by Doh Joon Chien (1972 & 1984). He commented on the following issues:

- 1) Over emphasis on the technical aspect and neglect of human variables
- 2) Little attention to develop understanding, receptivity and capability in using data
- 3) Inadequate support from top level administrators
- 4) Lack of trained staff and
- 5) Inadequate support from the Treasury itself, particularly by budget-examiners and trained staff was promoted to unrelated jobs.

This was further supported by Dean (1986) who highlighted areas that are lacking in the budgetary system. These include the following:

- 1) Lack of commitment on the part of the Agency Steering Committee, budget officers and managers.

- 2) Lack of trained personnel in in-depth units. Apart from a short general course, most have had to learn from the job. Frequent turnover of staff and consequently need to train new entrants. Sometimes staffs are temporarily allocated to other assignments.
- 3) Poor information generation and use of that data; and
- 4) Lack of central agency support and technical difficulties in relation to identifying output indicators and allocating overhead costs.

The problems were worsened with the continuous negative yearly reports and comments made by the Auditor General of Malaysia on the overall performance of Malaysian local authorities financial management. Issues on the weaknesses of budget management were continually highlighted. Problems in managing late virement were very obvious due to delay in sending and getting approval from higher authorities such as the State Financial Officer's office. Most local authorities were not able to spend their budget which not only highlighted their weaknesses in planning and executing the budget but consequently deprived other local authorities that need the late budget. Sources of weaknesses that contributed to the poor financial management by Malaysian Local Authorities can be summarized as follows:

- 1) Structure, system, supervision and staff

The structure of certain local authorities especially in district councils, the head or the president of the local authorities concerned is also the district officer. In practice, the district officer will pay more attention to the administration of the

district office. Apart from this, an ineffective working system also contributes towards poor financial management. This includes absence of standard guidelines, accounting system, manual of work procedures and desk files. In addition, many of the presidents of local authorities do not pay serious attention to matters concerning finance and account. Only a handful is directly involved in the supervision of subordinates doing financial work. Furthermore, local authorities also face staffing problem apart from inability of staff to carry out their financial responsibilities in an efficient and effective manner.

2) Knowledge

Human resource and know-how are important assets that determine the success of an organization. However, according to the observation of the Auditor General Office, majority of staff in local authorities do not possess sufficient knowledge and neither are they sufficiently trained in accounting matters.

3) Isolated remedial action

Auditor General Office of Malaysia also commented on the remedial action taken by many local authorities. Rather than taking systematic and continuous steps towards improvement, weaknesses in financial management are dealt with in isolated and ad-hoc manner. The practice of not taking urgent action to correct any weaknesses or mistakes in financial record keeping has now apparently been accepted as a work culture. As a result, certain local authorities are faced with the problem of preparing timely annual financial statements.

4) Lack of skill

According to the Auditor General Office of Malaysia, lack of skill in the maintenance of accounts and financial records is very prevalent in many of the local authorities. Many of the local authorities do not organize systematic and schedule training courses for their staff.

5) Lack of systematic monitoring.

There is generally a lack of systematic monitoring in the Ministry of Housing and Local Government, State Secretariat and even at the local authority itself. At the secretariat's level, periodical and schedule visits by responsible officers were not carried out to assist in overcoming financial and accounting problems faced by local authorities. At the local authority level, problems relating to accounting matters and the preparation of annual financial statements were not discussed in detail. There were also a distinct absence of follow up mechanism and action plan to overcome weaknesses in financial management and even if there is one, it was found to be ineffective.

## **2.3 Conclusion**

Therefore, it is warranted that a study be conducted to examine whether the above scenario or problem is still exists in Malaysian local authorities. Furthermore, many accounting researchers in Malaysia have ignored the management accounting aspect of Malaysian Local Authorities despite various changes taking place throughout the sector.

## **CHAPTER 3**

### **LITERATURE REVIEW**

#### **3.1 Introduction**

This study deals with the general topic of participation of managers in the budget setting and its effect on performance via three intervening variables (budget adequacy, organizational commitment and role ambiguity). Participation according to Milani (1975) is a concept used to describe the extent to which subordinates are allowed to select their own course of action. More specifically, Brownell (1982c) widened the scope of participation of managers in the budget setting into two dimensions, that is involvement and influence the managers have in the budgeting process.

Budgeting is one of many administrative activities which appear to bring out certain kind of human reactions. Budgets are useful in assisting management to fulfill its functions of planning, coordination and controlling organization activities. Therefore, it is a tool which cannot exist without people. As such budget has been described as a quantified plan for future activities and concentrated on technique involved in preparing and using it. Beddingfield (1969) argued that success of the budget is realized only when human aspects of the budget receives attention equal to that given budget techniques. As Argyris (1953) concluded, the greatest contribution from budgeting activities would occur if subordinates were allowed to participate in the activity of budget creation. The importance of subordinates' participation in the budget setting and its effect on performance has been conducted extensively by previous researchers (Hopwood 1972; Milani 1975; Otley 1978; Kennis 1979; and

Brownell 1982a). The results are inconsistent in explaining linkages between participative budgeting and outcome variables such as job performance. These inconsistent results may be due to different experimental settings, which have diverse sample groups, research settings (experimental or survey) or variables of interest or due to common omitted variables. Therefore, this chapter will examine variables which have been dealt with in the literature (1) budget participation, (2) departmental performance, (3) budget adequacy, (4) organizational commitment and (5) role ambiguity. Additionally this chapter also examines literature on the participation and performance relationship, the role of budget adequacy in the relationship between budget participation and performance, the role of organizational commitment on the relationship of budget participation and performance and the role of role ambiguity in the relationship between budget participation and performance. As a background to this chapter, researcher highlighted literature on budget's role in organization.

## **3.2 Role of Budget**

Budget plays a number of roles and helps achieve a variety of organizational, group and individual purposes. Budgeting for non-commercial operation is essentially similar in principle to budgeting for commercial operations. In both cases, the level of desired output is first predicted and this then determines the relevant cost and revenue. For local authorities in particular, they first need to estimate the amount of rates and government grants that could be collected and thus would determine the amount that could be spent on the council's activities.

Much research has been conducted on the roles of budget in motivating and encouraging employee to perform a high level. Wilson, et al. (1988), summarising these research results indicate that;

- 1) Budgets have no motivation effect unless the individual responsible for achieving the budget target accepts them (Hofstede, 1968; Merchant and Manzoni, 1989; Murray, 1990)
- 2) In general, given acceptance, the more difficult the target the higher the level of performance achieved (Locke, 1968; Otley, 1978; Merchant & Manzoni, 1989).
- 3) Budgets are more likely to be accepted where good upward communication exist (Campbell, 1985)
- 4) Cultural and organizational climate factors that influence the individual exists (Goddard, 1997; Tsui, J.S.L. 2001)
- 5) Specific, difficult budget targets are perceived as being of greater relevance to organizational decision making than loose budgets (Otley, 1986).

Simon (1990) however noted budget serves as a diagnostic role and, for evaluating performance and attributing responsibility for outcomes to particular organisational function on members. He argues that budgets are used interactively between the top and lower levels of management as well as interaction within various levels of management across functions. This interaction according to him involves not only participation between subordinate and superiors in budget setting process but also an on-going dialogue between organisational members as to why budget variances occur, how the system or behaviours can be adapted and even whether any action should be taken in response to these variances.



Hopwood (1974) on the other hand argued and emphasised that one of the basic purposes of any budgetary system is to encourage an active concern with the future. In budgetary context, he highlighted that, budgetary process is really about trying to organise and structure some vital elements of the wider organisational decision making process. Budgeting according to him contains a multi-purpose activity, providing a framework within which subsequent delegation of authority may be allowed to take place and also by which influence is distributed within the organisation.

Budgeting has also been seen as an instrument for performance evaluation and feedback control, which generates certain behavioural outcomes. Bruns and Waterhouse (1975), define budget as “Financial plans that provide a basis for directing and evaluating the performance of individuals or segments of the organisation.” Through budget, activities of different parts of an organisation can be co-ordinated and controlled. In relation to that they emphasised the importance of certainty in budget planning and accuracy in measuring budget output as two important criteria in the budgeting process. They further argued and suggested that, if budget were to be used for control purposes, management needs to be able to plan fairly high degree of certainty and to measure output or role performance with a relatively high degree of accuracy. As a conclusion according to them, a budget may not only specify a goal but it may also specify the means for accomplishing that goal.

The later studies view budgets not as ‘rational allocation’ and ‘control devices’ but ‘as forms and sources of power and political processes’. In this second view, a budget is primarily a political tool for resolving conflict and a means for negotiation in

organizations. Organizations are coalitions of people with diverse aims and who compete for scarce resources (Jossen, 1982, Keen et al., 1996, Wallander, 1999). In the process of obtaining these resources, alliances are formed, friends persuaded and enemies created through battles over budget allocations. Thus, budget allocations often represent political compromises. As such they are often the outcomes of political contest rather than the result of the application of rational, neutral decision rules (Wildavsky, 1979; Hill and Mahoney, 1978). This view of budgets has been supported by several studies on university budgeting Pfeffer and Salancik, 1974; Pfeffer and Moore, 1980; Covaleski and Dirsmith, 1988; Serritzlew, 2005). These studies showed that budget allocations were directly related to the power possessed by each department. Similar research by Boland and Pondy (1983) also suggests that budgets are open to all kinds of political manipulation. In addition to that, Covaleski and Dirsmith (1988) not only corroborated the above arguments but also highlighted on how the budgeting system help to represent vested interests in the process and maintain existing power relationships.

In decision-making terms, Bruns and Waterhouse (1975) suggested that, budget specifies both an objective function and decision alternatives and thus may be seen as a mean for decentralising certain types of operation. Hopwood (1974) views budgeting as a goal setting process set in an organizational context where conflicts, power differentials and uncertainty cannot be avoided and thus can influence behaviour and action, but not always in the anticipated or desirable direction. He points out the basic purposes served by any budgetary system is to encourage an active concern with the future (p. 41). In the budgetary context, its procedures according to him, serve to guide the development of the financial and wider

organizational implications of possible future activities. In this sense, he perceives that the budgetary process is really trying to organise and structure some vital elements of insider organizational decision-making process.

More recently, Abernethy and Brownell (1999) viewed budget as a mean of coordinating and communicating strategic priorities by management and in conjunction with reward systems, are often used to facilitate lower level managers' commitment to these priorities. For most organisations, budgeting according to them is a multi-person activity involving teamwork. They posited that, team effectiveness depends on the interaction dynamics of its members and, these in turn depends upon their goal interdependency. In relation to that, they also argued how budget participation give individuals the legitimacy to discuss organisational issues with superiors and provides a setting in which individual can exchange information and ideas to solve problems and agree on future action. Olsen (1970) points out the important parts of the budgetary process could only be understood if looked upon as a ritual. He points out the expressive aspects of budgeting and the importance of rituals for giving the actions of leaders' legitimacy.

Best practices in budgeting involve making comparisons or benchmarking present process, cost and skill base with those of other organizations, especially those who have achieved superior performances. Hood et al (1997) suggested that best practice budgeting should have the following budgeting processes;

- 1) Faster is better - budget preparation process should be between two months and three months.

- 2) Streamline the package - slim the package so that only the most important actions and initiatives are highlighted. Used between six (6) to fifteen (15) key performance indicators.
- 3) Reality checks - evaluates alternative scenarios and develop contingency plans.

Hood et al (1997) also outline the barriers to improvement that include;

- 1) Inadequate system:
- 2) Lack of staff skills;
- 3) Inaccurate and
- 4) late data;
- 5) Insufficient personal time to initiate change;
- 6) Management disinterest and
- 7) The vision and capability of the accountants.

### **3.3 Past Studies in Budgeting in Local Authorities**

Literature on financial management in particular, managing local government finance shows that citizens expect their governments to do needed activities and hold governments accountable for their service delivery and the accomplishment of articulated goals. Hildreth (1996) suggested that fiscal agenda of public organization enable all of its policies and programmes. Success is measured in more than dollars. He argues that without a monetary metric, the budget has little meaning; department head can do little without money to spend. Furthermore, he pointed out that for any organization to remain going concern, asset must equal or exceed liabilities and cash has to be available to cover bills. In this respect, he suggested that finance officers

have to examine the long-term implications of contemporary decisions. Innovative and cost-conscious managerial behaviour is at a premium as is measuring services against market.

Keen et al (1996) highlighted the extensive organisational restructuring of public sector organisations in England and Wales, during 1980s and 90s including local authorities in a case of middle management autonomy that has led to decentralised or devolved management, which include devolved budgetary management. According to her the development of the new 'managerialism' was precipitated by both external and internal factors to local government that required local authorities to devolve the responsibility for some service provision to provider or contractor located both within or out side the authority. She pointed out how the introduction of the devolved management appeared to have generated various tensions or pulls between the various parts of the organisation competing to acquire greater degrees of power and influence ( pp. 93). In relation to that Collier (2001) on the other hand, found that the devolution of budgets was not only accompanied by a shift of power but also help to reconcile the interests of those pursuing a legitimating accountability with those who prioritised operational policing. His studies on West Mercia Constabulary's implementation of devolve budgeting systems, showed that how most of the overt resistance to change reduced over his four years of the study.

Pendlebury (1994) cited how budget preparation in local authorities in England and Wales during the 70s consisted typically accepting their last year's base and then allocating more for growth. He commented that budgetary control system were often inadequate and local authorities have failed to provide effective management

accounting systems and budgetary control systems which gave managers the information they required in the form they required and at the time they require it. However, he noted that, when central government exercising control over local authority spending, by gradual reduction in the amount of central government grant support for local spending needs, combined with penalties in the form of grant reduction, the whole environment facing local government changed from 1979. His study on the management accounting practices of two local authorities showed that the consistent financial constraints of the early 1980s appeared to have relatively little impact, the more recent developments of discernible effect.

Mayston (1998) studies on devolved budgeting, formula funding and equity revealed that a key of part of the changes which has taken place in the New Public Sector in the United Kingdom and elsewhere is the greater use of both devolved budgeting and explicit funding formulae in public service such as education and health (pp.37). He reported that initiatives such as the Local Management of Schools, GP-Fund holders and the Purchaser-Provider split in the National Health Service have required resources and associated budgets to be allocated down to smaller, more locals, entities than previously, on the basis of an explicit funding formula. He noted that, the primary motive for these developments has been that of the Conservative Government's desire since 1979 for greater economy, efficiency and effectiveness in public sector.

Sheila Bellamy and Ron Kluvers (1995) studied the implementation and outcome of Programme Budgeting in Victoria local government in Australia. They rationalised their finding on the need to establish whether the use of non-traditional forms of

budgeting leads to improve resource allocation and the enhancement of efficiency and effectiveness in local government budgeting system. Various issues such as scarce resources due to a decline in external funding, from state and Commonwealth grants, a limited capacity to increase rate revenue, and escalating expenditures were highlighted as a common management problem in Victoria local authorities. They argued that programme budgeting arose out of a concern with the perceived deficiencies of traditional line item budgeting such as, short term focus, incremental nature and historical perspective, emphasis on organisational input rather than program output, excessive detail provided in the budget documents, its lack of relationship with government objectives, its failure to provide a means of examining alternatives and its failure to identify duplication of effort. On the other hand, program budgeting is seen to provide a rational framework for decision-making, which aims to improve decisions concerning the allocation of resources. The study revealed a general thrust by Victorian local authorities towards improving levels of efficiency and effectiveness through the use of such techniques as cost benefit analysis and performance indicators regardless of whether or not program budgeting is employed.

An empirical examination of Danish municipalities by Serritzlew (2005) on the issue of budget overrun revealed that budgets are regularly broken. He observed that overruns are especially large in the election year and the year before the election, while budgets are more effectively enforced when the election is far away. Overspending according to him is harder to avoid when problems are intractable. This is the case if the budget is very strict, or if user groups are strong. First, he argued that large reductions in budgets will require innovation and reform, resulting in more

uncertainty and unforeseen problems, which again can caused budget deviations to be larger. Second, if the budget only affects a small or weak group of users, it is easier to maintain political support for the budget, even when problems emerged.

### **3.4 Participative Budgeting**

Participative budgeting as usually defined in accounting literature as a process in which a manager is involved with, and has influence on the determination of his or her budget, has been one of the most research topics in management accounting for over 40 years (Shields and Shields, 1998). Participation involves interaction between participants. Budget programmes involve many people, often operating in teams (Brownell, 1983). Participative budgets involving lower-level managers to come out with estimates, which later coordinated and communicated upward referred as “bottom-to-top” budget. As a result, attainments of goals is logically more likely, as a result of lower-level managers having an active role in establishing budgets and also due to their daily involvement in departmental activities, and thus intimately know best the abilities of their department and the necessary resource requirements (Campbell, 1985).

By definition (Brownell, 1982c, p.114) budgetary participation encompasses the concept of influence in the budgetary process. Influence suggests that employees are afforded a degree of control over the outcomes of a decision making process. As a consequence, they are likely to review their budgetary involvement as a means of obtaining a more favourable budget. Budgetary participation also provides a setting within which managers can exchange information and ideas to make budgetary planning, coordination and control more effective (Poon et al, 2001). They further



argued that, the effectiveness depends, in part, upon the goal interdependencies of, and interactions between participants.

Various scholars (for example, Fisher et al., (2000); Lehan, (1996); Hogue (1995), Grifel (1993), Schmidt (1992) argued that workers involvement in the process of setting and developing organizational budget was the major determinant of good budgeting. Hofstede (1968) put forward that staff participation in the budgeting process helps to ensure the perceptions among workers that organizational goals were fair, and therefore would be more relevant to them. This is in line with the budgeting concept that workers participation may contribute to greater willingness from them to accept the budgetary goal. Campbell (1985) also supports that information gathered from lower level managers can facilitates the process of budget preparation. This potentially provides opportunity to improve the organizational performance.

Participation by managers in the budgeting process, have been hypothesised in numerous studies to improve motivation, satisfaction, coordination, and performance (Brownell, 1982, Briers and Hirst, 1990, Thomas and Mc Daniel, 1990, Greenberg and Nouri, 1994: Shields and Shields, 1998, Poon et al, 2001). However on the contribution of participation on the effectiveness of budgeting, Brownell (1982), Shields and Shields (1998) noted that the literature has largely neglected the conditions and processes by which participation contributes to budget effectiveness. In relation to that, Brownell (1982) even suggested that in order to ensure the effectiveness of a participative budget system design, management should endeavour to ensure that everyone is working cooperatively.

Although the value of participation in budgeting has been widely assumed, research findings have been somewhat mixed. (Greenberg & Nouri, 1994). In relation to the conflicting result, Brownell (1983) and Chenhall (1986) argued that budget participation literature has too narrowly focused on individual level variables. In this regard, Brownell (1983) and Chenhall (1986) argument was to be consistent with the finding of Poon et al (2001). They found, only two (2) out of thirty nine (39) published empirical studies between 1980 and 1995, had been investigating the effect of budgetary participation and performance, at the group level. They concluded that, although budgetary participation, by definition involves interaction between participants, has frequently ignored interpersonal processes and thus suggests research between budget groups are particularly useful in understanding budget participation effectiveness.

Research in organisational literature points to the benefits of managers working together as a cooperative team, in terms of efficiency, problem solving and employee satisfaction (Katz, et al, 1985). While budget participation is potentially useful, its effectiveness requires constructive interaction among organisational members and therefore according to Brownell (1982) management should endeavour to ensure that everyone is working cooperatively. On the effect of participative budgeting and managerial interest in innovation of departmental performance, a study by Dunk (1995) shows that participation and performance is positively related when the subordinates' interest in innovation is high but they are not associated when interest in innovation is low. He concluded that participation is more effective in enhancing performance when subordinate interest in innovation is high but not when interest in innovation is low. A study by Chenhall and Brownell, (1988) on the effect of

participation in budget setting on job satisfaction and manager's performance reveals that participation is significantly related to job satisfaction but not performance. They addressed the importance of participation in helping to reduce or decrease managers' role ambiguity and that decreased role ambiguity improves job satisfaction and performance.

Shields and Shields (1998) raised the issue of purpose of participative budgeting. They argued that, although budget participation has proved a popular area of research, there remains a need for general theoretical models integrating our understanding of budget participation. They claimed that many prior studies lack theoretical and empirical links between the assumed purpose for participative budgeting and the budget effects on dependents variables. They analysed 47 published empirical studies on participative budgeting published before 1996 and concluded that, none of those studies report (empirical) evidence concerning whether their assumed reasons for the existence of participative budgeting underpins their theoretical or empirical models consistent with the reasons participative budgeting exists in their samples. According to them, many of these studies did not provide explicit or detailed disclosure about why they assume participative budgeting exists. They found that, there were 62 assumed reasons for participative budgeting existence which were highlighted and grouped into six categories:

- 1) Motivation (23)
- 2) Share Information (22)
- 3) Satisfaction (13)
- 4) Reduce the need to create slack (2)
- 5) Co-ordination (1) and

6) Job related tension (1).

They also found inconsistency in treating the antecedent variables with theory of participative budgeting. Four studies include antecedents (environmental, task or task independence) to participative budgeting while six other studies include environmental or task uncertainty or information asymmetry as either independent or moderator variables.

Other study by Murray 1990, on the relationship between participative budgeting and performance, showed that employee participation in the budget-setting process has both attitudinal and behavioural consequences. Participation affects goal level which in turn affects motivation and motivation ultimately affects performance. Empirical research conducted in the past three decades has generally shown a positive association between participation and employees' satisfaction with their jobs and supervisors and favourable attitudes towards the budget (e.g. Hofstede (1968) and Kennis (1979). However, the impact of participation on employee or work unit performance remains clouded due to diverse empirical findings. (Murray 1990). Milani (1975) detected a number of insignificant associations between budgetary participation and performance, while Brownell and Mc Innes (1986) found a strong association between these two variables. Motivational, cognitive and environmental variables have been hypothesised to impact the outcomes of budget participation (Kren 1992) but relatively few studies have included causal antecedents to participative budgeting in their empirical models. Brownell (1982) observed that the research effort focussed more on whether participation is effective, rather than specifying the conditions which it is effective. Greenberg and Nouri (1994) concluded that the diversity of finding stem more from theoretical than methodological

differences. Their conclusion is supported by Shields and Shields (1998, p 50). According to Shields and Shields (1998, p 50), the potential reasons for the diverse results were because that most of the studies do not have strong theoretical and empirical link between their assumed reasons for why participative budgeting exists.

On the other hand, Chenhall and Brownell ((1988) pp. 225), argued that the failure to carefully account for circumstances in which participation works versus those when it does not, would explain the variety of results. In relation to this, they offered two possible explanations for these inconsistent findings. The first view referred to as the *contingency model* approach, consists of identifying those factors, which influence or condition the effect of participation on performance. These factors are usually referred to as moderating variables.

The second view referred to as the *intervening variable model* approach, which is a complementary to identification of moderating variables, is to describe, more explicitly the variables that intervene between participation and performance (Murray, 1990 pp.105). Theoretically, according to Chenhall and Brownell (1988), the equivocal results are due to the fact that, participation and performance are not directly related. They argued that, there were no theoretical arguments, which can support simple, direct effects of participation on performance. Instead they claimed, the effects of participation, if any, are indirect and are conveyed to participation via some intervening variable which links the variables. Proposed intervening variables from previous studies, includes motivation (Brownell & Mc Innes, 1986), role ambiguity (Chenhall & Brownell, 1988) budget adequacy and organizational commitment (Nouri & Parker, 1998) leadership style and managerial behaviour

(Brownell, 1983), job difficulty (Mia, 1989) and information asymmetry (Dunk, 1995). These studies revealed that the intervening variables mentioned above act directly or indirectly on performance. For example, Brownell and Mc Innes (1986), using path analysis, empirically tested the intervening role of motivation in the participation-performance relationship. They found that participation was not related to motivation. However, participation was positively related to performance. Similar findings by (Nouri and Parker (1998), on the impact of intervening variables on the relationship of budget participation on job performance, showed that budget participation affects job performance via two intervening variables: budget adequacy and organisational commitment. They found that budget participation leads to high budget adequacy, which in turn increases job performance directly via organisational commitment.

Budget participation of employees in the budget setting also has significant effect on employees' attitude towards their budgetary decision-makers. Study by Magner et al (1995), make an interesting finding on how the impact of budget participation on the attitude of employees toward their budgetary decision-makers. Employee who received unfavourable budgets will have less negative attitude towards their budgetary decision makers if they participated in the budgetary process, than if they did not participate. They argued that a recurring finding showed that employees react negatively to situations in which they receive unfavourable outcomes. Their findings, suggested that employee felt that they should be allowed to participate in the budgetary process and they would receive a more favourable budget if allowed to participate.

In this study we adopted Milani (1975) six items instrument of budget participation plus four modified items instrument by Swieringa and Moncur (1972) to measure budget participation of budget preparers and budget users of Malaysian local authorities. Milani (1975) came out with six item instruments in measuring participation of employees in budget setting of their organisation. He developed participation continuum from several elements of participation including the employees' budget setting activities and the employees' view of their superior's budget related reactions and activities. According to him, the degree of involvement and influence of employees in the budgeting process could be measured on (1) how much they involved in the portion of the budget setting; (2) the amount of reasoning provided by superior during budgeting; (3) budget related discussion with superiors; (4) the influence of the employees in the final budget; (5) the importance of their contribution to the final budget; and lastly (6) their budget related discussion initiated by their superiors. His study on the degree of involvement of foreman in the budget setting in relation to their performance showed that there was a weak relationship between the two variables.

Researcher also adopted Swieringa and Moncur (1972) items or dimensions in measuring the degree of participation of employees in the budget setting. In these items, Swieringa and Moncur (1972) put more emphasis on the 'frequency' of employees working with other participants namely their superior, subordinate, other division/section heads and financial staff people during budget setting, in determining the degree of involvement and influence that the employees have in the budget setting process. However, in this study, researcher has changed the emphasis to the 'quality of the budget setting' instead of the 'frequency of the budget setting'. Researcher is

also looking into the impact of quality of the budget setting when employees worked with their superiors, subordinate, other division/section heads and financial staff people. According to Poon et. al., (2001) quality of budget setting refers to the extent to which the incident had contributed to (1) an optimal use of resources; (2) a timely submission of the budget; (3) reaching budget objectives; (4) clarifying the goals of the budget; (5) enhancing the accuracy of estimates; (6) reducing unnecessary waste and time cost and (7) developing an overall quality budget.

### **3.5 Budget Adequacy**

Budget adequacy is the degree to which individual perceives that budgeted resources are adequate to fulfil job requirements (Nouri and Parker, 1998). Several accounting studies have argued that subordinates have more accurate information than their superior regarding local conditions (Merchant, 1981; Christensen, 1982; Chow et al., 1988; Waller, 1988) and they may attempt to incorporate this information into the budget and a participatory budget permits subordinates to do this (Nouri and Parker, 1998). In relation to budget adequacy, several researchers such as Merchant (1981) and Murray (1990), have noted that participative budgeting of subordinates in budgeting process may result in the disclosure of private information, which would result in more realistic plans and more accurate budgets. Nouri and Parker, (1998) argued that, subordinates will attempt to incorporate about their level of budgetary support into the budget to ensure that they have adequate resources to successfully perform their duties. Nouri and Parker (1998) further argued if employees believe that organisation is responsible for ensuring that employees receive sufficient budgetary support, then budget adequacy is likely to increase employee bonding with the organisation. Their study on the effect of budget adequacy on the relationship of



budget participation and job performance suggested that budgetary participation could allow subordinates to provide information about the level of budgeted resources needed to perform successfully. They developed three items instrument to measure whether individuals perceived their budgeted resources as adequate for performance of job duties. A sample item (reverse wording) is: “My budget does not allow me to perform what is expected of me”. The other items in the instrument include: “What is expected of me is achievable under my budget” and “I am pretty much confident that I can achieve what is expected of me under my budget”. The response scale was a seven-point Likert-type scale ranging from one (strongly disagree) to seven (strongly agree).

Nouri and Parker (1998), further proposed and argued that budget participation leads to budget adequacy. Their argument is basically based on assumption that subordinates may have superior information about the level of budgetary support required to carry out their job duties. In relation to that, they also believed and posited that personal and organisational success depends partly upon the subordinates receiving adequate budgetary support. Therefore, according to them subordinates may attempt to incorporate this information into the budget to ensure that they have adequate resources to successfully perform their duties, and more importantly according to them a participatory budget permits subordinates to do this. As a result they posited that employees with adequate resources outperform those without it. Their study on 203 American managers and supervisors in a large multi-national corporation engaged primarily in chemical production, having budget responsibilities indicated that budget participation and budget adequacy was significant and positively related.

In a related study addressing the relationship, Foote et. al., (1997) using data from a simulation experiment involving business school students at Sultan Qaboos University in the Sultanate of Oman found that budgetary accuracy plays an important role in improving the managerial performance. They highlighted some of the problems with budgetary forecast which includes events that influence the company's performance but are difficult to predict. The events such as fires, machine breakdowns, snowstorms and price wars he viewed can distort short term forecasts while recessions and booms can distort medium term forecasts and major technological innovations can change the patterns and relationships assumed in long term forecast. They further argued on the impact of competitor's behaviour as another element that can cause a problem in forecasting. They concluded that accuracy in forecasting not only improves managerial performance of the current period but also after a lag of one and two months.

In this study researcher adopted Nouri and Parker's (1998) instrument of budget adequacy, as there is very limited literature and instrument in measuring budget adequacy. As mentioned earlier Nouri and Parker developed three items instrument to measure whether individual perceived his or her budgeted resources as adequate for performance of job duties.

### **3.6 Organisational Commitment**

Organisational commitment is defined as the bond that links the individual to the organisation (Mathieu & Zajac, 1990; Shields and Shields 1998; Nouri and Parker, 1998). According to Meyer et al. (1990) there are two types of organisational commitment, affective and continuance commitment. Affective commitment is

characterised by: (1) a strong belief in and acceptance of organisation's goals and value; and (2) a willingness to exert considerable effort on behalf of the organisation. Despite the different meanings and concepts attached to organisational commitment, the various notions of organisational commitment can be grouped according to an 'attitudinal-behavioural' dichotomy (Barge and Schlueter 1988). The attitudinal approach sees commitment as referring to an individual's psychological bond to an organisation as affective attachment and identification (Steers 1977). Another frequently employed definition of organisational commitment, operationalises commitment in terms of three factors: a strong desire to remain a member of the organisation; a strong belief in, and acceptance of, the values and the goals of the organisation, and a readiness to exert considerable effort on behalf of the organisation (Mowday, Steers and Porter 1979). Thus, organisationally committed persons believe in their organisation, work hard for their organisation, and want to remain with their organisation. March and Simon (1958), argued that the more participation of subordinates in making policy decision the stronger the tendency of subordinates to identify with the organisation.

Organisational commitment is an important variable that impacts performance and has also been shown to be mediator or intervening between participation and performance (Nouri & Parker, 1998.) Individuals who are committed to the organisation demonstrate a willingness to provide significant efforts on behalf of the organisation and accept and support values and goals of the organisation (Mowday, Steers, & Porter, 1979). The study by Muller et al. (1992) showed that variables such as job satisfaction and work values and rewards have the greatest influence on organisational commitment. These results are compatible with the findings of previous studies

(Mathieu and Hamel 1989; William and Hazer 1986) which showed the link between job satisfaction and organisational commitment.

Mowday et al., (1982) argued that understanding of the processes related to organisational commitment has implications for both the employees and the organisation. From an individual's viewpoint, his or her commitment to an organisation may make the individual more eligible to receive both intrinsic rewards such as bonuses and awards, and intrinsic rewards such as job satisfaction and positive relationship with colleagues. From an organisation's perspective, employees' commitment to the organisation is important since it is negatively associated with employees' lateness to work, absenteeism, and turnover, which in turn, have implications for overall organisational performance (Randall, 1990).

Literature review indicates, that organisational processes allowing more participation may enhance organisational commitment by providing managers greater opportunity to make decisions and to become more ego-involved in their work (Mathieu and Zajac 1990; Morrow 1993). Mc Farlin & Sweeney (1992) found that workers expressed particularly low commitment to their organisation and held particularly unfavourable evaluations of their supervisor when they perceived that both decision outcomes and decision procedures were unfair. These findings suggested that employees have particularly negative affective reactions to situations in which unfavourable decision outcomes were arrived at through unfair organisational decision-making procedures.

Van Maanen (1975) investigated the effect that organisational commitment has on individual performance. The results of the study provide evidence of a positive

association between organisational commitment and individual performance. This result provides evidence that organisational commitment is related to performance and may in fact play an important role in improving individual performance.

In this study researcher adopted Mowday, Steers and Porter (1979) organisational commitment instruments, which is based on the assumption that organisational commitment is primarily rooted in the attitudes of individual, and to a lesser extent in commitment-related behaviour. It is defined as employees' identification with and acceptance of their organisational goals and values, their willingness to exert considerable effort on behalf of the organisation and their desire to maintain organisational membership. This questionnaire is consistent with the popular attitudinal approach used in organisational studies. The questionnaire is characterised by three factors. The first is a strong belief in, and acceptance of, the organisation's goals and values, which is represented as "identification". The second is a willingness to exert considerable effort on behalf of the organisation, which is represent as "effort." The third is strong desire to maintain membership in the organisation, which is represented as the "work and "general" components of loyalty.

### **3.7 Role Ambiguity**

Role ambiguity has been defined as a lack of clear information about job responsibilities and expectations, including what should be done, when should be done, how it should be done, and behaviours that should be exhibited (Kahn, et al, 1964; Singh, Verbeke & Rhoads, 1996). Dougherty & Pritchard (p.143, 1985) however, highlighted the significant of uncertainty about the products to produce or their importance for the role and one's evaluation as role ambiguity. Others, such as

Klenke-Hamel & Mathieu (1990) view role ambiguity, as the lack of clear information about job responsibilities and expectation, which are required by the role incumbent for adequate performance of a role. Paterson, et al (1995) on the other hand, has similar view with Dougherty & Pritchard (1985) on the significant of uncertainty about what actions to take to fulfil a role. Forte et al., (2000) claim that role ambiguity may result from changes to the external environment and the subsequent reaction that impact organisational form or structure. Huber (1981) describes how a worker or role incumbent finds himself or herself in an ambiguous situation, when faced with changing roles, new and varied job responsibilities, technological advances, poor written or detailed job descriptions, unclear assignment and mixed messages from superiors.

Study by Singh, Verbeke, and Rhoads (1996) showed that there are four widely accepted dimensions to role ambiguity, which may be experienced by the role incumbents and are based on the role incumbent's perception. The dimensions are (1) expectation ambiguity-What is expected? What should I be doing?, (2) process ambiguity – How do I get things done?, How do I achieve organisational objectives?, (3) priority ambiguity – When should things be done and in what order ?, (4) behaviour ambiguity – How am I expected to act in various situations?, What behaviours will lead to the needed or desired outcomes?

Role ambiguity has been found to be correlated, with decreased motivation, quality of work life, organisational commitment, job satisfaction, job performance, individual and group productivity, and an increase in withdrawal behaviours (Rizzo, et al., 1970; Van Sell, Brief, & Schuler 1981). Lower job satisfaction has also been linked to role

ambiguity (Pearson, 1991). Increased tension, frustration, anxiety, and propensity to leave, have also been found to be correlated, to role ambiguity by Bedian & Armenakis (1981). Role ambiguity has further been found to be correlated with decreased motivation, quality of work life, organisational commitment, individual and group productivity, and an increase in withdrawal behaviours (Blau, 1981; Dougherty and Prichard, 1985; Jackson and Schuler, 1985). Singh (1998) postulates, that role ambiguity may take on a curvilinear shape when measured against job satisfaction, job performance, tension, turnover intentions, and organisational commitment. He notes that increasing role clarity by reducing role conflict and role ambiguity is likely to help salespeople to obtain a higher level of job performance, satisfaction, organisational commitment and a lower level of turnover intentions and job tension.

Managers and workers need role clarity to ensure that they are working on things that will ultimately make them successful. In relation to this, Singh and Bhandarker (1983) view managerial role clarity as one of the basic requirements for organisational effectiveness (pp 50). According to them managers suffering from role ambiguity are invariably observed, to be pre-occupied with trivial organisational chores. Van Sell, et al., 1981 on the other hand, argued that role incumbents who are experiencing role ambiguity may be working on the wrong things and are probably unaware that they are doing so, based on the organisation's mission and objectives. Amram and Kulatilaka (1999) argued that managing in the face of uncertainty is different than in other circumstances. They found that to be an effective manager in an ambiguous environment requires two important skills: the ability to identify valuable opportunities and the ability to adapt to market place changes. Thus Rizzo, et al., 1970 noted that based on the concepts underlying role theory, high levels of ambiguity will

likely reduce the satisfaction levels that a role incumbent has with his or her role and will increase anxiety, distort reality, and the role incumbent will likely be less effective.

In light of issues such as diversity, globalisation, competitive pressures and the fragmentation of consumer markets, the study of roles and role ambiguity are critical to organisations. The ability for organisational leaders to make sound and timely strategic decisions in environments characterised by uncertainty or ambiguity is of greater importance today than even before. Peters (1992) claimed that the successful manager should balance ambiguity and uncertainty in organisation with the need for outstanding service. Locke & Somers (1987) argued that making clear to subordinate what is expected, getting them committed, giving them feedback on where they stand, showing confidence in them and rewarding good performance represent many of the essential activities of an effective leader.

### **3.8 Performance**

Budgeting contribute to control by providing objectives against which performance results can be compared. In this regards, Bruns and Waterhouse (1975) pointed it out that, if budget were to be used for control purposes, management needs to be able to plan fairly high degree of certainty and to measure output or role performance with a relatively high degree of accuracy. A budget may not only specify a goal but it may also specify the means for accomplishing that goal. For example, the performance of a department head can be evaluated in terms of his or her ability to achieve certain desired results as specified by the budget within the cost constraints imposed by the budget



Murray (1990) perceived organizational goal as the objective or the performance target that every worker should seek to obtain. He posited that if an individual becomes committed to achieve the goal, it will influence the individual's actions and consequently performance of the organization. Holland (2000) stated that definition of long-term goals must be clear and must be derived from all levels in the organization. This helps the management to decide the appropriate long-term strategies and the input captured become a part of the organizational objectives and policies. Organizational goals must be realistically formalized and attainable (Grifel, 1993), logically follow diagnosis (Lehan, 1995), specific and measurable (Fernsler, 1999) and consider uncertainty and uncontrollability of environment (Finney, 1993).

A review of the literature on participative budgeting and its effect on manager's and organisational performance revealed that there are four popular instruments used by researchers in measuring different underlying dimensions of manager's and organisational performance. The four performance instruments are job performance, managerial performance, organisational performance and departmental performance. The various dimensions underlying performance measurements are used to measure different underlying dimensions of performance, for instance, the instrument formulated by Mahoney (1963, 1965) emphasised the dimensions of managerial performance in planning, investigating, coordinating, evaluating and representing. This instrument focused on individual performance. In relation to that, Govindarajan and Gupta (1985) also focussed and measured individual performance, on eight dimensions, such as personnel development, product quality, product quantity, product timeliness, new product development, budget achievement, cost reduction

programmes and lastly political/public affairs. The questionnaires asked respondents to evaluate their actual performance in terms of superiors' expectations, which incorporate the subunit's strategic objectives. Several studies have criticised self-reported measures of performance as unreliable due to a leniency bias (Parker et al., 1959, Nouri and Parker, 1998). Chenhall and Brownell (1988) instead of using self-rating instrument to evaluate managers' overall performance on a seven point scale ranging from "performance is barely satisfactory" (1) to "performance is extremely good" (7). They justified that self-ratings were utilised in order to preserve anonymity which could not be guaranteed with superiors rating. Whereas the instruments proposed by Shields and Young (1993) on organisational performance is focused on the percentage of change in net income, percentage change in stock price, percentage change in return of investment for the most recent reporting year and a self-reported rating of overall performance as compared to peer organisation.

The departmental performance questionnaires developed by Van de Van and Ferry (1980) on the other hand was designed specifically to assess performance in public sector organisation. These elements are focused and used to measure performance of public sector organisation based on the quantity or amount of work produced, the quality or accuracy of work produced, the number of innovations or new ideas by the units, attainment of unit production or service goal, efficiency of unit operations and lastly morale of unit personnel of the department. William et al., (1990) and Macintosh and Williams (1992) used it in their studies of 22 Canadian public sector organisations and found that managers' budgetary behaviour is associated with managerial roles and have significant impact on performance.

This study adopted Van de Van and Ferry (1980) instrument which was developed, revised and improved in four successive versions over seven years of extensive research in public sector organisations. Quality, quantity and goal commitment are treated as measures of department output goals as they are reflective of product and service characteristics. Morale is treated as a system goal in that it relates to the maintenance of job satisfaction, attitude, and general internal climate of the department. Finally, efficiency and innovation are critical dimensions of essential sub-unit goals in that they mirror important departmental processes, which served as the means by which output goals were attained.

### **3.9 Research on Budget Participation and Performance Relationship.**

The importance of subordinates' budget participation as a means of improving performance has been studied extensively in the behavioural accounting literature (Brownell 1981, 1982; Brownell and McInnes, 1986; Chenhall and Brownell, 1988; Kren, 1992; Magner et al. 1996 ; Nouri and Parker, 1998 ). Participation by managers in the budgeting process have been hypothesised in numerous studies improves motivation, satisfaction, coordination and performance (Brownell, 1982; Briers and Hirst, 1990; Thomas and Mc Daniel, 1990; Greenberg and Nouri, 1994; Shields and Shields, 1998; Poon et al, 2001). It is argued that the act of participation in the budgeting process serves as a function by inducing subordinates to accept and commit to their budget goals (Argyris, 1953; Hofstead, 1968; Searfoss and Monzka, 1973; Kennis, 1979; Merchant, 1981). Previous studies also suggested that participation serves an informational function whereby subordinates can gather, exchange, and disseminate job-relevant information to facilitate their decision-making process and to

communicate their private information to organisational decision makers (Murray, 1990; Kren, 1992; Magner et al; 1996; Nouri and Parker, 1998).

Pioneer work in the area includes studies by Argyris (1953), Hopwood (1972), Milani (1975) and Otley (1978). These studies were primarily concerned with the impact of budgets on individual job performance. The seminal piece of work in this area was conducted by Argyris in 1953. He examined foremen in four industrial companies in the U.S.A, and found that the pressure to meet budgetary targets can result in dysfunctional behaviour, such as job tension and low motivation. Such behaviour in turn could lead to low individual performance.

In a related participative budgeting environment, Bass and Leavitt (1963) examined the relationship between three types of planning activities and performance. The planning activities include individuals who planned for themselves, individuals who were assigned plan, and individuals who spent no time planning at all. The results of the study indicate significant differences in performance between the self-planning groups and the assigned-plan groups, with the performance being significantly higher for the self-planning groups than for the assigned-plan groups. Additionally, a strong positive relationship exists between participation in planning and performance.

Hopwood, 1972 found a similar negative effect of budgets on managerial behaviour when budgets are used to evaluate performance. He investigated the effectiveness of supervisory evaluative styles used in profit centres, budget constraints centres and non accounting centres. 167 heads of cost centres in a U.S.A companies participated in this survey. The findings suggest that the used of a profit-centre evaluative style is

more effective in evaluating individual performance, compared to the budget constraints style. The former style led to a reduction in managerial tension and rivalry while in the latter was found to result in higher processing costs, less innovative behaviour and poorer quality service. Both Argyris, 1953 and Hopwood, 1972 suggested that budgetary participation can reduce the unfavourable impact of budgets on individual performance.

Subsequent research, however has shown that there is mixed support for Argyris' 1953 and Hopwood's 1972 findings, Otley, 1978 found no evidence to support the negative effect of budgets on performance. Otley also found that the use of budget style depends on types of environmental settings. He concluded that managerial performance is contingent upon environmental settings and suggested the use of contingency theory as a framework for future work in budgetary behaviour. Otley's main argument is that budgetary participation may have either positive or negative effect on performance, depending on the type of environmental setting. The conflicting results of prior budget participation and performance studies have also led researchers to investigate the existence of moderating and intervening variables in the relationship between budgetary participation and performance. Chenhall and Brownell, 1988 ; Nouri and Parker, 1998 using intervening model view approach found that budget participation effects managerial job performance via intervening variables. The present study used Chenhall and Brownell (1988) intervening variable model view to examine the effects of three intervening variables, budget adequacy, organisational commitment and role ambiguity on the budget participation and performance relationship.

### **3.10 The Role of Budget Adequacy In The Budgetary Participation And Performance Relationship.**

Budget adequacy is the degree to which an individual perceives that budgeted resources are adequate to fulfil job requirement. Several accounting studies have argued that subordinates have more accurate information than their superiors regarding local conditions and they may attempt to incorporate this information into the budget so that they have adequate resources to carry out their duties (Merchant, 1981; Chow *et al*, 1988; Waller, 1988). Literature review showed that budget adequacy mediates the relationship between budget participation and job performance ( Nouri and Parker 1998). They specified three important elements in measuring budget adequacy variable. First, the budgeted resources does allow the employees to perform what is expected of them, Second, what is expected of them is achievable under their budget and third, they are confident of achieving what is expected under their budget. They proposed that subordinates often have better information about the level of budgetary support required to perform the subordinate's tasks than do superiors. Further, the subordinates will attempt to incorporate this information into the budget to ensure that they have adequate resources to successfully perform their duties. A participatory budget allows subordinates to incorporate this information into the budget while a non-participatory budget does not. They used path analysis and found that budget adequacy has direct effects on job performance and budgetary participation has direct effect on job performance. The results also revealed that participation of managers in the budget setting has positive effect on budget adequacy. The authors concluded that budget participation may lead to budgets that provide adequate budgetary support and thus facilitate employees' performance.

### **3.11 The Role of Organisational Commitment In The Budgetary Participation And Performance Relationship.**

Organisational commitment is defined as the bond that links the individual to the organisation (Matheu & Zajac, 1990; Shield & Shield, 1998; Nouri and Parker, 1998)

The literature describes two types of organisational commitment; affective or attitudinal commitment and continuous commitment. Prior work involving organisational commitment has focussed on affective commitment (Nouri and Parker, 1998). Nouri and Parker (1998) proposed that budgetary participation affects job performance through organisational commitment. The authors reasoned that managers, who are allowed to participate in the budgetary process, will have higher organisational commitment and this in turn, leads to improve job performance. They conducted a study on 135 managers and supervisors in large multi-national corporations involved in chemical production in the U.S.A. They used path analysis and found that, organisational commitment played an intervening role in the budget participation and performance relationship. The results revealed a positive relationship between budgetary participation and organisational commitment. The path analysis also showed a direct relationship between budgetary participation and performance. This led the authors to conclude that budgetary participation increases organisational commitment, which could lead to positive work outcomes, such as enhanced job performance.

### **3.12 The Role of Role Ambiguity In The Budgetary Participation And Performance Relationship.**

Role ambiguity has been defined as a lack of clear information about job responsibilities and expectations, including what should be done, when should be

done, how it should be done and behaviours that should be exhibited (Kahn et al, 1964; Singh, Verbeke and Rhoades, 1996; Dougherty and Pritchard, 1985). Forte et al, (2000) claim that role ambiguity may result from changes to the external environment and the subsequent reaction that impact organisational form or structure. Role ambiguity has been found to be correlated with decrease motivation, quality of work life, organisational commitment, job satisfaction, job performance, individual and group productivity, and an increase in withdrawal behaviours ( Rizzo et al, 1970; Van Sell, Brief and Schuler, 1981)

Chenhall and brownell (1988), argued that participation in the budget setting process has the potential to clarify information in all three areas highlighted by Graen (1976) that causes role ambiguity According to Graen (1976), role ambiguity may occur when the subordinates are lacking of clear information regarding, (1) the expectations associated with a role, (2) methods for fulfilling role expectations and (3) the consequences of role performance. With regard to clarification of expectations associated with role, they argued that the mere use of goals or budgets whether participatory set or not should contribute to such clarification. As to clarification of methods to be employed in fulfilling role expectations, they argued that participation provides the opportunity for the managers to bring local specialised knowledge of their task to the budget setting process, permitting open discussion of preferred means-end approaches. Participation in the budgeting process allows due consideration to be given to these alternatives resolving for the managers ambiguity regarding how role expectation to be met. Finally, in connection with ambiguity regarding the consequences of role performance, participation affords the managers the means of clarifying the basis of their subsequent evaluation. Thus, participative



process can extend beyond the planning phase and includes consideration of approaches to be taken in performance evaluation. They developed a model using Intervening variables view approach to show how a single intervening variable, role ambiguity acts as an intervening variable in the link between budget participation and job performance and job satisfaction relationship. They posited that role ambiguity is believed to be present when the required behaviours and expected performance levels are not clear to individuals. Path analysis was used and found that budgetary participation is most helpful in decreasing manager's role ambiguity and that decreased role ambiguity improved performance.

### **3.13 Summary**

In this chapter researcher highlighted the role of budget. Budgeting involved the establishment of predetermined goals or standards of performance, the reporting of actual performance results and the evaluation of performance in term of the predetermined standards. Therefore, a budget is a plan for the future, a communication medium and a control mechanism. Thus, budgeting is a method of translating the goals of the organisation into operational terms, disseminating these goals to the appropriate decision-makers, facilitating, coordinating, and controlling the actions of the various sub-units within the organisation.

On budgeting process and budgeting development in local authorities, this chapter mentioned about the development of devolved budgeting that were due to extensive organisational restructuring of public sector organisation, lack of funding from central government, inadequate expenditure control and accountability, repetitive budgeting

and etc. More importantly the role played by the central government in shaping the budgeting process and budgeting development in local authorities that has taken place especially in developing countries through government regulations which eventually affected the budget strategies of the organisations. This chapter has highlighted several budgeting issues and problems faced by many local authorities.

On the variables undertaken for this study, this chapter highlighted various literatures on previous studies on budget participation, performance, budget adequacy, organisational commitment and role ambiguity. More specifically, the results of previous findings on the relationship between budget participation and performance, budget adequacy, organisational commitment and role ambiguity and other related variables used in the studies were highlighted. Lastly this chapter highlighted the findings of several previous studies on the role of budget adequacy, organisational commitment and role ambiguity, as intervention variables in the relationship between budget participation and performance.

# **CHAPTER 4**

## **THEORY AND HYPOTHESIS**

### **DEVELOPMENT**

#### **4.1 Introduction**

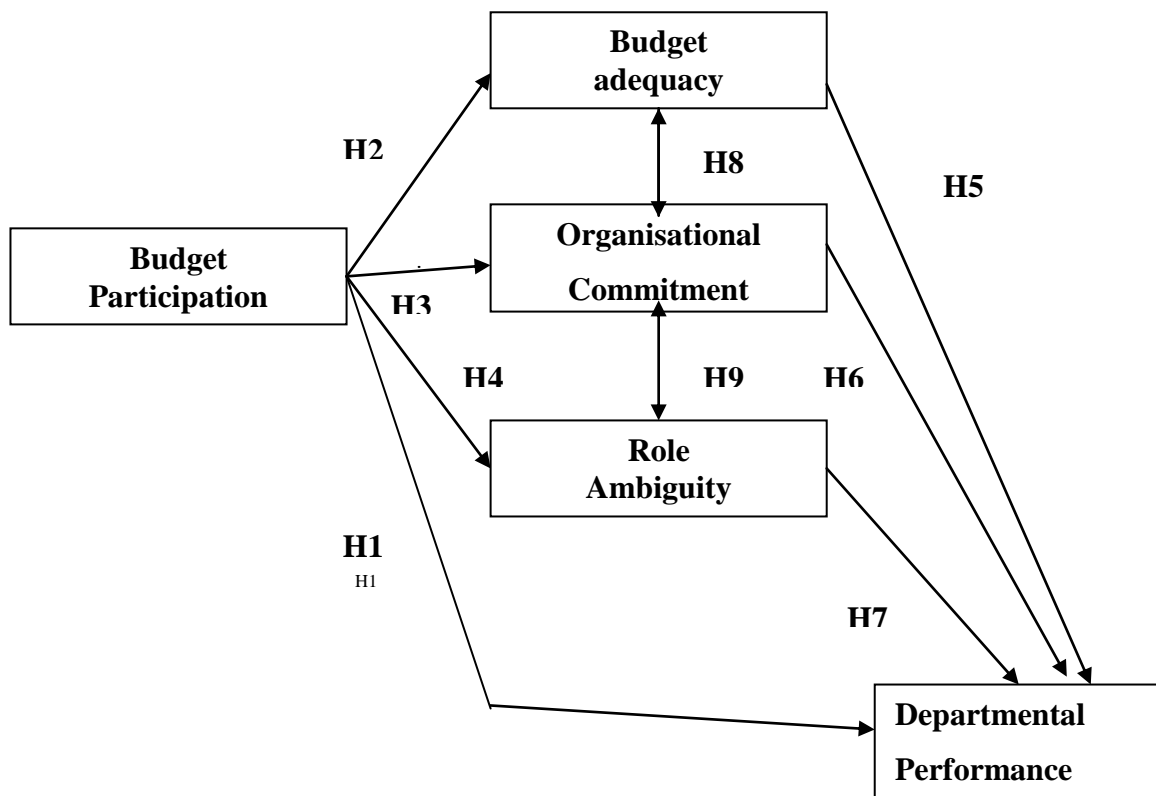
In the previous chapter, relevant literature was discussed on the related constructs adopted in this study. Based on the detailed arguments in relation to the related constructs, there is a reasonable justification for a thorough investigation to be carried out in order to identify and test the proposed relationship. Hence, the purpose of this chapter is to discuss and develop various hypotheses regarding the proposed relationship of the constructs in this study based from past literatures.

The hypotheses on the proposed relationships are based on the theoretical framework presented in the previous chapter. The full theoretical model appears in Figure 4.1 below. The main objective of this research is to provide additional evidence of the participative budgeting-performance linkage. Specifically it examines budget adequacy, organisational commitment and role ambiguity linkages as well as their effect on departmental performance of Malaysian local authorities at budget preparers and budget users' level in the participative budgetary environment In the Malaysian local authorities. Testing for budget participation affects departmental performance by means of three intervening variables: budget adequacy, organisational commitment and role ambiguity is important because evidence suggest that these three variables have direct effect on departmental performance and they are interrelated to each other and as a result mediated the budget

participation and departmental performance relationship (Merchant, 1981; Brownell, 1982; Chenhall and Brownell, 1988; Nouri and Parker, 1998). The model proposed in this study suggests that budget adequacy, organisational commitment, and role ambiguity mediates the relationship between levels of budget participation and departmental performance, such that more participation of budget preparers and budget users of Malaysian local authorities in the budget setting leads to budget adequacy which in turn increase budget preparers and budget users organisational commitment to budgetary goals and subsequently decrease their role ambiguity and enhance their departmental performance. The hypotheses the research seeks to answer are itemised below.

↑

**Figure 4.1. Proposed Constructs**



## **4.2 The Linkage Between Budget Participation and Departmental Performance**

The first hypothesis examines the relationship between budget participation and departmental performance. Budget participation is defined in this study as a process whereby subordinates are given the opportunities to get involved in and have influence on the budget setting process (Brownell 1982). Over the past twenty years, accounting researchers have extensively studied the relationship between subordinate participation in budgeting and subsequent performance. Although the proposition that participation in budgeting leads to improve individual and organisational performance is both theoretically and intuitively appealing, empirical results supporting this hypothesis are inconsistent (Shields & Young, 1993). The results of previous studies on the relationship between budget participation and performance have been equivocal. Several studies have proposed that budget participation is positively linked to employee performance (Nouri and Parker, 1998; Brownell, 1981, 1982; Hofstede, 1968;). Where as, other studies observed no differences in performance between participatively and non-participatively set budgets (Kenis, 1979; Steers, 1979; Milani, 1975). On the other hand, some studies have even reported a negative relationship between budget participation and performance (Bryan & Locke, 1967; Stedry, 1960). These conflicting results have prompted suggestion for a contingency approach to performance effects on participation (Hopwood, 1976; Brownell 1982c). This approach consists of identifying those factors, which influence or condition the effect of participation on performance. These factors are usually referred to as moderating variables. Govindarajan (1986), for example used environmental uncertainty as a contingent variable in evaluating the relationship between budget participation and performance. He reported that increased participation improved performance in environmentally highly uncertain situations, but hampered performance in low uncertain

situations. Brownell (1981) found that increased participation by employees who were “internal” resulted in improved performance where as participation by employees who were “external” hampered performance. Similarly, Hofstede (1968) found that increased participation by employees having a high need for independence was associated with improved performance, but no such relationship could be obtained in the case of employees who had a low need for independence.

A complementary approach to the identification of moderating variables is to describe more explicitly the variables that intervenes the relationship between participation and performance (Murray, 1990). This referred as intervening model approach (Chenhall and Brownell, 1988; Murray, 1990). The approach explains that participation may not directly affects performance, rather it may affect certain variables (intervening variables), which in turn would impact performance. Study by Wentzel (2002), on the influence of fairness perceptions and goal commitment on managers’ performance in a budget setting showed that increased participation during budgeting fosters a sense of fairness, which in turn increases managers’ commitment to budgetary goals and subsequently enhances performance ratings. Therefore, researcher argues that there is a relationship between budget participation and performance. As suggested by Milani (1975), budget participation by employees could be measured by their involvement in the decision making process of the budget setting. Participation according to him includes the employees’ budget setting activities and their view of their superior’s budget-related reactions and activities. Specifically, according to him, one important element of budget participation that has been used to measure participation of employees in the budget setting is the element of portion of the budget that the employee has involved in setting their budget. As has been stated earlier, several researchers such as Brownell (1982); Hofstede (1968); Wentzel (2002)

found that increased participation of employees in the budgeting process, leads to improve in performance.

Another element that was used by Milani (1975) in measuring the degree of budget participation of employees in the budget setting is the kind of reasoning provided by the superior to the subordinate when the budget is revised. Milani (1975) argues that revision of a budget request would generally not occur in an arbitrary fashion. If a portion of the employee request is revised, sound reasons are offered by the superior who is responsible for or reports the non-approval. In this aspect, participative budgeting allows employees to negotiate and air their voices and opinions regarding their budget requirement more rationally with superior and other decision makers. As a result they perceived the procedures were fair and thus would avoid negative attitude toward their superiors.

Besides employees' involvement in the portion of the budget, Milani (1975) further looks into the element of frequency of budget related discussions initiated by the employee, as another important element in determining the degree of employee's budget setting activities in the budgeting processes. Specifically, when employees perceived their budget involvement is extensive, when they discuss the budget frequently with their superiors, they would feel that they have influence on the final budget and their contribution to the budget is important. Hence, they will attempt to make use of participatory budgeting as a platform to exert their influence and incorporate their proposed budget during budget setting to ensure that they have adequate resources to successfully perform their duties.

Another important element used by Milani (1975), to measure budgetary participation and its impact on departmental performance is the amount of influence the employee has on the final budget. Nouri and Parker (1998) argued that, previous studies have shown that,

subordinates may have superior information about the level of budgetary support required to carry out their job successfully than their superiors. A participatory budget allows subordinates to incorporate this information into the budget while non-participatory budget does not.

Another important element in the budget participation construct, proposed by Milani (1975) is regarding the perception of the employee that his/her contribution is important to the budget. In other words, employee will improve their participation in the budget setting when they feel that their contribution is seen as important to the budget by their superior.

Besides employees' involvement in the portion of the budget, Milani (1975) further includes the frequency of budget related discussions held with their superior as another important element in determining employee's participation and perception or views of their superior's budget related reactions and activities in the budget setting process. Specifically, when employees perceived their budget involvement is extensive, when they discuss the budget frequently with their superiors, when they feel that they have influence on the final budget and when their contribution to the budget is important, subsequently improve their motivation and commitment and eventually enhance their performance.

Swieringa and Mancur (1972), on the other hand measured participation of employees based on their frequency working with other participants of the budget setting namely their superior, subordinate, other section/division heads and financial staff people. For this study researcher changed the scenario of the measurement by changing the emphasis of the measurement instead of frequency of time working with other participants in the budget setting to the quality of the budget setting when working with other participants. Poon et al. (p.102, 2001) argued that budgetary participation of managers provides a setting within



which managers can exchange information and ideas to make budgetary planning, coordination and control more effective. They further argued that the effectiveness depends, in part, upon the goal interdependencies of, and interaction between participants. Brownell (1982); Hofstede (1968); Wentzel (2002) indeed found, that increased participation of employees in the budgeting process, leads to improve in performance. Therefore, researcher proposes that when employees participated in the budget setting process, they will improve the quality of the budget setting and subsequently improved departmental performance. In other words, when employees participated in the budget setting process, they contributed to an optimal use of resources, a timely submission of the budget, reaching budget objectives, clarifying the goals of the budget, enhancing the accuracy of estimates, reducing unnecessary waste and time cost and as a whole developing an overall quality budget, thus enhance departmental performance (Poon et al., 2001). Hence, given the argument, the related hypothesis would be:

*H1: There is a positive relationship between budget participation and departmental performance of budget preparers and budget users of Malaysian local authorities.*

Support for this hypothesis would provide additional evidence that budget preparers and budget users' participation in the budget setting would lead to increase departmental performance. This hypothesis is important to be reconfirmed because previous studies have failed to look into the effect of budget participation in relation to departmental performance at group level (budget preparers and budget users' level) which have different work culture, setting and environment such as the Malaysian local authorities. Activities toward increased budget participation of budget preparers and budget users in the budget setting would imply that management could increase departmental performance by

improving and encouraging budget preparers and budget users to get more involve and participate in the budget preparation process.

### **4.3 The Linkage Between Budget Participation and Budget Adequacy**

The second hypothesis examines the relationship between budget participation and budget adequacy. Budget participation relates to the extent to which managers participate in setting budgets. By definition (Brownell, 1982c, p.124), budget participation encompasses the concept of influence in the budgetary process. Influence suggests that employees are afforded a degree of control over the outcome of a decision-making process. As a consequence, they are likely to view their budgetary involvement as a mean of obtaining a more favourable budget. While budget adequacy is the degree to which an individual perceives that budgeted resources are adequate to fulfil job requirements (Nouri and Parker, 1998). In relation to that, researcher argues that budget participation would enhance employees obtaining a more favourable budget when they participated in the budget setting processes than if they did not. Prior studies also suggest that manager's participation in budgeting may yield favourable job-related outcomes through greater exchange of information, better coordination of activities and increased employee involvement (Govindarajan, 1986; Mia, 1988, 1989). Furthermore, as argued by Poon et al. (2001; pp. 103), budget participation gives individuals the legitimacy to discuss organisational issues with superiors and provides a setting in which individuals can exchange information and ideas to solve problems and agree on future action.

In addition to that, several researchers (Merchant, 1981; Chow et al., 1988; Murray, 1990) have noted that allowing subordinates to participate in the budgeting process may

result in the disclosure of private information, which may result in more realistic plans and more accurate budgets. Several accounting studies have also argued that subordinates have more accurate information than their superiors regarding local conditions (Merchants, 1981; Christensen, 1982; Chow et al., 1988; Waller, 1988). In summary, prior research suggests that, employee felt they should be allowed to participate in the budgetary process and that they will receive a more favourable budget if allowed to participate.

Therefore, this study proposes that subordinates often have better information about the level of budgetary support required to perform the subordinate's task than do superiors. Researcher further argues that, they will attempt to incorporate this information into the budget to ensure that they have adequate resources to successfully perform their duties. As has been discussed above, a participatory budget allows subordinates to incorporate this information into the budget. Hence, given the argument, the related hypothesis would be:

*Hypothesis 2: There is a positive relationship between budget participation and budget adequacy of budget preparers and budget users of Malaysian local authorities.*

Acceptance of this hypothesis would provide management and managers with an increased awareness of the importance of the relationship between budget participation and budget adequacy in budget setting in the context of budget preparers and budget users' level of participation in the Malaysian local authorities' setting which have different work culture and environment. A positive association between budget participation and budget adequacy coupled with the impact of direct effect between these two variables towards each other and their effect to departmental performance will confirm the notion that budget preparers and budget users' level of participation in the budget setting are important variables or factors to improve budget adequacy in the budgeting process of Malaysian

local authorities. Participation of budget preparers and budget users in the budget setting allows budget preparers and budget users to influence their management's decision with regard to budget allocation's level which they perceived as adequate and sufficient in fulfilling their job requirements.

## **4.4 The Linkage Between Budget Participation and Organisational Commitment**

The third hypothesis examines the relationship between budget participation and organisational commitment. Organisational commitment is the bond that links the individual to the organisation (Mathieu and Zajac, 1990) and may be conceptualised in two different ways; affective and continuance commitment (Meyer et al. 1990). In this study researcher adopt the affective commitment which is characterised by (1) a strong belief in and acceptance of the organisation's goals and values; and (2) a willingness to exert considerable effort on behalf of the organisation (Porter et al. 1974; Angle and Perry, 1981). Where as continuance commitment associated with lost of perceived cost when leaving the organisation, several researchers such as March and Simon (1958) have proposed that employee participation in decision-making increases employee commitment to the organisation. They argued that the more participation of subordinates in making policy decisions, the stronger the tendency of subordinates to identify with the organisation. In relation to that, Hanson (1966, p.241) not only supported March and Simon's (1958) arguments, instead he corroborated the idea that participative budgeting increases employees' identification not only with budget objectives but also with all organisational goals. Prior studies also suggest that manager's participation in budgeting may yield favourable job-related outcome through greater exchange of information, better coordination of activities and increased employees' involvement (Govindarajan, 1986;

Mia, 1988; 1989). The recent finding by Nouri and Parker (1998) suggests a positive relationship between participative budgeting and organisational commitment. Other studies that report a significant positive relationship between employee participation and organisational commitment include DeCottis and Summers (1987) and Boshoff and Mels (1995). In addition to that, Hanson (1966, p. 241) argued that through participation in budget setting members of the organisation associate themselves more closely with and become better acquainted with budget goals. In relation to that Lincoln and Kallerberg (1985, p. 754) posit that participation serves to integrate workers in the organisation and commit them to organisational decisions. Empirical findings suggest that managers are more likely to become ego-involved with the targets that they involved in the setting (Brownell, 1982). According to Shields and Shields (1998) the process of budgetary participation will increase subordinates' trust, sense of control and ego-involvement with the organisation which then jointly cause less resistance to change and more acceptance of and commitment to budget decisions. Beer et al. (1990) believe that subordinates would be more committed to tasks and changes if managers or supervisors were directly involved in these tasks and changes.

Given that organisational commitment relates to the belief in and acceptance of organisational goals and values, participative budgeting is likely to increase organisational commitment. Therefore, this study proposes that budget participation is linked to organisational commitment. The related hypothesis may be stated as follows:

*Hypothesis 3: There is a positive relationship between budget participation and organisational commitment of budget preparers and budget users of Malaysian local authorities.*

This hypothesis is again tested in the context of Malaysian local authorities which have different setting, culture and environment and it focuses on the budget preparers and budget users at group level examination. Evidence supporting this hypothesis would suggest to management and managers that budget participation of budget preparers and budget users in the budget setting process would have positive impact on their organizational commitment. A positive association between budget participation and organizational commitment would suggest to management and managers in this context, the management, the budget preparers and budget users of Malaysian local authorities that they would need to actively involve in the budget setting process in order to increase and improve budget preparers and budget users' organisational commitment.

## **4.5 The Linkage Between Budget Participation and Role Ambiguity**

The fourth hypothesis examines the relationship between budget participation and role ambiguity. Role ambiguity occurs when individual is unsure about others expectations of him or herself. It can be viewed according to Graen (1976), as the extent to which clear information is lacking regarding (a) the expectations associated with a role, (b) methods of fulfilling role expectations and/or (c) the consequences of role performance. It has also been conceived as the discrepancy between the amount of information a person has and the amount she/he requires to perform his or her role adequately (Kahn, 1974, p.426). ). In relation to that, Brownell (1988, p, 226) argued role ambiguity occurs where the sent role expectations for an individual lack sufficient clarity in terms of the required behaviours or expected performance levels.

Chenhall and Brownell (1988) suggested that, participation in the budget setting process has the potential to clarify information in all three areas above. According to them, participation of managers in the budget setting enable them (managers) to clarify expectations associated with role, clarification of methods to be employed in fulfilling role expectations, and the means of clarifying the basis of subsequent evaluation in connection with ambiguity regarding the consequences of role performance. Their study on 36 middle-level managers drawn from a large manufacturing company showed that budgetary participation is most helpful in decreasing role ambiguity and that decreased role ambiguity improves job satisfaction and performance. Their finding is in line with prior researchers that suggest manager's participation in budgeting may yield favourable job-related outcome through greater exchange of information, better coordination of activities and increased employees' involvement (Govindarajan, 1986; Mia, 1988; 1989).

With regard to the relationship between participation and role ambiguity Govindarajan (1986) and Mia (1988, 1989) found that decreased role ambiguity leads to improved performance. They argued that the fundamental argument is that individuals who do not fully understand their duties and responsibilities, or how they are to be evaluated will hesitate to make decisions and will rely on learning by trial and error and evaluation, will hesitate to make decision and will rely on learning by trial and error and as a result may translate into diminished performance (Hammer & Tosi, 1974).

Prior studies also suggest that manager's participation in budgeting may yield favourable job-related outcome through greater exchange of information, better coordination of activities and increased employees' involvement (Govindarajan, 1986; Mia, 1988; 1989). This study proposes that budget participation is linked to role ambiguity. As Beehr et al. (1976) found that role ambiguity was negatively related to effort towards quality but not

towards quantity. While Cohen (1959) found that ambiguity caused lowered productivity and the findings of Chenhall and Brownell (1988) support a negative association between participative budgeting with role ambiguity. Participative budgeting provides subordinates the opportunity to share their local and specialised knowledge with their peers and superiors, permit open discussion of preferred mean-end approaches (Magner et al. 1996; Shields and Shields, 1998). Magner et al. (1998) argued that the act of participation allows subordinates to interact with their superiors, where subordinates can ask questions to clarify their role expectations and work strategies. Chong and Chong (2002) further argued that participative budgeting provides an opportunity for subordinates to gather, exchange and disseminate job-relevant information in order to enhance their decision making process. Hence, participative budgeting provides subordinates the opportunity to share information between subordinate and superior. The availability of information will aid to clarify subordinates' role expectations, methods of fulfilling their role expectations and performance. Thus, this study proposes that participative budgeting is expected to reduce subordinates' levels of role ambiguity. Therefore, the related hypothesis may be stated as follows:

*Hypothesis 4: There is a negative relationship between budget participation and role ambiguity of budget preparers and budget users of Malaysian local authorities.*

A significant association obtained in this hypothesis would suggest to management and managers that budget preparers and budget users roles ambiguity would give negative impact on departmental performance. Budget participation process enabled budget preparers and budget users to clarify their role more clearly and thus enhance their performance especially in accomplishing the budget goals. A negative association between role ambiguity and budget participation would suggest that budget preparers and budget



users in Malaysian local authorities would need to actively involve in the budget setting process to enable them to clarify their role more clearly in achieving the budget goals. In other words participative budgetary process budget preparers and budget users would have clear planned goal and objective of their job, always know their responsibilities, know their jobs link to other people's jobs and more importantly they know how much their authority in achieving their tasks. Therefore, it is important that the hypothesis be tested at the budget preparers and budget users' level which focuses on group level variables in the Malaysian local authorities' context.

## **4.6 The Linkage Between Budget Adequacy and Departmental Performance**

The fifth hypothesis examines the relationship between budget adequacy and departmental performance. Budget adequacy is the degree to which subordinates perceived that budgeted resources are adequate to fulfil job requirements (Nouri and Parker, 1998, pp.469). They argued, since personal and organisational success depends partly upon the subordinates receiving adequate budgetary support, subordinates may attempt to incorporate about the level of budgetary support required to carry out their job duties in the budget. These subordinates, according to several accounting studies, have more accurate information than their superiors regarding local conditions and in order to have adequate resources to carry out their duties they incorporate this information into the budget (Merchants, 1981; Christensen, 1982; Chow et al., 1988; Waller, 1988). Previous studies (Merchant, 1981; Chow et al., 1988; Murray, 1990) also have shown that participation of subordinates in the budget setting enhance budget adequacy through disclosure of private information which result in more realistic plan and accurate budget

Nouri and Parker (1998), specified three important dimensions or elements in measuring budget adequacy. Accordingly, (1) the budgeted resources does allow the employees to perform what is expected of them; (2) what is expected of them is achievable under their budget; and (3) they are confident of achieving what is expected under their budget. Therefore, budget adequacy would enable employees to perform, achieve and confidently achieve what is expected of them under their budget. Empirical study by Nouri and Parker, (1998) on the relationship between budget adequacy and job performance indicates that the relationship is significant and positively related. They also posit that employees with adequate budgetary support will on average, exhibit higher performance than employees without adequate budgetary support. Based upon their finding, this study proposes that budgetary adequacy is linked to departmental performance. This suggests the following hypothesis:

*Hypothesis 5: There is a positive relationship between budget adequacy and departmental performance of budget preparers and budget users of Malaysian local authorities.*

This hypothesis would suggest to management and managers that there is positive relationship between budget adequacy and departmental performance. A positive association between budget adequacy and departmental performance would suggests to budget preparers and budget users that the more they involved themselves in the budgeting process the higher they would enable them to produce better budget adequacy and accuracy subsequently enhancing their departmental performance. Thus, as Nouri and Parker, (1998) posit employees with adequate budgetary support will on average, exhibit higher performance than employees without adequate budgetary support. This notion could also be reconfirmed and tested in Malaysian local authorities.

## **4.7 The Linkage Between Organisational Commitment and Departmental Performance**

The sixth hypothesis examines the relationship between organisational commitment and departmental performance. Organisational commitment is commonly accepted as the relative strength of an individual's identifications with and involvement in a particular organisation (Mowday et al., 1982). Prior studies indicated that commitment is positively related with employee motivation, job involvement, and job satisfaction and negatively related with absenteeism and turnover (Matheieu and Zajac, 1990). Several researchers have proposed that employee participation in decision-making increases employee commitment to the organisation. Those studies which report a significant positive relationship between participation and organisational commitment include Welsch and LaVan (1981); Zahra (1984); DeCotis and Summers (1987); and Boshof and Mels (1995), Nouri and Parker (1998).

A recent study by Libby, (1999) on the effect of voice and superior explanation of a set budget target, indicated that there is a significant performance improvement when voice and explanation are combined as compared to voice alone. Wentzel, (2002) on the other hand found that increased participation during budgeting fosters a sense of fairness, which in turn increases managers' commitment to budgetary goal and subsequently enhances performance rating. This finding is consistent with Randall (1990) conclusion that organisational commitment has a positive relationship to job performance.

This study proposes that organisational commitment is linked to departmental performance. As Nouri and Parker (1998) argued, "Since organisational commitment involves the belief in and acceptance of organisational goals and values, participative

budgeting may increase organisational commitment”. Higher organisational commitment according to Randall, 1990 may lead to higher performance. This suggests the following hypothesis:

*Hypothesis 6: There is a positive relationship between organisational commitment and departmental performance of budget preparers and budget users of Malaysian local authorities.*

Support for the sixth hypothesis would suggest to management and managers that organisational commitment is one of the important variables or factors in improving and increasing departmental performance. By examining the linkage between organisational commitment and departmental performance relationship researcher attempted to determine whether organisational commitment of budget preparers and budget users leads to improve departmental performance in Malaysian local authorities’ context. A significant association obtained in this hypothesis would suggest to management and managers that budget preparers and budget users’ organisational commitment has significant impact and effect on the overall achievement of departmental performance of Malaysian local authorities.

## **4.8 The Linkage Between Role Ambiguity and Departmental Performance**

The seventh hypothesis examines the relationship between role ambiguity and departmental performance. As has been stated in section 4.5, role ambiguity occurs when individual is unsure about others expectations of him or herself. It can be viewed according to Graen, (1976) as the extent to which clear information is lacking regarding

(a) the expectations associated with a role, (b) methods for fulfilling role expectations and/or (c) the consequences of role performance. It has also been conceived also as the discrepancy between the amount of information a person has and the amount she/he requires to perform his or her role adequately (Kahn, 1974, p.426). In relation to that, Brownell (1988, p, 226) argued role ambiguity occurs where the sent role expectations for an individual lack sufficient clarity in terms of the required behaviours or expected performance levels.

Chenhall and Brownell (1988) suggest that, participation in the budget setting process has the potential to clarify information in all three areas above. According to them, participation of managers in the budget setting enable them (managers) to clarify expectations associated with role, clarification of methods to be employed in fulfilling role expectations, and the means of clarifying the basis of subsequent evaluation in connection with ambiguity regarding the consequences of role performance. Their study on 36 middle-level managers drawn from a large manufacturing company showed that budgetary participation is most helpful in decreasing role ambiguity and that decreased role ambiguity improves job satisfaction and performance. The fundamental argument according to Chenhall and Brownell (1988) is that individuals who do not fully understand their duties and responsibilities, or how they are to be evaluated, will hesitate to make decision and will rely on learning by trial and error and as a result may translate into diminished performance (Hammer & Tosi, 1974). This study proposes that role ambiguity is linked to performance As Beehr et al. (1976) found that role ambiguity was negatively related to effort towards quality but not towards quantity while Cohen (1959) found that ambiguity caused lowered productivity. Thus, the related hypothesis may be stated as follows:

*Hypothesis 7: There is a negative relationship between role ambiguity and departmental performance of budget preparers and budget users of Malaysian local authorities.*

Acceptance of this hypothesis will provide management and managers with an increase awareness of the importance of the relationship between role ambiguity and departmental performance. A negative association between role ambiguity and departmental performance confirms the notion that role ambiguity hampered or negatively effect departmental performance. The ability of budget preparers and budget users to clarify their planned goals and objectives, responsibilities, expectations and their jobs linked to other people's job more clearly in the budgeting process will enable them to commit to budget goals as expected of them and thus improved departmental performance of 'Malaysian local authorities.

## **4.9 The Linkage Between Budget Adequacy and Organisational Commitment**

The eighth hypothesis examines the relationship between budget adequacy and organisational commitment. As has been discussed earlier, several accounting studies have argued that subordinates have more accurate information than their superior regarding local conditions (Merchant, 1981; Christensen, 1982; Chow et al., 1988; Waller, 1988). In relation to budget adequacy, several researchers such as Merchant, 1981 and Murray, 1990 have noted that participative budgeting of subordinates in budgeting process may result in the disclosure of private information, which would result in more realistic plans and more accurate budgets. As Nouri and Parker, 1998 argued, subordinates will attempt to incorporate about their level of budgetary support into the budget to ensure that they have adequate resources to successfully perform their duties. Nouri and Parker (1998) further

argued, if employees believe that organisation is responsible for ensuring that employees receive sufficient budgetary support, thus budget adequacy is likely to increase employees' bonding with the organisation. Since organisational commitment involves the belief in and acceptance of organisational goals and values, therefore budget adequacy may increase employees' organisational commitment. Therefore, this suggests the following hypothesis:

*Hypothesis 8: There is a positive relationship between budget adequacy and organisational commitment of budget preparers and budget users of Malaysian local authorities*

Support for the eighth hypothesis would suggest to management and managers that budget adequacy has direct effect on organisational commitment. A positive association between budget adequacy and organisational commitment would suggest to budget preparers and budget users that they would improve their organisational commitment if they were given adequate budget for them to commit and perform the task well. Therefore, a positive association between these two variables in the context of participative budgeting in the Malaysian local authorities confirms the notion that organisational commitment of budget preparers and budget users improved and increased when they were given more adequate and accurate budget.

## **4.10 The Linkage Between Role Ambiguity and Organisational Commitment**

The ninth hypothesis examines the relationship between role ambiguity and organisational commitment. Role ambiguity occurs when the sent role expectations for an individual lack sufficient clarity in terms of the required behaviours or expected performance levels.

Fundamentally, role ambiguity is due to lack of clarity regarding duties, responsibilities, and /or authority and may be due to the complexity of the job. It also can be viewed according to Graen, (1976) as the extent to which clear information is lacking regarding (a) the expectations associated with role, (b) method for fulfilling role expectations and /or (c) the consequences of role performance. Chenhall and Brownell (1988) highlighted that participation in the budget setting process has the potential to clarify information in all three areas above. According to them, participation of managers in the budget setting enable them (managers) to clarify expectations associated with role, clarification of methods to be employed in fulfilling role expectations, and the means of clarifying the basis of subsequent evaluation in connection with ambiguity regarding the consequences of role performance. On the effect of role ambiguity, Van Sell et al, (1981) concluded that role ambiguity appears to cause lower productivity, tension, dissatisfaction, and psychological withdrawal from the work group. Nevertheless, Chenhall and Brownell, (1988) findings appear to be considerable evidence that increased role ambiguity may result in a decline in job satisfaction and performance.

Organisational commitment on the other hand, is the bond that links the individual to the organisation (Mathieu and Zajac, 1990). Literature review indicates that organisational processes allowing more participation may enhance organisational commitment by providing managers greater opportunity to make decisions and to become more ego-involved in their work (Mathieu and Zajac, 1990; Morrow, 1993). Prior studies also indicated that commitment is positively related with employee motivation, job involvement, and job satisfaction and negatively related with absenteeism and turnover (Matheieu and Zajac, 1990). This study proposes that participation leads to less role ambiguity and less role ambiguity leads to increase organisational commitment. As Chenhall and Brownell (1988 p. 226) argued, participation of employees in the budget



setting process has the potential for the employees to clarify information with regards to clarification of expectations associated with role, clarification of methods to be employed in fulfilling role expectation and in connection with role ambiguity regarding the consequences of role performance. Furthermore, as argued by Poon et al (2001; p 103), budget participation gives individuals the legitimacy to discuss organisational issues with superiors and provides a setting in which individuals can exchange information and ideas to solve problems and agree on future action. In addition to that, several researchers (Merchant, 1981; Chow et al., 1988; Murray, 1990) have noted that allowing subordinates to participate in the budgeting process may result in the disclosure of private information, which may result in more realistic plans and more accurate budgets. In other words participative budgeting processes would be able to provide employees the opportunities to clarify their role ambiguity by means of goals and budgets in term of their role expectations, permitting open discussion of preferred means in terms of clarification of methods to be employed in fulfilling role expectations and the basis of his or her subsequent evaluation in term of consequences of role performance. Thus participative budgeting reduces subordinates role ambiguity, improves their commitment to the organisation and enhances performance.

On the related issue of role ambiguity and commitment, Marginson and Ogden (p.16, 2004) findings indicated that employees may commit to meeting pre-determined budgetary targets not because of the threat of accountability or the promise of reward, but because budgets can offer structure and certainty in situation of high ambiguity and uncertainty. Therefore, there are enough evidence to indicate that as the employees get more involved in the budget setting, the more they would be able to clarify their duties, responsibilities and authorities and therefore would positively enhance and improve their role and commitment to their organisation. Therefore, the related hypothesis is as follows:

*Hypothesis 9: There is a negative relationship between role ambiguity and organisational commitment of budget preparers and budget users of Malaysian local authorities.*

A significant association obtained in the ninth hypothesis would suggest to management and managers that there is enough evidence to indicate that as the employees get more involved in the budget setting, the more they would be able to clarify their duties, responsibilities and authorities and therefore would positively enhance and improve their role and commitment to their organisation. Therefore the link between these two variables need to be reaffirmed in the Malaysian local authorities context especially at budget preparers and budget users' variable which focused on group level that would provide greater understanding of possible ways of improving role ambiguity and organisational commitment.

### **3.11 Summary**

In this chapter, researcher has discussed and proposed various hypotheses based on the theoretical framework in chapter two. Linkages of budget participation, budget adequacy, organisational performance, role ambiguity and departmental performance were highlighted and justified for the proposed hypotheses.

Based on this discussion and other related literature, nine hypotheses were developed and tested in this study. This study attempted to investigate the effect of budget preparers and budget users' participation in budget setting on departmental performance of Malaysian local authorities via budget adequacy, organisational commitment and role ambiguity. Therefore, the link of these variables that influenced and affect the relationship of budget participation and departmental performance of Malaysian local authorities such as budget

adequacy, organisational commitment, and role ambiguity were also investigated. This study is designed to gain a better understanding of the process by which budget participation influences departmental performance via budget adequacy, organisational commitment and role ambiguity on the budget preparers and budget users' level as a group level' study in Malaysian local authorities' context.

# **CHAPTER 5**

## **RESEARCH METHODOLOGY**

### **5.1 Introduction**

This chapter describes the methodology employed to collect data for hypotheses testing. The focus of the research design for this study will be based on the research objectives as outline in chapter one. In this case, the objectives are; (1) To examine how far budget adequacy, organisational commitment and role ambiguity of budget preparers and budget users of Malaysian local authorities intervene the relationship of budget participation and departmental performance of Malaysian local authorities. (2) To examine whether budget participation, budget adequacy, organisational commitment, and role ambiguity of budget preparers and budget users of Malaysian local authorities have direct or indirect effect on departmental performance of Malaysian local authorities. (3) To examine whether budget participation of budget preparers and budget users of Malaysian local authorities has direct or indirect effects on budget adequacy, organisational commitment and role ambiguity of budget preparers and budget users of Malaysian local authorities. (4) To determine the strength of the relationship between budget participation, budget adequacy, organisational commitment, role ambiguity and departmental performance of Malaysian local authorities. The methodology for this research is mainly quantitative, as it is believed that this method facilitates answering the study's research objectives. This chapter discusses general data collection issues; the methodology applied in conducting this study and considers other issues such as research design, research

instruments, sampling methods, and data analysis and measurement. These issues will be examined individually.

## **5.2 General Data Collection Issues**

There are two main basic types of descriptive studies, highlighted by Churchill (1999), the cross sectional design and longitudinal design. The advantage of using longitudinal design over cross sectional design is due to the quality of the data collected and also the rigors of analysis that can be performed. However, its disadvantages are that, it is more expensive and also requires conducting the study over a long time period. Due to financial and time constraints longitudinal study was not possible and therefore a cross sectional design was chosen.

## **5.3 Research Design**

There are many research methodologies available for doing research. Surveys were used to collect data, which enabled the researcher to generalise the findings from a sample of responses to a population and make inference about some characteristics involved (Creswell, 1994). Survey research is probably the best method available to the social scientist interested in collecting original data for describing a population too large to observe directly (Babbie, 1995). A survey was preferred over other methods since the results can be generalised and information can be gathered by using questionnaires. This method involved using a sample to represent a large population, helped to lower the costs in terms of time and money and so is economical compared to other qualitative methods such as ethnographic approach. As explained earlier, survey allows generalisation of the results from a sample representative of a

population. When it is executed in a cross sectional design, a large volume of information can be gathered within a short period of time in an economical manner unlike other qualitative methods. Survey results could highlight broader and more general patterns and relationships. This would provide the researcher with a basis for the formulation of explanation and theories. In addition self-administered survey is the easiest way of retrieving past information from a large set of people. Survey, which allows anonymity of respondents, can also encourage frankness when sensitivity is involved.

Finally, research results through survey are convincingly used for various purposes and in many competitive decision making situation. Zeisel (1984), for instance points out that the ‘apparent exactness and rigorousness of statistical analysis of survey data, is a useful device to win arguments with people who do not understand the value of qualitative knowledge in scientific research’. Thus, researches conducted through survey in high reliability manner seize the attention of any reader. The other advantage also, this method enable the researcher to identify the patterns in the data and association between variables, thus provide a basis for a formulation of explanation and theories, and also for achieving the research objectives (Fink & Kosecoff, 1985).

Nevertheless, survey has several disadvantages. Due to the ‘socially acceptable impression factor’, respondents have the tendency to exaggerate or understate their responses by giving favourable responses. Biased responses could arise directly as a result of the possible influence of the perceived purpose of the survey and or the researchers’ personal characteristic. Thus, if this occurs, it would affect the research

accuracy and precision. Another weakness charged at survey is that it is inherently superficial. Proponents of interpretive research such as Blumer (1956), for instance, argues that studies that aim to bring out the relationships between variable omit 'the process of interpretation or definition that goes on human group'. Thus survey done through survey may miss subtle differences in behaviour or views between different respondents, and the respondents' answers may not represent their action. Finally, one of the limitation of mail surveys among an industrial population is low response rate (Harzing, 1979). For regular mail surveys without a telephone follow-up response rates typically vary between 6% and 16%. A cross-sectional survey approach was conducted and one questionnaire was used to collect the data for both budget preparers and budget users on a cross section of Malaysian local authorities. It is also designed to directly address the hypotheses outlined in Chapter Three.

### **5.3.1 Population and Sample**

The population of the study is budget preparers and budget users of the Malaysian local authorities, which are identified as those officers involved and have influence in the budget setting. For budget preparers, they involved themselves in the budget preparation of their department and for budget users they are responsible in implementing the agreed budget and some of them are also involved in both the preparation and also implementation of the budget. They were selected because of their involvements and influenced over the budget setting of their organisation. Some of them are directly involved in the budget preparation and in the budget setting process of their organisation while some are directly involved in the implementation of the budgets for their department and some they are involved directly for both preparation and implementation of the budget. For this study, those who are involved

in preparing the budget for other people or division/ department are known as budget preparers, and those officers such as division heads or section heads that make use of budgets prepared by others are known as budget users.

### **5.3.2 Sampling Frame**

As stated earlier, the samples of this study are officers that are involved and have influenced in the budget setting of Malaysian local authorities. The sample was drawn from the directory of local council provided by the Ministry of Housing and Local Government of Malaysia. The total population for the study was estimated to be around 1432 respondents based on their position from the organisation chart provided by the Ministry of Housing and Local Government of Malaysia.

Because of financial and time constrained, the survey was only made in West Malaysia. The local councils in East Malaysia were not included because they are too costly to access since most of them are distantly located and accessibility are mostly by air. Based on the Directory of Malaysian Local Authorities provided by the Ministry of Housing and Local Government of Malaysia and discussion with the bursar of each category of the local council, there are 1,044 potential respondents for this study of which the number of potential respondents were calculated based on the organisation chart of the local authorities. All head divisions and several section heads were included in the survey. For district councils, which are mostly small and have 5 division's heads, not including the secretary of the district council and the accountant. Therefore for the purpose of getting the population for the district council category, researcher identified that there are 7 potential respondents from each district council. The same formula was also used to calculate the potential respondents for



both city halls and town councils categories. As for the city halls and town councils the organisation are much bigger than district councils and thus section heads were included in the calculation and based on the organisation chart the number of potential respondents were 15 each for the town council and 30 each for the city council

## **5.4 The Questionnaire**

This study uses questionnaires as an instrument of data gathering and to answer the objectives of the study. One questionnaire was used to collect the data for assessing the involvement and influence of budget preparers and budget users in budget setting, the degree to which they perceive that budgeted resources are adequate to fulfil their job requirement, their degree of commitment to the organisation, the influence of budgets process in reducing their role ambiguity and lastly their perception on the departmental performance of the Malaysian local authorities. Self-administered closed-ended questions using seven points Likert-scale were used to measure their views on all the components of the constructs. One advantage of using Likert-scale question is that it is very commonly or most often used by researchers to investigate how respondents rate a series of statements by having them circle or tick (/) or otherwise mark numbered categories (for instance 1, 2, 3, 4, 5) thus facilitating the respondents in answering the questions and increase the possibility of rate of responses and eventually increase the rate of returns. Liker-scale items are useful in gathering respondents 'feelings, opinions, attitudes, views' and etc on any language-related topics. These kinds of questions allowed the researcher to obtain more quantitative information about the survey subject. The respondents have had to indicate how closely their feelings match the question or statement on a rating scale since it is easy to use and gives respondents a wide range of choices which may make

them feel more comfortable. The number at one end of the scale in this study, on the end left represents least agreement, or ‘strongly disagree’ and the number on the end right represent the most agreement, or ‘strongly agree’. Thus, the responses are gathered in a standardised way and relatively quick to collect information. There are two commonly problems arise, when using Likert-scale question, firstly with the respondents who prefer to ‘sit the fence’ by always marking the most neutral possible answer and secondly the difficulty in deciding what kind of scale the data coming from such an item represents and therefore requires a great deal of decision making and can take a long time to analyse the data collected. The questionnaire was divided into 6 sections. Detailed discussions on the instruments used for this research is provided below and a copy of the questionnaire is in Appendix A.

#### **5.4.1 Section 1. Demographic Information**

This section captures demographic information of the respondent, such as category of the local council, local council’s department/division, age, gender, qualification, year of service, occupation, year in the current post and also their involvement in the budget processes or system. Some of the questions in this section are required to be answered by ticking (/) for the answer. Question 1 asked about the category of the local council. This question seeks to find out the respondent place of work from the three categories of the Malaysian local authorities. Question 2 focuses on the department where the respondents work in the organisation. This answer is necessary in order to confirm whether the respondents fit the requirement for answering the question in section 6 (Departmental performance) Question 3 asked about the age of the respondents while question 4,5, 6, 7, 8, and 9 asked about the gender, qualification, year of service, occupational group, length of time working in the

organisation and length of time in the present post and lastly, Question 10 specifically asked the respondents to dictate their role either as a budget preparers or budget users or both. Question 7, 8, and 9 required the respondents to fill in the blank in answering the questions. Whereas, in question 10 the respondents just have to tick the box that appropriate to them.

### **5.4.2 Section 2. Budget participation**

In this section, the questionnaire looks into the degree of involvement and influence of the budget preparers and budget users in the budget setting of Malaysian local authorities. There are ten questions in this section and are close ended type adopted from Milani (1975) six item instruments (Q11.1 to Q11.6) and the other four items from Swieringa and Moncur (1972), (Q11.7 to Q11.10). Some modifications were made to the items from Swearing and Moncur (1972) in order to measure the quality of the budget setting, when budget preparers and budget users worked with their superior, subordinate, other section/division heads, and financial staff people in preparing the budget rather than the frequency or volume of time they worked as emphasised by Swieringa and Mancur (1972). The 10 item instruments used to assess participation of budget preparers and budget users in the budget setting, which include the amount or portion of the budget that they involved in the budget setting (Q11.1), the amount of reasoning by their superior when budget is revised (Q11.2), the frequency of budget related discussion with their superior that they initiated (Q11.3), the amount of influence they feel they have on the final budget (Q11.4), the importance of their contribution to the budget (Q11.5), the frequency of budget related discussion initiated by their superior when budgets are being set. (Q11.6) the quality of the budget when they worked with their superior in budget preparation

(Q11.7), the quality of the budget when they worked with their subordinates in budget preparation (Q11.8), the quality of budget when they worked with other section/division heads in preparing the budget (Q11.9) and last but no least the quality of budget when they worked with financial staff people in preparing the budget (Q11.10). The respondents were required to choose the right answer by ticking (/) the box from the 7- point Likert scale used for the questionnaires ranging from 1 very little to 7 very much.

### **5.4.3 Section 3. Role Ambiguity**

Role ambiguity refers to the extent to which clear information is lacking regarding firstly the expectation associated with role, secondly regarding methods of fulfilling role expectation and thirdly regarding the consequences of role performance. Section 3 looks into the influence of participation of managers in budget setting in reducing their role ambiguity in implementing the budget. Role ambiguity was measured using six items instrument from the role pressure instrument developed by Rizzo et al (1970). Question 12.1 asked whether the respondents have clear plans and objectives with their job. Question 12.2 focussed on whether the respondents know their responsibilities. Question 12.3 was about whether the respondents know what is expected of them. Question 12.4 was concerned about the authority they have, question 12.5 asked about how they divide their time and lastly question 12.6 was regarding their certainty on how their job is linked to other people's jobs. In answering these 6 items, the respondents were asked to state their agreement on 7 points Likert-scale ranging from 1 strongly disagree to 7 strongly agree.

#### **5.4.4 Section 4. Budget Adequacy**

This section seeks to find out whether budget preparers and budget users perceived their budget resources are adequate to fulfil their job requirements. Budget adequacy was measured using 3 items scale, developed by (Nouri and Parker, 1998) which were included in the following questions. Question 13.1; 'My budget does allow me to perform what is expected of me'. Question 13.2; 'What is expected of me is achievable under my budget' and question 13.3; 'I am confident that I can achieve what is expected of me under my budget'. The response scale was a seven-point Likert-type scale ranging from one (strongly disagree) to seven (strongly agree). Slight modifications were made to the original item in Q13.1 and Q13.3 by taking away the word 'not' in Q 13.1 and the word 'pretty much' from Q13.3.

#### **5.4.5 Section 5. Organisational Commitment**

Section 5 seeks to find out the commitment or the bonding that linked the managers to the organisation. Porter et al, 1974 defined strong organisational commitment as the acceptance of organisational goals and willingness of employees to exert effort on behalf of the organisation. All together there are eight commitment measures adopted from Nouri and Parker (1998) in this study. Sample measure in the scale included 'I care about the future of this organisation' (Question 14.8), 'I am willing to put in a great deal of effort beyond that normally expected in order to help this organisation be successful', (Question 4.1). Some modifications were made to certain questions in order not to confuse the respondents. Words such as 'very' in Q14.4 and Q14.6, 'extremely' in Q14.7 and 'really' in Q14.8 were removed. The response scale, a seven-point Likert type scale ranging from one (strongly disagree) to seven (strongly agree) was used to measure the degree of commitment of the respondents to their

organisation. The internal reliability assessed by Cronbach (1951) alpha for this study was 0.92. Table 5.12 presents the results of the reliability test for the variable.

#### **5.4.6 Section 6. Departmental Performance**

This section consists of six questions regarding the budget preparers and budget users' perception on the overall achievement of their department. The overall departmental performance was measured based on an instrument developed by Van de Van and Ferry (1980) designed specifically to assess performance in public sector organisation. These elements focussed on the quantity or amount of work produced (Question 15.1), the quality or accuracy of work produced (Question 15.2), the number of innovations or new ideas by the units (question 15.3), attainment of unit production or service goal (Question 15.4), efficiency of unit operations (Question 15.5) and lastly morale of unit personnel (question 15.6). Respondents were asked to indicate their responses on each of the items in the instruments by ticking on the seven-point Likert type scale ranging from one 'far below average' and seven 'far above average'.

### **5.5 Administration Method**

Several data collection methods were weighted for their advantage and disadvantages taking into consideration the research objective as outlined earlier. The population of the study are budget preparers and budget users of Malaysian local authorities and a representative sample from this population is needed in order to make the findings generalizable to the whole population. It is also deemed important to obtain a large sample size to ensure that the subsequent analysis would have enough statistical

power. Given this set of requirement, it appears that a mail survey was deemed the optimal approach to data collection for this study.

Given the cost and time constraints, personal interview was ruled out as the method of data collection. Telephone interview was also considered but rejected due to potential problems associated with the technique. Asking respondent on quiet highly sensitive questions such as departmental performance and budget adequacy may produce inaccurate results due to interview bias and when the interview is lengthy. The problems that have been associated with personal and interview and telephone interview can be overcome through administering the questionnaire by mail. Mail survey is also considered as the cheapest method especially when dealing with dispersed population (Jobber, 1989). It is also argued that the problem associated with potential perception bias between interviewer and interviewee can be controlled through mail survey method. The anonymity link to postal questionnaires will provide respondents to be more open when answering sensitive issues (Churchil, 1999). The main disadvantages to mail questionnaire are related to two main issues notably low response rate and non-response bias (Jobber, Saunders and Mitchell 2004). Low response rate and non-response bias from this method will put the limit of the analysis that can be performed, thus lower the statistical power of the analysis.

Local authorities in Malaysia are divided into 3 categories based on their annual revenue and the total population in the area they operated. City halls are local authorities, mostly are state capitals which have more than 100,000 people living in their area of operation and have annual revenue more than RM20 million a year.

Town councils are local authorities that are mostly in town areas that have more than 100,000 population and annual revenue more than RM5 million a year. On the other hand, district councils are local authorities mostly are in rural areas which have an annual revenue less than RM5 million a year and a population number that is less than 100,000 people. There are altogether 146 local authorities in Malaysia consisting of 8 city halls, 32 town councils and 105 district councils. Out of these, 99 local councils are in West Malaysia which consist of 5 city halls, 27 town councils and 67 district councils. Based on the directory of the local councils provided by the Ministry of Housing and Local Government of Malaysia and several discussions with the Division in Charge of Local Council in the State, there are about 1432 potential respondents for this study which comprised of 210 respondents from the 8 city halls, 480 respondents from the 32 town councils and the balance 742 respondents were from the 106 districts councils. Due to time and financial constrained only local authorities in West Malaysia were chosen to participate in this study. There were about 1044  $\{(5 \times 30) + (27 \times 15) + (67 \times 7)\}$  potential respondents from West Malaysia. Out of these 800 respondents were chosen to represent the sample according to regions (north, central, south and east of West Malaysia) and category of local councils of West Malaysia. Table 5.1 shows the distribution of the local councils and the number of councils participated in the study according to region and state where the local councils are located. Since the number of city hall is small, all the five city halls in West Malaysia were included in this study. The state of Penang, Malacca, Terengganu and Kelantan were not chosen because most of them have district councils. Thus, state of Kedah and Perak were selected to represent the northern region, Selangor, Federal Territory and Negeri Sembilan to represent central region, Pahang to represent Eastern region and Johor to represent Southern region. In terms of



local councils that participated in this study, besides all the five city halls that were mentioned earlier, 20 out of 27 town councils and 49 out of 67 of district councils were also included in the study. Based on the Directory of Local Councils provided by the Ministry of Housing and Local Government of Malaysia, discussions with the bursar of each category of the local council, the number of potential respondents, identified as follows; 30 for city halls, 15 for town councils and 7 for district councils. Therefore, 800 questionnaires were sent to local councils, 150 to city halls, 300 to town councils and 350 to district councils. In ensuring good response rate of return of the questionnaires, two methods were used. One was by the researcher personally sent the questionnaires to the selected local authorities. Discussions were held with each bursar's office in order to make sure that the questionnaire was answered by relevant respondent. Relevant respondents are budget preparers, identified as division/section heads that are in charge of preparing budget for their division or for the local authorities for the case of finance division. Budget users are identified as division heads and section heads responsible for the implementation and accomplishment of the budget. Questionnaires were then distributed through each bursar's office to relevant respondents in all departments in each selected local authorities. The relevant respondents were given two weeks to answer the questionnaires and were requested to return the questionnaires to the bursar's office for researcher to collect.

Second, researcher personally went to the division in charge of local government in the state. The questionnaires based on the number of potential respondents, were packed in envelopes directed to the bursar of the local council concerned, were distributed through the division's mailing system. Accompanying each envelop was a cover letter to the bursar, explaining the research, an endorsement letter from the

Ministry Housing and Local Government of Malaysia encouraging participation in the study and written instructions for completing the survey. Questionnaires were then distributed by the bursar's office to the relevant respondents. The relevant respondents were given two weeks to answer the questionnaires and were requested to return the questionnaires to bursar's office for the bursar to send back to researcher. Several calls were made to the bursar's office after the two weeks period to remind the respondents of the survey.

**Table 5.1: List of Local councils in West Malaysia**

Region/state	City Hall	Town Council	District Council	Total
<b>Northern Region</b>				
Kedah*	<b>1</b>	<b>3</b>	<b>7</b>	<b>11</b>
Penang	-	2	-	2
Perlis	-	1	-	1
Perak*	<b>1</b>	<b>2</b>	<b>12</b>	<b>15</b>
<b>Central Region</b>				
Selangor*	<b>1</b>	<b>6</b>	<b>5</b>	<b>12</b>
Federal Teritory*	<b>1</b>	-	-	<b>1</b>
Negeri Sembilan*	-	<b>3</b>	<b>5</b>	<b>8</b>
<b>Eastern Region</b>				
Kelantan	-	1	11	12
Terengganu	-	2	5	7
Pahang*	-	<b>2</b>	<b>9</b>	<b>11</b>
<b>Southern Region</b>				
Johor*	<b>1</b>	<b>4</b>	<b>11</b>	<b>16</b>
Melaka	-	1	2	3
<b>Total</b>	<b>5</b>	<b>27</b>	<b>67</b>	<b>99</b>
<b>Number of local council participated.</b>	<b>5</b>	<b>20</b>	<b>49</b>	<b>74</b>

- The states and the local councils that participated in the study.

## 5.6 Descriptive Results

From the 800 questionnaires that were sent out, 217 questionnaires were returned.

This comprised an effective response rate of 27.13% (percent). However, only 108

questionnaires were utilised because 109 respondents were doing both function as budget preparers and budget users. As depicted in Table 5.2 below, 17 samples or 15.7 % were collected from city halls, 40 samples or 37.9% from town councils and 51 samples or 47.2% were from districts council. 59.3% or 64 of the respondents are males and the balance, 44 or 40.7% are females (Table 5.4). In term of their role in the budget setting of the Malaysian local authorities, as depicted in Table 5.5, 83 are budget preparers (76.9%) and 25 are budget users (23.1%). The respondents were between 21 to 56 years of age. Majority of the respondents 36.1% or 36 of the respondents as shown in Table 5.10 held their current position in their organisation between 1 to 5 years, 25 or 23.1% between 6 to 10 years, 15 or 13.1% held their current position between 11 to 15 years, 13 or 12% of the respondents held their current position between 16 to 20 years, 11 or 10% between 21 to 25 years and the balance 5 or 4.6% for 26 to 30 years. The frequency distributions of the demographic variables are as in Table 5.2 to Table 5.11 below. The poor response rate were due to budgeting people were very busy in finalising their final budget proposal for 2005.

**Table 5.2: Category of local government**

Local Government	Frequency	Percent
city hall	17	15.7
town council	40	37.0
district council	51	47.2
Total	108	100.0

**Table 5.3: Department**

Department	Frequency	Percent
Administration and Finance	54	50.0
Non-administration and Finance	54	50.0
Total	108	100.0

**Table 5.4: Gender**

Gender	Frequency	Percent
male	64	59.3
female	44	40.7
Total	108	100.0

**Table 5.5: involvement**

Involvement	Frequency	Percent
preparer	83	76.9
user	25	23.1
Total	108	100.0

**Table 5.6: Age**

Age	Frequency	Percent
21-30 years	35	32.4
31-40 years	36	33.3
41-50 years	35	32.4
51 and above	2	1.9
Total	108	100.0

**Table 5.7: Qualification**

Qualification	Frequency	Percent
SPM/MCE/STPM/HSE/ Certificate	20	18.5
Diploma	35	32.4
bachelor	49	45.4
Master	4	3.7
Total	108	100.0

**Table 5.8: Occupational group**

Occupational group	Frequency	Percent
Professional	32	29.6
Managerial Executive	27	25.0
Engineering and Technical	22	20.4
Administrative, Clerical	27	25.0
Total	108	100.0

**Table 5.9: Years of service**

Year of service	Frequency	Percent
1-5 years	32	29.6
6-10	23	21.3
11-15	18	16.7
16-20	12	11.1
21-25	15	13.9
26-30	7	6.5
31-35	1	9
Total	108	100.0

**Table 5.10: Length of time working in the organisation**

Length of time working in the organisation	Frequency	Percent
1-5 years	39	36.1
6-10 years	25	23.1
11-15 years	15	13.9
16-20 years	13	12.0
21-25 years	11	10.2
26-30 years	5	4.6
31-35 years	0	0
Total	108	100.0

**Table 5.11: Length of time in current post**

Length of time in current post	Frequency	Percent
1-5 years	57	52.8
6-10 years	23	21.3
11-15 years	12	11.1
16-20 years	9	8.3
21-25 years	6	5.6
26-30 years	1	.9
31-35 years	0	0
Total	108	100.0

## 5.7 Data Analysis and Measurement

In data analysis and measurement, researcher was guided by the literature of Uma Sekaran (2000). According to her, there are three objectives in data analysis, (1) getting a feel for the data, (2) testing the goodness of the data, and (3) testing the

hypothesis developed for the research. The feel for the data can be acquired by checking the central tendency and the dispersion. The mean, the range, the standard deviation, and the variance in data will give the researcher a good idea of how the respondents have reacted to the items in the questionnaire and how good the items measures are. Given this condition, data from the questionnaires were coded and entered into a computer database using software packages, the Statistical Package for Social Science (SPSS), version 12. SPSS was used to analyse the descriptive statistics such as (1) the frequency distributions for the demographic variables, (2) the mean, range, the standard deviation and range, and variance on the intervening variables and (3) an inter correlation matrix of the variables.

Ranges of value for a variable indicate a distribution of the variables, mean indicate the central tendency or centre of distribution values and standard deviation indicate dispersion value around the central tendency. As the standard deviation is a detailed estimate of dispersion, it allows some conclusions to be reached about the distribution. In other words examination of the measure of central tendency and how clustered or dispersed the variables are, gives a good idea of how well the questions were framed for tapping the concept. The correlation matrix will give an indication of how closely related or unrelated are the variables under investigation.

Beside descriptive statistics, the goodness of the data or reliability test was also conducted to measure both the consistency and stability of the data collected. Consistency indicates how well the items measuring a concept hang together as a set. The Cronbach alpha, also known as coefficient alpha is a useful tool to estimate the consistency of items. Cronbach's alpha is a reliability coefficient that indicates how

well the items in asses are positively correlated to one another. The calculation of alpha is based on the average correlation among pairs of items making up the scale and has a value between 0 and 1 (Pallant, 2001). If the items are perfectly correlated then alpha is equal 1, and if the items are completely unrelated then alpha is equal 0. However, if alpha is high that is near 1, then, this indicates a high degree of internal consistency reliability. A commonly adopted convention is to claim satisfactory internal consistency if alpha greater than 0.7 (Pallant, 2001). For this study the Cronbach' alpha for each variable or construct is greater than 0.7. The results of this test are summarised and presented in Table 5.12 below and the detailed output is available in Appendix B.

**Table 5.12: Results of reliability test**

Variables	Number of Item	Cronbach Alpha	N
Budget Participation	5	0.913	108
Budget Adequacy	3	0.895	108
Organisational Commitment	8	0.916	108
Role Ambiguity	6	0.946	108
Departmental Performance	6	0.895	108

In interpreting further the data set, inferential statistics were calculated as they enable the study to reach conclusions that extent beyond the immediate data alone. The data in this study is normally distributed.



### **5.7.1 Factor Analysis**

The survey instrument was factor analysed using exploratory factor analysis (principal component analysis) to filter the best items that can represent the construct under study. Construct assessment was conducted and items for each construct were analysed individually using exploratory factor analysis (principal component analysis). Exploratory factor analysis was used in this study to confirm the dimensions of the concepts that have been operationally defined as well as to indicate which of the items were most appropriate for each dimension (Hair et al. 1998). All constructs were factor analysed with principal component analysis varimax rotation (Hair et al. 1998). Only factors having eigenvalue above 1 were considered significant and retained. The cut-off point for item loading was 0.3 and any items below the desired cut-off were not displayed in the results.

### **5.7.2 Mediating Effect Analysis**

The first objective of this study was conducted using Mediating Effect Analysis technique, suggested by Baron and Kenny (1986) by examining the mediating effect of budget adequacy, organisational commitment and role ambiguity on the relationship of budget participation and budget preparers and budget users of Malaysian local authorities on their departmental performance. Regression and correlation analysis were used as part of the procedure suggested by Baron and Kenny (1986) to test for the mediating effect of the intervening variables on departmental performance. This analysis was conducted to examine whether budget adequacy, organisational commitment and role ambiguity have full or partial mediating effect on the relationship between budget participation and departmental performance of Malaysian local authorities. This analysis was considered very important to this study,

as the finding would have significant contribution to the budgeting literature. First, the result of the analysis would determine whether the status or category of these three variables in this study (budget adequacy, organisational, role ambiguity) are intervening or moderating variables. Second, the analysis would determine how far the mediating effect caused by the three variables would affect the relationship of budget participation and departmental performance. Would they have full or partial mediating effect on the relationship of budget participation and departmental performance of Malaysian local authorities?

### **5.7.3 Path Analysis**

The second objective of this study was conducted by using path analysis technique suggested by Gregory Carrey (1996) to test for the direct and indirect effect of budget participation of budget preparers and budget users of Malaysian local authorities on their departmental performance via budget adequacy, organisational commitment and role ambiguity. Regression and correlation analysis were used as part of the procedure in the path analysis suggested by Gregory Carey, 1998. This test is considered important specifically to budget participation literature and in general to budgeting literature, as the test would indicate whether the result is consistent or not with the previous findings. In other words, the result will show the strength or the direction of the relationship between budget participation and departmental performance of budget preparers and budget users in the budget setting of Malaysian local authorities. Is the relationship between budget participation and departmental performance of Malaysian local authorities, is stronger through direct or indirect way, via budget adequacy, organisational commitment and role ambiguity? In relation to that, this study also examined the effect of budget participation on budget adequacy, organisational

commitment and role ambiguity of budget preparers and budget users of Malaysian local authorities. The same technique was used to test the third objective on the direct or indirect effect of budget participation on budget adequacy, organisational commitment and role ambiguity of budget preparers and budget users of Malaysian local authorities.

#### **5.7.4 Zero Order Correlation**

Further analysis was done to the data that have been gathered in order to assess and accomplish the fourth research objectives. Pearson Product-Moment Correlation Analysis was carried out to accomplish the fourth objective of this study by determining the strength of the relationships between the variables and also to confirm that the measurements used work as expected. This test was very important in ensuring that the relationship of the variables is in accordance to theory.

### **5.8 Pilot Study**

A small pilot study was carried out to identify the understanding of the respondent to the questionnaire. It was conducted in the researcher's department, the Accountant General Department of Malaysia. Ten officers were selected of which six were directly involved in budget preparation and the other four were not directly involved. As stated earlier, all the constructs and the measurement for this study were adopted from previous study and already established. From the study conducted, there was no problem in the questionnaire, all the respondents were clear with the questionnaires and thus no amendments or changes were made to the questionnaire before data collection was carried out.

## **5.9 Effect of Socially Desirable Responding**

The survey instruments might elicit socially desirable responding (SDR) as respondents attempt to portray themselves favourably. (Zerbe & Paulus, 1987, p. 250) define socially desirable responding (SDR) as the “tendency of individuals to present themselves favourably with respect to current norms and standards” A test was conducted to examine whether there was any socially desirable responding bias in this study. In order to clarify the data, telephone interviews were conducted asking 21 respondents, 5 from city halls, 8 from town councils and 8 from district councils about their perception working in their organisation. The surveys revealed that most of the respondents were happy working in their organisation. They were involved in the budget setting and in the implementation of the budget target. In interpreting the interviews results, the reasons for the budget preparers and budget users of Malaysian local authorities giving high scores on most of the variables in the study can be summarised as follows. Malaysian local authorities do practiced participative budgeting and most of the respondents were directly involved in the budget setting of their organisation. Once the budget was set for the division, it is the responsibility of the division to execute and manage the budget and thus would be held accountable and responsible for the accomplishment of the budget target. In this way, those involved in the budget planning and preparation process were committed and motivated to ensure that, their planning and their forecasting worked accordingly.

Secondly, it was due to active top management involvement in monitoring and ensuring that the budget targets were being properly executed and accomplished by the division. Budget committee was formed by the top management. Every month they have had to have meeting, in order to monitor and examine the expenditure level,

budget variances, action and recovery plan of the division. The committee members were head divisions or their representatives that were involved in the implementation of the budget, financial staff people that are involved in management and monitoring the budget and chaired by the President of the local councils concerned.

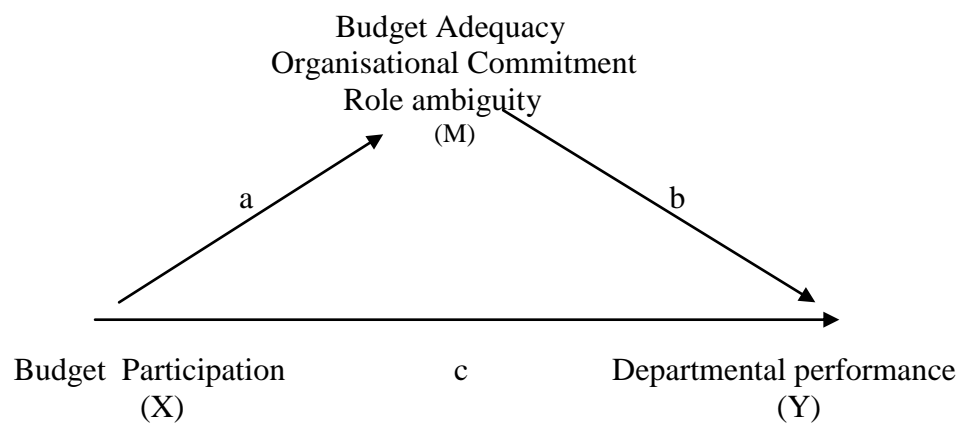
Meanwhile, the budget target set was achievable and not really tight. Development expenditure especially involving outsourcing such as deploying tendering system in executing the budget, the budget target was only 90 to 95% of the budgeted figure, although however they have not much problem of spending the operating expenditures. Finally, the budget preparers and budget users were clear about their role and job linked. Most of them have experience more than 5 years working in the organisation, doing budgeting job. They are involved not only in the budget setting processes, but also in monitoring and controlling the execution of the budget. With all the participation and involvement in the budgeting processes of their organisation, they were motivated and committed to their organisation and thus improved their job satisfaction. As a result, most of the respondents from the three categories of the Malaysian local authorities gave favourable answers to most of the questions in this study. As a conclusion there is enough evidence to conclude that the measurements used for the constructs were reliable measure of the respondents.

## **5.10 Mediating Effects**

In general, a given variable may be said to function as a mediator to the extent that it accounts for the relation between predictor and the criterion. In this study, budget adequacy, organisational department and role ambiguity may be considered as mediators when they meet the following conditions: (a) variations in level of the

independent variable significantly account for variations in budget adequacy, organisational commitment and role ambiguity (i.e. path a), (b) variations in budget adequacy, organisational commitment and role ambiguity significantly account for variations in departmental performance (i.e. path b), and (c) when path a and b are controlled, a previous significant relation between the independent and dependent variable is no longer significant, with the strongest demonstration of mediation occurring when path c is zero. Figure 4.2 illustrates the basic causal chain involved in mediation.

**Figure 5.1: Mediation Relationships**



According to Baron and Kenny (1986), the last condition may be envisaged as a continuum. When path **c** is reduced to zero, we have strong evidence for a single dominant mediator. If path **c** is not zero, this indicates the operation of multiple mediating factors. A more realistic goal may be to seek mediators that significantly decreased path **c** rather than eliminating the relation between the independent variable and the dependent variable altogether. From a theoretical perspective, a significant reduction demonstrates that a given mediator is indeed potent, albeit neither a necessary nor a sufficient condition for an effect to occur (Baron and Kenny, 1986).

To test the hypotheses stated and as displayed in figure 4.2, regression analysis was used. A series of regression equation outlined by Baron and Kenny (1986) and Judd and Kenny (1981) was used to detect mediator effects. According to Baron and Kenny (1986) and Judd and Kenny (1981), the proper test for mediating effects is to establish three relationships.

First, the independent variable (Budget participation) must be significant predictor of the dependent variable (Departmental performance). Second, the independent variable must be significant predictor of the mediator variable (budget adequacy, organisational commitment and role ambiguity), treating the mediator as if it was an outcome. Third, the dependent variable are regressed on both the independent variable and mediator variable, hence providing control to the regression model, as the independent variables must be controlled to establish the effect of the mediator on the outcome variable. Finally, to establish that budget adequacy, organisational commitment and role ambiguity completely mediate model relationship, the effect of the independent variable on the dependent variable controlling for the mediators must be zero. The effects in step three and four are estimated in the same regression equation.

The purpose of steps one to three is to establish that zero-order relationships among the variables exist. If one or more of these relationships are non-significant, researchers usually conclude that mediation is not possible or likely. If there are significant relationships from steps one to three, one proceeds to step four. In step four, some form of mediation supported if the effect of budget adequacy, organisational commitment and role ambiguity (M) remain significant after

controlling for budget participation (X). If the budget participation is no longer significant when budget adequacy, organisational commitment and role ambiguity (M) are controlled, the finding supports full mediation. If budget participation (X) is still significant (i.e. both X and M significantly predict Y), the finding supports partial mediation.

## **5.11 Direct and Indirect Effect Analysis**

In determining the direct and indirect effect of budget participation on departmental performance, path analysis was used. Although structural equation modelling (SEM) is the best method to analyse the direct and indirect effect simultaneously, however, due to the small sample size obtained in this study, SEM method was excluded from analysis. According to Hair et al. 1998, the minimum sample size needed for SEM is 10:1 item to respondent ratio. In this study, there are 28 items all together, therefore the minimum sample size required is 280. As the sample size used in this study was  $n=108$ , it was not sufficient to run SEM. Thus, path analysis was used. Path analysis have been used by previous authors such as Nouri and Parker (1998) and Chenhall and Brownell (1986). Path analysis is an extension of the regression model used to test the fit of the correlation matrix against two or more causal models, which are being compared by the researcher. In determining the direct and indirect effect of budget adequacy, organisational commitment and role ambiguity on departmental performance of budget preparers and budget users of Malaysian local authorities, the steps suggested by Gregory Carey, 1998 were used.



## **5.12 Summary**

This chapter described the methodology used in this study to answer the research questions formulated. To summarise, this study used factor analysis to construct and validate all the variables under investigation. Then, Cronbach alpha was used to assess the internal consistency of the items used in the questionnaire. In order to answer the research questions, this study used various statistical techniques such as Pearson correlation, Sobel and regressions to examine the strength of the relationships between the variables and also to investigate the mediating effect between the variables. In the following chapter, the findings obtained from this study are discussed.

# **CHAPTER 6**

## **RESULTS OF HYPOTHESIS – TESTING**

### **6.1 Introduction**

This chapter presents the results of the testing of the hypotheses developed in chapter three. The model and hypotheses were tested using Pearson Product-Moment Correlation, Simple Multiple Regression Analysis, Mediation Analysis and Path Analysis.

### **6.2 Descriptive Analysis and Reliability Test**

A descriptive analysis was first conducted on the whole data set in order to understand its nature and types of distribution. The analysis includes calculation of the mean, standard deviation and range for each variable. The output of this analysis is in Table 6.1. Reliability test was also conducted to assess the consistency of the answers from the respondents. The details of the results from the reliability test is in Appendix B and summarised in Table 6.1 below, which showed the value of the Cronbach Alpha coefficient for each of the composite variable which is more than 0.7 and thus confirmed the consistency of the answers from the respondents and therefore the data do not violate the assumption of reliability.

**Table 6.1: Descriptive Statistics**

Variable	Mean	Std. Deviation	Range	Theoretical Range	Actual Range	Cronbach Alpha
Budget Participation	4.9315	1.2329	6.00	1.00 – 7.00	1.00 – 7.00	.913
Budget Adequacy	5.2315	1.1596	6.00	1.00 – 7.00	1.00 – 7.00	.895
Organisational Commitment	5.6188	0.9729	4.33	1.00 – 7.00	2.67 – 7.00	.916
Role Ambiguity	2.2531	1.0278	5.67	1.00 – 7.00	1.00 – 6.67	.946
Departmental Performance	5.2469	0.8368	4.17	1.00 – 7.00	2.83 – 7.00	.895

### 6.3 Factor Analysis

The survey instrument was factor analysed using exploratory factor analysis (principal component analysis) to filter the best items that can represent the construct under study. Construct assessment was conducted and items for each construct were analysed individually using exploratory factor analysis (principal component analysis). Principal component analysis was used in this study to confirm the dimensions of the concepts that have been operationally defined as well as to indicate which of the items were most appropriate for each dimension (Hair et al. 1998). All constructs were factor analysed with principal component analysis using varimax rotation (Hair et al. 1998). Only factors having eigenvalue above 1 were considered significant and retained. The cut-off point for item loading was 0.3 and any items below the desired cut-off were not displayed in the results (Hair et al. 1998).

### **6.3.1 Budget Participation**

The ten items of the budget participation scale were subjected to principal components analysis with varimax rotation using SPSS Version 12. Prior to performing principal components analysis the suitability of data for factor analysis was assessed. Inspection of the correlation matrix revealed the presence of many coefficients of .3 and above. The Kaiser-Meyer-Okin was .893 exceeding the recommended value of .6 (Kaiser, 1970, 1974) and the Barlett's Test of Sphericity (Barlett, 1954) reached statistical significance ( $p = .000$ ), supporting the factorability of the correlation matrix. Principal components analysis revealed the presence of two components with eigenvalue exceeding 1, explaining a total 75.87 percent or 64.48 percent and 11.39 percent of the variance respectively (see table 6.2). This indicates that, budget participation construct not all ten items loaded on the same factor. An inspection revealed that five items were cross loaded due to poor wordings. The items were Question 1, Question 2, Question 5, Question 9 and Question 10. Then, action was taken to drop these items because they were considered as problematic items. The five items left were Question 3, Question 4, Question 6, Question 7 and Question 8 was re-run. Inspection of the correlation matrix revealed the presence of many coefficients of .3 and above. The Kaiser-Meyer-Okin was .836 exceeding the recommended value of .6 (Kaiser, 1970, 1974) and the Barlett's Test of Sphericity (Barlett, 1954) reached statistical significance ( $p = .000$ ), supporting the factorability of the correlation matrix. Principal components analysis revealed the presence of one component with eigenvalue exceeding 1, explaining a total 74.424 percent of the variance respectively (see table 6.3).

**Table 6.2: Budget Participation Principal Component Analysis**

I Items	Factor: Budget Participation	
	Component 1	Component 2
Q1.The portion of the budget I am involved in setting	0.713	-0.385
Q2. The amount of reasoning provided by a superior when the budget is revised	0.763	-0.372
Q3. The frequency of budget-related discussion with superior initiated by me	0.860	
Q4. The amount of influence I feel I have on the final budget	0.834	
Q5. The importance of my contribution to the budget.	0.861	-0.301
Q6. The frequency of budget-related discussion initiated by superior when budgets are being set.	0.813	
Q7. The quality of budget setting when working with my superior in preparing the budget	0.846	
Q8. The quality of budget setting when working with my subordinate in preparing the budget get	0.857	
Q9. The quality of budget setting when working with other section/division heads in preparing the budget	0.758	0.544
Q10. The quality of budget setting when working with financial staff people in preparing the budget	0.708	0.556
Number of cases	108	
Eigenvalue	6.448	1.139
Percentage of Variance	64.481	11.393
Cronbach's Alpha	0.929	

**Table 6.3: Revised Budget Participation Principal Component Analysis**

Items	Factor: Budget Participation
Q3. The frequency of budget-related discussion with superior initiated by me	0.886
Q4. The amount of influence I feel I have on the final budget	0.881
Q6. The frequency of budget-related discussion initiated by superior when budgets are being set.	0.861
Q7. The quality of budget setting when working with my superior in preparing the budget	0.850
Q8. The quality of budget setting when working with my subordinate in preparing the budget get	0.834
Number of cases	108
Eigenvalue	3.721
Percentage of Variance	74.424
Cronbach's Alpha	0.913

### 6.3.2 Budget Adequacy

Principal component analysis with varimax rotation was conducted on the three budget adequacy items. Results indicated that only one factor was extracted (eigenvalue above 1). The percentage of variance extracted was approximately 82.63 per cent (see table 6.4). The Kaiser-Meyer-Okin was .716 exceeding the recommended value of .6 (Kaiser, 1970, 1974) and the Barlett's Test of Sphericity (Barlett, 1954) reached statistical significance ( $p = .000$ ), supporting the factorability of the correlation matrix.

**Table 6.4: Budget Adequacy Principal Component Analysis**

Items	Factor: Budget Adequacy
Q1. My budget does allow me to perform what is expected of me	0.940
Q2. What is expected of me is achievable under my budget	0.898
Q3. I am confident that I can achieve what is expected of me b	0.887
Number of cases	108
Eigenvalue	2.479
Percentage of Variance	82.626
Cronbach's Alpha	0.895

### 6.3.3 Organizational Commitment

The eight items of the organizational commitment scale were subjected to principal components analysis with varimax rotation. Prior to performing principal components analysis the suitability of data for factor analysis was assessed. Inspection of the correlation matrix revealed the presence of many coefficients of .3 and above. The Kaiser-Meyer-Okin was .904 exceeding the recommended value of .6 (Kaiser, 1970, 1974) and the Barlett's Test of Sphericity (Barlett, 1954) reached statistical significance ( $p = .000$ ), supporting the factorability of the correlation matrix. Principal components analysis revealed the presence of one component with eigenvalue exceeding 1, explaining a total 64.02 percent of the variance (see Table 6.4).

**Table 6.5: Organisational Commitment Principal Component Analysis**

Items	Factor: Organisation Commitment
Q1. I am willing to put in a great deal of effort beyond that normally expected in order to help this organisation be successful	0.596
Q2. I talk up this organisation to my friends as a great organisation to work for	0.867
Q3. I would accept almost any type of job assignment in order to keep working in this organisation	0.744
Q4. I found that my values and the organisation's values are similar	0.841
Q5. I am proud to tell others that I am part of this organisation	0.908
Q6. This organisation inspires the best in me in the way of job performance	0.848
Q7. I am glad that I choose this organisation to work for over others I was considering at the time I joined	0.834
Q8. I care about the future of this organisation	0.699
Number of cases	108
Eigenvalue	5.122
Percentage of Variance	64.022
Cronbach's alpha	0.916

### **6.3.4 Role Ambiguity**

The six items of the role ambiguity scale were subjected to principal components analysis with varimax rotation. Prior to performing principal components analysis the suitability of data for factor analysis was assessed. Inspection of the correlation matrix revealed the presence of many coefficients of .3 and above. The Kaiser-Meyer-Okin was .889 exceeding the recommended value of .6 (Kaiser, 1970, 1974) and the



Barlett's Test of Sphericity (Barlett, 1954) reached statistical significance ( $p = .000$ ), supporting the factorability of the correlation matrix. Principal components analysis revealed the presence of one component with eigenvalue exceeding 1, explaining a total 79.10 percent of the variance.

**Table 6.6: Role Ambiguity Principal Component Analysis**

Items	Factor: Role Ambiguity
Q1. I have clear planned goals and objective for my job	0.869
Q2. I always know what my responsibilities are	0.890
Q3. I always know exactly what is expected of me	0.910
Q4. I feel certain about how much authority I have	0.871
Q5 I always know to divide my time properly	0.921
Q6. I am certain as to how my job is linked to other people's job	0.873
Number of cases	108
Eigenvalue	4.746
Percentage of Variance	79.102
Cronbach's alpha	0.946

### 6.3.5 Departmental Performance

The six items of the departmental performance scale were subjected to principal components analysis with varimax rotation. Prior to performing principal components analysis the suitability of data for factor analysis was assessed. Inspection of the correlation matrix revealed the presence of many coefficients of .3 and above. The Kaiser-Meyer-Okin was .799 exceeding the recommended value of .6 (Kaiser, 1970,

1974) and the Barlett's Test of Sphericity (Barlett, 1954) reached statistical significance ( $p = .000$ ), supporting the factorability of the correlation matrix. Principal components analysis revealed the presence of one component with eigenvalue exceeding 1, explaining a total 66.52 percent of the total variance.

**Table 6.7: Departmental Performance Principal Component Analysis**

Items	Factor: Role Ambiguity
Q1. The quality or amount of work produced	0.751
Q2. The quality or accuracy of work produced	0.849
Q3. The number of innovations or new ideas by the unit	0.772
Q4. Attainment of unit production or service goal	0.873
Q5 Efficiency of unit operations	0.857
Q6. Morale of unit personnel	0.783
Number of cases	108
Eigenvalue	3.991
Percentage of Variance	66.516
Cronbach's alpha	0.895

## 6.4 Hypothesis Testing with Pearson Product-Moment Correlation Analysis.

Pearson Product-Moment Correlation Analysis was conducted in order to examine the strength of the relationship between two variables. The first set of analyses, focused on testing the relationship between budget participation and departmental

performance, budget participation with budget adequacy, budget participation with organisational commitment, budget participation with role ambiguity and the second stage was to test the relationship between budget adequacy and departmental performance, organisational commitment with departmental performance and role ambiguity with departmental performance and the third stage was to test the relationship between budget adequacy and organisational commitment and, role ambiguity and organisational commitment.

## **6.5 Regression Analysis**

Regression Analysis was used to examine the mediation effect of role ambiguity, organisational commitment and budget adequacy of budget preparers and budget users over the relationship of budget participation and departmental performance of Malaysian local authorities. The testing was done as part of the procedure suggested by Barron and Kenny (1986) to check whether budget adequacy, organisational commitment and role ambiguity have full or partially mediated effect on departmental performance of the Malaysian local authorities. Regression analysis was also used as part of the procedure in path analysis to check for the direct and indirect effect of budget adequacy, organisational commitment and role ambiguity on departmental performance.

## **6.6 Mediating effect analysis**

A variable may be considered a mediator to the extent to which it carries the influence of a given independent variable (IV) to a given dependent variable (DV). Generally speaking, mediation can be said to occur when (1) the IV significantly affects the

mediator, (2) the IV significantly affects the DV in the absence of the mediator, (3) the mediator has significant unique effect on the DV and (4) the effect of the IV on the DV shrinks upon the addition of the mediator. As elaborated in Chapter Five, in determining the mediating effects of budget adequacy, organisational commitment and role ambiguity of budget preparers and budget users towards the relationship of budget participation and departmental performance, the techniques suggested by Barron and Kenny (1986) and Judd and Kenny (1981) were followed. The following paragraphs discuss the results of the analyses with respect to the steps suggested by these authors. Table 6.8 summarises the results of the analyses in determining the mediation effect of budget adequacy, ambiguity organisational commitment and role ambiguity.

As suggested by Baron and Kenny (1986), the first step requires that the independent variables (X) must be a significant predictor of the dependent variable (Y). Therefore, in step 1, departmental performance was used as the criterion variable in a regression equation and the initial variable budget participation was used as the predictor. This step is to show that budget participation is a significant predictor of departmental performance. As depicted in Table 6.8, the result showed that the relationship of departmental performance with budget participation is quite strongly correlated with Departmental performance,  $\beta = .360$ . Budget participation explains 12.10% of the variance in departmental performance.

**Table 6.8: Results of Mediation Analysis.**

Step	Analysis/Variables	b	$\beta$	S.E	t	R <sup>2</sup>	F	Adj. R <sup>2</sup>
1	Dependent: Departmental Performance (Y) Independent: Budget Participation (X)	.244*	.360*	.062	3.971	.130	15.772	.121
2	Budget Participation / Budget Adequacy	.350*	.372*	.085	4.127	.138	17.028	.130
	Budget Participation/ Organisational Commitment	.346*	.439*	.069	5.030	.193	25.306	.185
	Budget Participation/Role Ambiguity	-.290*	-.348*	.076	-3.820	.121	14.589	.113
3	Dependent: Departmental Performance (Y) Independent (X) Budget Adequacy Organisational Commitment Role ambiguity	.341* .479* -.298*	.473* .557* -.366	.062 .074 .074	5.466 6.509 -4.051	.322 .380 .247	24.973 32.148 17.237	.309 .368 .233
4	BP/DP Budget adequacy * Organisational commitment* Role ambiguity*	.125** .078** .158**	.184** .115** .233**	.059 .058 .061	2.125 1.350 2.576	.322 .380 .247	24.971 32.148 17.237	.309 .368 .233

\*P < 0.05, n = 108

\*\*The path coefficient of Budget participation and departmental performance when budget adequacy, organisational commitment and role ambiguity was controlled.

Step 2 involved treating the ‘Mediator’ as if it was an outcome variable against the initial variables (Budget participation). Therefore, budget adequacy, organisational commitment and role ambiguity were used as the criterion variables and budget participation was used as predictor in the regression equation. The result of the model showed that budget participation was significant predictor of budget adequacy,

organisational commitment and role ambiguity at  $p < 0.05$ . The regression equation explains 13% of the variance in budget adequacy, 18.5% of the variance in organisational commitment and 11.3% of the variance in role ambiguity.

In step 3, it requires that the mediator affects the outcome variable after controlling the initial variable (Budget participation). Therefore, departmental performance was used as the criterion variable and budget adequacy, organisational commitment and role ambiguity were used as predictors. The tests were done separately one by one for each predictor variable (budget adequacy, organisational commitment, role ambiguity) controlling the initial variable (budget participation). As the budget participation was required to be controlled in establishing the effect of the mediator on the outcome, the budget participation was entered first in block 1 using the technique similar to hierarchical regression analysis. The mediator (budget adequacy, organisational commitment and role ambiguity) was then entered in block 2. The result of the model provided evidence that budget adequacy, organisational commitment, and role ambiguity significantly affects departmental performance at  $p < 0.05$ . The regression equation explains 30.90%, 36.80% and 23.30% respectively of the variance in departmental performance. As the condition for step 3 was met, the results provided further evidence that budget adequacy; organisational commitment and role ambiguity mediates the budget participation and departmental performance relationship. The result of the model as depicted in Table 6.8 provides evidence that budget adequacy; organisational commitment and role ambiguity significantly affects departmental performance at  $p < 0.05$ .

Finally, step 4 was to establish whether budget adequacy, organisational commitment and role ambiguity completely mediates the budget participation and departmental performance relationship. For a full mediation relationship to be established, the effect of budget participation (X) on departmental performance (Y) controlling for budget adequacy, organisational commitment and role ambiguity (M) should be non significant with the strongest demonstration of mediation occurring when the direct budget participation (IV) to departmental performance (DV) path is zero. The effects were estimated in the same regression equation as in step 3. The result depicted in Table 5.8 showed that the relationship of the budget participation (X) on departmental performance (Y) was significant. Therefore, step 4 conditions were not met.

As explained by Baron and Kenny (1986), if all the four steps are met, then the variable is consistent with the hypothesis that budget adequacy, organisational commitment and role ambiguity completely mediates the budget participation and departmental performance relationship. However, if the first three steps are met but step 4 is not, then partial mediation is indicated. The result of the above analyses indicated that budget adequacy, organisational commitment and role ambiguity act as a partial mediator in the budget participation and departmental performance relationship. This indicated that budget adequacy, organisational, and role ambiguity might significantly has reduced or decreased the path coefficient of budget participation and departmental performance rather than eliminating the relationship between the budget participation and departmental performance. Among the three variables, organisational commitment has the most mediating effect on the relationship between budget participation and departmental performance as compared to budget adequacy and role ambiguity. From Table 6.8, it showed that organisational

commitment significantly reduced the path coefficient of budget participation and departmental performance from  $\beta = .360$  to  $\beta = .115$  while budget adequacy and role ambiguity have less partially mediated the relationship by reducing the path coefficient marginally small for budget adequacy from  $\beta = .360$  to  $\beta = .184$  and role ambiguity from  $\beta = .360$  to  $\beta = .233$ .

Further tests were conducted to confirm the significance of the indirect effect of budget participation on departmental performance via the mediator using Sobel Test (1962) by calculating the critical ratio as a test of whether the indirect effect of Budget participation (IV) on the departmental performance (DP) via the mediator (Budget adequacy, organisational commitment, role ambiguity) is significantly different from zero. This was done by inserting the value of **a**, **b**, and **standard error** of each variable into the cells of the Sobel Test (1982). As indicated in Table 6.9, the results of the Sobel Tests (1982) showed that the indirect effect of the Budget participation (IV) on the Departmental performance (DV) via the mediator (budget adequacy, organisational commitment, role ambiguity) is significantly different from zero. Budget adequacy ( $Z = 3.624$ ), organisational Commitment ( $Z = 4.173$ ) and role ambiguity ( $Z = 3.021$ ) is significantly larger than zero and therefore confirmed that budget adequacy, organisational commitment and role ambiguity partially mediated the relationship of budget participation and departmental performance of budget preparers and budget users of Malaysian local authorities.



**Table 6.9: Result of Sobel Test.**

Variables	a	S(a)	b	S(b)	t	Sobel Test
BP/BA	.350	.085			4.127	
BP/BA/DP			.473	.062	5.466	Z = 3.624
BP/OC	.346	.069			5.030	
BP/OC/DP			.557	.074	6.509	Z = 4.173
BP/RA	-.290	.076			-3.820	
BP/RA/DP			-.366	.074	-4.051	Z = 3.021

BP = Budget Participation  
BA = Budget Adequacy  
OC = Organisational Commitment  
RA = Role Ambiguity  
DP = Departmental Performance

a =  $\beta$   
S(a) & S(b) = Standard Error  
b =  $\beta$

## 6.7 Path Analysis (Direct and indirect effect analysis)

In determining the direct and indirect effect of budget participation on departmental performance, path analysis was used. Path analysis is an extension of the regression model used to test the fit of the correlation matrix against two or more causal models, which are being compared by the researcher. As elaborated in Chapter Five, in determining the direct and indirect effect of budget adequacy, organisational commitment and role ambiguity on departmental performance of budget preparers and budget users of Malaysian local authorities, the steps suggested by Gregory Carey, 1998 were used. The following paragraphs discuss the results of the analyses with respect to the steps suggested by the author. Table 6.10 and 6.11 summarised the result of the analyses in determining the direct and indirect effect of budget participation, budget adequacy, organisational commitment and role ambiguity on

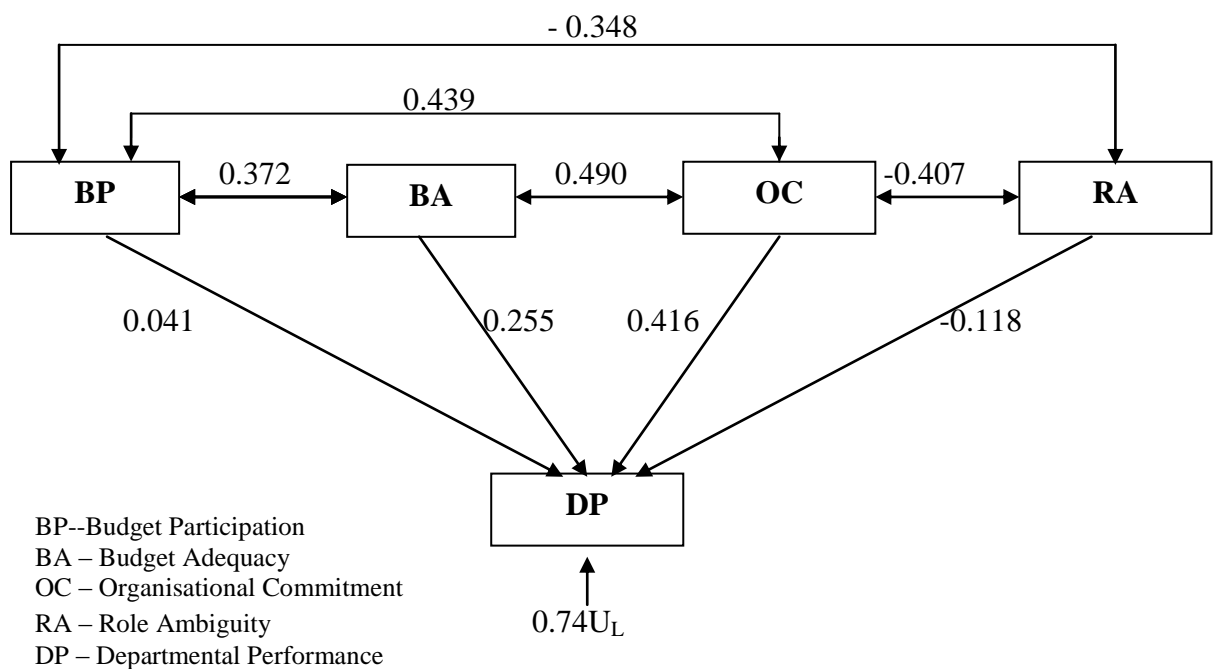
departmental performance of budget preparers and budget users of Malaysian local authorities.

According to Gregory Carey, 1998 the coefficients for path analysis may be expressed in either of two metrics. The first metric is called unstandardised and it uses the measurement's scale of the original variables. Here, paths are unstandardised regression coefficients, covariance that linked the independent variables, and the purpose is to explain variance and covariance. The second metric is called standardised. Literally, this is the result of a path analysis or regression performed on all variables that have been transformed in standardised variables. In standardised units, the path coefficients equal the standardised regression coefficients and the purpose is to explain the proportion of variance and the correlations among variables. The following gives path analysis information and results using standardised units.

The first step required a path diagram as in figure 6.1 to be constructed, and we need to have two pieces of information. The first piece is the correlation matrix among the variables. This is depicted in Table 6.11 as Pearson Correlation among the variables. The second piece is the vector of standardised regression coefficients among variable from Standard Multiple Regression analysis. Path analysis was done by writing down the independent variables (Budget participation, budget adequacy, organisational commitment and role ambiguity) and connecting each pair with a doubled headed arrow. From each independent variable, a straight single headed arrow was drawn shooting into the dependent variable (departmental performance). Finally, a residual variable is notified by drawing an arrow from it into dependent variable and is denoted as  $U_L$ .

The second step is to place a value on the arrows. On the double headed arrows were the correlations between the independent variables and on the straight single headed arrow were the standardised regression coefficients referred to as path coefficients and finally the square root of  $(1-R^2)$  on the arrow going from the residual to the dependent variable.

**Figure 6.1: Path model for variable Departmental Performance.**



The third step is to decompose the sources of a correlation between an independent variable and a dependent variable. That is, we can use the path diagram to uncover why budget participation is correlated with (predicts) departmental performance. In this analysis, we want to see the impact of direct and indirect effect of budget participation, budget adequacy, organisational commitment, and role ambiguity on departmental performance and which of these effects predict more strongly in a direct way or indirect way.

Let us consider the relationship between departmental performance (DP) and budget participation (BP). First, budget participation has a direct effect on departmental performance. This is depicted by the straight arrow going into departmental performance from budget participation. The magnitude of this effect is quantified by the standardised regression coefficient 0.041. Second budget participation, has two indirect effects. The first indirect effect arises because budget participation is correlated with budget adequacy (BA) and budget adequacy directly predicts departmental performance (DP). This is depicted by the path-way starting from budget participation (BP) going into budget adequacy (BA) and then exiting from budget adequacy directly to departmental performance (DP). This indirect effect is quantified by the product of these two paths. Thus, the indirect effect of budget participation (BP) going through budget adequacy (BA) equals  $0.372 \times 0.255 = 0.095$ .

The second indirect effects, reflects the correlation between budget participation (BP) and organisational commitment (OC) and direct effect of organisational commitment (OC) on departmental performance (DP). This is depicted by, the pathway from budget participation (BP) to organisational commitment (OC) and then the direct arrow from organisational commitment (OC) to departmental performance (DP). The magnitude of this indirect effect is  $0.439 \times 0.416 = 0.183$ .

The third indirect effect reflects the correlation between budget participation (BP) and role ambiguity (RA) and the direct effect of role ambiguity (RA) on departmental performance (DP). This is depicted by the path-way from budget participation (BP) to role ambiguity (RA) and then the direct arrow from role ambiguity (RA) to

departmental performance (DP). The magnitude of this indirect effect is  $(-0.348) \times (-0.118) = 0.041$ . According to primary rule of path analysis, the correlation between independent variable (IV) and dependent variable is the sum of the direct effect and all indirect effect. In this analysis the independent variable is budget participation (BP) and the dependent variable is departmental performance (DP). Thus, the correlation between budget participation (BP) and departmental performance (DP) equals  $(0.041) + (0.372 \times 0.255) + (0.439 \times 0.416) + (-0.348 \times -0.118) = (0.041) + 0.095 + 0.183 + 0.041 = 0.360$ . Since the total of direct effect and indirect effects is equal to the correlation coefficient 0.360, there is no spurious effect in the relationship of budget participation and departmental performance.

Further analyses were made, by examining the correlation between budget participation (BP) and departmental performance (DP) in order to determine the direct and indirect effect on departmental performance. The results of this study as shown in Table 5.11 showed that budget participation (BP) predicted departmental performance (DP) more strongly in the indirect way ( $0.095 + 0.183 + 0.041 = 0.319$ ) than it did in a direct way (0.041). Going through the same procedure for budget adequacy (BA) and departmental performance (DP) gave a direct effect of 0.255 and indirect effect through budget participation (BP) of  $0.372 \times (0.041) = 0.015$  and indirect effect through organisational commitment (OC) of  $0.439 \times 0.416 = 0.182$ . The result showed that the indirect effect  $0.015 + 0.182 = 0.197$  is smaller than the direct effect 0.255. This suggests that, the observed correlation between budget adequacy (BA) and departmental performance (DP) was significant. The path interpretation suggests that the correlation arose because budget adequacy (BA) itself directly predicted departmental performance (DP). In other words, budget adequacy (BA) predicted

departmental performance (DP) more strongly in the direct way than it did the indirect way.

For organisational commitment (OC), the direct effect is 0.416. The indirect effect through budget participation (BP) was  $0.439 \times 0.416 = 0.182$  and the indirect effect through organisational commitment (OC)  $0.490 \times 0.416 = 0.203$ . Once again the indirect effects  $(0.182 + 0.203) = 0.385$  is smaller than the direct effect 0.416. Therefore the finding indicated that the correlation between organisational commitment (OC) and departmental performance was significant, the path interpretation suggested that organisational commitment (OC) itself directly predicted departmental performance (DP). As for role ambiguity, the direct effect is  $-0.118$ , the indirect effect through budget participation (BP) is  $(-0.348 \times -0.118) = 0.041$  and the indirect effect through role ambiguity (RA) is  $(-0.407 \times -0.118) = 0.048$ . Once again the total indirect effect  $(0.041 + 0.048) = 0.089$  was smaller than the direct effect  $-0.118$ . Thus, the findings suggested that role ambiguity (RA) predicted departmental performance more strongly in the direct way than it did it the indirect way.

Other important findings of this study, as depicted in Table 6.10, indicated that budget participation has direct effect on budget adequacy, organisational commitment and role ambiguity. The decomposition of the observed correlation into direct and indirect effect showed that, the direct effect is much bigger than the indirect effect. On the other hand budget adequacy has direct effect on departmental performance and organisational commitment and organisational commitment has direct effect on departmental performance. Role ambiguity however has negative direct effect on departmental performance and indirect effect on organisational commitment.

**Table 6.10: Decomposition of Observed Correlation**

Combination of Variable	Observed Correlation	Direct Effect	Indirect Effect	Spurious Effect
BP/DP*	0.360	0.041	0.319	0.000
BP/BA	0.372	0.372	0.000	0.000
BP/OC	0.439	0.439	0.000	0.000
BP/RA	-0.348	-0.348	0.000	0.000
BA/DP	0.541	0.255	0.197	0.089
OC/DP	0.607	0.416	0.385	-0.194
RA/DP	-0.447	-0.118	0.089	-0.239
BA/OC	0.490	0.382	0.108	0.000
RA/OC	-0.407	-0.190	-0.217	0.000

$$\begin{aligned}
 \text{BP/DP*} &= \text{BPBA/BADP} + \text{BPOC/OCDP} + \text{BPRA/RADP} \\
 &= (0.372 \times 0.255) + (0.439 \times 0.416) + (-0.348 \times -0.118) \\
 &= 0.319
 \end{aligned}$$

## 6.8 Hypotheses Testing – Relationship of Variables

In this section, the results of various analyses relating to the relationship of the variables in the model are discussed. Pearson Product-Moment Correlation was used to analyse the strength of the relationship. The inter correlations matrix between variables are as in Table 6.11 (see also Appendix B).

**Table 6.11: Matrix of Inter Correlations**

	Departmental performance (1)	Budget participation (2)	Budget adequacy (3)	Organisational commitment (4)	Role ambiguity (5)
1	1.000				
2	.360**	1.000			
3	.541**	.372**	1.000		
4	.607**	.439**	.490**	1.000	
5	-.447**	-.348**	-.568**	-.407**	1.000

\*\* Correlation is significant at the 0.01 level (2 tailed) n = 108

To answer Research Question 1: What is the relationship between budget participation and departmental performance of Malaysian local authorities? One hypothesis H1 is developed.

**Hypothesis 1 (H1): There is a positive relationship between budget participation and departmental performance of budget prepares and budget users of Malaysian local authorities.**

In conducting this analysis, the average composite score of departmental performance which include the quality or amount of work produced, the quality or accuracy of work produced, the number of innovations or new ideas by the units, attainment of unit production or service goal, efficiency of unit operations and lastly the morale of unit personnel were correlated with the average composite score of budget participation. The result presented in Table 6.11, showed that the correlation between budget participation and departmental performance is positive but only marginally significant. The correlation is significant at the .01 level with correlation coefficient of 0.360. Budget participation explained 13% of the variance in departmental performance. The result is consistent with the previous finding by Nouri and Parker (1998): ( $r = 0.340$ ,  $p < .01$ ). This illustrates that participation of budget preparers and budget users in budget setting would most likely influence the departmental performance of Malaysian local authorities. Therefore, with respect to hypothesis 1, there is sufficient evidence to accept that there is a positive relationship between budget participation and departmental performance of Malaysian local authorities



To answer Research Question 2: What is the relationship between budget participation and the three mediating variables? Three hypotheses H2, H3, and H4 are developed.

**Hypothesis 2 (H2): There is a positive relationship between budget participation and budget adequacy of budget preparers and budget users of Malaysian local authorities.**

In conducting this investigation, the average composite scores of budget adequacy construct, which comprises my budget does allow me to perform what is expected of me, what is expected of me is achievable under my budget and I am confident that I can achieve what is expected of me under my budget were correlated with the average composite score of budget participation. The correlation results between budget participation and budget adequacy as depicted in Table 6.11 indicated significant positive relationship at 0.01 level,  $r = .372$ . Budget participation explained 14% of the variance in budget adequacy. Hence, given the findings presented in Table 6.11, there is enough evidence to accept that there is positive relationship between budget participation and budget adequacy of budget preparers and budget users of Malaysian local authorities. The findings suggested that, budget adequacy was significantly influenced by the budget preparers and budget users' involvement in the budget setting, especially when they worked with their superiors and subordinates. Therefore it could be concluded that their superiors and subordinates play a very important role in determining budget adequacy of the Malaysian local authorities.

**Hypothesis 3 (H3): There is a positive relationship between budget participation and organisational commitment of budget preparers and budget users of Malaysian local authorities.**

In conducting this analysis, the average composite scores of organisational commitment of budget preparers and budget users of Malaysian local authorities were correlated with the average composite scores of budget participation. The correlation result between budget participation and organisational commitment indicated a significant positive relationship at  $p = 0.01$  with correlation coefficient of 0.439. Budget participation explained 19% of the variance in organisational commitment. This indicates that participation of budget preparers and budget users in the budget setting would most likely influence their commitment to their department or organisation. Hence, there is sufficient evidence to accept that there is a positive relationship between budget participation and organisational commitment of budget preparers and budget users of Malaysian local authorities.

**Hypothesis 4 (H4): There is a negative relationship between budget participation and role ambiguity of budget preparers and budget users of Malaysian local authorities.**

In this analysis, the average composite scores of role ambiguity of budget preparers and budget users of Malaysian local authorities were correlated with the average composite scores of budget participation. The result as depicted in Table 6.11, showed that budget participation had a significant negative impact on role ambiguity ( $r = -0.348$ ,  $p$  at 0.01) The Pearson Product-Moment Correlation coefficient explained

12% of the variance in role ambiguity. Therefore, there is enough evidence to accept the hypothesis that there is a negative relationship between budget participation and role ambiguity of budget preparers and budget users of Malaysian local authorities. The results of the analyses demonstrated that the relationship was negatively significant at  $p = 0.01$ . This suggests that budget preparers and budget users' role ambiguity declined or reduced when they participated in the budget setting process. Their participation in the budget setting improved the quality of the budget setting, their planned goals and objectives became clearer, they know their responsibilities better, they always know exactly what is expected of them, they felt certain about their authority, they always know how to divide their time properly and less uncertain as to how their job is linked to other people's job, especially when they felt that their contributions were important to the budget and when they worked with their superior and subordinate in preparing the budget.

To answer Research Question 3: What is the relationship between the three mediating variables and departmental performance of Malaysian local authorities? Three hypotheses H5, H6, and H7 are developed.

**Hypothesis 5 (H5): There is a positive relationship between budget adequacy and departmental performance of budget preparers and budget users of Malaysian local authorities.**

In conducting this analysis, the average composite score of departmental performance which includes the quality or amount of work produced, the quality or accuracy of work produced, the number of innovations or new ideas by the units, attainment of unit production or service goal, efficiency of unit operations and lastly the morale of

unit personnel were correlated with the average composite score of budget adequacy of budget preparers and budget users of Malaysian local authorities. The result as depicted in Table 6.11, showed that budget adequacy had significant positive relationship with budget participation  $r = 0.541$ , at  $p = 0.01$ ) The Pearson Product-Moment Correlation coefficient explained 29% of the variance in departmental performance. Therefore, there is enough evidence to accept the hypothesis that there is a positive relationship between budget adequacy and departmental performance of budget preparers and budget users of Malaysian local authorities.

**Hypothesis 6 (H6): There is a positive relationship between organisational commitment and departmental performance of budget preparers and budget users of Malaysian local authorities.**

In conducting this analysis, the average composite score of departmental performance which includes the quality or amount of work produced, the quality or accuracy of work produced, the number of innovations or new ideas by the units, attainment of unit production or service goal, efficiency of unit operations and lastly the morale of unit personnel were correlated with the average composite score of organisational commitment of budget preparers and budget users of Malaysian local authorities. The result as depicted in Table 6.11, showed that organisational commitment had significant positive relationship with departmental performance  $r = 0.607$ , at  $p = 0.01$ ) The Pearson Product-Moment Correlation coefficient explained 37% of the variance in departmental performance. Therefore, there is enough evidence to accept the hypothesis that there is a positive relationship between organisational commitment

and departmental performance of budget preparers and budget users of Malaysian local authorities.

**Hypothesis 7 (H7): There is a negative relationship between role ambiguity and departmental performance of budget preparers and budget users of Malaysian local authorities.**

In conducting this analysis, the average composite score of departmental performance which includes the quality or amount of work produced, the quality or accuracy of work produced, the number of innovations or new ideas by the units, attainment of unit production or service goal, efficiency of unit operations and lastly the morale of unit personnel were correlated with the average composite score of role ambiguity. The result as depicted in Table 6.11, showed that role ambiguity had significant negative relationship with departmental performance  $r = - 0.447$ , at  $p = 0.01$ ) The Pearson Product-Moment Correlation coefficient explained 20% of the variance in departmental performance. Therefore, there is enough evidence to accept the hypothesis that there is a negative relationship between role ambiguity and departmental performance of budget preparers and budget users of Malaysian local authorities.

To answer Research Question 4: What is the relationship of budget adequacy and organisational commitment of Malaysian local authorities? One hypothesis H8 is developed.

**Hypothesis 8 (H8): There is a positive relationship between budget adequacy and organisational commitment of budget preparers and budget users of Malaysian local authorities.**

The average composite score of organisational commitment was correlated with the composite average score of budget adequacy relationship. The result as depicted in Table 6.11, showed that budget adequacy had significant impact on organisational commitment ( $r = 0.490$ ,  $p$  at 0.01). The Pearson Product-Moment Correlation coefficient explained 20% of the variance in organisational commitment. Therefore, there is enough evidence to accept the hypothesis that there is a positive relationship between budget adequacy and organisational commitment of budget preparers and budget users of Malaysian local authorities.

To answer Research Question 5: What is the relationship of role ambiguity and organisational commitment of Malaysian local authorities? One hypothesis H9 is developed.

**Hypothesis 9 (H9): There is a negative relationship between role ambiguity and organisational commitment of budget preparers and budget users of Malaysian local authorities.**

The composite variable of organisational commitment, which comprises the average score of willingness budget preparers and budget users of Malaysian local authorities to put a great deal of effort beyond that normally expected in order to help their organisation be successful, their willingness to talk up their organisation to their friends as a great organisation to work for, their willingness to accept almost any type

of assignment in order to keep working in the organisation, their values and the organisation's value are similar, their proud to tell others that they are apart of the organisation, their feeling that their organisation inspires the best in them in the way of job performance, their gladness that they had chosen the right organisation to work over others before joining the organisation and their caring about the future of their organisation when they worked with financial staff people in preparing the budget was correlated with the average composite score of role ambiguity. The result as in Table 6.11 showed that it has a significant negative impact on organisational commitment of budget preparers and budget users of Malaysian local authorities at  $p = 0.01$  with correlation coefficient  $-0.407$ . Role ambiguity explained 17% of the variance in organisational commitment. This illustrates when budget preparers and budget users of Malaysian local authorities are clear (less ambiguity) with their role in the budget setting process they would most likely influence their commitment to their organisation. Therefore, with respect to Hypothesis 9, there is sufficient evidence to accept that there is a negative relationship between role ambiguity and organisational commitment of budget preparers and budget users of Malaysian local authorities.

## 5.9 Conclusion

The results of this study suggests that the relationship between budget participation and departmental performance is statistically, significantly, positively and marginally correlated. The test for direct and indirect effect of budget participation on departmental performance, suggests that budget participation predicted or affected departmental performance more strongly in the indirect way than it did in a direct way. This suggests that, even though the correlation between budget participation and departmental performance was significant, the path interpretation suggests that the

correlation arose because budget participation was correlated with other variables that had direct effect upon departmental performance not budget participation itself directly predicted departmental performance. In this study as depicted in Table 6.10 budget participation of budget preparers and budget users of Malaysian local authorities in the budget setting has direct effect on the three mediating variables and on the other hand the three mediating variables have direct effect on the departmental performance of the Malaysian local authorities.

The test for mediation effect also demonstrated that, budget adequacy, organisational commitment and role ambiguity had partially mediated the relationship of budget participation and departmental performance. These three variables act as partial mediators when they significantly reduced or decreased the path coefficient of budget participation and departmental performance rather than eliminating the relationship. Other findings also showed that, attainment of unit production or service goals was significantly improved or increased when budget preparers and budget users were participated or involved by working together in the budget setting process with their superiors and with their subordinates. Further analysis showed that, their involvement in preparing the budget with their superior and subordinates significantly improved the quality of budget setting. Therefore, the findings indicated that budget preparers and budget users' direct involvement in the budget setting process with their superior and subordinates were very important factors in determining the success or achievement of departmental performance of Malaysian local authorities. Both budget preparers and budget users' superior and the budget preparers and budget users themselves were motivated in initiating the budget related discussion with each other, enhance the budgeting process and thus improve the quality of the budget setting.



This study revealed that departmental performance of Malaysian local authorities did not associate or influence very much by budget preparers and budget users' influence on the final budget.

On the relationship of budget participation and budget adequacy, the results of the hypothesis-testing illustrated that budget participation and budget adequacy was significantly and positively related. The results of this study corroborated the former hypothesis on the important of budget preparers and budget users' participation in the budget setting process. Again the impact of them working with their superior and subordinates, significantly had positive impact on improving the quality of their budget setting. As a result, their budgets were likely to be accurate and thus did allow them to perform, achieve and confidently achieving what is expected of them. The findings suggested that budget adequacy was significantly influenced by the budget preparers and budget users' involvement in the budget setting, especially when they worked with their superior and subordinates. Therefore, it could be concluded that their superior and subordinates play a very important role in the budget setting of Malaysian local authorities. The initiatives of both parties in initiating the discussion at the budget setting process were seen as important element in the overall quality of the budget setting.

Hypothesis 3 demonstrated that budget preparers and users were committed to accept any type of job assignment to keep working in the organisation. Once again, this analysis corroborated the earlier hypotheses above, that the impact of budget preparers and budget users' participation in the budgeting process led to improvement in their commitment to the organisation. Their motivation in initiating budget related

discussion, involvement and interaction with their superior and subordinates in preparing the budget had significantly improved the quality of the budget setting subsequently budget adequacy and thus enhanced their commitment to keep working in the organisation and helping the organisation to be successful by willingly accepting any type of job assignment and putting in a great deal of effort beyond normally expected.

The fourth hypothesis analysis demonstrated that the relationship between budget participation and role ambiguity was negatively significant at  $p = 0.01$ . This suggests that budget preparers and budget users' ambiguity of their role declined or reduced when they participated in the budget setting process. Their participation improved the quality of the budget setting, their planned goals and objectives became clearer, they know their responsibilities better, they always know exactly what is expected of them, they felt certain about their authority, they always know how to divide their time properly and less uncertain as to how their job is linked to other people's job.

The results of the fifth hypothesis analyses showed that, a strong relationship between budget adequacy and departmental performance. Adequate budget increased or improved confidence, achievement and performance of budget preparers and budget users. As a result, there significantly and positively improved their attainment of unit production or service goals, their quality or amount of work produced, their quality or accuracy of work produced, their morale of unit personnel, the efficiency of their unit operations and the innovations or new ideas by their units.

Hypothesis 6, showed that organisational commitment was significantly related to departmental performance  $r = 0.607$  at  $p = 0.01$ . When budget preparers and budget users were committed to their organisation, they would not only accept almost any type of job assignment in order to keep working in the organisation, they also perceived their organisation as a great place to work for, they also felt that they are part of the organisation, they found their values and their organisation values are similar, they felt glad that they had chosen the right organisation to work for over others before joining and they care for the future of their organisation and eventually they would feel proud to tell others that they are part of the organisation. The results showed that their quality or amount of work produced, their quality or accuracy of work produced, their attainment of unit production or service goals and their morale of unit personnel had significantly and positively improved when they were willing to be more committed to their job and their organisation.

The results of the analyses on Hypothesis 7, demonstrated that role ambiguity is significantly and negatively related to departmental performance. Departmental performance improved as their role ambiguity decreased. In this analysis, it showed that when budget preparers and budget users were certain of their job linked, always know how to divide their time properly, always know what was expected of them, felt certain about their authority they had, had clear planned goals and objectives for their job and always know what their responsibilities were, as a result their departmental performance improved and increased significantly.

Hypothesis 8 revealed that budget adequacy was strongly correlated to organisational commitment. Budget adequacy increased their commitment, confidence,

performance, and achievement of what was expected of them under the budget. As a result, they were willing to put in a great deal of effort beyond what is normally expected of them in order to help the organisation successful, increased their perception that their values and organisation's values were similar and felt that their organisation inspires the best in them in a way of job performance. They were also committed to keep working in the organisation as showed by their willingness to accept any job assignment, praising and appreciating their organisation as a great organisation to work for and they care about the future of their organisation.

Hypothesis 9, demonstrated that role ambiguity was strongly and negatively correlated to organisational commitment. When budget preparers and budget users were clear of their roles their commitment to their works and organisation increased. The results demonstrated that they were proud to tell others that they were part of the organisation, willing to put a great deal of effort beyond what is normally expected of them in order to help their organisation be successful, accept almost any job assignment to keep working in the organisation, always know what their responsibilities are, certain of how their job was linked to other people's job, clear of their planned goals and objective for their job, always know how to divide their time properly and always know what was expected of them when they were clear of their roles in achieving the budget target.

## **CHAPTER 7**

### **DISCUSSION**

#### **7.1 Introduction**

This chapter discusses the results of the hypothesis testing presented in the preceding chapter. The discussion highlights the findings on the proposed relationships based on the analyses using Factor Analysis, Mediation Effect Analysis, Path Analysis and Pearson Product-Moment Correlation Analysis. Previous studies are drawn on to elaborate and support the results and significance of this study. When discussing the findings, the results of the hypotheses testing are restated. Consequently, brief summaries of the implications of the findings are stated to guide readers in the following discussion. In general, the discussion of the results revolves around theoretical model proposed by the author as in Figure 4.1 in Chapter 4.

#### **7.2 Result of Mediation Effect Analysis**

As stated in Chapter 1, the first objective of this study is to examine the role of budget adequacy, organisational commitment and role ambiguity in mediating or intervening the budget participation and departmental performance relationship of Malaysian local authorities. The main finding of this study was that budget adequacy, organisational commitment, and role ambiguity mediates the budget participation and departmental performance relationship. The result of mediation analysis as depicted in Table 5.8 showed that budget adequacy, organisational commitment, and role ambiguity partially mediated the relationship of budget participation and departmental performance of Malaysian local authorities. This was illustrated by following Baron

and Kenny (1986) mediation analysis where the final step of a four-step analysis failed to show that a full mediation relationship exist. Nevertheless, as elaborated by Baron and Kenny (1986), even though it may not be a necessary and sufficient condition to occur, the partial effect demonstrates that a given mediator is indeed potent.

### **7.3 Result of Path Analysis**

The second objective of this study is to examine the impact of budget participation, budget adequacy, organisational commitment and role ambiguity of budget preparers and budget users of Malaysian local authorities on their departmental performance. Why budget participation is correlated with departmental performance? In this analysis, researcher want to explore the impact of direct and indirect effect of budget participation, budget adequacy, organisational commitment, and role ambiguity on departmental performance of Malaysian local authorities and which of these effects predict more strongly in a direct way or indirect way. The results of the findings as depicted in Table 6.10 and Table 6.11 were as follows. Firstly the relationship between budget participation and departmental performance of Malaysian local authorities is not direct. Even though the observed correlation between budget participation and departmental performance was significant ( $r = 0.360$  at  $p = 0.01$ ), the path interpretation suggests that the correlation arose because budget participation was correlated with other variables that had direct effect upon departmental performance, not because budget participation itself predicted departmental performance. Therefore, budget participation predicted departmental performance more strongly in the indirect way than it did in a direct way.

Secondly, the finding showed that the relationship between budget adequacy and departmental performance was direct. The result of path analysis indicated that the relationship between budget adequacy and departmental performance was significant ( $r = 0.541$  at  $p = 0.01$ ), the correlation arose because budget adequacy had direct effect upon departmental performance. Thus budget adequacy predicted departmental performance more strongly in the direct way than it did in the indirect way via organisational commitment.

Thirdly, the finding also showed that the relationship between organisational commitment and departmental performance was direct. The result of path analysis indicated that the relationship between organisational commitment and departmental performance was significant the correlation arose because budget adequacy had direct effect upon departmental performance. Thus, budget adequacy predicted departmental performance more strongly in the direct way than it did in the indirect way via budget adequacy and role ambiguity.

Fourthly, the finding for the relationship between role ambiguity and departmental performance suggested that the relationship was also direct. The result of path analysis indicated that the relationship between role ambiguity and departmental performance was significant. The correlation arose because budget adequacy had direct effect upon departmental performance. Therefore, role ambiguity predicted departmental performance more strongly in the direct way than it did in the indirect way via organisational commitment.

## **7.4 Budget Participation and Departmental Performance Relationship**

As depicted in Table 5.11, the relationship between budget participation and departmental performance is significant and positively related. Specifically, the findings of this study showed that the more the budget preparers and budget users of Malaysian local authorities involved in the budget setting with their superiors and subordinates resulting significant improvement in their departmental performance. The commitment between budget preparers and budget users with their superiors and their subordinates in the budget setting was found to be significantly improved the quality of the budget and thus positively affected the overall departmental performance of Malaysian local authorities. The finding of this study also showed that budget participation effects departmental performance more strongly in the indirectly way than it did in a direct way. The influence of budget adequacy, organisational commitment and role ambiguity as intervention variables in the link between budget participation and departmental performance improved departmental performance of Malaysian local authorities. Further analysis on the effect of budget preparers and budget users' participation in the budget setting on departmental performance as indicated in Table 5.10 showed that, participation of budget preparers and budget users in the budget setting process significantly had direct and indirect effect on departmental performance via budget adequacy, organisational commitment and role ambiguity. Path analysis suggests that budget participation predicted departmental performance more strongly in the indirect way than it did in a direct way as indicated by the scale of the direct effect magnitude. The indirect effect magnitude (0.319) in this study is greater than the direct effect magnitude (0.041).



This study is consistent with several studies that have shown participation influences performance, although the relationship often indirect and contingent on the participation being perceived as relevant and genuine (Brownell, 1981, 1982; Chenhall and Brownell, 1988). Therefore, this study confirms previous studies by (Brownell, 1981, 1982; Chenhall and Brownell, 1988; Nouri and Parker, 1998) that the effect of budget participation on performance is not direct. This study also compliments the finding of previous studies by showing that budget participation has strong relationship not only at individual level but also at group level of departmental performance. In this study researcher used departmental performance as the dependent variable instead of job performance and thus it could be concluded that job performance and departmental performance is related. However the finding of this study is inconsistent with the finding of Melani (1975). My finding indicates stronger relationship ( $r = 0.360$ ) as compared to weak relationship ( $r = 0.11$ ) of Melani (1975). The different in the finding might be due to the items used in measuring departmental performance and also the setting of the research. Researcher used instrument developed by Van de Van and Ferry (1980) designed specifically to assess performance in public sector organisation. While, Melani (1975) used two measures of performance for the foremen: performance percentage and hours to base ratio.

As (Poon et al, 2001 p.102) argued, budget participation provides a setting within which managers can exchange information and ideas to make budgetary planning, coordination and control more effective and this effectiveness depends, in part, upon the goal interdependencies of, and interaction between participants. The finding of this study supports their argument. Budget preparers and budget users' participation in the budget setting in this study showed that, the quality of budget setting was

improved, in particular when they worked with their superior and subordinates. There was a significant improvement in the quality of the budget setting and consequently increased the departmental performance of Malaysian local authorities especially in the degree of achievement and attainment of their unit production or service goal. This finding is consistent with budget participation literatures that highlights the fact that effective budget participation depends upon interpersonal dynamics and cooperative goals and suggests the value of working as a cooperative team (Brownell 1982; Poon et al., 2001).

Another important finding of this study that could contribute to the budgetary participatory literature reveals the importance of frequent discussions and motivation provided by both superiors and subordinates during budget preparation of Malaysian local authorities. Frequent discussions with superior and subordinates allowed budget preparers and budget users of Malaysian local authorities to clarify their role ambiguity with regards to how their work should be done, how the work is linked to other jobs and more importantly to come out with approved budget that they perceived to be adequate in fulfilling their job requirement. Participation by managers in the budgeting process improves motivation, satisfaction, coordination and performance (Brownell, 1982; Brier and Hirst, 1990; Shields, 1998). This study however, did not include variables such as motivation, satisfaction and coordination because this study limits the scope to the three intervening variables (Budget adequacy, organisational commitment, role ambiguity).

This present study also contributed to the participatory budgeting literature on the importance of budget preparers and budget users' self initiative discussion and the

frequency of meeting they have with their superiors and subordinates which have stronger influence and impact on the quality of the budget setting of Malaysian local authorities. The question is why, when budget preparers and budget users worked with their superior and subordinates improved the quality of budget setting and their departmental performance. The finding of this study could be related to the budget participatory process practice by the Malaysian local authorities. Through participation of budget preparers and budget users in the budget setting and the involvement of their superiors and subordinates enable them to discuss and clarify their roles expectations, method for fulfilling roles expectation and consequences of role performance. As a result their role ambiguity decreased, they become more committed to their organisation and eventually improved their departmental performance. Budget preparers and budget users in this study also seen to be very influential in the decision making process when they worked with superior and their subordinates in the budget setting, which later enhanced the quality of budget setting and improved the overall accomplishment of the budget target of Malaysian local authorities.

The finding also indicated that the more they initiated the discussion with their superior in preparing the budget, the results showed positive and significant improvement in the quality of the budget setting and attainment of their unit production or service goals but also improved departmental performance in areas such as the quality or amount of work produced, the quality or accuracy of work produced, the morale of unit personnel, the efficiency of unit operations and innovations or new ideas by the units. These phenomena as a result of participative budgeting could be associated with the conditions under which it operates and in particular, the

interpersonal dynamics involved (Poon et al. 2001 p.113). The finding also revealed that participation in budget setting provides an opportunity for budget preparers and budget users to work together actively and creatively with other participants in the budget setting, in identifying common problems, promote an open minded discussions and upon how they believe their goals are related leading to positive effect on group productivity, relationships, and budget quality. These findings suggest management and managers especially those involve directly in the budget setting process to work more closely through budget participation to enhance departmental performance.

## **7.5 Budget Participation and Budget Adequacy Relationship**

The results of this study showed that budget participation and budget adequacy is significantly and positively related. The positive relationship between these two variables were supported by the path analysis as depicted in table 5.10 that budgetary participation of budget preparers and budget users of Malaysian local authorities has direct effect on their budget adequacy.

The literature suggests that employees apply participation as a criterion when evaluating the fairness of a decision-making process (Magner, et. al., 1995, pp. 614). The most frequently studied criterion for a fair decision-making procedure is voice or the opportunity to express one's views and opinions during decision-making (Folger, 1997). Budgetary participation as defined by Brownell (1982c p.124) encompasses the concept of influence in the budgetary process. Influence suggests that employees are afforded a degree of control over the outcomes of a decision-making process. As a

consequence, they are likely to view their budgetary involvement as a means of obtaining a more favourable budget. In this study, the findings demonstrated that budget participation and budget adequacy was significantly and positively related. The effect of budget participation on budget adequacy was direct. The impact of budget preparers and budget users participation in the budget setting had significantly improved the quality of the budget setting. They were able to express their views and opinions, when they worked with their superior and subordinates. As a result, their budgets were more likely to be accurate and thus, enhanced them in performing, achieving and confidently achieving what was expected of them under their budget. The findings also corroborated earlier assertion by (Merchant, 1981; Chow et. al., 1988; Murray, 1990) that participation of subordinates in the budgeting process, may result in a more accurate budgets.

The finding of this study showed that budget preparers and budget users' interaction with subordinate and superior over other participants in the budget setting had significantly exerted greater influence over the budget quality and budget adequacy of budget preparers and budget users of Malaysian local authorities. In this study, it showed that they were able to perform, achieve and confidently achieve what were expected under their budget. Therefore, there was sufficient evidence to accept that the participation of budget preparers and budget users of Malaysian local authorities in the budget setting had improved the level of budget support to fulfil job requirements which in turn was seen as favourable and perceived as an outcome of a fair decision procedures and process. Nouri and Parker (1998) defined budget adequacy as the degree to which and individual perceives that budgeted resources are adequate to fulfil job requirements. The involvement of budget preparers and budget

users in the budget process, not only enabled them to voice and express their opinions, but also managed to exert their influences and pressures on the decision makers, especially their superior to obtain more favourable budget that they perceived adequate to fulfil their job requirements. As a result, as stated earlier, they were motivated and reacted positively to the departmental decision outcomes which they perceived as a fair procedure and thus enable them to confidently perform and achieve their job as expected under their budget. More importantly as Magner et al. (1995) pointed out that employees will have less negative attitudes towards budgetary decision makers if they participated in the budgetary process than if they did not participate and as a result enhanced their commitment and performance.

These findings suggest the importance and significance effect of budget participation in improving the level of budget that the managers perceived as adequate to perform their job requirements. Therefore it is important for management to capitalise the benefits of budget participation in increasing budget adequacy by giving more freedom to managers to air their view and express their opinions during budget setting process.

## **7.6 Budget Participation and Organisational Commitment Relationship**

Participation of budget preparers and budget users in the budget setting of Malaysian local authorities improved their commitment to their organisation. This finding is in line with several researchers that have proposed that employees' participation in decision-making process increases employee commitment to the organisation (Nouri

and Parker, 1998, p. 470). March and Simon (1958) argued that the more participation of subordinates in making policy decision the stronger the tendency of subordinates to identify with the organisation. Participation may enhance organisational commitment by providing managers greater opportunity to make decisions and become more ego-involved in their work (Mathieu and Zajac, 1990). This study reveals that there was significant and positive relationship between budget participation and organisational commitment of budget preparers and budget users of Malaysian local authorities. The effect of budget participation on departmental performance was also direct on organisational commitment. Once again, the impact of budget preparers and budget users' participation in the budget setting had led to improve and increase their commitment to their organisation. The result corroborated earlier findings on the importance, significance and the positive impact of budget preparers and budget users working with their superior and subordinates during budget preparation process. Consequently, not only the quality of budget setting improved, undoubtedly their commitment were seen not only to be more committed to their organisation by trying to keep working, linking, affiliating and associating themselves with the organisation but also they dedicatedly accepting any type of assignment, willing to put a great deal of effort beyond normally expected and care more for the future of the organisation, the place they worked for. Therefore, the present study not only supports previous organisational commitment literature put forward by (e.g. Nouri and Parker, 1998; Simon and March, 1958) but also inline with Mowday et al., 1982, attitudinal view of organisational commitment's definition as employees' identification with acceptance of their organisational goals and values, their willingness to exert considerable effort on behalf of the organisation and their desire to maintain organisational membership.

This study also supports Poon et al., 2001 (p. 103) argument that budget participation gives individuals the legitimacy to discuss organisational issues with superiors and provides a setting in which individuals can exchange information and ideas to solve problems and agree future actions. As stated in the earlier discussions, budget preparers and budget users' participation in the budget setting provided them the opportunity and a platform for them to voice, express and air their voices and opinions, regarding their budget requirements more rationally with their superior and other decision makers. They were able to negotiate and exert their influence and positively convinced the decision makers in the budget setting process, that they often have better information about the level of budgetary support requires to perform their tasks than their superiors (Merchant, 1981; Christensen, 1982; Chow et al., 1988; Waller. 1988). As a result, according to Nouri and Parker (1998, p. 469) a participatory budgeting allows subordinates to incorporate this information into the budget while a non- participatory budget does not. Moreover, accordingly as Magner et al. (1995) posited, employees who receive unfavourable budget will have less negative attitudes towards budgetary decision makers if they participated in the budgetary process than if they did not participate. Therefore, in this study, there was enough evidence to suggest that budget preparers and budget users expressed high commitment to their organisation and held particularly favourable evaluations to their superior when they perceived that both decision outcomes and decision procedures were fair. The interaction between budget preparers and budget users with their superior and subordinates in the budget preparation process, improved the quality of the budget setting and significantly improved their attitude and commitment to their work and organisation as shown by their willingness in accepting any type of job



assignment, willingness to put in a great effort beyond normally expected, and increased their desires to maintain organisational membership.

These findings suggest budget participation is directly related to organisational commitment. The more the managers involved and participated in the budget setting process the more organisational commitment would improve. Thus, if management need to increase managers' commitment to their departmental performance then management need to provide more participatory type of budget setting in their department.

## **7.7 Budget Participation and Role Ambiguity Relationship**

Participation of budget preparers and budget users in the budget setting has not only improved the quality of the budget setting but also helping in decreasing their role ambiguity to fulfil their jobs requirements. Role ambiguity occurs when an individual is unsure about others expectations of him or herself. It can be viewed according to Graen, (1976) as the extent to which clear information is lacking regarding (a) the expectations associated with a role, (b) methods for fulfilling role expectations and /or (c) the consequences of role performance. It has been conceived as the discrepancy between the amount of information a person has and the amount she/he requires to perform his or her role adequately (Kahn, 1974, p.426). Chenhall and Brownell (1988) argued that participation in the budget setting process has the potential to clarify information in all three areas above.

The finding of this present study reveals that budget participation and role ambiguity is significantly and negatively related. The result is consistent with a view that budgetary participation is most helpful in decreasing manager's role ambiguity and that decreased role ambiguity improves performance (Brownell, 1982). Thus, the more the budget preparers and budget users participated in the budget setting process the more they clear of their role and thus decrease or less their role ambiguity towards their job. In other words, budget preparers and budget users significantly become clearer of their role and thus enhanced them in performing their role accurately when they participated in the budgeting process. In particular, one important contribution of the present study to participatory budgeting literature is that budget preparers and budget users became clearer of their planned goals and objectives of their job, always know what their responsibilities were, know exactly what was expected of them, felt certain about their authority, always know how to divide their time properly and were certain as to how their job is linked to others people's job, when they worked with their superior and subordinate during the budget setting.. Besides that, their attitudes on the importance of frequent discussion with their superior during budget preparation and the influence that they have on the final budget were also a significant finding of this study that contributed to the overall clarity of their role on the budget goals.

This study also showed the importance of budget preparers and budget users' contribution to the budget and the influence that they have on the final budget is significant and negatively related with their role ambiguity. In other words, they were less ambiguous over their roles when they felt that they were important contributor and have had influenced in the final budget. As hypothesised in this study there is negative relationship between budget participation and role ambiguity and further

more the effect of budget participation on role ambiguity is direct. Participative budgeting gives them the legitimacy to discuss organisational issues with superiors and provides a setting in which they can exchange information and ideas to solve problems and agree future action (Poon et al., 2001). As a result, there was enough evidence that budget preparers and budget users in this study were clearer of their roles and had exerted their influence and contribution issues they have over the final budget during budget setting process with their superior and their subordinates.

Again the finding showed the significant effect of budget participation in reducing role ambiguity in the budget setting process. The more the managers were involved in the budget setting process the clearer they were with their roles in achieving the budget targets or goals. Thus, it is very important for management to encourage and practice participatory type of budget setting process in their department to enhance their departmental performance.

## **7.8 Budget Adequacy and Departmental Performance Relationship**

The findings showed that budget adequacy has significant positive relationship with departmental performance. Budget adequacy as has been defined by Nouri and Parker (1998) is the degree to which an individual perceives that budgeted resources are adequate to fulfil job requirements. They posited that subordinates often have better information about the level of budgetary support to perform the subordinate's task than do superiors. They further argued that with participatory budgeting subordinates will attempt to incorporate this information into the budget to ensure that they have

adequate resources to successfully perform their duties. Researcher's findings showed that, adequate budget had positively increased and improved departmental performance of budget preparers and budget users of Malaysian local authorities' achievement especially in the area of unit production or service goal's attainment, quality or accuracy of work produced and quality or amount of work produced. Budget adequacy not only allowed budget preparers and budget users to fulfil their job requirements successfully but more importantly as Nouri and Parker (1998) posited employees with adequate budgetary support will be on average exhibit high performance than employees without adequate budgetary support. Budget adequacy is measured in term of whether it allows them to perform, achieve, and confidently can achieve what is expected under the budget.

As had been discussed earlier on the impact of participative budgeting on the attitude and its consequences of employees' perception of their superiors regarding fairness in budget allocation process, another important findings from this study revealed that there are two important elements that had contributed to the successful accomplishment of budget adequacy processes in relation to the overall departmental performance of the budget preparers and budget users of Malaysia local authorities. The findings as hypothesised, showed that the more the budget did allow budget preparers and budget users to perform what was expected of them and the more confident they could achieve what was expected of them, resulting in the more the quality or amount of work produced, the more quality or accuracy of work produced, the more numbers of innovations or new ideas by the units, the more attainment of unit production or service goals, the more efficiency of and the unit operations and morale of unit personnel.

The finding of this study suggests that budget adequacy and departmental performance is positively related. The more accurate or adequate the budget being perceived by the managers to fulfil their job requirements the more likely will improve departmental performance. Therefore management and managers need to work together to contribute to accurate and adequate budget level that according to managers were sufficient to carry out their job's requirement.

## **7.9 Organisational Commitment and Departmental Performance Relationship**

The findings showed that organisational commitment was significantly related to departmental performance and the effect was direct. Prior research in organisational management identifies organisational commitment as an important factor for lowering turnover and improving job performance. (Randall 1990; Matheu and Zajac 1990). Mowday et al. (1982) argue that understanding of the processes related to organisational commitment has implications for both the employees and the organisation. According to him, from an individual's viewpoint, his or her commitment to an organisation may make the individual more eligible to receive both extrinsic rewards such as bonuses and awards, and intrinsic rewards such as job satisfaction and positive relationship with colleagues.

From an organisation's perspective employees' commitment to the organisation is important since it is negatively associated with employees' lateness to work, absenteeism and turn over, which in turn have implications for over all organisational

performance (Randall, 1990). My findings showed that when budget preparers and budget users were committed to their organisation, they would not only accept almost any type of job assignment in order to keep working in the organisation, they also perceived their organisation as a great place to work for, they also felt that they were part of the organisation, they found their values and their organisations values were similar, they felt glad that they had chosen the right organisation to work for over others before joining and they care for the future of their organisation. Consequently, there was significant and positive improvement in the quality or amount of work produced, the quality or accuracy of work produced, the attainment of unit production or service goals and the morale of their unit personnel had significantly and positively improved when they were willing to be more committed to their organisation.

The present study also noted the importance implications of the degree of the commitment to the over all departmental performance of budget preparers and budget users of Malaysian local authorities. The relationship was positive and strongly correlated. Therefore participation of budget preparers and budget users in the budget setting may improve their commitment to their organisation and eventually improve departmental performance.

## **7.10 Role Ambiguity and Departmental Performance Relationship**

As has been discussed, in paragraph 7.7, the positive impact of budget participation on role ambiguity is important in decreasing budget preparers and budget users' role ambiguity in carrying out their roles and duties. Chenhall and Brownell (1988)

identified and suggested that decreased role ambiguity leads to improved performance. They argued that individuals who do not fully understand their duties and responsibilities, or how they are to be evaluated will hesitate to make decisions and will rely on learning by trial and error and eventually may translate into diminished performance. Thus, theoretical argument and supporting evidence form the basis of an expectation that participation will be negatively related to role ambiguity. The findings of this study demonstrated that role ambiguity is significantly and negatively related to departmental performance. In other words, as role ambiguity increases departmental performance declines. One important finding of this study showed that departmental performance of Malaysian local authorities improved significantly, when budget preparers and budget users were less uncertain or clear about their job linked to other's people job, less not always know how to divide their time properly, less not always know what was expected of them, felt less uncertain about their authority they have, have less unclear planned goals and objectives for their job and less not always know what their responsibilities are. Specifically, there were significant improvement in the attainment of unit production or service goals, quality or amount of work produced and quality or accuracy of work produced when they were clear about their planned goals and objectives.

## **7.11 Budget Adequacy and Organisational Commitment Relationship**

Budget adequacy is the employee's belief that he or she has adequate budget resources to perform his or her duties (Nouri and Parker, 1998). Several accounting studies have argued that subordinates have more accurate information than their

superiors regarding local conditions (Merchant, 1981; Christensen, 1982; Chow et al, 1988; Waller, 1988; Nouri and Parker, 1998). Nouri and Parker (1998) posit that budget adequacy leads to high organisational commitment. They argued that, if employees believe that the organisation is responsible for ensuring that the employee receives sufficient support then budget adequacy is likely to increase the employee's bonding with the organisation. Their empirical study showed that budget adequacy and organisational commitment have a significant positive relationship. My findings reaffirmed their finding. In this study budget adequacy was strongly correlated to organisational commitment. Budget adequacy increased budget preparers and budget users' commitment, confidence, performance, and achievement of what was expected of them under the budget. As a result, they were willing to put in a great deal of effort beyond normally expected in order to help the organisation successful, increased their perception that their organisation inspires the best in them in a way of job performance. They were also committed to keep working in the organisation as shown by their willingness to accept any job, praising and appreciating their organisation as a great organisation to work for and they care about the future of their organisation. Therefore, there was enough evidence that budget preparers and budget users of Malaysian local authorities, had received favourable allocation, which had allowed them to perform, achieve and confidently achieved what was expected of them under their budget through participative budgeting process that they were involved in during budget setting of their organisation.

As has been discussed earlier, participative budgeting allowed them to incorporate the level of budgetary support that they required to perform their duties and more importantly would result in more realistic plans and more accurate budgets (Merchant,



1981; chow et al., 1988; Murray, 1990). Furthermore, by becoming involved in the creation of budget through participative budgeting, budget preparers and budget users had associated themselves more closely with budget goals and increased their identification not only with budget objectives but also with all organisational goals.

This present study suggests that budget adequacy and organisational commitment have a significant positive relationship. Budget adequacy increased organisational commitment as a result improved departmental performance. Therefore, management need to improve the budgeting procedures that will enhance budget adequacy and organisational commitment. More time should be given to managers to discuss with their subordinates and superiors before the budget is being set.

## **7.12 Role Ambiguity and Organisational Commitment Relationship**

Evidence presented here confirms strong negative relationship between role ambiguity and organisational commitment. The result of the study demonstrated that when budget preparers and budget users were less ambiguous about their roles, their commitment to their work and organisation increased. According to Chenhall and Brownell (1988), role ambiguity occurs where the sent role expectations for an individual lack sufficient clarity in terms of the required behaviours or expected performance levels. Where as organisational commitment is the bond that links the individual to the organisation (Mathieu and Zajac, 1990). Role ambiguity in this present study were based on the clarity of budget preparers and budget users regarding their planned goals and objectives of their job, their responsibilities, the

expectation of them, their authority, their time management and lastly with regards to their clarity on how their job is linked to other's people job.

This study indicated that role ambiguity was negatively and strongly correlated with organisational commitment. When budget preparers and budget users, were clear their roles, their commitment to their organisation increased and improved significantly. The findings of this study demonstrated that there was significant effect of budget preparers and budget users commitment to their organisation when they were clear about their responsibilities, clear about how their job was linked to other's people job, clear about their planned goals and objectives of their job, clear about how to divide their time properly, clear about what was expected of them and lastly when they clear about how much authority they have. As a result, they linked and associated themselves more to the organisation. It appeared that in this study, they were willing to put in a great deal of effort beyond normally expected in order to help the organisation successful and they accepted almost any job assignment to keep working in the organisation. Besides that, they kept themselves linked and associated with the organisation by concerning more about the future of their organisation, talked up to their friends on how their organisation as a great place to work for, felt glad that they had chosen the right organisation to work for over others before joining, felt that the organisation inspires the best in them in a way of job performance, proud to tell others that they were part of the organisation and lastly associated their values and organisation's values to be similar.

Therefore this study has showed that role ambiguity was negatively and strongly correlated with organisational commitment. Manager's organisational commitment

increased significantly when they clear about their roles. Management therefore need to improve budgeting procedures so that managers involved in the budget setting were given enough training and knowledge of what is expected of them.

## 7.13 Conclusion

The results of this study suggest that the relationship between budget participation and departmental performance is complex. The direct link between budget participation and departmental performance has significant path coefficient which may reflect a direct relationship as proposed by prior researchers or indirect relationship through omitted intervening variables. The results of this study also suggest that budget participation affects departmental performance indirectly via budget adequacy, organisational commitment and role ambiguity. Among the indirect effects, the link between budget participation, budget adequacy, role ambiguity and departmental performance may be the most important in terms of this study's contribution. The results of this study suggest that budget participation could allow subordinates to provide information about the level of budgeted resources needed to perform successfully. The results also consistent with a view that budgetary participation is most helpful in decreasing manager's role ambiguity and that decreased role ambiguity improves departmental performance. With regard to the relationship between organisational commitment, several possibilities exist including: (1) organisational commitment leads to performance: (2) performance leads to organisational commitment. The results also consistent with a view that budgetary participation is most helpful in increasing budget adequacy, enhances and improves organisational commitment and as a result improves departmental performance. Therefore management should encourage those involved (budget preparer and budget

user) in the budget setting to actively involve and participate during budget setting process in order to improve and increase budget adequacy and organisational commitment, reduce or decrease role ambiguity which eventually would improve departmental performance.

# **CHAPTER 8**

## **IMPLICATIONS FOR PRACTISE, THEORY, RESEARCH LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH**

### **8.1 Introduction**

There has been very little research on budgeting in Malaysia and in particular the gap in budget participation research is significant. This study sought to improve our understanding of the process by which budget participation influences departmental performance. This study has sought to fill the gap through examining the effect of budget adequacy, organisational commitment and role ambiguity on the budget participation and departmental performance relationship. The present study has broadened extant literature on the role of budgetary processes and its implications for budget preparers and budget users' participation in the budget setting of the Malaysian local authorities. It is important now to consider how managers in Malaysia and elsewhere might use these findings to improve budget setting process and perhaps contribute to a greater return on budget accomplishment for the effort. Chapter 7 discussed the findings in the context of Malaysian local authorities. This chapter discusses the implications for theory and practice, research limitations, generalisability and directions for future research.

### **8.1.1 Implications for Theory**

As discussed in Chapter 7, the findings have some implications for theory. First, this study showed that budget participation of budget preparers and budget users in the budget setting via budget adequacy, organisational commitment and role ambiguity has very minimal and insignificant direct effect on departmental performance of Malaysian local authorities. The finding is in line with the intervening model approach used in this study which stated that the relationship between budget participation and performance is not directly related. According to this approach, the effects of budget participation if any are indirect and are conveyed to performance via some intervening variables which link the variables (Chenhall & Brownell, 1988; Murray, 1990).

Second, this study also showed how budget adequacy, organisational commitment and role ambiguity have significant influence on the relationship between budget participation and departmental performance. These three variables have mediated the relationship between budget participation and performance by reducing the magnitude of the relationship of both the budget participation and departmental performance. Therefore, this study extends the mainstream literature by showing that budget adequacy, organisational commitment and role ambiguity could simultaneously mediate the relationship between budget participation and departmental performance.

Third, it is found that budget participation has direct effect on budget adequacy, organisational commitment and role ambiguity and these three intervening variables have direct effect on departmental performance of Malaysian local authorities. Therefore these

three variables have partially mediated the relationship between budget participation and departmental performance of Malaysian local authorities. This study also complements the finding from other studies by showing that budget participation influences individual performance (Nouri & Parker 1998) but also departmental performance.

### **8.1.2 Implications for Practise**

As discussed in Chapter 7, the findings from this study have some implications for participative budgeting in the Malaysian local authorities. First, because budget participation has a positive effect on department performance, it is therefore important for managers and support staffs in the Malaysian local authorities to get involve in the planning and preparation of departmental budget. This suggests that the budgetary process should not be authoritative or top-down in nature. Top management must make an attempt to elicit feed back from subordinates at various levels in developing an organisation's budget.

Second, the results suggest that when budget preparers and budget users were allowed to provide inputs to the budgeting process, they would result to more realistic plan and more accurate budget, they would be more committed to the organisation and subsequently become clearer of their roles, responsibilities and expectations in achieving the budget goals that will lead to enhance departmental performance. Thus, Malaysian local authorities need to ensure that they continue to practice participative budgeting and try to further increase the level of involvement and participation of their budget managers in the budgetary process as this has strong positive effects on departmental performance. As

such, top management needs to understand that the positive impact of budgetary participation on departmental performance works both directly and indirectly, as a consequence of management involvement in the budgetary process, as well as directly when managers reduce their roles ambiguity, increase their commitment to the organisation and improve their budgets adequacy level to fulfil their job requirements due to their participation and involvement in the budgeting process.

Third, because budget adequacy, organisational commitment and role ambiguity were the mediators of the relationship between budget participation and departmental performance, it is therefore important to ensure that the budget is sufficient to support the department's need, those involved in the planning and preparation of departmental budget are really committed to the organisation and finally, they are clear with their roles in the budgeting process.

## **8.2 Research Limitations**

The results of this study need to be interpreted with caution. This study has several limitations. First, the present study aims to explain the intervening effects of budget adequacy, organisational commitment and roles ambiguity on the budgetary participation and performance relationship. Although the inclusion of the intervening variables serves as strength of the present study, other variables which may also influence the relationship were not examined, such as perception of innovation, job satisfaction and motivation. Future work may consider incorporating these variables.



Second, the study merely uses the intervening model view to explain the relationship. Future studies may utilise other theories such as goal-setting theory or motivation theory to explain the budgetary participation and performance relationship.

Third, since the organisations examined are Malaysian local authorities which have different capacities in term of their manpower, area of operation, budget level and, revenues collection, the results may not be generalizable to organisations that differ significantly from these three categories of Malaysian local authorities. However, the budgetary process in the Malaysian local authorities may be expected to be largely similar to that in other large public sector organisations in Malaysia and other developing countries and thus, the results may have direct and significant practical implications for such organisations in these countries.

Fourth, the survey approach has limitations such as lack of control over who responds to the questionnaires. Fifth, this study limited to only local authorities in West Malaysia. As stated in chapter four local authorities in East Malaysia are not included in this study, therefore the results of the finding confined only to local authorities in West Malaysia.

Sixth, the constructs under study were not analysed for validity and reliability using SEM due to the small sample size obtained in this study. Construct validation using SEM will increased confidence in the results obtained.

Despite of its limitations, this study suggests that budget participation may have important positive consequences for organisations in general and specifically to Malaysian local authorities. As indicated by this study, budget participation may lead to budgets that provide adequate budgetary support and thus facilitate employee and enhance departmental performance. Budget participation may also increase organisational commitment, which could lead to positive work outcomes such as a higher departmental performance. Budget participation may also be most helpful in decreasing manager's role ambiguity and that decreased role ambiguity improves departmental performance. The results of this study help to reconcile the result as reported by previous research in this area and thereby make some contribution to improve our understanding of the effect of budget participation on departmental performance in a budgetary context by examining the role of variables, such as budget adequacy, organisational commitment and role ambiguity which intervene in the link between budget participation and departmental performance.

### **8.3 Future Research**

As stated earlier in Chapter Five, this study does not include local authorities in East Malaysia. Therefore, further study should include local authorities in East Malaysia so that more generalizable results on the effect of budget participation of budget preparers and budget users of Malaysian local authorities on departmental performance could be established. Future research involving budget participation could also investigate the impact of socially desirable responding (SDR). Socially desirable responding appears to have occurred in this study, although telephone interviews showed that it did not exist

and thus did not influence the results, the possibility exists that socially desirable responding could affect the results in other studies of budget participation.

Further development of the measurement instrument used in this study would also be fruitful, especially on the budget participation construct. This thesis has added four more items to be included in the Milani (1975) six items measurements of budget participation, by modifying the measurement used by Swieringa and Mancur (1975). This thesis focussed on the quality elements generated by the budget participation of budget preparers and budget users when they worked with their superior, other section or divisions head, subordinates and financial staff people instead of frequency of their involvement in the budget setting when they worked with their superior, other section or divisions head, subordinates and financial staff people. There are potential limitations associated with the measurement developed by Milani (1975) which, focussed on two dimensions of participation, that is involvement and influence that managers have in the budget setting continue to be used with little refinement. The element of quality in the budget setting by the involvement and interaction of managers with other participants and its consequences on the quality of the budget setting would further refine the participation construct. Certainly further research in this area is needed. Similar studies, using different populations and different variables would greatly be benefit.

## 8.4 Concluding Remarks

In conclusion, this study has fulfilled its goal and expectations initially set at the beginning of the study. Despite the limitations faced in this research, the work presented here makes a significant contribution in the field of budget participation and its effect on departmental performance via budget adequacy, organisational performance and role ambiguity. Most importantly this study was undertaken in public sector organisation in developing country Malaysia, which focussed on group level variables (budget preparer and budget user). Most previous empirical studies in budget participation were conducted in private sector organisations in developed countries and focussed on individual level variables.. This study provides empirical evidence crucially required to substantiate the anecdotal accounts on some of the proposed relationships which have different setting such as Malaysian local authorities with a bureaucratic administrative structure at group level variables. Finally, although empirical findings show that the relationship of budget participation and performance is equivocal, the researcher believed that the findings obtained in this study would be beneficial in providing and improve our understanding of the process by which budget participation influences departmental performance. The results suggest that budget adequacy, organisational commitment, and role ambiguity are important links in the process. In particular the result provides evidence that participation is not significantly related to departmental performance. Of more interest was the finding that budget adequacy, organisational commitment and role ambiguity are important intervening variables in the relationship between budget participation and departmental performance. The results are inconsistent with a view that budgetary participation is most helpful in decreasing role ambiguity and that decreased role ambiguity improves

departmental performance. The results also inconsistent with a view that budget participation is most helpful in increasing budget adequacy and organisational commitment and that increasing budget adequacy and organisational commitment improve departmental performance. The intervening variable model utilized in this study has the potential to offer added insight to models using contingency framework. The two models have the combined potential to explain a wide range of anomalies in past research and that each should be clearly viewed as a complement of the other. The finding of this study also reaffirmed what Campbell, 1985 had concluded about participative budgeting processes. According to him participative budgeting processes involve coordination and communication upward referred as “bottom-to-top” budget. As a result, attainments of goals is logically more likely, as a result of lower-level managers having an active role in establishing budgets and also due to their daily involvement in departmental activities, and thus intimately know best the abilities of their department and the necessary resource requirements.

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***APPENDIX A***  
***RESEARCH QUESTIONNAIRE***

***ASTON UNIVERSITY***

***BUDGET PARTICIPATION IN  
MALAYSIAN LOCAL AUTHORITIES***

***SOFIAN KOCHIK  
DOCTORAL CANDIDATE***

***AND***

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## BUDGET PARTICIPATION IN MALAYSIAN LOCAL AUTHORITIES.

### What is this survey?

This is a survey of your opinions regarding the extent of participation of budget preparers and budget users in the budget setting, its influence via role ambiguity, budget adequacy and organizational commitment on the departmental performance of Malaysian Local Authorities. The survey is very important part of my thesis for the doctoral program in Aston University, because it allows me to find out directly from budget preparers and budget users what they think about their involvement and influence in the budget setting, how clear they are with their role in implementing the budget, their perception on whether the budget resources are adequate in fulfilling their job requirements, their commitment to the organization and lastly their perception on the departmental performance of their organization..

Thank you for taking the time to complete the questionnaire.

Please complete the questionnaire. We want to know your personal views on the issues raised in the questionnaire. Please read each question carefully, but give your immediate response by ticking the box which best matches your personal view. The questionnaire will take about 15/20 minutes to complete.

### What is covered by this survey?

The questionnaire is divided into six sections.

**Section 1:** Background information

**Section 2:** Budget participation

**Section 3:** Role ambiguity

**Section 4:** Budget adequacy

**Section 5:** Organisational commitment

**Section 6:** Departmental performance

### Who will see my answer?

The information you give is **totally confidential**. Result will be reported in such a way that it will **not** be possible for individual to be identified.

### How should I respond?

For all questions, you are asked to mark one response, which best fits your views. Respond according to your first reaction. Do not spend too long on one question.

## SECTION 1: BACKGROUND INFORMATION

It is important that we know some of your details. This will enable us to compare the views of different group of staff.

Please tick the box that appropriate to you.

1. Category of local council

1.1 City Hall

☐

1.2 Town Council

☐

1.3 District Council

☐

2. Department

2.1 Administration and Finance

☐

2.2 Non-administration and Finance

☐

3. Age

3.1 21-30 years

☐

3.2 31-40 years

☐

3.3 41-50 years

☐

3.4 51 and above

☐

4. Gender

4.1 Male

☐

4.2 Female

☐

5. Qualification

5.1 SPM/MCE/STPM/HSE/Certificate

☐

5.2 Diploma

☐

5.3 Bachelor

☐

5.4 Master

☐

5.5 Doctorate

☐

6. Occupational Group

6.1 Professional

☐

6.2 Managerial Executive

☐

6.3 Engineering and Technical

☐

6.4 Administrative, Clerical

☐

7. Years of service

7.1  years  months

8. Length of time working in the organisation

8.1  years  months

9. Length of time in current post

9.1  years  months

10. Do you consider yourself mainly to be

involved in preparing budgets used by other

people/department

☐

using budget prepared by other people/department

☐

10.3 both

☐

## SECTION 2: BUDGET PARTICIPATION

11. Budget participation refers to the involvement and influence of budget preparers and budget users in the budget setting of the organisation. Where as budget setting is a process of determining the agreed amount of resources for the whole organisation which involve the process of budget preparation, budget screening and budget approval. The following questions ask you to describe your degree of involvement and influence in the budgeting process in your department starting from budget preparation process to budget approval. Please answer all questions by ticking the response that best describes the job you do most of the time.

	Very little						Very much
	1	2	3	4	5	6	7
11.1 The portion of the budget I am involved in setting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.2 The amount of reasoning provided to me by a superior when the budget is revised	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.3 The frequency of budget-related discussion superiors initiated by me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> with

- |       |  |                          |                          |                          |                          |                          |                          |     |
|-------|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-----|
| 11.4  | The amount of influence I feel I have on final budget.   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | the |
| 11.5  | The importance of my contribution to the budget.   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |     |
| 11.6  | The frequency of budget-related discussion initiated by superior when budgets are being set.         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |     |
| 11.7  | The quality of budget setting when working with my superior in preparing the budget.                 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |     |
| 11.8  | The quality of budget setting when working with my subordinate in preparing the budget.              | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |     |
| 11.9  | The quality of budget setting when working with other section/division heads in preparing the budget | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |     |
| 11.10 | The quality of budget setting when working with financial staff people in preparing the budget       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |     |

### SECTION 3: ROLE AMBIGUITY

12. Role ambiguity refers to the extent to which clear information is lacking regarding (1) the expectation associated with role, (2) methods of fulfilling role expectations, and/or (3) the consequences of role performance.

The following statements concern about your role in your organisation.

Please tick the relevant box to indicate how far you agree with each statement.

- |      |   |                          |                          |                          |                          |                          |                          |                          |
|------|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
|      |   | Strongly disagree        |                          |                          |                          |                          |                          | Strongly agree           |
|      |   | 1                        | 2                        | 3                        | 4                        | 5                        | 6                        | 7                        |
| 12.1 | I have clear planned goals and objectives for my job. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 12.2 | I always know what my responsibilities are.           | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 12.3 | I always know exactly what is expected of me.         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 12.4 | I feel certain about how much authority I have.       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 12.5 | I always know how to divide my time properly          | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

- 12.6 I am certain as to how my job is linked to other people's job ☐ ☐ ☐ ☐ ☐ ☐ ☐

## SECTION 4: BUDGET ADEQUACY

13. Budget adequacy refers to the perception of budget preparers or budget users that the allocated budget resources are sufficient in fulfilling their job requirements. To what extent do you agree with the following statements?

- |      |  | strongly<br>disagree     | 1 | 2                        | 3                        | 4                        | 5                        | 6                        | strongly<br>agree        | 7                        |
|------|--|--------------------------|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 13.1 | My budget does allow me to perform what is expected of me                | <input type="checkbox"/> |   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 13.2 | What is expected of me is achievable under my budget                     | <input type="checkbox"/> |   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 13.3 | I am confident that I can achieve what is expected of me under my budget | <input type="checkbox"/> |   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

## SECTION 5: ORGANISATIONAL COMMITMENT

- 14 Organisational commitment refers to (1) a strong belief in and acceptance of the organisational's goals and values; and (2) the willingness of managers to exert considerable effort on behalf of organisation. The following statements concern about your commitment to your organisation. For all the statements in this section, please tick the box that best matches your views about your commitment to your organisation.

- | Strongly<br>disagree | 1 | 2 | 3 | 4 | 5 | 6 | Strongly<br>agree | 7 |
|----------------------|---|---|---|---|---|---|-------------------|---|
|----------------------|---|---|---|---|---|---|-------------------|---|

- 14.1 I am willing to put in a great deal of effort ☐ ☐ ☐ ☐ ☐ ☐ ☐  
beyond that normally expected in order to help  
this organisation be successful
- 14.2 I talk up this organisation to my friends as a ☐ ☐ ☐ ☐ ☐ ☐ ☐  
great organisation to work for
- 14.3 I would accept almost any type of job ☐ ☐ ☐ ☐ ☐ ☐ ☐  
assignment in order to keep working for  
this organisation.
- 14.4 I found that my values and the organisation's ☐ ☐ ☐ ☐ ☐ ☐ ☐  
values are similar
- 14.5 I am proud to tell others that I am part of this ☐ ☐ ☐ ☐ ☐ ☐ ☐  
organisation
- 14.6 This organisation inspires the best in me in the ☐ ☐ ☐ ☐ ☐ ☐ ☐  
way of job performance
- 14.7 I am glad that I chose this organisation to work ☐ ☐ ☐ ☐ ☐ ☐ ☐  
for over others I was considering at the time I  
joined.
- 14.8 I care about the future of this organisation. ☐ ☐ ☐ ☐ ☐ ☐ ☐

## SECTION 6: DEPARTMENTAL PERFORMANCE

15. The questions below ask you to describe your departmental performance.  
Please answer all questions by ticking the box that best describe your departmental  
performance.

- |      |  | Far below<br>average     |                          |                          |                          |                          |                          | Far above<br>average     |
|------|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
|      |  | 1                        | 2                        | 3                        | 4                        | 5                        | 6                        | 7                        |
| 15.1 | The quantity or amount of work produced  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 15.2 | The quality or accuracy of work produced | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

15.3	The number of innovations or new ideas by the units	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.4	Attainment of unit production or service goal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.5	Efficiency of unit operations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.6	Morale of unit personnel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Thank you for completing this questionnaire.

***APPENDIX B***  
***RELIABILITY ANALYSIS***  
***AND***  
***INTERMATRIX CORRELATIONS***



## Reliability Analysis : Budget Participation

**Case Processing Summary**

		N	%
Cases	Valid	108	100.0
	Excluded <sup>a</sup>	0	.0
	Total	108	100.0

a. Listwise deletion based on all variables in the procedure.

**Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.913	.914	5

**Summary Item Statistics**

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	4.931	4.685	5.167	.481	1.103	.041	5
Item Variances	2.050	1.782	2.345	.563	1.316	.071	5

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
The frequency of budget-related discussion with superiors initiated by me	19.9722	23.560	.817	.706	.885
The amount of influence I feel I have on the final udget	19.8519	24.389	.745	.610	.901
The frequency of budget-related discussion initiated by superior when budgets are being set	19.7685	25.282	.777	.625	.894
The quality of budget setting when working with my superior in preparing the budget	19.5463	25.932	.757	.671	.898
The quality of budget setting when working with my subordinate in preparing the budget	19.4907	25.093	.803	.702	.889

### Reliability Analysis: Budget Adequacy

**Case Processing Summary**

		N	%
Cases	Valid	108	100.0
	Excluded <sup>a</sup>	0	.0
	Total	108	100.0

a. Listwise deletion based on all variables in the procedure.

**Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.895	.895	3

**Summary Item Statistics**

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	5.231	5.120	5.361	.241	1.047	.015	3
Item Variances	1.628	1.523	1.721	.198	1.130	.010	3

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
My budget does allow me to perform what is expected of me	10.4815	5.243	.855	.732	.794
What is expected of me is achievable under my budget	10.5741	5.723	.774	.633	.867
I am confident that I can achieve what is expected of me under my budget	10.3333	6.019	.753	.594	.883

## Reliability Analysis: Organisational Commitment

**Case Processing Summary**

		N	%
Cases	Valid	108	100.0
	Excluded <sup>a</sup>	0	.0
	Total	108	100.0

a. Listwise deletion based on all variables in the procedure.

**Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.916	.917	8

**Summary Item Statistics**

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	5.637	5.296	5.963	.667	1.126	.048	8
Item Variances	1.500	1.008	1.916	.908	1.901	.099	8

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
I am willing to put in a great deal of effort beyond that normally expected in order to help this organisation be successful	39.1296	51.834	.533	.366	.919
I talk up this organisation to my friends as a great organisation to work for	39.5926	46.524	.812	.689	.899
I would accept almost any type of job assignment in order to keep working in this organisation	39.4907	47.262	.666	.511	.911
I found that my values and the organisation's values are similar	39.7963	44.575	.776	.690	.901
I am proud to tell others that I am part of this organisation	39.3241	46.501	.865	.773	.895
This organisation inspires the best in me in the way of job performance	39.5093	45.654	.786	.701	.900
I am glad that I chose this organisation to work for over others I was considering at the time I joined	39.5833	44.451	.769	.647	.902
I care about the future of this organisation	39.2222	48.511	.614	.486	.915

## Reliability Analysis: Role Ambiguaty

**Case Processing Summary**

		N	%
Cases	Valid	108	100.0
	Excluded <sup>a</sup>	0	.0
	Total	108	100.0

a. Listwise deletion based on all variables in the procedure.

**Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.946	.947	6

**Summary Item Statistics**

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	2.253	2.019	2.426	.407	1.202	.019	6
Item Variances	1.340	1.159	1.455	.296	1.256	.015	6

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
I have clear planned goals and objectives for my job	11.2407	26.521	.809	.719	.940
I always know what my responsibilities are	11.5000	27.411	.839	.755	.936
I always know exactly what is expected of me	11.2963	26.809	.865	.772	.933
I feel certain about how much authority I have	11.0926	26.589	.814	.699	.939
I always know how to divide my time properly	11.1759	26.333	.883	.803	.931
I am certain as to how my job is linked to other people's job	11.2870	26.487	.814	.702	.939

## Reliability Analysis: Departmental Performance

**Case Processing Summary**

		N	%
Cases	Valid	108	100.0
	Excluded <sup>a</sup>	0	.0
	Total	108	100.0

a. Listwise deletion based on all variables in the procedure.

**Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.895	.898	6

**Summary Item Statistics**

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	5.247	5.000	5.380	.380	1.076	.017	6
Item Variances	1.068	.853	1.423	.570	1.668	.040	6



**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
The quatity or amount of work produced	26.1019	18.522	.634	.597	.889
The quality or accuracy of work produced	26.1667	18.252	.773	.681	.870
The number of innovations or new ideas y the units	26.4815	18.289	.663	.548	.885
Attainment of unit production or service goal	26.2130	17.851	.800	.704	.865
Efficiency of unit operations	26.2130	17.253	.789	.755	.865
Morale of unit personnel	26.2315	17.058	.682	.678	.885

### Correlations

		departmental performance	budget participation	budget adequacy	organisational commitment	role ambiguity
departmental performance	Pearson Correlation	1	.360(**)	.541(**)	.607(**)	-.447(**)
	Sig. (2-tailed)	.	.000	.000	.000	.000
	N	108	108	108	108	108
budget participation	Pearson Correlation	.360(**)	1	.372(**)	.439(**)	-.348(**)
	Sig. (2-tailed)	.000	.	.000	.000	.000
	N	108	108	108	108	108
budget adequacy	Pearson Correlation	.541(**)	.372(**)	1	.490(**)	-.568(**)
	Sig. (2-tailed)	.000	.000	.	.000	.000
	N	108	108	108	108	108
organisational commitment	Pearson Correlation	.607(**)	.439(**)	.490(**)	1	-.407(**)
	Sig. (2-tailed)	.000	.000	.000	.	.000
	N	108	108	108	108	108
role ambiguity	Pearson Correlation	-.447(**)	-.348(**)	-.568(**)	-.407(**)	1
	Sig. (2-tailed)	.000	.000	.000	.000	.
	N	108	108	108	108	108

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