Task Uncertainty, Participative Budget and Performance:
The Case of KIC Group of Companies

Norsaadah binti Khalil

Master of Business Administration
The University of Malaya
Malaysia
2009

Submitted to the Graduate School of Business
Faculty of Business and Accountancy
University of Malaya, in partial fulfillment
of the requirements for the Degree of
Master of Business Administration

July 2009
ABSTRACT

This paper reports the result of field study examining the interaction between participative budget as a potential moderator between task uncertainty and job performance and job satisfaction in one organization. This paper draws on combination replicated study by Lopez, M.A, Johan, W.W.S & McNair, F.M. (2008), Brownell and Hirst (1987), Hirst (1986) and Brownell (1982a). Samples were taken from one group of oil and gas companies which is KIC Group of Companies located at Ampang, Kuala Lumpur. The main contribution of the study is the finding that partially supports the moderating effect of participative budget involvement on the relationship between task uncertainty and job performance and job satisfaction from the proposed hypotheses. In addition, the results suggest that the significant moderating effect of participative budget on the relationship between task uncertainty and job performance recognizes the importance of the level of opportunity given either high or low employee involvement in the sense of performance measures but not in job satisfaction manner.
ACKNOWLEDGEMENTS

I wish to gratefully acknowledge the helpful contributions of several individuals. Without the help of these individuals, this dissertation project would not have been possible. First, my direct supervisor Prof. Madya Dr. Ruzita Jusoh from Department of Management Accounting & Taxation, Faculty of Business & Accountancy University of Malaya. Her insight and advice were important to undergo and complete this project and her valuable comments and suggestions greatly enhanced the quality of this paper.

Second, I would like to express my thanks to the KIC Group of Companies employees on participating to assist in this project. Without the vigorous support of these individuals, the project could have never become a reality.

And finally, I am especially grateful to my beloved husband, Nurul Al Bakri bin Mohamad, my inspiration daughter Nurul Yasarah and new born son Ifwat Al Mu’izz, my greatest mother Siti Reepiah binti Ratiman, loving mother and father in law Azmah Zainal Abidin and Mohamad and all my family members and friends for their love and support and for giving me the educational opportunity. In addition, I would like to express appreciation to all the related parties that are involved directly or indirectly from the beginning of the project until its completion.
# TABLE OF CONTENTS

## CHAPTER 1 : INTRODUCTION

1.1 Background of the Research Project 1 - 2  
1.2 Problem Statement 3 - 6  
1.3 Objectives of the Study 6 - 7  
1.4 Significance of the Study 7  
1.5 Scope of the Study 8 - 9  
1.6 Organization of the Research Report 9 - 10

## CHAPTER 2 : LITERATURE REVIEW

2.1 Introduction 11  
2.2 Variables and General Term Definition 12  
  2.2.1 Task Uncertainty 12 - 13  
  2.2.2 Participation Vs Participative Budgeting 13  
  2.2.3 Job Performance 14  
  2.2.4 Job Satisfaction 14 - 18  
  2.2.5 Managerial Level and Middle Management 18 - 20  
2.3 Literature Review on Earlier General Research Finding 21 - 34  
2.4 Literature Review on Relationship of Each Variables 35  
  2.4.1 Task Uncertainty, Participative Budget and Job Performance 35 - 41  
  2.4.2 Budget Participation and Performance 41 - 45  
  2.4.3 Budget Participation and Job Satisfaction 45 - 47  
2.5 Research Framework 48 - 49  
2.6 Study Approach 49  
2.7 Development of Hypotheses 50 - 51  
2.8 Summary 51

## CHAPTER 3 : RESEARCH METHODOLOGY

3.1 Introduction 52  
3.2 Data Collection Procedure 52  
  3.2.1 Primary Data 52  
3.3 Sampling Design 53  
3.4 Research Instruments 53  
  3.4.1 Questionnaire Measure 53 - 56  
3.5 Data Analysis Techniques 57  
  3.5.1 Procedure 1 (Preliminary Analysis) 57  
  3.5.2 Procedure 2 (Research Analysis) 57 - 59  
3.6 Summary 60
CHAPTER 4 : RESEARCH RESULTS

4.1 Introduction 61
4.2 Results of Social and Demographic Respondent 61 - 64
4.3 Results of Preliminary Analysis 65
   4.3.1 Descriptive Statistics 65 - 66
4.4 Tests of Hypotheses 67 - 74
4.5 Summary 74

CHAPTER 5 : CONCLUSION AND RECOMMENDATION

5.1 Introduction 75
5.2 Discussion on the Findings 75 - 83
5.3 Implications of the Study 84 - 86
5.4 Limitations of the Study 87 - 88
5.5 Suggestion for Additional Research 89 - 90
5.6 Conclusion 91

REFERENCES 92 - 95

APPENDIX A 96-103
APPENDIX B 104
APPENDIX C 105
APPENDIX D 106
APPENDIX E 107
# LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 1</td>
<td>Framework of Research Design</td>
<td>48</td>
</tr>
<tr>
<td>Figure 2</td>
<td>Steps for Data Analysis Technique</td>
<td>59</td>
</tr>
<tr>
<td>Figure 3</td>
<td>The Impact of Participative Budget on the Relationship between Task Uncertainty and Job Performance</td>
<td>78</td>
</tr>
<tr>
<td>Figure 4</td>
<td>The Impact of Participative Budget on the Relationship between Task Uncertainty and Job Satisfaction</td>
<td>79</td>
</tr>
<tr>
<td>Figure 5</td>
<td>Histogram After Transformation from Normality Test</td>
<td>104</td>
</tr>
<tr>
<td>Figure 6</td>
<td>Normal Probability Plot After Transformation from Normality Test</td>
<td>105</td>
</tr>
<tr>
<td>Figure 7</td>
<td>Box Plot to Test Outliers for Each Variables After Transformation of Normality Test</td>
<td>106</td>
</tr>
</tbody>
</table>
**LIST OF TABLES**

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 1</td>
<td>Results of Social and Demographic Characteristics (N = 195)</td>
<td>62 - 63</td>
</tr>
<tr>
<td>Table 2</td>
<td>Descriptive Statistics</td>
<td>65</td>
</tr>
<tr>
<td>Table 3</td>
<td>Results of bivariate correlation of each variables</td>
<td>67</td>
</tr>
<tr>
<td>Table 4</td>
<td>KMO and Bartlett's Test</td>
<td>69</td>
</tr>
<tr>
<td>Table 5</td>
<td>Total Variance Explained for Task Uncertainty (TU)</td>
<td>69</td>
</tr>
<tr>
<td>Table 6</td>
<td>Results of Linear Regression Analyses : Task Uncertainty,</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td>Job Performance and Job Satisfaction</td>
<td></td>
</tr>
<tr>
<td>Table 7</td>
<td>Results of Linear Regression Analyses : Task Uncertainty and</td>
<td>71</td>
</tr>
<tr>
<td></td>
<td>Participative Budget</td>
<td></td>
</tr>
<tr>
<td>Table 8</td>
<td>Results of Regression Analyses with Participative Budget as</td>
<td>72</td>
</tr>
<tr>
<td></td>
<td>Moderator</td>
<td></td>
</tr>
<tr>
<td>Table 9</td>
<td>Results of Linear Regression Analyses : Participative Budget and</td>
<td>73</td>
</tr>
<tr>
<td></td>
<td>Job Performance and Job Satisfaction</td>
<td></td>
</tr>
<tr>
<td>Table 10</td>
<td>Results of Reliability Test</td>
<td>107</td>
</tr>
</tbody>
</table>
Chapter 1

Introduction

1.1 Background of The Research Project

Participation in the budgeting process has been of great interest to management accounting researchers because they want to define the link between participation in the budget-setting process and employee or organizational performance in corporate budgeting system (Merchant, 1981). The budgetary process can be viewed as a managerial accounting system. “A fundamental purpose of managerial accounting is to enhance firm value by ensuring the effective and efficient use of scarce resources” (Sprinkle, 2003). Furthermore, a managerial accounting system (e.g., budgetary process) has the potential and capability (1) to provide information necessary for planning and decision-making and (2) to motivate individuals’ performance. The budgetary process, like other managerial accounting systems, uses management accounting information to make better-informed decisions.

Prior research examining the relation between budgetary participation and job performance and job satisfaction explicitly or implicitly posits budgetary participation and intervening variables such as role ambiguity, motivation and job-relevant information as independent variables whilst job performance and satisfaction as the dependent variable.

Lindquist (1995) and Fisher et al. (2000) found that a failure by companies to encourage subordinates to participate in budgetary activities had significant detrimental effects on the
performances of those employees. However, there is no simple relationship between budgetary participation, job satisfaction, and a propensity to create budgetary slack (Shields et al., 2000; Mia, 1989; Brownell, 1983). It is apparent that intervening factors play a moderating role on the bivariate relationship between the independent and dependent variables (Shields and Shields, 1998).

In recent study conducted by Clinton and Hunton (2001), degree of participative congruence is a new measure of participation designed to determine the amount of congruence between the perceived need for participation and the degree of participation allowed. Most of the positive and negative impact on the performance and job satisfaction can be influenced throughout the participative budget context either in direct relationship or as moderator. Therefore, this study explores the role of participative budget moderates on the relationship between task uncertainty and job performance and job satisfaction among managerial and middle management employee level.

Using linear regression and hierarchical regression between each variable, the findings of this study show that individual context of task uncertainty and interaction of participative budget as moderator with the level of task uncertainty and performance expected to support the model on the research framework. The results of the study may useful for the managerial of the KIC Group of Companies and future researcher. The study provides suggestions how researchers could overcome problems associated with causal directions in future budget participation studies that link self-reported individual characteristics performance and end up by job satisfaction in managerial level and middle management perspective.
1.2 Problem Statement

Prior research results indicate that budget participation has a positive effect on managerial satisfaction in the United States (Milani 1975; Collins 1978; Hofstede 1967; Cherrington and Cherrington 1973; Swieringa and Moncur 1975; Brownell 1982b; Chenhall 1986). However, the relationship between participative budgeting and managerial performance is less clear. While some research has indicated a strong positive relationship (Argyris 1952; Brownell 1982b; Hofstede 1967; Kenis 1979; Merchant 1981; Brownell and McInnes 1986), other findings suggest a weak or negative relationship (Milani 1975; Cherrington and Cherrington 1973; Bryan and Locke 1967; Locke and Schweiger 1979).

Various researchers have suggested that the relationship between participative budgeting and performance might be contingent upon the presence of other moderating factors. The moderating factors that have been tested can be grouped into (1) macro level variables, such as organizational structure and technology, and (2) micro level variables, such as leadership style and individual personalities (Brownell 1982a).

In the literature review, few studies attempted to ascertain the additive or interactive effects of these variables combinations. For example, Brownell & Hirst, 1986; Hirst,1987; Brownell & Dunk, 1991; and Chong & Johnson, 2007. Besides, very few studies, manipulate the task uncertainties with participative budget and also participative budget with job performance and job satisfaction. This direct relationship limits the ability to make causal inferences about these relationships. For example, the most current studies related to this were Chong & Chong (2002), Wentzel (2002) and Chong et al. (2005).
A third issue is that very few in current studies have actually looked at the participative budget variables as moderator. What is needed is research that shows the causes of participative budget interaction and task uncertainty and its consequences.

While there has been much prior research has focused into the effect of budget participation on performance and job satisfaction (e.g., Brownell, 1981, 1982a,b,c, 1983; Chow, Shields, & Chan, 1991; Chow, Kato, & Shields, 1994; Chow, Kato, & Merchant, 1996; Chow, Shields, & Wu, 1999; however, there was no replicate study in the same specific research has been conducted in Malaysia. Generally, there have been numerous budget participation studies employing US samples (e.g., Argyris 1952; Brownell, 1981, 1982a,b,c, 1983; Kren, 1992) and numerous budget participation studies employing Asian samples (e.g., Birnberg & Snodgrass, 1988; Chow et al., 1991, 1994, 1996, 1999; Harrison, 1992; Shields, Deng & Kata, 2000; Tsui, 2001).

The results are inconsistent in explaining the linkages between participative budgeting, task uncertainty and outcome variables of job satisfaction and job performance. These inconsistent results may be due to different experimental settings, which have used diverse sample groups, research settings (experimental or survey), and variables of interest, or due to common omitted variables; therefore, research has continuously attempted to provide consistency with respect to this research question.

Many studies have limited their investigations to only one component (an independent variable) of a budgeting system. In contrast, few studies have focused on multiple components. Because management accounting and the design of budgeting systems usually
have more than one component, it is important to understand how their various interrelationships affect the overall budgeting system. However, due to the need for theoretical and predictive clarity and an adequate sample to test predictions, there is a practical limitation to the number of components that can be included in any one study.

Thus, many components (for example, budgetary participation, task difficulty, task clarity, job characteristics, and job satisfaction) can have multiple effects and most of earlier studies did not investigate the precise relationship among them. In particular, they did not distinguish between types of variables with a dependent variable being directly affected by independent variables, an intervening variable being caused by an independent variable (and causing a dependent variable), and a moderating variable affecting the relationship between independent and dependent variables (but not having a bivariate relationship with either dependent or independent variables).

Although prior research has focused mostly on consequence variables (Shields and Shields, 1998), and a consequence variable that has not been fully investigated in a budgeting context is hierarchical management levels. Indeed, Hansen et al. (2003) mention that most of the research in management controls has focused on upper management levels and has ignored middle and lower management levels.

Even there’s a replicate survey questionnaire has been used for this extend study from Lopez M.A., Johan, W.W.S and McNair, F.M. (2008), and Abernethy, M.A and Brownell (1997), the sample population selected made a difference outcome of the result. The sample selected in
this study was more specific in actual work life in one organization from various groups of middle and upper level employees.

1.3 Objective of the Study

Based on literature review from various academic medium such as academic journal and books, extensive research has been performed in the area of direct relationship between participative budget and job performance and job satisfaction as well as interaction of various variables as a moderator impact. Focusing on the interaction between participative budget and task uncertainty with job performance and job satisfaction in more specific target sample, several unanswered questions may conflicting at the beginning of research study was developed specifically for a case study to KIC Group of Companies.

The question whether (1) What is the direct influence between task uncertainty and job performance and job satisfaction? (2) How task uncertainty has impact on participative budget? (3) How participative budget has impact on job performance and job satisfaction? (4) What is the relationship between participative budget and job performance and job satisfaction? Due to this conflict, this paper aims to fulfill the following objectives to be hands on to management of KIC Group of Companies specifically for their employee valuation on budget system as well as for valuable research for other party references in future:

1) To examine the influence of task uncertainty with job performance and job satisfaction.

2) To examine the influence of task uncertainty on participative budget.
3) Attempt to support evidence of participative budget exercise with the restriction of task uncertainty might affect the job performance and job satisfaction.

4) To find the relationship between participative budget with job performance and job satisfaction.

1.4 Significance of the Study

In order to attempt the revolution and better findings, the significance of this study has been conducted whereby group of managerial and middle management level in different business scope under one organization has been tested as a scope of the study.

The motivation behind the study reported here is to repeat, in a different context by using different variables and scope of target sample of respondent. A reasonably one large sample (n= 208) for this body of literature was used, consisting managerial and middle management level of employees at KIC Group of Companies.

The findings on this paper are valuable for those who seek a better understanding on the impact of participative budget in a different view of variables linkages. Thus, this study also very important for management of KIC Group of Companies for their reference in formal written and actual case study in future management improvement.
1.5 Scope of the Study

This study highlights the importance of characteristic of task uncertainty to the participative budgeting as a moderator interaction towards performance and job satisfaction on Managerial and Middle Management perspectives at KIC Group of Companies.

Generally, KIC Group of Companies is one of the largest trading oil and gas companies in Malaysia. This company was established in January year 2003 and formerly known as KIC Oil & Gas Ltd. This company has been registered under LOFSA in year 2004 in order to start the trading oil business in Malaysia. After 5 years operations, the company expands their business operations with 10 active subsidiaries companies with various business operational field and focus as follows:

1) KIC Resources Sdn Bhd (KICRSB) – Focus on management on the company
2) Masoil Trade Inc – Focus on local and international trading oil business
3) Masoil Global Trading (S) Pte Ltd – Focus on supply and exploration of the oil business with trading partner in Singapore region
4) Asia Petroleum Hub – Focus on future petroleum hub project located at Tanjung Bin at Wilayah Iskandar, Johor.
5) Petlog Sdn Bhd – Focus on logistic provider for subsidiaries of KIC Group of Companies and general trading business locally.
6) QIPMC – Focus on quality and procedural advisory for the group.
7) ZAQ Construction Sdn Bhd – Focus on construction work at Asia Petroleum Hub’s project.
8) KIC Oil Terminal Sdn Bhd – Focus on landed storage terminal at Westport, Port Klang (On-Shore Terminal).
9) KIF Sdn Bhd – Focus on floating storage terminal at Tanjung Pelepas.
10) Masoil Global Trading (M) Sdn Bhd – Focus on local bunkering business.

Total number of employees to date are 252 employees which has been appointed and allocated in different subsidiaries companies whereas the KIC Resources Sdn Bhd (KICRSB) holding the large number of employees (180 employees).

This company has been selected as a case study to this research due to the demand from the management of the companies as well as the contribution from the author toward her employer and apart of requirement of completion the Master of Business Administration degree from University of Malaya.

1.6 Organization of the Research Report

This paper has been organized in a very structured oriented. Chapter 1 review introduction of the research study for overview ideas of the study conducted towards the objective to be achieved.

The remainder of the paper is organized as follows. Chapter 2 reviews attribution theory and develops a theoretical framework from specifically Lopez, M.A., Johan, W.W.S., McNair, F.M. (2008) and Abernethy, M.A. and Brownell (1997) and supported by various literature review in management accounting, psychology and organizational behavior to extent with the framework of the study on effect of individual context with participative budget and several other variables. Chapter 3 presents the methodology used in this study. Results are presented in Chapter 4. Finally, a discussion, implication, suggestion for future research and conclusions
are presented in the final chapter (Chapter 5) in this study whereby provides future researchers with methodological directions to deal with problems associated with causal directions when survey methodology is used for different further enhancement of the research.
Chapter 2

Literature Review

2.1 Introduction

Previous section provides the background problems and objectives of this paper. The present section is divided into five parts. The first parts discuss each of the main variables meaning from various point of view. It is followed by a brief about previous studied on participative budget are presented. Subsequently, it is followed by literature review on the linkages between independent variables of task uncertainty with participative budget. Further emphasize on development of hypotheses later to engage task uncertainty with budget participation and performance after research framework and study approach parts. Hence, the author also thrash out the relationship between moderator of participative budget with the outcomes of two dependent variables of job performance, and job satisfaction also covered subsequently in this chapter.
2.2 Variables and General Term Definition

Before proceeding further, it is necessary to first define the variables and general term which has been focused as a subject on this study as follows:

2.2.1 Task Uncertainty

Task uncertainty can be described as the difference between the information required to perform a specific task and the amount of information possessed by the decision maker (Leif, 2006). In a problem-solving process, a choice is made about what problems to attend to and what action to take and uncertainty is attached to most choices. One type of uncertainty concerns the situation itself raising the question of whether it presents a problem at all, and if so, how to define the problem. Another type of uncertainty relates to the course of action required and the various possible outcomes. A third type of uncertainty concerns the value of the possible actions or outcomes. The perceived uncertainty diminishes as more knowledge is acquired.

Earlier researcher, Galbraith (1977) defined the task uncertainty as the difference between the amount of information necessary to perform a task and the amount of information already possessed. Task exceptions and task analyzability is a conceptualized of task uncertainty. Task exceptions and task difficulty is the two major characteristic that have received attention in the accounting literature. The frequency of unexpected and novel events that occur in the conversion process defined the task exceptions while task analyzability refers to the extent to which work can be reduced to programmable mechanical steps (Brownell and Dunk, 1991). Earlier research by Perrow’s model highlighted two key dimensions of the degree of variety in the tasks encountered (task exceptions) and routineness of well-established techniques for
performing tasks (tasks analyzability). The significant interaction with budget emphasis and task uncertainty and task difficulty on performance has been examined by the study from Lau, Low and Enggleton (1995) in further emphasis the study by Brownell and Dunk (1991).

2.2.2 Participation Vs Participative Budgeting

There are different definition between participation and participative budgeting. Brownell (1982a) defines participation as “An organizational process whereby individuals are involved in, and have influence on, decisions that have direct effects on those individuals”. With participation defined, Brownell (1982a) defines participative budgeting as “A process in which individuals, whose performance will be evaluated, and possibly rewarded, on the basis of their achievement of budgeted targets, are involved in, and have influence on, the setting of these targets”.

Specifically, a process in which individuals whose performance will be evaluated and possibly rewarded on the basis of their achievement of budgeted targets are involved in and have influence on, the setting these targets defined the budgetary participation (Greenberg and Nouri, 1984).

In recent understanding point of view related to budget participation by Poon, et.al. (2001) and Shields and Shields (1998), also sharing the same meaning on definition of budget participation as the extent to which relevant staff is involved in, and has influence on the determination of his or her own budget.
2.2.3 Job Performance

Job performance was defined by researchers as fulfilling the assigned roles and responsibilities effectively (Scotter & Motowidlo 1996, Bishop 1998). Performance (PER) is a self reported measure based on an eight dimension scale developed by Mahoney, Jerdee, and Carroll (1963). The Mahoney et al. scale measures eight performance dimensions: planning, investigating, coordinating, evaluating, supervising, staffing, negotiating, and representing. PER is the sum of these eight individual measures. The appropriateness of using self reported measures of performance and the reliability of the Mahoney et al. scale are well documented (Heneman, 1974). This scale has been widely used in participative budgeting research (e.g., Brownell, 1982b, 1983; Brownell & Hirst, 1986; Brownell & McInnes, 1986; Frucot & Shearon, 1991; Leach-López et al., 2007; Tsui, 2001).

2.2.4 Job Satisfaction

Earlier researchers, Vroom (1962) defined job satisfaction as the positive orientation of an individual towards the work role which he is presently occupying” whilst Applewhite (1965) described job satisfaction as “the sum total measure of the people met, the opportunities, the prestige and the money and security on the job”.

The most widely accepted definition of job satisfaction was proposed by Edwin Locke (1976). Job satisfaction results from the appraisal of one’s job as attaining or allowing the attainment of one’s important job values, providing these values are congruent with or help to fulfill one’s basic needs. Locke (1976) also pointed out that it is a common practice for people writing on
this topic to use “operational definitions” of job satisfaction that is “job satisfaction is whatever my measure of it measures”. A pleasurable or positive emotional state resulting from the appraisal of one’s job or job experience (Locke, 1976) or the achievement of one’s job values in the work situation results in the pleasurable emotional state known as job satisfaction (Locke and Henne, 1986) is understood as being work satisfaction.

The variety definitions of job satisfaction have become a problem in the study of it. Many authors use the terms “job satisfaction”, “job attitudes”, “morale” and “organizational climate” interchangeably (Harpaz, 1983). Locke (1976) found that in order for researchers to understand job attitudes; they need to understand job dimensions which are complex and interrelated in nature. He mentions the common aspects of job satisfaction such as work, pay, promotions, recognition, benefits, working conditions, supervision, co-workers, company and management. Later research has shown that these different aspects can be arranged according to two dimensions, an intrinsic and extrinsic one (Weiss, Dawis, England & Lofquist, 1967). Extrinsic satisfaction refers to satisfaction with aspects that have little to do with the job tasks or content of the work itself, such as pay, working conditions and co-workers. Intrinsic satisfaction refers to the job tasks themselves (e.g. variety skill utilization, autonomy).

When people believe their jobs enable them to attain their values, either directly from performing the job or indirectly from the pay they receive, they develop a positive attitude towards the job and the organization the attitude objects. Rare in the case, however, job completely allows them to achieve all of their values. Nevertheless, the more that their jobs allows for value attainment, they actually acquiring what it is that they create value and actual experience of attaining it on their job.
Depending on the match between expectations needs and motives on the one hand, and the work situation to the other, a person builds up a certain degree of satisfaction or dissatisfaction with her or his job. Moreover, depending on subsequent problem solving behavior (coping), six forms of work satisfaction or dissatisfaction can be developed (Locke, 1976).

**Stabilized work satisfaction** : A person feels satisfied with the job, but is motivated to maintain the level of aspiration and the pleasurable state of satisfaction. An increase of the level of aspiration is concentrated on other areas of life because of little work incentives.

**Progressive work satisfaction** : A person feels satisfied with the work. By increasing the level of aspiration a person tries to achieve an even higher level of satisfaction. Therefore, a ‘creative dissatisfaction’ with respect to some aspects of the work situation can be an integral part of this form.

**Resigned work satisfaction** : A person feels indistinct work dissatisfaction and decreases the level of aspiration in order to adapt to negative aspects of the work situation on lower level. By decreasing the level of aspiration a person is able to achieve positive state of satisfaction again.

**Constructive work dissatisfaction** : A person feels dissatisfied with the job. While maintaining the level of aspiration a person tries to master the situation by problem solving attempts on the basis of sufficient frustration tolerance. Moreover, available action concepts supply goal orientation and motivation for altering the work situation.

**Pseudo-work satisfaction** : A person feels dissatisfied with the job. Facing unsolvable problems or frustrating conditions at work and maintaining one’s level of aspiration, for
example because of specific achievement motivation or because of strong social norms, a distorted perception or a denial of the negative work situation may result in pseudo-work satisfaction.

*Fixated work dissatisfaction*: A person feels dissatisfied with the job. Maintaining the level of aspiration, a person does not try to master the situation by problem-solving attempts. Frustration tolerance makes defense mechanism necessary for efforts at problem solving seem beyond any possibility. Therefore, the individual gets stuck with its problems and pathological developments cannot be excluded.

Moreover, to measure level of job satisfaction, Murthard and Miller (1986) has develop the Job Satisfaction Inventory to be used in evaluating rehabilitation counseling. The Job Satisfaction Inventory was divided into the following eight areas: (1) physical and mental exertion, (2) relations with associates, (3) relations with employer, (4) security, advancement and finances, (5) interest in, liking for, and emotional involvement in the job, (6) job information, training and status, (7) physical surroundings and work conditions, and (8) future, goals and progress.

In 90s era, some researchers are sharing same meaning of job satisfaction. Cherrington (1994) defines job satisfaction in a simple understanding which is job satisfaction concerns on how much employees like their jobs. Job satisfaction is conceived as the response of an individual to the conditions of work as these perceptions are shaped by different interpretations of objective differences in work conditions. From this multidimensional view, the job setting is viewed as composed of different constituent parts with which an individual may be either satisfied or dissatisfied. Research has shown that employees develop attitudes toward such job
facets as pay, promotion opportunities, benefits, co-workers, supervision, company policies and the work itself (Taber & Alliger, 1995). Fresch and Sward (1998) stated that in contrast, job satisfaction is a concept that the mental and spiritual enjoyment that one gains from his or her job satisfaction of needs, interests and hopes.

In present studies, job satisfaction is the collection of feelings and beliefs that people have about their current jobs (George & Jones, 2000). People’s levels or degrees of job satisfaction can range from extreme satisfaction to extreme dissatisfaction.

To summarize, job satisfaction is a reflection of the gap between what we want from a job (values) and what we experience. The greater the gap, the greater the dissatisfaction, (Harpaz, 1983).

### 2.2.5 Managerial Level and Middle Management

Generally, managerial level formerly known as Upper Level Management and Middle Management known as Executive Level in organization. The importance of studying hierarchical management levels is emphasized by studies that found that position in the hierarchy is associated with different perceptions or views of the organization, which, in turn, affect acceptable behavior, norms, and attitudes(Carlopio and Gardner, 1995; Nelson et al., 1995; Vancouver and Schmitt, 1991). Despite the advocated changes in organizational structure, and the trend in flattening hierarchies, the prevailing organizational structure remains vertical with power still largely concentrated at the top (Ames, 1995).
Hierarchical levels have been positively associated with favorable attitudes toward the organization, performance appraisals, and innovation, and with levels of motivation, personal involvement and identification with one's work (Kossek, 1989). Lower level managers experience greater differences between desired and actual authority than upper-level managers (Tannenbaum, 1992). In other words, top-level managers are more likely to reflect, and have internalized, the goals and values of their organization, when compared to lower level managers and non-managerial employees.

Taken collectively, the literature suggests that managers at the same organizational level share perceptions and attitudes that differ from those of managers at different levels. Because budgeting is an important component of an organization's information and control system, the impact of budgeting on managers' attitudes and performance is expected to differ with other organizational level.

Their subjects perceived their participation in the budget as resulting in no gains in power, information, resources, or recognition, viewing their role mainly as information providers in both participative and non-participative budget settings. Participation in the budgeting process actually resulted in negative attitudes, decreased satisfaction, added stress, and in feelings of helplessness (lack of control). The study illustrates that even within a participative budgeting context the parameters subject to budgeting, and the level of participation at different management levels, are still predominantly decided at the top of the organization. Consequently, participative budgeting might have a different impact on lower level managers than on higher level managers.
Feelings of lack of control in work situations were more prevalent at lower organizational levels (Semler, 1989). Higher level managers can exercise more control over their work situation, because of their position in the hierarchy, than lower level managers.

Thus, based on prior studies, this study would expect budgetary participation to have a positive impact on both job satisfaction and self-reported performance. In addition, the survey would expect managerial level to have a direct positive impact on satisfaction and self-reported (perceived) performance. Indeed, prior studies consistently indicate that the higher the managerial level, the higher the positive effect on attitudes.
2.3 Literature Review on Earlier General Research Finding

There is a general consensus in the prior research related to participative budgeting. 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 plans, 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.

Similar to Stedry (1960) and Bass and Leavitt (1963), Bryan and Locke (1967) investigated the relationship between participative budget with set goals and performance. Specifically, they studied individuals with low motivation versus those with high motivation in a laboratory experiment. Subjects were given tasks and told to “do their best” or were assigned a specific goal. The results of the study indicate that assigning goals to subjects with low motivation increases performance. On the other hand, the results indicate that assigning goals to highly motivated subjects has a negative effect on performance.

In a seminal work, Hopwood (1972) empirically examined the effects of accounting data used in performance evaluation on cost center manager attitudes. Hopwood hypothesized that cost center managers who perceived that they were evaluated based on a Budget Constrained style of performance evaluation rather than a Profit Conscious or a Non-accounting style were (1)
more likely to experience job related tension, (2) more likely to report having poor relations with their supervisor, (3) more likely to report having poor relations with their peers, and (4) more likely to falsify accounting data and make dysfunctional decisions. A Budget Constrained style of performance evaluation was concerned only with meeting the budget on a short-term basis, not costs. In other words, a budget constrained style has a greater impact on the level of participative budget towards job performance evaluation. Whereas, a profit conscious style of performance evaluation was concerned with minimizing long-run costs, but not meeting the budget or else no such greater impact whether the level of participative in budgeting process is necessary or not.

A non accounting style of performance evaluation was not concerned with meeting the budget or costs. Using questionnaire data obtained from 167 cost center managers of a manufacturing division of a large Chicago-based company, Hopwood (1972) was able to test the hypotheses. The results of the study indicate that a budget constrained style of evaluation, which emphasizes budget related performance, is significantly positively associated with job related tension as compared to a Profit Conscious or non accounting style of performance evaluation. While corporations may implement a budget constrained style of evaluation to improve performance, performance will likely deteriorate due to the increased job related tension. The results also indicate that a Budget Constrained style of evaluation is associated with less favorable relations with both supervisors and peers as compared to a profit conscious or non accounting style of evaluation. These results suggest that managers tried to pass the blame for unfavorable budget variances onto supervisors or peers. At the end, the main contribution of Hopwood’s study was its generation of an area of accounting research focused on the issues of participation and employee performance.
Extensive research has been conducted in the area of participative budgeting (Milani 1975, Otley, 1978, Kenis 1979, Merchant 1981, and Brownell 1982a). The results are inconsistent in explaining linkages between participative budgeting and outcome variables such as job satisfaction and job performance. Before an attempt can be made to reconcile these mixed results and provide consistency, a review of some of the seminal works in the participative budgeting literature will be conducted, beginning with the early work of Stedry (1960). Stedry (1960) investigated the relationship between the types of goals represented by a budget employed in management practice and individual performance. Specifically, Stedry studied the differences in performance across “implicit,” “medium,” “high,” and “low” budget conditions and concludes that participation in setting budget goals is negatively related to performance.

Latham and Yukl (1975) studied the effects of assigned versus participative set goals on performance. The results of the study indicated that participative set goals have a significantly positive impact on performance. In addition, when individuals are involved in the goal-setting process, higher goals are associated with those individuals than individuals who are not involved in the goal-setting process. Further analysis indicates that higher performance for the individuals is due in part to the higher goals they set through their participation in the goal-setting process.

Otley (1978) investigated the use of budgetary accounting data in managerial performance evaluation with the goal of replicating and extending Hopwood’s (1972) study. This extension focused primarily on measuring managers’ performance rather than budget-related performance. Otley hypothesized that a manager’s perceptions of a budget-oriented style of
evaluation lead to higher job-related tension, which results in lower performance. The findings do not provide evidence of a budget-oriented style of evaluation leading to higher job-related tension, which contradicts Hopwood’s (1972) results. Additionally, the results of Otley’s study provide no indication of an association between job-related tension and performance. An examination of the direct effect of the budgetary evaluation style and performance was also conducted, with the results providing no indication of an association between the budgetary evaluation style and performance.

The mixed results of Hopwood (1972) and Otley (1978) prompted the Brownell (1982c) study. In this study, Brownell hypothesized that there is no direct association between the evaluation style used by superiors and performance due to the moderating effect of participation. Results of this study indicate that performance depends on the interaction between participation and budget emphasis (high or low). However, a more important finding of the study shows that higher levels of participation are associated with higher levels of performance, which has been a prevailing theme in the participative budgeting literature.

Other studies in the participative budgeting literature focused on participation and its effects on employees’ attitudes and performance. Milani (1975) investigated the effects of budgetary participation on attitudes and performance. Specifically, Milani investigated whether (1) the degree of participation in budget-setting and performance are positively related, (2) the degree of participation in budget-setting and attitude toward the job are positively related, and (3) the degree of participation in budget-setting and attitude toward the company are positively related. Results of the study indicate that there is no significant relationship between participation and job performance. However, strong support exists for both the relationship...
between participation and (1) attitude toward the job and (2) attitude toward the company. This finding is important because it suggests a way for managers to increase individuals’ attitudes toward the job and toward the company, and this increased morale may lead to higher individual and organizational performance. In Milani’s results, the correlations between the attitudinal measures and performance are not significant, indicating that attitude toward the job and the company do not act as intervening variables. Overall, the results of Milani’s study indicate that participation does not directly affect performance, nor does participation affect performance through its positive effect on job and company attitudes.

In addition to the results discussed above, Milani (1975) investigated the intervening roles that attitude toward the job and attitude toward the company have on the participation-performance linkage. This finding is important because it indicates that participation does not directly influence performance; rather, participation results in higher attitudes toward the job or the corporation, which may lead to higher performance. While Milani (1975) investigated the roles of attitude toward the job and toward the company, Kenis (1979) examined the effects of budgetary goal characteristics on job related attitudes, budget-related attitudes, and self-rated performance. Specifically, Kenis investigated the hypothesis that participative budgeting, budget goal clarity, and budgetary feedback have a positive effect on budgetary performance and job performance. The results indicate that participative budgeting and budget goal clarity are both positively related to budgetary performance. However, the findings fail to support the hypothesized positive effects of participative budgeting on the job performance of managers.

While Kenis (1979) studied the direct effects of individuals’ attitudes on performance, Brownell (1981) focused on the moderating effects of individuals’ locus of control on the
participative budgeting and managerial performance relationship in a laboratory setting. While previous studies examined attitudes such as job satisfaction, morale, and attitudes toward the job and company, this study introduces and examines a personality variable (i.e., locus of control). Locus of control is the degree to which individuals accept personal responsibility for what happens to them. Individuals with an internal locus of control believe that they are responsible for what happens to them, while individuals with an external locus of control believe that they are not responsible for what happens to them.

Brownell hypothesized that participation and locus of control interact to affect performance, and his findings support his hypothesis; the participative budgeting and performance relationship is moderated by an individual’s locus of control. Specifically, the results indicate that participative budgeting has a positive effect on performance for individuals with an internal locus of control and a negative effect for individuals with an external locus of control. Additionally, Brownell examined the direct relationship between participation and performance and found a significantly positive association between the two.

In an effort to validate and extend the findings of Brownell (1981), Brownell (1982a) examined the effects of participative budgeting and locus of control on performance and job satisfaction in a field setting. The main purpose of this study was to validate the results obtained in the 1981 study, in which the moderating effects of locus of control had a positive (negative) effect for internals (externals) on the participation performance linkage. Specifically, Brownell tested the hypothesis that there is a significant interaction between participation and locus of control affecting performance. The results of this study indicate that
the interaction between participation and locus of control significantly affect performance, with internally oriented individuals having higher performance than externally oriented individuals. This finding is important because it validated the findings of the 1981 laboratory experiment, suggesting that an individual characteristic such as locus of control is capable of leading to higher performance through its effects on participation. In addition to this finding, Brownell’s results indicate that participation does not have a significant direct effect on job satisfaction, but that individuals’ locus of control has a moderating effect on the relationship between participation and job satisfaction. Specifically, the results indicate that the interaction between participation and locus of control significantly affects job satisfaction, with internally oriented individuals experiencing higher job satisfaction than externally oriented individuals. Thus, the results are able to (1) validate the findings from the 1981 study by providing evidence of an interaction effect between participation and locus of control affecting performance and (2) extend the 1981 study by providing evidence of an interaction effect between participation and locus of control affecting job satisfaction.

In a later study, Brownell (1983) broadened his propositions by investigating the effects of participative budgeting and leadership style on performance. Brownell hypothesized that there is a significant interaction between participation and leadership style affecting performance. The results of the study provide evidence that performance is significantly positively affected by the interaction between participative budgeting and the leadership style of consideration. Subordinates perceive leaders believed to have high levels of consideration as supportive and helpful. This finding is important because it indicates that when the consideration leadership style is used, it generates greater participation, which results in higher performance.
Just as Brownell (1981) and Brownell (1982a) examined the effects of individuals’ attitudes on performance. Later study so did by Tiller (1983). He investigated the effects of participative budgeting on commitment to budget goals and participants’ performance under two particular settings. The first was one in which the participant perceived to be taking part in the formulation of budgeting goals (participative budgeting) and a second in which the participant was assigned a goal (non participative budgeting). Exclusively, Tiller hypothesized that:

(1) Participation leads to higher budget goal commitment and higher performance when there is high pay and a high budget goal than when there is high pay and a high budget goal; and (2) Participation leads to higher budget goal commitment and higher performance when there is low pay and a high budget goal than when there is low pay and a low budget goal. The study’s results provide support consistent with the proposed hypotheses. These findings are important because they indicate that participants need to perceive themselves as having some influence in setting the budget in order to have a successful participative budgeting program.

Furthermore, Brownell (1985) examined the effects of participative budgeting on performance, comparing marketing to research and development (R & D) units, two departments believed to have different environmental conditions. In this study, Brownell hypothesized that participative budgeting has a greater impact on managerial performance in the R & D unit than in the marketing unit because the R & D divisions are believed to face a more difficult environment than marketing divisions. A more difficult environment refers to the number of elements that are believed to be critical to decision making. The results indicate that participation leads to higher performance in the R & D unit than in the marketing unit. The importance of this result is its suggestion that different departments in a corporation
encounter different working environments, an indication that units place different degrees of emphasis on budgets. This finding suggests to corporations that participative budgeting does not produce the same effects in all departments or units of a corporation, implying that corporations must acknowledge the different environments these units face and implement systems (e.g., participative budgeting) in the units having more difficult working environments. In addition, the results provide no significant evidence of a direct association between participation and performance.

The collaboration study conducted by Brownell and Hirst (1986) examined the three-way interaction between budget emphasis, budgetary participation, and task uncertainty on job-related tension and performance. This study assessed the extent to which Brownell’s (1982) results were determined by task uncertainty. Brownell and Hirst hypothesized that compatible combinations of participation and budget emphasis are more effective in reducing job related tension in low, as opposed to high, task uncertainty activities. They believed that participation serves a vital purpose in a high task uncertainty situation, whether budget emphasis is matched or not. This belief is founded on the proposition that participation can provide the opportunity for managers to gain access to resources, which then can be used to buffer task performance. These researchers also hypothesized that compatible combinations of participation and budget emphasis have positive effects on performance in low, as opposed to high, task uncertainty activities. The results of this study support the proposition that compatible combinations of participation and budget emphasis are more effective in reducing job-related tension but not in improving performance in low task uncertainty activities.
While Brownell and Hirst (1986) examined the effects of task uncertainty and, Chenhall and Brownell (1988) studied the effects of participative budgeting on job satisfaction and performance by examining how different variable which is role ambiguity affects the participation satisfaction/ performance linkage. Role ambiguity is believed to be present when the required behaviors and expected performance levels are not clear to individuals. These researchers hypothesized that participation reduces role ambiguity, which in turn enhances job satisfaction and subordinate performance. The results of the study support their predictions that participation reduces role ambiguity and that lower role ambiguity leads to higher job satisfaction and subordinate performance. Chenhall and Brownell also found that, with respect to subordinates, participation is significantly related to job satisfaction but not to performance.

Similarly, Mia (1988) investigated the moderating effects of motivation and an individual’s attitude toward the job and company on the participation and performance relationship. Mia hypothesized that performance were affected by both participation and attitude interaction as well as the participation and motivation interaction. Examining this proposition is relevant to the literature because it tests how individuals’ attitudes affect the relationship between participation and performance. Mia’s results indicate that the interactions between participation and (1) attitude toward the job and company and (2) motivation are associated with higher performance. These findings indicate that participative budgeting by motivated individuals with positive attitudes results in increased performance. Mia also observed the direct relationship between participation and performance and found that participation does not have a significant direct effect on performance.
Further enhancement study by Mia (1989) examined the effects of participative budgeting and job difficulty on managerial performance by investigating the interaction of participation and job difficulty on performance. Mia hypothesized that managerial performance increases in circumstances of high (low) job difficulty and high (low) participation. The results support the hypothesis, indicating that an interaction between high (low) job difficulty and high (low) participation leads to higher managerial performance. However, the analysis does not examine the potential for a direct relationship between participation and performance.

Apparently, Dunk (1989) investigated the effects of budget emphasis and participative budgeting on managerial performance. This research was motivated by the conflicting results of Brownell (1982c) and Brownell and Hirst (1986). This research was a replication study of these two prior studies. Replication studies offer a way to confirm the external validity and generalizability of prior research. Dunk hypothesized that the interaction of high participative budgeting and high budget emphasis increases managerial performance. The study’s results indicate that the interaction effect is significant; however, the interaction tends to decrease performance rather than increase it as hypothesized. The study’s model also allows the direct effect of participation on performance to be measured. The findings fail to indicate a significant relationship between participation and performance. This particular result supported the non significant relationship found by Brownell and Hirst (1986) but contradicted the significantly positive relationship found by Brownell (1982c).

While prior research focused on managerial performance, Brownell and Merchant (1990) examined the effects of product standardization and automated manufacturing processes on the relationship between participative budgeting and departmental performance. Specifically,
they hypothesized that product standardization moderates the participation-performance relationship, with product standardization having a more positive influence when there is less product standardization. With respect to automation, Brownell and Merchant made no directional predictions of its effects. The study’s results provide evidence that participative budgeting has a significantly more positive effect on performance when product standardization is low than when it is high. In addition, the findings provide no evidence that automation has a moderating effect on the participation-performance relationship. With respect to any direct relationship between participation and performance, the results suggest that participative budgeting does not significantly affect performance.

Similar to Brownell and Hirst (1986) and Dunk (1989), later study by Brownell and Dunk (1991) examined the effects of task uncertainty and its interaction with budgetary participation and budget emphasis on managerial performance. Brownell and Dunk believed that previous research in this area might have accurately captured their measures of task uncertainty. Therefore, the researchers partitioned task uncertainty into two groups based on task difficulty and task variability. Brownell and Dunk’s results provide evidence that the level of budget participation should be matched with the level of budget emphasis under conditions of low task uncertainty. Further analysis indicates that the task difficulty dimension of task uncertainty, and not task variability, is primarily responsible for the finding.

Dunk (1993) investigated the moderating effects of participation on the relationship between job-related tension and managerial performance. He hypothesized that the interaction between participative budgeting and job-related tension affects managerial performance. The study’s results indicate no significant interaction effect between job-related tension and participative
budgeting on performance. Further analysis indicates that job-related tension has a significantly negative direct effect on performance, while participation has a significantly positive direct effect on performance.

In later study by Chong and Chong (2002), they investigated that the budget goal and informational effects of participative budgeting as mediator on job performance. They hypothesized that:

1. Participative budgeting and budget goal commitment are positively related;
2. Budget goal commitment and job-relevant information are positively related;
3. Job-relevant information and job performance are positively related.

The findings support the theoretical model. Indeed, Chong and Chong found that participation and performance are positively related through the mediating effects of goal commitment and job-relevant information. While there is no specific hypothesis testing mediation, they used a type of structural equations model that allows sequential testing of the interactions.

In a similar study, Wentzel (2002) examined whether perceived fairness in the budgeting process improved performance by increasing managers’ commitment to budgetary goals. Specifically, Wentzel hypothesized that the impact of participative budgeting on performance (budgetary and managerial) is significant when fairness perceptions and goal commitment act as mediating variables in the model. Additionally, Wentzel examined the direct relationship between participation and both budgetary and managerial performance measures. The study’s results support these propositions; participative budgeting leads to a sense of fairness resulting in higher budgetary goal commitment, thus enhancing performance.
However, the findings do not provide evidence of a direct relationship between participation and performance, suggesting that participation does not directly influence performance; rather, participation leads to other factors which in turn increase performance. Wentzel attributed the non-significant relationship between participation and performance to the complexity of the budgetary process.
2.4 Literature Review on Relationship of Each Variables

There were some prior researches finding result shown relationship between each variable on the suggested framework.

2.4.1 Task Uncertainty, Participative Budget and Job Performance

Some of the most important factors that have been suggested to influence an individual's job satisfaction and job performance are the uncertainties one has about the behaviour which was related to tasks and the uncertainties about the surrounding environment. Task uncertainty is related to the completeness of a subordinate’s knowledge about cause and effect relationships associated with task performance (Thompson, 1967). The characteristic of the task is very important for job performance and job satisfaction. A study by Fiedler (1967), his theory of Fiedler’s Contingency Model, define low task structure as less favourable and less certain for a leader than high task structure. Thus, there is some suggestion in the literature that low task structure may cause ambiguity and uncertainty and that these factors may limit job satisfaction and performance.

Task uncertainty is high (low) when subordinates are unsure (certain) about the consequences of their actions. For example, Hirst (1981) argued that task uncertainty is particularly high in boundary-spanning business units such as marketing or research and development because they are “open” to actions taken by other organizational business units (i.e., task interdependence) and by outsiders. Empirical evidence was later provided by Hirst (1983)
found a positive (negative) relation between reliance on accounting performance measures (RAPM), and Job Related Tension (JRT) when task uncertainty was high (low).

Brownell and Hirst (1986) proposed a three-way interactive model in high budget participation would lead to optimal performance only in situations of low task uncertainty. They attempted to link Hirst’s (1983) finding that task uncertainty moderated performance relation and Brownell’s (1982a, 1983b) finding of a similar moderating role for participation. They argued that Brownell’s results would hold only when uncertainty was low because when uncertainty was high, participation provided important performance.

Tasks low difficulties are well understood and can be structured to facilitate an efficient task performance through the identification of clear criteria task performance (Gresov et al., 1989). If tasks are well understood as is the case when the task difficulty is low, then the steps comprising those tasks can be effectively planned, mapped and encoded by budgetary control systems (Merchant, 1984). By contrast, if task uncertainty is high, there is a shortage of task-specific information. Work is not analyzable and solutions are hard to identify because there are no objective, computational procedures or techniques available to specify precisely what must be done to perform those tasks (Daft, 1983).

Finally, Brownell and Dunk (1991) were able to account for some of these inconsistent findings. They proposed that Brownell and Hirst’s (1986) results would hold for task difficulty, but not for variability because difficult tasks give rise to a role for participation. High budget participation should be positively related to performance only in situations of low task difficulty.
Brownell and Dunk (1991), argued that in the low task uncertainty but high variability situation, even though the array specific of tasks ahead cannot be foreseen (high variability), each one, when it arises, is analyzable since it is straightforward to specify the relevant inputs necessary to achieve desired outcome.

Moreover, uncertainty has been one of the most explored causal antecedent variables in management accounting research. This variable forms an important basis for theorizing in management control related contingency research (Luft and Shields, 2003; Chapman, 1997). Many studies relating uncertainty to formal management control systems such as budgets have been conducted in prior research. Generally, a negative relationship is observed between the level of uncertainty in an organization, and the importance or use of formal financial reporting control systems, defined as budget emphasis. (Tymon, Jr. et.al., 1998).

The main contribution of research finding by Margaret and Brownell (1997), draws the Perrow’s model of technology and structure to explore the influence of task characteristics on the effectiveness of accounting, behavior and personnel form of control sought to the main conclusion that reliance on accounting controls has significant positive effects on performance only where task uncertainty is lowest. An accounting control related to this study consists of participative on budgets, spending limits and financial targets. The negative correlations between reliance on accounting control supports the generalization and the evidence from the prior research, that accounting controls tend to be deemphasized whenever task uncertainty is high.
Such evidence has been proven in prior research examined that the budget participation effect on link between uncertainty and budget emphasis. From an evaluation perspective, prior research has argued that the inverse relationship between budget emphasis and uncertainty can be altered by managing the level of budget participation in organizations. If organizations wish to exert budget emphasis when uncertainty is high, budget systems require greater participation amongst staff (Lau, et.al. 1995, Govindarajan, 1986). This is because greater staff involvement and information sharing that characterizes higher budget participation (Parker and Kyj, 2006) allows for information to be provided that reduces role ambiguity, which consequently makes a budget more relevant (Chenhall and Brownell, 1988). When uncertainty is low, prior research argues that organizations only need high budget participation if budget emphasis is high (Lau, et.al. 1995). If budget emphasis is low, then budgets are not used or regarded as importantly, and therefore budget participation is not necessary. If budget emphasis is high, higher participation is necessary, as it assists employees to contribute to the budget setting process and also understand the numbers being set, as they will be evaluated on the budget numbers.

Apparently, Lau.et.al. (1995), what is known, is that the underpinning arguments for these rationales stem from the implicit assumption that budgets are used for evaluating staff (Brownell, 1982; Hirst, 1983), and if staffs are involved in the generation of these budgets, then they are more inclined to accept evaluations using budgets post period. But, what if an organization does not use budgets to evaluate staff? Does higher budget participation still assist firms with a high budget emphasis in low uncertainty environments? Budget participation itself is regarded as an exercise that first affects planning and control (Shields and Shields, 1998), prior to affecting evaluation. It is because budget numbers are more
accurate when participation is high, that these higher quality budget numbers arising from
greater participation positively benefits budget emphasis and performance in higher
uncertainty environments (Kren, 1992).

However, when task uncertainty is low, budget numbers are more easily determined, and the
importance and use of budgets to plan may not be as necessary. If budgets are used for
evaluation under such conditions, budget participation only allows managers and staff to better
understand the budget numbers used for their evaluation. If budgets are not used for
evaluation, or for reasons other than evaluation, then the need for budget participation in low
uncertainty environments may be questioned. Even if budget emphasis is high for non-
evaluation reasons, why would organizations direct staff to participate and invest their limited
time to determine budget numbers, when they are not as actively evaluated on them, and
budget numbers are easily predicted, as uncertainty is low? From this perspective, the
relevance of high budget participation in high budget emphasis and low uncertainty conditions
is questioned, and argued to be contrary to the findings of Lau et.al. (1995). As such, this
variance is a direct result of Lau’s study broadening the definition of budget emphasis to
included emphasis on budget reasons other than performance evaluation.

In view of behavioral literature, Tushman and Nadler (1978) identified that information-
processing requirement are kept to minimum in situations involving simple and routine tasks
as such tasks can be solved by existing rules and procedures. When task uncertainty occurs at
the work unit level of the organization and the additional information would be obtained
through the use of horizontal communication channels. Therefore, additional job-relevant
information through budgetary participation would required by subordinates faced with a high
level of task uncertainty (Mia, 1987). Earlier research by Withey et al. (1983) also found that when task exception and task analyzability are low, it is expected that subordinates require less job-relevant information for decision making. Furthermore, the need for participation is likely to be high when task exceptions are high. This viewpoint, supported by recent study by Chong and Johnson (2007) whereby the tasks uncertainty is important antecedent of budgetary participation which ultimately enhancing their job performance and motivation. Result from the study also shown that positive relationship between task exceptions and job-relevant information and task exceptions and budgetary participation and negative relationship between task analyzability with the same variables. In other words, the demand for budgetary participation is caused by task uncertainty.

The study by Hirst (1987), found that where task uncertainty is high, the positive relation between budget emphasis and job tension will be by a reduction in goal difficulty. At a more general level, the present study examines how alternatively designed budgetary control system will affect performance. By focusing on task uncertainty, the potential exists for integrating the present analysis with related studies that focus on the relation between task uncertainty and control system design.

Moreover, another two studies identifies task uncertainty as a moderating variables affecting managerial performance but each used different measures. Both studies conducted by Brownell to test the budget participation and task uncertainty with different partner and year study conducted. In 1986, the author conducted a study with Hirst whereby using job related tension as a dependent variable and measured by 3 way interaction coefficient but in not significant way. Unfortunately, more careful measurement like in three way interaction
coefficient together with separate regression analysis has been done for the study with Dunk in 1991. However, both studies result the same outcome whereby there is no interaction between budget emphasis, budgetary participation and task uncertainty affecting performance.

2.4.2 Budget Participation and Performance

In the context of the relationship between budget participation and job performance is extensive and has been examined over several decades (Murray 1990; Shields and Shields 1998). Early research investigated the direct effect of budget participation on job performance (e.g., Milani 1975). Then, Dunk (1989) later attempted to empirically clarify these findings by re-examining the performance effects of participation. In contrast to Brownell (1982a, 1983b), Dunk found that high participation lowered performance rather than increased it. Aranya (1990) later reported results consistent with Dunk (1989) for both performance and job satisfaction as dependent variables. Thus, both Dunk (1989) and Aranya (1990) reported opposite results from Brownell (1982a, 1983b).

Since the findings showed either no significant or weak effects of budget participation on job performance, researchers expanded their studies to examining how budget participation affects job performance through intervening variables such as role ambiguity (Chenhall and Brownell, 1988), motivation (Brownell and McInnes 1986), job satisfaction (Chenhall 1986), and job relevant information (Kren 1992). This later type of research continues to date (e.g., Chong and Chong 2002; Wentzel 2002). As Verstegen (2004) notes, most of the time management accounting research focuses on justifying paradigms or the methods used for their justifications, with less attention paid to the roots of these paradigms and methods.
In the case of budgetary participation studies, researchers make an implicit assumption of one way causality from budget participation or intervening variables to job performance, and attempt to show how budget participation affects job performance either directly or indirectly through these intervening variables. The majority of these studies have utilized survey methodology in which respondents have been asked to rate their perceptions of participation in the budgeting process, role ambiguity, job relevant information, job performance, and other variables. All these studies have ignored the possibility of reverse causality from job performance to budget participation or to the intervening variables and the possible circularity in the causality. In fact, such reverse causality is plausible considering that perceptions of respondents were used in these studies. Research in attribution theory has shown that when individuals perform poorly on the job they have different perceptions than when they perform well. Consistent with this conjecture, Nouri et al. (1999) reported that high performing individuals attribute their success to participation, whereas poor performing subjects attribute their failure to a lack of participation. Baker and Bettner (1997) suggest that accounting research should more frequently employ both interpretive (positivist methodological perspective) and critical perspectives.

Furthermore, budgetary participation is considered to be a management strategy used to reduce the effects of information asymmetry. This is achieved by incorporating the knowledge of employees into budget plans. It is also anticipated that with greater involvement, workers will become more motivated and will consequently improve performance. Waller (1988) indicated that communication of that information to their superiors would improve the coordination and evaluation of organization activities; and Murray (1990) suggested that, as a consequence, the budget would be more accurate. Dunk and Perera (1997) interviewed
managers and found that increased participation imposed accountability for the budget. In addition, employees who have participated have felt that their extra effort deserves some form of compensation. Furthermore, they have the opportunity to incorporate slack into the budget in order to enhance their performance evaluation. Therefore, participation in the setting of the budget is likely to have a big correlation with budgetary slack.

While prior research has commonly examined the relationships between budget participation and performance, and between budget participation and job satisfaction separately (e.g., Brownell 1981, 1982b, 1983; Frucot and Shearon 1991), shown the assumption that increased job satisfaction leads to increase performance. By follow several recent studies that use performance as the sole dependent variable (e.g., Nouri and Parker 1998; Shields et al. 2000) and avoid reliance on the assumption that satisfaction leads to performance by including job satisfaction and job relevant information (Kren, 1992) as an intervening variable in path model.

Furthermore, Shields and Shields (1998) provide additional motivation for inclusion of satisfaction as an intervening variable by noting that most of the studies that listed satisfaction as an antecedent used motivation-performance as the dependent variable. Shields and Shields (1998) Part Model cite studies found direct positive relationships between budget participation and performance (Milani 1975; Kenis 1979; Brownell and McInnes 1986). Shields and Shields (1998), for example, theorized that the act of participation allows subordinates to experience self respect and feelings of equality Participative Budgeting on Job Performance arising from the opportunity to express his or her values.’’
In a path analysis study, Chenhall and Brownell (1988) failed to find evidence of a direct effect. Frucot and Shearon (1991) find mixed results on this relationship. Shields include Path Analysis in model to capture the direct effect and to provide comparability with prior research.

Managerial compensation is frequently tied to performance relative to a certain yardstick (or budget), The basis of the standard is bound to contain slack (Chow et al., 1994). Brownell and Mclnnes (1986) suggested that subordinates build in slack when formal rewards are linked to budget achievement. In a study dealing with budgets and performance budgetary reward systems, topics like sales incentives, productivities, and executive compensation were variously discussed. Common to all these papers was the budget, the benchmark for evaluation and the application of rewards. The budget is used for assessing the attainment of targets, performance evaluation, and remuneration, among other things. Therefore, budget setting and slack building are likely to be closely associated with performance.

Japanese rely heavily on seniority for promotion, such a lack of reliance on the budget for the reward system can be seen in Takayanagi's (1989) study in which 80.6% of employees' compensations were determined by both job classification and seniority. Non-monetary incentives are considered to be more important because they promote the social status of the individual.

In conjunction with further approaches of better measurement towards extensive studies examining interactions of variables in Merchant study in budgeting and earlier study by Nouri et al. (1999) , Nouri (2007), using laboratory experiment and Multivariate Analysis of Variance (MANOVA). The results of the study show that knowledge of performance has a
significant impact on self-reported measures of individuals (e.g., motivation), and organizational (e.g., budgetary participation) characteristics.

2.4.3 Budget Participation and Job Satisfaction

The relationship between budgetary participation and job satisfaction is not clear, and studies of the relationship have often produced contradictory findings. As a result, many researchers have reconciled the finding by using the “contingency approach” – whereby the nature of the relationship in question is said to vary from one situation to another.

However, many studies have failed to find any direct relationship between budgetary participation and job satisfaction – usually taking other variables as moderating factors and investigating how they affect the relationship. The term “moderating factor” is often used in the sense that the relationship between budgetary participation and job satisfaction exists only via the selected variable. However, such selected variables might not have a relationship of significance with the independent and dependent variables. Many studies have considered such moderating factors as budget emphasis (Harrison, 1994; Brownell, 1983), leadership styles (Brownell, 1983), and job-relevant information (Lau and Tan, 1998) budget emphasis and task uncertainty (Otley and Pollanen, 2000) as affecting the relationship between budgetary participation and job satisfaction. However, any such relationships might become insignificant with the omission of the moderating factors. It is, therefore, understandable that they concluded that increased budgetary participation is not likely to be associated with improved job satisfaction.
Hofstede (1968) suggested that participation would be satisfying only when individuals felt that their input was validated by incorporation in the budgeting process. Research confirms that budget participation is positively associated with positive attitudes toward the job itself and toward the company. Empirical research has shown a positive association between budget participation and employees’ satisfaction with their jobs and supervisors, and favourable attitudes toward the budget.

Kenis (1979) believed that a “tight but attainable” budget approach is the most effective way to motivate managers to perform better. Easily attainable goals do not generate incentives for managers to pursue a higher level of performance because such goals fail to create job satisfaction (Mia, 1989).

It is suggested that participative budgeting helps to increase the subordinates’ self-esteem and enhances their job satisfaction. It is argued that the value attainment role of participative budgeting affects job satisfaction and morale of subordinates in the organization (Shields & Shields, 1998). Shields and Shields (1998) cite Hofstede (1967) as a study that found a positive relationship between budget participation and job satisfaction. Chenhall and Brownell (1988) find both a significant direct relationship between budget participation and satisfaction and a significant indirect relationship between budget participation and satisfaction running through role ambiguity. Frucot and Shearon (1991) find a significant positive relationship between budget participation and satisfaction among Mexican managers working at the highest levels of companies that are less than 100 percent foreign-owned. Lau and Tan (2003)
find a significant path coefficient linking budget participation and job satisfaction among Singaporean managers.

Chong et al. (2005) found that the value attainment role of participative budgeting was positively related with subordinates’ job satisfaction. Thus, it can be concluded that the value attainment role of participative budgeting is expected to increase subordinates’ levels of job satisfaction. Accordingly, the following hypothesis is tested: Participative budgeting is positively associated with job satisfaction.
2.5 Research Framework

The experimental relationships among the independent, moderator and dependent variables are depicted the relationships in a framework as presented in Figure 1.

![Figure 1: Framework of Research Design](image)

This framework is combination on re-examined the study finding by Brownell (1982a), Brownell and Hirst (1986), Hirst (1987) and Lopez, M.A., Johan, W.W.S., and McNair, F.M. (2008) on the interaction between effect of task uncertainty on budgetary participation towards performance and job satisfaction. These factors have been grouped into two categories: dependent variables and independent variables. Independent variables refer to task uncertainty by Hirst(1987) which determine the appropriateness of participation in the budgeting process (Brownell, 1982a). Dependent variables refer to the outcomes from this linkage reflected in managerial and middle management performance and job satisfaction.

Although prior research has focused mostly on consequence variables (Shields and Shields, 1998), and a consequence variable that has not been fully investigated in a budgeting context is hierarchical management levels. Indeed, Hansen et al. (2003) mention that most of the
research in management controls has focused on upper management levels and has ignored middle and lower management levels. Therefore, this study covered the combination of task uncertainty and job performance and job satisfaction with the moderator of participative budget under one framework.

2.6 Study Approach

From the extensive literature review, the author’s approach on this study by adopted one factor as independent variable which is task uncertainty to examine the framework of moderates the subject of participative budget with resulted finding on job performance and job satisfaction are proposed the relationship below:

1. Task Uncertainty (TU)  \(\rightarrow\)  Job Performance (PER)
2. Task Uncertainty (TU)  \(\rightarrow\)  Job Satisfaction (SAT)
3. Task Uncertainty (TU)  \(\rightarrow\)  Participative Budget (PB)
4. Task Uncertainty (TU) \(\times\)  Participative Budget (PB)  \(\rightarrow\)  Job Performance (PER)
5. Task Uncertainty (TU) \(\times\)  Participative Budget (PB)  \(\rightarrow\)  Job Satisfaction (SAT)
6. Participative Budget (PB)  \(\rightarrow\)  Job Performance (PER)
7. Participative Budget (PB)  \(\rightarrow\)  Job Satisfaction (SAT)
2.7 Development of Hypotheses

In reviewing the above research on all of the factors that affect interaction between task uncertainty and participative budget serve as moderator explanation which effect performance and satisfaction, a number of research omissions were noted.

While most prior research has measured the relationships between budgetary participation and performance and between budgetary participation and job satisfaction separately, this paper follow several recent studies that use performance as the sole dependent variable (e.g., López et al., 2008; Nouri & Parker, 1998; Shields et al., 2000). The correlation technique is similar replicate to the model developed by López et al. as the questionnaire also established from their study as well. Moreover, the hypotheses development also summarized from the test of multiple and hierarchical regression analysis from the Margaret and Brownell (1997) and findings by prior researchers such as Brownell (1982a), Brownell and Hirst (1986), Hirst (1987).

Based on the research findings in the literature review from the previous section, the author endorses the further interaction ideas of the following set of hypotheses development as follows:

H1: The level of task uncertainty is positive association with job performance.
H2: The level of task uncertainty is positive association with job satisfaction.
H3: The level of task uncertainty is positive association with participative budget.
H4: Emphasizing high (low) participative budget and high (low) task uncertainty is positive (negative) association with high (low) level of job performance.
H5: Emphasizing high (low) participative budget and high(low) task uncertainty is associated with high(low) level of job satisfaction.

H6: The level of participative budget is positive association with job performance.

H7: The level of participative budget is positive association with job satisfaction.

2.8 Summary

Mounting of researches and studies have been conducted in the area related to budget participation with task uncertainty, job performance and job satisfaction in various findings. By virtue of this, this paper is conducted with the aim to re-examine the finding in different sample survey in micro level at specific organization. In the next chapter, the author is going to present the research methodology that has been used to assemble the vital data for the topic at hand.
Chapter 3

Research Methodology

3.1 Introduction

The previous section reviewed the salient literature towards development of hypotheses on the areas related to the effects of task uncertainty on participative budget towards Job Performance and Job Satisfaction. This section will discuss the research methodology that has been carried out in order to conduct the study effectively.

3.2 Data Collection Procedure

3.2.1 Primary Data

Primary data are simply data compiled from first hand sources. For data analysis primary data is collected from surveys undertaken from the questionnaires were administered to managerial level and middle management level at KIC Group of Companies. A total of 62 managerial level and 146 middle-level management were identified as a respondent on this survey. The organizations have a total of 252 employees. Each manager, on average, has a responsibility of 3 – 30 employees.
3.3 **Sampling Design**

The questionnaire was addressed to the managerial and middle management level. The respondents were assured complete anonymity and the survey is mainly for academic purposes.

A total of 208 have distributed to target sample of managerial and middle management employees of KIC Group of Companies with 198 questionnaires (95%) was returned, 3 of which were incomplete. Resulting in a useable sample set of 195. Only 10 of the distributed questionnaires had not being returned. The response rate is favorable to the author. The questionnaires were pre-coded to identify those non-respondents. The questionnaire has been send via email and personally to the respondent and tentatively to be returned within a week.

3.4 **Research Instruments**

3.4.1 **Questionnaire measure**

Self-administered questionnaire has been used as the main research instrument for the data collection of this study. The main objective of the questionnaire is to gauge respondents from KIC Group of companies on the effect of task of uncertainty on participative budget towards job performance and job satisfaction reflected to managerial and middle management employee level.

The questionnaire is replicated and adapted from a survey done by earlier studies by Abernethy M.A. and Brownell (1997) which adopted same original sample of questionnaire.
from Withey et al(1983) 10 item instrument, in seven-point partially anchored form to measure both task exceptions and task analyzability. Factor analysis of the 10 items stated at survey questionnaire (provided in Appendix A) which factor I capturing number of exceptions and factor II task analyzability. The selection of this variable as independent variable (IV) is structured in Section B of the questionnaire.

The rests of Section C to E has been adopted from Vocational Psychology Research, University of Minnesota (1977) whereby replicated by Lopez, M.A., Johan W.W.S and McNair, F.M. (2008). The questionnaire itself has been divided into five sections consists of one independent variable (task uncertainty), mediating (Budget Participation) and two dependent variables (Job performance and Job Satisfaction) with a total of 64 questions. The questionnaires are structured as follows:

**Section A – Profile Information**

This section is general profile information required for respondent’s reference. It consists of sex, age, marital status, races, KIC Group of Companies, Occupation Level, working period duration, department, highest level education and monthly income.

**Section B- Task Uncertainty**

The task was designed specifically on this section and consisted of 10 instruments in sets of statements describe how respondent cope and response with the task uncertainty. The first 5 sets statement refers to factor I (task exceptions) and the set statement from number 6 until 10
refers to factor II (task analyzability). The scale used is from 1= Somewhat never, 2=Never, 3=Occasionally, 4=Sometimes, 5=Somewhat Often, 6=Often, 7=Always. Task Uncertainty was measured by taking the total score across the ten items. Due to only one component was extracted in the component matrix, the solution cannot be rotated for further consideration on factor analysis test. Further, reliability check using Cronbach alpha produced the alpha coefficients of 0.42 was acceptable.

**Section C – Budget Participation**

This section consists of two parts of 6 sets of statement each which divided by Budget Participation (BPP) when as things are currently at work and Desired Budget Participation (DBP) as would want things to be at work. Participative Budget (PB) is the sum of the individual item scores that are each measured with a seven-point Likert-type scale. The scale used is from 1=Strongly Agree, 2 = Disagree, 3=Slightly Disagree, 4=Slightly Agree, 5=Agree, 6=Strongly Agree, 7=Very Strongly Agree. This scale has been widely used in participative budget research (e.g., Brownell, 1982b, 1983; Chenhall and Brownell 1988; Frucot and Shearon, 1991; Mia,1989). This scale has consistently produced reliable Cronbach (1951) alpha coefficients (e.g., Chenhall & Brownell, 1988; Mia, 1989).

**Section D – Job Performance**

This section consists of 9 sets of statements to measure job performance is based on the results of a survey conducted by Mahoney et al. (1963). Planning, Investigating, Coordinating, Evaluating, Supervising, Staffing, Negotiating, Representing and Overall Performance are the
measurement of this dependent variable. A questionnaire was later constructed by Heneman (1974) and has been used by Brownell (1982b, 19831, Brownell and Hirst (1986), Brownell and McInnes (1986), Dunk (1989) and later by Maria (2008). Job Performance (PER) is the sum of the individual item scores that are each measured with a seven-point Likert-type scale. The scale used is 1-2 (Below Average Performance), 3-5 (Average Above Performance) and 6-7 (Average Performance).

**Section E – Job Satisfaction**

This section consists of 20 sets of statement which reflect respondent feedback on job satisfaction which is formerly used for Minnesota Satisfaction Questionnaire (MSQ). The first 8 sets of statement refer to extrinsic satisfaction and the balance refers to intrinsic satisfaction. The scale used is from 1=Not Satisfied, 2=Somewhat Not Satisfied, 3=Somewhat Satisfied, 4=Satisfied, 5=Very Satisfied, 6=Extremely Satisfied and 7=Very Extremely Satisfied.

The short-form version of the Minnesota Satisfaction Questionnaire (MSQ) has been supported for its reliability and validity (Weiss et al., 1967), and has been used extensively in both applied psychology (e.g., Butler, 1983; Pulakos & Schmitt, 1983) and managerial accounting research (e.g., Brownell, 1981, 1982a,b; Harrison 1992, 1993). MSQ measurement provided the highest convergent validity among the several measures.
3.5 **Data Analysis Techniques**

The results of the questionnaire have been coded, keyed in and later, using the SPSS Software Version 16, processed through of various tests. The testing and analyzing methods that the author has applied to the topic at hands are divided by two procedures as follows:

3.5.1 **Procedure 1 (Preliminary Analysis)**

This procedure consists of beginning steps of data entry, exploration, screening and transformation techniques consists of treated data errors, outliers, normality test, homoscedasticity and reliability test. The descriptive statistic, factor analysis and correlation result were obtained from this procedure.

3.5.2 **Procedure 2 (Research Analysis)**

Further research analysis from the procedure 1 was obtained in procedure 2. The research analysis consists of various regression analyses such as Linear and Hierarchical Regression. In the first step, task uncertainty (IV) on job performance and job satisfaction (DV) was regressed using Linear Regression. Results from the first step were used to assess hypotheses 1 and 2.

Next step, this procedure also has test a moderating effect via creating new interaction variable between participative budget (PB) and task uncertainty (TU). The new moderating variable of (TU X PB) was entered. Finally, the moderator effects and both DV (PER and SAT) were entered into hierarchical regression resulted into hypotheses 4 and 5. To determine the moderator effects, the change in $R^2$ was assessed. To support
The hypotheses, the coefficient for the interaction term should be significant (Sharma et al.1981).

The results obtained from this procedure were valuable for research finding to support the hypotheses of the research conducted by the author. The details of research result and discussion is presented in Chapter 4 in this paper.

To summarize between procedure 1 and 2 above, the statistical analyses include the steps that showed in the Figure 2.

1. Data scanned and treated for errors and missing values which some of the respondents had missed some questions due to ignorance or careless.
2. The negatively-worded statement scores reversed through Automatic Recode in the SPSS.
3. Test of normality of each variable.
4. Reliability checked through Cronbach’s Alpha.
5. Analysis on the descriptive statistics done through Crosstabulation and charts.
6. Test the moderator via creating a new variable between independent variable (IV) and moderator.
7. Inferential statistic and hypothesis testing done through parametric test which includes Correlation, Factor Analysis, Linear Regression and Hierarchical Regression.
Figure 2: Steps for Data Analysis Techniques

1. Scan and treat data for errors and missing values
2. Reverse the negatively worded statements score
3. Test of Normality of each variable
4. Check for reliability; Cronbach's Alpha
5. Descriptive statistics; Crosstabulations and charts
6. Inferential statistic and hypothesis testing
7. Parametric test
   - Factor Analysis
   - Linear Regression
   - Correlation
   - Hierarchical Regression
3.6 Summary

The current chapter presents, review and defends the methodology employed to examine these research questions. Questionnaires consists of five sections were distributed to the sample of this study in order to obtain the primary source of data. With the necessary data acquired through the specific procedures detailed in this chapter, the author has then tabulated them and arranged for the following chapter to explain the analysis and discussion of the results obtained.
Chapter 4

Research Result

4.1 Introduction

This chapter has been arranged to feature the salient results obtained from the statistical analysis done on the data collected by the author. The background information of respondent companies surveyed is the first part. This will be followed by the discussion of the results of preliminary analyses were conducted by using (1) descriptive statistics (2) correlation and (3) principal factor analysis for IV. Subsequent presentation of results focuses on the hypothesis testing by reporting on the results of the research analysis findings using regression analyses (linear, multiple and hierarchical regression analyses) to clarify and integrate the main findings on this paper as well as analytical approach to fit the measurement. Finally, the culmination of this chapter features the summary of analysis and findings.

4.2 Results of Social and Demographic Respondent

In order to obtain descriptive statistics for general background information of the KIC Group of Companies and of the respondents, test of frequencies has been used. This test gives the results of the demographic profile of companies as well as the respondents.

The summary result of the respondent presented in Table 1.
Table 1 : Results of Social and Demographic Characteristics (n = 195)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Frequency</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Group Companies</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KOT</td>
<td>12</td>
<td>6.2</td>
</tr>
<tr>
<td>KICRSB</td>
<td>128</td>
<td>65.6</td>
</tr>
<tr>
<td>KIF</td>
<td>13</td>
<td>6.7</td>
</tr>
<tr>
<td>APH</td>
<td>5</td>
<td>2.6</td>
</tr>
<tr>
<td>PETLOG</td>
<td>16</td>
<td>8.2</td>
</tr>
<tr>
<td>MGTSPL</td>
<td>4</td>
<td>2.1</td>
</tr>
<tr>
<td>ZAQ</td>
<td>7</td>
<td>3.6</td>
</tr>
<tr>
<td>QIPMC</td>
<td>10</td>
<td>5.1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>195</td>
<td></td>
</tr>
<tr>
<td><strong>Department</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chairman's Office</td>
<td>16</td>
<td>8.2</td>
</tr>
<tr>
<td>Resource Group</td>
<td>24</td>
<td>12.3</td>
</tr>
<tr>
<td>Corporate Group</td>
<td>19</td>
<td>9.7</td>
</tr>
<tr>
<td>Business Group</td>
<td>25</td>
<td>12.8</td>
</tr>
<tr>
<td>Asset Group</td>
<td>60</td>
<td>30.8</td>
</tr>
<tr>
<td>Asia Petroleum Hub</td>
<td>19</td>
<td>9.7</td>
</tr>
<tr>
<td>QIPMC</td>
<td>25</td>
<td>12.8</td>
</tr>
<tr>
<td>ZAQ</td>
<td>7</td>
<td>3.6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>195</td>
<td></td>
</tr>
<tr>
<td><strong>Occupational Level</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper Level</td>
<td>10</td>
<td>5.1</td>
</tr>
<tr>
<td>Manager(AVP and above)</td>
<td>32</td>
<td>16.4</td>
</tr>
<tr>
<td>Senior Manager/Manager</td>
<td>15</td>
<td>7.7</td>
</tr>
<tr>
<td>Assistant Manager</td>
<td>40</td>
<td>20.5</td>
</tr>
<tr>
<td>Senior Executive</td>
<td>98</td>
<td>50.3</td>
</tr>
<tr>
<td>Executive</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>195</td>
<td></td>
</tr>
<tr>
<td><strong>Monthly Income</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Below RM2,500</td>
<td>87</td>
<td>44.6</td>
</tr>
<tr>
<td>Between RM2,501 to RM4,500</td>
<td>43</td>
<td>22.1</td>
</tr>
<tr>
<td>Between RM4,501 to RM6,500</td>
<td>18</td>
<td>9.2</td>
</tr>
<tr>
<td>Between RM6,501 to RM10,000</td>
<td>33</td>
<td>16.9</td>
</tr>
<tr>
<td>More than RM10,000</td>
<td>14</td>
<td>7.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>195</td>
<td></td>
</tr>
</tbody>
</table>
Table 1 (Continued)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Frequency</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Level Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diploma</td>
<td>4</td>
<td>2.1</td>
</tr>
<tr>
<td>Bachelor's Degree</td>
<td>181</td>
<td>92.8</td>
</tr>
<tr>
<td>Master's Degree</td>
<td>9</td>
<td>4.6</td>
</tr>
<tr>
<td>PHD</td>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>195</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Working Duration</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 1 year</td>
<td>31</td>
<td>15.9</td>
</tr>
<tr>
<td>1-2 years</td>
<td>107</td>
<td>54.9</td>
</tr>
<tr>
<td>2-5 years</td>
<td>46</td>
<td>23.6</td>
</tr>
<tr>
<td>5 years above</td>
<td>11</td>
<td>5.6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>195</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Marital Status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>79</td>
<td>40.5</td>
</tr>
<tr>
<td>Married</td>
<td>114</td>
<td>58.5</td>
</tr>
<tr>
<td>Divorced</td>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td>Widowed</td>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>195</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>132</td>
<td>67.7</td>
</tr>
<tr>
<td>Female</td>
<td>63</td>
<td>32.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>195</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 25</td>
<td>24</td>
<td>12.3</td>
</tr>
<tr>
<td>26-35</td>
<td>96</td>
<td>49.2</td>
</tr>
<tr>
<td>36-45</td>
<td>55</td>
<td>28.2</td>
</tr>
<tr>
<td>46-55</td>
<td>14</td>
<td>7.2</td>
</tr>
<tr>
<td>Over 55</td>
<td>6</td>
<td>3.1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>195</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Races</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Malay</td>
<td>129</td>
<td>66.2</td>
</tr>
<tr>
<td>Chinese</td>
<td>55</td>
<td>28.2</td>
</tr>
<tr>
<td>Indian</td>
<td>11</td>
<td>5.6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>195</strong></td>
<td></td>
</tr>
</tbody>
</table>

Table 1 shows the summary of social and demographic respondent result which useful on this survey. Majority of the respondents under KIC Group of Companies had been appointed under KIC Resources Sdn Bhd (KICRSB) with majority of 65.6%. When taking number of
employees as a measure of allocation of respondents, this result reflects that majority of the group of companies are considered as large or medium size even though they only a support group or operational wise. About 30.8% of the respondents allocated under the Asset Group department and wearers the lowest (3.6%) comes from ZAQ Construction (ZAQ).

As can be seen from Table 1, approximately, 5.1% of the respondents held the position in the upper level management level (AVP and above), with the remaining 94.9% divided between Senior Manager/Manager Level (16.4%), Assistant Manager Level (7.7%), Senior Executive Level (20.5%) and Executive (50.3%). It’s too obvious that the majority of the respondents were executive level (50.3%). The information also shows that the respondents were quite new with 54.9% of them have been in the position for 1 to 2 years.

In terms of educational background of respondent, only one respondents holding the highest educational background (PHD) and the other majorities was obtained degree holder with majority income lower than RM2,500.

Moreover, in terms of demographic information, there were more males (67.7%) than female (32.3%) with majority of them were married. The majority respondent was Malay (129 respondents), Chinese (55 respondents) and Indian (11 respondents) which from several group of companies whereby KIC Resources Sdn Bhd as majority respondent of 128 respondents.

In addition, majority of the respondent were between age 26 to 35 years old with young and fresh analytical thinking for new direction of market needed and companies requirement.
4.3 Results of Preliminary Analysis

4.3.1 Descriptive Statistics

Descriptive statistics are used to explore the data collected to make some general observations about the data collected. Other statistics such as mean, median, mode, standard deviation and variance give more information about the distribution of each variable. Thus, a frequency distribution shows the frequency of occurrence of each score value which represented via tabular form or with more visual clarity, in graphical form (ie: histogram/ bar chart). Frequencies procedure has been tested to examine the normality of the distributions. Appendix B and Appendix C show the result of normality test obtained from the data transformation.

The summary of preliminary analysis result of the survey presented as follows:

<table>
<thead>
<tr>
<th>N</th>
<th>Valid</th>
<th>PB</th>
<th>PER</th>
<th>SAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Valid</td>
<td>195</td>
<td>195</td>
<td>195</td>
<td>195</td>
</tr>
<tr>
<td>Missing</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Mean</td>
<td>14.80</td>
<td>15.23</td>
<td>12.42</td>
<td>13.82</td>
</tr>
<tr>
<td>Median</td>
<td>16.00</td>
<td>17.00</td>
<td>13.00</td>
<td>13.00</td>
</tr>
<tr>
<td>Mode</td>
<td>20</td>
<td>17</td>
<td>14</td>
<td>4a</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>7.402</td>
<td>6.973</td>
<td>5.615</td>
<td>9.350</td>
</tr>
<tr>
<td>Variance</td>
<td>54.790</td>
<td>48.619</td>
<td>31.534</td>
<td>87.419</td>
</tr>
<tr>
<td>Skewness</td>
<td>-.214</td>
<td>-.196</td>
<td>-.038</td>
<td>.252</td>
</tr>
<tr>
<td>Std. Error of Skewness</td>
<td>.174</td>
<td>.174</td>
<td>.174</td>
<td>.174</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>-1.061</td>
<td>-.834</td>
<td>-.861</td>
<td>-1.171</td>
</tr>
<tr>
<td>Std. Error of Kurtosis</td>
<td>.346</td>
<td>.346</td>
<td>.346</td>
<td>.346</td>
</tr>
<tr>
<td>Range</td>
<td>26</td>
<td>27</td>
<td>22</td>
<td>31</td>
</tr>
<tr>
<td>Minimum</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Maximum</td>
<td>27</td>
<td>28</td>
<td>23</td>
<td>32</td>
</tr>
<tr>
<td>Percentiles</td>
<td>25</td>
<td>8.00</td>
<td>10.00</td>
<td>8.00</td>
</tr>
<tr>
<td>50</td>
<td>16.00</td>
<td>17.00</td>
<td>13.00</td>
<td>13.00</td>
</tr>
<tr>
<td>75</td>
<td>20.00</td>
<td>20.00</td>
<td>16.00</td>
<td>22.00</td>
</tr>
</tbody>
</table>

a. Multiple modes exist. The smallest value is shown
Table 2 provides summary of descriptive statistic on mean, median, mode, maximum, minimum, standard deviation, skewness and kurtosis used in the study. Thus, the results show that the mean responses on the variables are scattered between the range of 12.00 to 14.00 with standard deviation of between 5.615 and 9.350.

By obtaining 25th and 75th percentiles for the distribution, the inter quartile range can be calculated by subtracting one from the other. Therefore, the inter quartile range is equal to (20-8=12, 20-10=10, 16-8=8, 22-8=18) for each variables tested respectively. The result of Skewness and Kurtosis shows the range was normal as the range were still below the cut off point of 2.58 (Hair, 1998).

For purposes of all analysis, all variables has been tested for error, checks for outliers, homoscedasticity, computed from original variables into new automatic recode and normality. The result shows that all variables were normal. From the result of Boxplot in Appendix D, it was reasonable to shows a pictorial representation of the data distribution of each variables with the upper and lower boundaries apart of tested the outliers determination. Thus, the result of reliability test also conducted in the preliminary stage analysis to examine the characteristics of scale. The reliability test used was Cronbach’s Alpha which is based on the average correlation of items within a test as the items were standardized. Because Cronbach’s Alpha can be interpreted as a correlation coefficient, it ranges in value 0 to 1. The result of Cronbach’s Alpha of .420 provides support for the reliability of measure can be seen as per Appendix E.

Apart of that, the author decided to use parametric test for the data analysis. The hypotheses were tested using correlations, as well as linear, multiple and hierarchical regression analyses.
4.4 Tests of hypotheses

Exclusively, reports on the results of the hypotheses testing are divided into (1) testing the relationships between independent variable (Task Uncertainty) and dependent variables (Job Performance and Job Satisfaction); (2) testing the relationship between independent variables (Task Uncertainty) and moderator (Participative Budget); (3) testing the interaction between the moderator with independent variables and dependent variables; (4) testing the moderator of participative budget with dependent variables (Job Performance and Job Satisfaction).

For the purpose of this study, the hypotheses were tested in the beginning using correlations as per Table 3 and factor analysis for independent variable in Table 4, then followed by multiple and hierarchical regression analyses.

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Moderator</th>
<th>Dependent Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>TU</td>
<td>PB</td>
<td>PER</td>
</tr>
<tr>
<td></td>
<td>*<em>.172</em></td>
<td>.054</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-.216**</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>PER</th>
<th>SAT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>.268</strong></td>
<td>.383**</td>
</tr>
<tr>
<td>SAT</td>
<td><strong>.374</strong></td>
<td></td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).
The correlation test of each variable relationship would interpret the correlation coefficient and its associated significant value (p). The output confirms the result of the scatterdot in that a significant positive relationship exists between Task Uncertainty (TU) and Job Satisfaction (SAT) \( r = -0.216, p<0.01 \). Therefore, higher task uncertainty is associated with higher job satisfaction. Thus, the interaction between Participative Budget (PB) and Job Performance (PER) and Job Satisfaction (SAT) were a significant predictor at \( r = 0.268, p<0.05 \) and \( r = 0.374, p<0.05 \). However, there was no significant relationship between Task Uncertainty (TU) and Job Performance (PER).

Initial observations were made to check for the assumptions of about the data before proceeding with multiple regression analysis. From the correlational analysis, multicollinearity did not appear to be a major problem of regression analysis when none of r values were .90 and above (Pallant, 2001).

Apart of that, a factor analysis of the 10 item instrument under task uncertainty (provided in Section B at questionnaire in Appendix 4) eventually resulted only one factor despite of replicate research from Abernethy M.A and Brownell (1997) into two factors whereas same result from original prior research conducted by Withey et al. (1983). KMO and Barlett’s Test to measure of sampling adequacy and Total Variance Explained for factor analysis test was extracted as per Table 4 and Table 5 below.
Table 4: KMO and Bartlett's Test

| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | .823 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 1475.287 |
| df | 45.000 |
| Sig. | .000 |

The above result of KMO and Barlett’s Test is significant and that measure of sampling adequacy is far greater than .6.

Table 5: Total Variance Explained for Task Uncertainty (TU)

<table>
<thead>
<tr>
<th>Component</th>
<th>Initial Eigenvalues</th>
<th>Extraction Sums of Squared Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>% of Variance</td>
</tr>
<tr>
<td>1</td>
<td>5.877</td>
<td>58.773</td>
</tr>
<tr>
<td>2</td>
<td>.972</td>
<td>9.721</td>
</tr>
<tr>
<td>3</td>
<td>.825</td>
<td>8.252</td>
</tr>
<tr>
<td>4</td>
<td>.722</td>
<td>7.224</td>
</tr>
<tr>
<td>5</td>
<td>.534</td>
<td>5.341</td>
</tr>
<tr>
<td>6</td>
<td>.413</td>
<td>4.134</td>
</tr>
<tr>
<td>7</td>
<td>.257</td>
<td>2.571</td>
</tr>
<tr>
<td>8</td>
<td>.161</td>
<td>1.615</td>
</tr>
<tr>
<td>9</td>
<td>.141</td>
<td>1.415</td>
</tr>
<tr>
<td>10</td>
<td>.095</td>
<td>.955</td>
</tr>
</tbody>
</table>

Extraction Method: Principal Component Analysis.

From the Table 5 above, it precedes displays the total variance explained for task uncertainty characteristics at one stage only with 58.773%. In fact, the sample questionnaire used from the established study by Withey (1983) as opposed to the factor scores extracted the initial results.
of two factors scores for the set of items loading on each factor. The assumption of there might be most of the respondent answered it based on their individual perception instead of further analytical thinking. Despite of that also, due to only one component was extracted, the solution cannot be rotated.

As such, from the results of residual scatterplots, it was reasonable to conclude a non-violation of the linear regression assumption as per Table 6 below:

**Table 6: Results of Linear Regression Analyses: Task Uncertainty, Job Performance and Job Satisfaction**

<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>PER</th>
<th>SAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>R²</td>
<td>.003</td>
<td>.046</td>
</tr>
<tr>
<td>Adj R²</td>
<td>-.002</td>
<td>.042</td>
</tr>
<tr>
<td>F</td>
<td>.567</td>
<td>9.412</td>
</tr>
<tr>
<td>Sig.</td>
<td>.452</td>
<td>.002</td>
</tr>
</tbody>
</table>

Independent Variables | Standardized Coefficients(t)
-----------------------|-----------------------------
TU                     | .753  | -3.068 |

PER = Job Performance   SAT = Job Satisfaction   TU = Task Uncertainty

Results from the linear regression in which task uncertainty was regressed on two dependent variables of job performance and job satisfaction are shown in Table 6. When job performance served as the dependent variable, the model explains 3% of the variance in job performance (F = .567, p<.01) which is no significant relationship between task uncertainty and job
performance (Sig = .452, p>.01). However, the relationship between task uncertainty and job satisfaction was a significant. The model significantly explain that 46% of the variance in job satisfaction (F = 9.412, p<.01) at t = -.3.068.

The above result in Table 6 only supported the direct effects on hypotheses 2(H2). Unfortunately, the result obtained from this survey fail to confirm the hypotheses 1 (H1) whereby there was not significant relationship between task uncertainty and job performance.

### Table 7: Results of Linear Regression Analyses: Task Uncertainty and Participative Budget

<table>
<thead>
<tr>
<th>Moderator</th>
</tr>
</thead>
<tbody>
<tr>
<td>PB</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>R²</th>
<th>Adj R²</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.030</td>
<td>.025</td>
<td>5.916</td>
<td>.016</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Standardized Coefficients(t)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TU</td>
<td>2.432</td>
</tr>
</tbody>
</table>

Table 7 reveals that when moderator of participative budget has a direct relationship with independent variable of task uncertainty, the model significantly explain 30% of the variance on participative budget (F = 5.916, p<.01) at t = 2.432. Similarly, participative budget was a statistically significant with task uncertainty. This result supported the hypotheses 3 (H3) in this paper.
Table 8 : Results of Regression Analyses with Participative Budget as Moderator

<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>PER</th>
<th>SAT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>R^2</strong></td>
<td>.159</td>
<td>.239</td>
</tr>
<tr>
<td><strong>Adj R^2</strong></td>
<td>.146</td>
<td>.227</td>
</tr>
<tr>
<td><strong>F Change</strong></td>
<td>19.786</td>
<td>4.642</td>
</tr>
<tr>
<td><strong>Sig. F Change</strong></td>
<td>.000</td>
<td>.032</td>
</tr>
<tr>
<td><strong>F</strong></td>
<td>12.019</td>
<td>20.029</td>
</tr>
</tbody>
</table>

**Independent Variables**

<table>
<thead>
<tr>
<th>TU</th>
<th>4.178</th>
<th>-.335</th>
</tr>
</thead>
<tbody>
<tr>
<td>TU*PB</td>
<td>-4.448</td>
<td>-2.154</td>
</tr>
</tbody>
</table>

TU*PB = Interaction between Task Uncertainty and Participative Budget

As can be seen in Table 8, the results show that one interaction term was statistically significant when the participative budget served as moderator. Both independent variables of job performance and job satisfaction was a significant predictor of task uncertainty for hypotheses 4 (H4) and hypotheses 5 (H5) as indicated by the significant t-value (-4.448 and -2.154, p<.05).
When Participative Budget served as a direct linkage with independent variables of job performance and job satisfaction, the regression result as shown in Table 9 indicate supported to meet the variables relationship was significant at .000 as per hypotheses 6 (H6) and hypotheses 7(H7) even by non significant t-value (3.858 and 5.604, p>.05). Hence, this result supported the earlier research finding from the previous researchers Latham & Yulk (1975), Kenis (1979), Brownell (1981) and Brownell (1982c) for H6 and Chong et al. (2005) for H7.

Again, in summary, the results of both sets of tests, taken together, suggest the following main conclusions as per set of hypotheses proposal in this paper earlier except for hypotheses 1(H1) and hypotheses 5(H5):

H1 : The level of task uncertainty is negative association with job performance.
H2 : The level of task uncertainty is positive association with job satisfaction.
H3 : The level of task uncertainty is positive association with participative budget.
H4 : Emphasizing high (low) participative budget and high(low) task uncertainty is associated with high (low) level of job performance.

H5 : Emphasizing high (low) participative budget and high (low) task uncertainty is associated with low(high) level of job satisfaction.

H6 : The level of participative budget is positive association with job performance.

H7 : The level of participative budget is positive association with job satisfaction.

4.5 Summary

The current chapter presents the result of analyses that was done by the author in order to fulfill the objectives of present study. In essence, majority of the result findings supported the hypotheses development proposed in Chapter 3 earlier.
Chapter 5

Conclusion and Recommendation

5.1 Introduction

This final chapter has been written by the author with the main objective of providing some implications of this study to the readers. However, before commencing on the implications that the researcher has in mind, a discussion of the research findings has been done to clarify and integrate the main findings the analysis has yielded in the previous chapter. Following the discussion and implications, are the limitations of this study.

The suggestion for additional research section also briefly details the main points that are deemed more important future research note highlighted of this study. Finally, conclusion sections summarize overall research background, findings, ideas, limitation and recommendation.

5.2 Discussion on the Findings

This paper provides a new way of thinking about budgetary participation research in different view of target sample. Based on the Brownell and Hirst (1986), their study sought to examine the three-way interaction between budget emphasis, budgetary participation, and task uncertainty on job-related tension and performance. This study assessed the extent to which Brownell’s (1982) results were determined by task uncertainty.
Brownell and Hirst (1986) hypothesized supports H1 and H3 whereby that the compatible combinations of participation and budget emphasis are more effective as opposed to high, task uncertainty activities. They believed that participation serves a vital purpose in a high task uncertainty situation, whether budget emphasis is matched or not. This belief is founded on the proposition that participation can provide the opportunity for managers to gain access to resources, which then can be used to buffer task performance. These researchers also hypothesized that compatible combinations of participation and budget emphasis have positive effects on performance in low, as opposed to high, task uncertainty activities. The results of this study support the proposition that compatible combinations of participation and budget emphasis are more effective in reducing job-related tension but not in improving performance in low task uncertainty activities. The author taken the task uncertainty variable to be tested as a direct relationship with performance and followed by the interaction of participative budget as moderator.

Using hypotheses from Perrow’s model (1970) and later replicate study by Margaret and Brownell (1997) which highlighted two key dimensions of the degree in the tasks encountered (task exceptions) and well-established techniques for performing tasks (task analyzability), which collectively referred to as task uncertainty and the results of research studies have persistently shown that accounting forms of control are poorly suited to highly uncertain tasks. The main contribution of the study is the finding which shows that where task uncertainty is highest, reliance on personnel forms of control has a positive and significant effect on performance.
Surprisingly, based on the results reported in this study, it provides negative result for the direct relationship between task uncertainty and job performance. Hence, hypotheses 1 (H1) is not supported and not followed the proposition of hypotheses despite of the earlier research finding by previous researcher (Abernethy and Brownell, 1997) was available. This is because such tasks has been fixed as part of the requirement which need to be complied and applied in order to complete the procedure or process of the tasks for the company. All employees must follow the procedure as stated in written procedure. The steps comprising those tasks can be effectively planned which well-understood by the employee. As such, since it straight forward to specify the relevant input and output of the tasks, there were no such a big impact on the task uncertainty to measure the job performance of the managers and middle management employees of KIC Group of Companies.

Moreover, the outcome of the moderating role of participative budget on the relationship between task uncertainty and job performance and job satisfaction has been empirically examined and the overall results were unexpected from the proposed hypotheses in this study. Further direction of the results can be explained graphically as shown in Figure 3 and Figure 4. When the participative budget measures served as the moderator, it moderated the relationship between task uncertainty and job performance and job satisfaction.
The significant moderating effect of participative budget on the relationship between task uncertainty and job performance recognizes the importance of the level of opportunity given either high or low employee involvement in the sense of performance measures.

Figure 3 shows that where task uncertainty is high, the high involvement of participative budget also relative to the impact of greater performance.

The impact of task uncertainty on job performance was greater when participative budget is high. This means that job performance of managers and middle management employees will
increase when they highly participate in the budgeting process given the situation of high task uncertainty. Indeed, it explained and supported the H4 in this study.

Further, with regards to the moderating effects of participative budget on the relationship between task uncertainty and job satisfaction, an interesting finding is revealed in this study.

Figure 4: The Impact of Participative Budget on the Relationship between Task Uncertainty and Job Satisfaction
Figure 4 shows the impact of employee job satisfaction with regards of task uncertainty was lower for those employees which involve lower rather than higher participative budget. The findings show that the impact of task uncertainty on job satisfaction was greater when participative budget was low. The level of job satisfaction among the managers and middle management employees increased when the level of task uncertainty was low and the extent of their involvement in budgeting process was low. Despite, when managers highly participate in the budgeting process given the situation of high task uncertainty, the job satisfaction will decreased accordingly.

This indicated actual result that the impact of task uncertainty and job satisfaction for those employees that involvement with the participative budget was inversed. Thus, there was not support for H5. The justification on this result can be explained that as task are well understood as in the case of the low task uncertainty, the effect of low participative budget involvement which in turn provide a great impact on job satisfaction. This is because when managers and middle management employees carrying their tasks in the correct and smooth manners in the condition of the well-planned budget, there were not much involvement towards budget were needed to achieve their job satisfaction. The job satisfaction was stronger rather than achieving it after resolved higher involvement of task uncertainty and participative budget. The more the difficulties to resolve, the less desired job satisfaction will get.

Merchant (1984) who discovered in management control system study found that if tasks are well understood as is the case when the task difficulty is low, then the steps comprising those tasks can be effectively planned, mapped and encoded by budgetary control system.
Although research in the area of participative budget, task uncertainty and job satisfaction resulted significant direct impact each others, it used other relevant variables as a measurement. For example, the relationship between value attainment role of participative budget and job satisfaction was positively related as study by Chong et al. (2005). As Brownell and Dunk (1991), argued that in the low task uncertainty but high variability situation, even though the array specific of tasks ahead cannot be foreseen (high variability), each one, when it arises, is analyzable since it is straightforward to specify the relevant inputs necessary to achieve desired outcome.

Despite, while measuring direct relationship between participative budget and job performance in earlier research, the significant or positive results were more than non significant results finding. Even several researchers like Dunk (1989) study found failure to indicate significant relationship between participation and job performance. This particular result supported the non significant relationship found by Brownell and Hirst (1986) but contradicted the significantly positive relationship found by Brownell (1982c). Similarly, Mia (1988) also observed the direct relationship between participation and performance and found that participation does not have a significant direct effect on performance.

However, while investigated the effect of budget participation on the relationship with job performance by Dunk (1993), the result obtained was positive as same as Brownell (1982c) and Brownell (1981). Likewise, research in 1970s era like Latham & Yulk (1975) and Kenis (1979) also obtained the same positive research findings.
Therefore, the similar finding from this paper also obtained the same result as per hypotheses 6 (H6) developed earlier. It clearly stated that the finding was matched with the prior research. Earlier research by Frucot & Sharon (1991) among Mexican managers found that there was positive relationship between budget participation and job satisfaction.

Furthermore, Lau and Tan (2003) find a significant path coefficient linking budget participation and job satisfaction among Singaporean managers. The similar finding was found in Chong et al. (2005) that the value attainment role of participative budgeting was positively related with subordinates’ job satisfaction. Thus, it can be concluded that the value attainment role of participative budgeting is expected to increase subordinates’ levels of job satisfaction. Accordingly, the following hypothesis is tested: Participative budgeting is positively associated with job satisfaction. Hence, the result for hypotheses 7 (H7) in this study was confirmed the theoretical expectation of the study.

To summarize, the main contribution of the study is the finding which shows the interaction between high (low) participative budget and task high (low) task uncertainty leads to higher (lower) managerial performance. However, the positive relationship between task uncertainty and job satisfaction would not repeat the same result when the moderating effect of participative budget in placed.

It is interesting to note that while there are no significant relationship between task uncertainty and job performance, the effects of budgetary participation conflict appear to have a much stronger positive impact on job performance and job satisfaction among managerial and middle management employees.
To summarize, the finding of this research study success to fulfil the four objectives of this study which stated in Chapter 1. Future research should be aimed towards extending this new way of thinking in different scope. The results of the study show that the task uncertainty has a significant impact on measures characteristics. As predicted by attribution theory, managerial and middle management who were told they performed poorly on their task rated themselves lower in budgetary participation, job satisfaction and job performance and inversed indirectly.
5.3 Implications of the Study

The findings of this study offered several implications, for practice and theory. Practically, the results have important implications for implementing a managerial performance and employee satisfaction for KIC Group of Companies.

Based on the research findings in this study, most of the respondent felt not much satisfied on their job due to high task uncertainty related to budget emphasizes. There was a requirement to give the more opportunities and openness on improving budget participation in order to increase their performance. Despite by lower task uncertainty and lower participative budget increased their job satisfaction but there were not in line with the job performance. Ultimately, it will affect the performance of the companies itself as a whole organization.

In this respect, the study provides some useful insights into the role of subordinate and peers whilst measure budget participation effectively in future. Specifically on the performance measure related to budget participation, one implication is that the managerial level should communicate the budget emphasize to their subordinate in dual communication from top to bottom and bottom to top to improve the gap of communication and information leaking.

Successful implementation of budgeting process should be emphasized in efficient way to serve a better tasks and output. Such opportunities and supports should be given in order to increase the level of budget participation in high task uncertainty situation.

For example, a group of members which consists of every correspondence of each group of companies and department to evaluate the task on budget may a good alternative to work through. This, therefore, ultimately will build and integrate a strong teamwork in high
participative budget in condition of high task uncertainty situation. A win-win situation among them can be achieved to support the vision and mission as well as the achievement of their organization.

Furthermore, the company should give the incentive either extrinsic such as pay and employee benefits or intrinsic like promotion in order to rewards their employee which higher involvement in budget with higher task uncertainty condition. Therefore, the level of job satisfaction will be in line with the complexity of handling the task. Thus, the performance also can be measured in the correct way and useful for the management for their employee evaluation.

Thus, the relevance of this study is to measure a different scope of target sample for the purpose and requirement for one specific organization (KIC Group of Companies) which is specifically focus in view of Malaysia study. With that, any variance between earlier studies and present study can be measured and extent for further research later.

Despite, from a theoretical perspective, this study replicate prior research dealing with budget participation in differences variables interaction and measurement. Some of the research finding supported the prior research and some were not applicable. The main reasons reflect to this, slightly due to the different target sample used for the empirical survey. Many researchers have specifically explored the different view and target sample related to budget participation interaction such as Brownell and Hirst (1986), Mia (1988), Dunk (1989), Chong and Chong (2002) and etc.
From the findings of present study, the author found that the same parametric test conducted by earlier researcher like factor analysis test by Withey et al (1983) and path analysis test replicated by Lopez M., Johan W.W.S and McNair F.M. (2008) might be not appropriate test due to different target sample and variables measurement.
5.4 Limitations of the Study

Having completed the research, the author has found some limitations that have constrained the author in obtaining a more accurate and comprehensive research results. While a recognized measure of task uncertainty was used in the study, the measurement of reliance on other forms of independent variable should be used as another option.

Hence, this study shares some inherent limitations with other survey research. All measures used are self-reported and may be based on self-perception. As such, they may not reflect formal participation in or influence over budget settings by the respondents. The sample was not randomly selected, and consequently the results might not be generalized to all managers. In addition, some self-selection bias might be present: managers who enroll in top management and executive level could differ from each other responsibilities and point of view.

Second, the sample of survey was limited to managerial level and middle management employee for KIC Group of Companies only instead can be larger spread target sample distribution in future. Even there were several group of companies holding under the same roof, the distribution of number of employees were not equally fairness whereby the majorities of the employees appointed under KIC Resources Sdn Bhd subsidiary. As such, most of the respondent only forms from this subsidiary company instead of overall group of companies.

Third, there is also limitation concerning variables measurement particularly for data analysis technique might not appropriate and suitable with the data of this survey. Even the use of
multiple regression analysis was tested for the data analysis technique in this study, however there are few alternative can be used as well like Path Analyses or Structural Equation Model (SEM). These two alternative might be provides a better end result of the survey.

Thus, the scales used for this study and statistical techniques may contain own limitations whereby the scales that have been well tested within the literature, scales that produce Cronbach's that are well within acceptable ranges, and find very consistent results over a range of statistical techniques.

Moreover, survey questionnaire technique to gather the primary data only might not enough to cover overall aspect of information from the respondent. The author admits that not all respondents understand the statement meaning and requirement in the questionnaire itself. Some of the terms might not easy understand terms due to using established questionnaire with old and technical interpretations. Therefore, this situation may affect the quality of the data.
5.5 Suggestions for Additional Research

Like all research, this study has some limitations and leaves some issues unresolved, which in turn suggests future research opportunities.

The sample of the study can be increased and cover larger sample size covering other types of industries such as services, manufacturing and non-profit organizations. The more respondent that could be polled, the more valid and accurate the result would be. This way, representation of sample respondents would be ensured. Study that contains larger sample size can be done in order to obtain more wide scope, accurate and comprehensive result.

Future research could be enhanced better scale and statistic technique. It could be extra advantage if the number of data gathered was larger. The larger the data the more accurate and given value added advantage of the research findings.

Furthermore, despite of only using survey questionnaire as a mode to gather the primary data from the respondents, combination with face to face interview with the top managerial level of the companies might be given some value added and extra information from the viewpoint of strategic thinking and leadership goals of the companies. This qualitative technique would provide a more dynamic and comprehensive information gathered.

As per Covaleski et al. (2003) recommend that future budgetary participation research should attempt to integrate three theoretical perspectives: economic, psychological, and sociological. In addition, they note that integration should use bidirectional models rather than
unidirectional models. This study shows that when surveys are employed in budgetary participation research, the use of bidirectional models is required.

Other motives of similar research may be warranted across a variety of other independent variables like cultures and environmental effect in future. These two variables could be more interesting and would do well to distinguish existing findings.
5.6 Conclusion

This study contribute to evaluate interaction on participative budget with the level of task uncertainty have impact on managerial performance in a specific one organization. Most of the results support the hypotheses proposed in this study except for hypotheses 1(H1) and hypotheses 5(H5). As such, the evidence was inconsistent with the prior research finding. The results also indicate that the role of participative budget measures as moderating variable worked best with the task uncertainty and performance. Indeed, participative budgeting allows a subordinate to bring his/her information to the task of specifying standards of performance and as such may lead to higher job performance but not higher job satisfaction. Despite inherent limitations, the findings of this study still provide some implications for the theory and management practices especially for management of KIC Group of Companies. Thus, this study helps to guide the extend research into more wide scale of larger industries focus and extensive variables.
REFERENCES


APPENDIX A

SAMPLE OF QUESTIONNAIRE

UNIVERSITY OF MALAYA
The Faculty of Business and Accountancy
Master of Business Administration (MBA)

The Effects of Task Uncertainty on Participative Budget towards Job Performance and Job Satisfaction on Managerial and Middle Management perspectives”
- A Case Study of KIC Group of Companies -

Dear Sir/Madam,

This survey is conducted as part of MBA Research Project, which shall be submitted in part completion of the Master of Business Administration degree from the University of Malaya.

The general purpose of this study is to examine the effects of task uncertainty on participative budget towards job performance and job satisfaction on Managerial and Middle Management perspective”

This survey is focused specifically for a case study of KIC Group of Companies.

I would like to invite your participation in this survey by filling up the attached questionnaire. The said questionnaire is constructed in a straightforward manner and easy to answer, which should take not more than 10 minutes of your valuable time. Please be assured that all information will be treated with the strictest confidentiality and only the aggregate data will be analyzed.
I would really appreciate if you could return the completed questionnaire to norsaadah@kic.com.my or directly hand in to me at finance department no later than 31st March 2009.

Thank you for your valuable assistance in participating on the survey.

Yours sincerely,
Norsaadah Khalil

Supervised by,
Dr. Ruzita Jusoh
Department of Management Accounting & Taxation
Faculty of Business & Accountancy
University of Malaya
SECTION A : PROFILE INFORMATION

1. Sex
   - Male
   - Female

2. Age
   - Less than 25
   - 26-35
   - 36-45
   - 46-55
   - Over 55

3. Marital Status
   - Single
   - Married
   - Divorced
   - Separated
   - Widowed

4. Races
   - Malay
   - Chinese
   - India
   - Others

5. KIC Group of Companies
   - KIC Oil Terminal Sdn Bhd
   - KIC Resources Sdn Bhd
   - Kadriah Integrated Facilities
   - Asia Petroleum Hub
   - Petlog Sdn Bhd
   - Masoil Global Trading (S) Pte Ltd
   - ZAQ
   - QIPMC

6. Occupation Level
   - Upper Level Manager (AVP and above)
   - Senior Manager/Manager
   - Assistant Manager
   - Senior Executive
   - Executive

7. Working period duration at KIC Group of Companies
   - Less than 1 year
   - 1 – 2 years
   - 2 - 5 years
   - 5 years above

8. Department
   - Chairman’s Office
   - Resource Group
   - Corporate Group
   - Business Group
   - Asset Group
   - Asia Petroleum Hub
   - QIPMC
   - ZAQ

9. Highest Level of Education
   - High School
   - Diploma
   - Bachelor’s Degree
   - Master's Degree
   - PHD

10. Monthly Income
    - Below RM 2,500
    - Between RM 2,501 to RM 4,500
    - Between RM 4,501 to RM 6,500
    - Between RM 6,501 to RM 10,000
    - More than RM 10,000
## SECTION B : TASK UNCERTAINTY

The following sets of statements describe how you cope and response with the task uncertainty. Kindly put “X” in the boxes to reflect your feedback.

<table>
<thead>
<tr>
<th></th>
<th>Somewhat never</th>
<th>Never</th>
<th>Occasionally</th>
<th>Sometimes</th>
<th>Some what often</th>
<th>Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>How repetitious are the duties of those in your unit?</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>2</td>
<td>To what extent would you say the work of your unit is routine?</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>3</td>
<td>Basically, unit members perform repetitive activities in doing their jobs.</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>4</td>
<td>How many of tasks in your unit are the same from day today?</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>5</td>
<td>People in my unit do about the same job in the same way most of the time.</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>6</td>
<td>To what extent is there an understandable sequence of steps that can be followed in doing the work in your unit?</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>7</td>
<td>To what extent is there an understandable sequence of steps that can be followed in carrying out the work in your unit?</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>8</td>
<td>To what extent is there a clearly known way to do the major types of work normally encountered in your unit?</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>9</td>
<td>To what extent is there a clearly defined body of knowledge of subject matter which can guide the work done in your unit?</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>10</td>
<td>To do the work of your unit, to what extent can personnel actually rely on established procedures and practices?</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>
# SECTION C: BUDGET PARTICIPATION

The following set of statement describes the **BUDGET PARTICIPATION**. For each statement, please indicate to which extent you feel it is agreeable or disagreeable. Kindly put “X” in the boxes to reflect your feedback.

Please answer the following six questions as things are **currently at work**.

<table>
<thead>
<tr>
<th>Budget Participation (BPP)</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. I am involved in setting all portions of my budget.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The reasoning provided by my supervisor when budget revisions are made is very sound and/or logical.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I very frequently state my requests, opinions and/or suggestions about the budget to my supervisor without being asked.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have a high amount of influence on the final budget.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My contribution to the budget is very important.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When the budget is being set, my supervisor seeks my request, opinions and/or suggestions very frequently.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Please answer the following six questions as you would **want things to be at work**.

<table>
<thead>
<tr>
<th>Desired Budget Participation (DBP)</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. I should be involved in setting all portions of my budget.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The reasoning provided by my supervisor when budget revisions are made should be very sound and/or logical.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I want to state my requests, opinion and/or suggestions about the budget to my supervisor without being asked.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I would like to have a high amount of influence on the final budget.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My contribution to the budget should be very important.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
When the budget is being set, my supervisor should seek my requests, opinions and/or suggestions very frequently.

I find it necessary to stop some activities in my department when budgeted funds are used up.

Budget performance is an important factor in advancing my career.

SECTION D: JOB PERFORMANCE (PER)

The following sets of statements are used to measure the **JOB PERFORMANCE**. For each of activity, please rate your own recent performance using the following scale. Kindly put “X” in the boxes to reflect your feedback.

<table>
<thead>
<tr>
<th>Below Average Performance</th>
<th>Average Above Performance</th>
<th>Average Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1  2</td>
<td>3  4  5</td>
</tr>
</tbody>
</table>

**P1: Planning**
- Determining goals, policies and courses of action; work, scheduling, budgeting, setting up procedures, programming.

<table>
<thead>
<tr>
<th>Below Average Performance</th>
<th>Average Above Performance</th>
<th>Average Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1  2</td>
<td>3  4  5</td>
</tr>
</tbody>
</table>

**P2: Investigating**
- Collecting and preparing information for records, reports and accounts; measuring output; inventorying, job analysis.

<table>
<thead>
<tr>
<th>Below Average Performance</th>
<th>Average Above Performance</th>
<th>Average Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1  2</td>
<td>3  4  5</td>
</tr>
</tbody>
</table>

**P3: Coordinating**
- Exchanging information with people in other organizational units in order to relate and adjust programs; advising other departments, liaison with other managers.

<table>
<thead>
<tr>
<th>Below Average Performance</th>
<th>Average Above Performance</th>
<th>Average Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1  2</td>
<td>3  4  5</td>
</tr>
</tbody>
</table>

**Evaluating**
- Assessment and appraisal of proposals or of reported or observed performance; employee appraisals, judging output records, judging financial reports; product inspection.

<table>
<thead>
<tr>
<th>Below Average Performance</th>
<th>Average Above Performance</th>
<th>Average Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1  2</td>
<td>3  4  5</td>
</tr>
</tbody>
</table>

**P5: Supervising**
- Directing, leading and developing your subordinates; counseling, training and explaining work rules to subordinates; assigning work and handling complaints.

<table>
<thead>
<tr>
<th>Below Average Performance</th>
<th>Average Above Performance</th>
<th>Average Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1  2</td>
<td>3  4  5</td>
</tr>
</tbody>
</table>
### SECTION E : JOB SATISFACTION

Ask yourself: How satisfied am I with this aspect of my job? Kindly put “X” in the boxes to reflect your feedback.

**“VES” (Very Extremely Satisfied)** : If you feel that your job gives the highest satisfaction and expectation.

**“ES” (Extremely Satisfied)** : If you feel that your job gives you a lot more than you expected.

**“VS” (Very Satisfied)** : If you feel that your job gives you more than you expected.

**“S” (Satisfied)** : If you feel that your job gives you what you expected.

**“SS” (Somewhat Satisfied)** : If you feel that your job gives you less than you expected.

**“SNS” (Somewhat Not Satisfied)** : If you feel that your job gives you near less than you expected.

**“NS” (Not Satisfied)** : If you feel that your job gives you much less than you expected.

**On my present job, this is how I feel about:**

<table>
<thead>
<tr>
<th>NS</th>
<th>SNS</th>
<th>SS</th>
<th>S</th>
<th>VS</th>
<th>ES</th>
<th>VES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>a. Being able to keep busy all the time.</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>□ □ □ □ □ □ □</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>b. The chance to work alone on the job.</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>□ □ □ □ □ □ □</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>c. The chance to do different things from time to time.</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>□ □ □ □ □ □ □</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>d. The chance to be “somebody” in the community.</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>□ □ □ □ □ □ □</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>-------------------------------------------------------------------------------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e.</td>
<td>The way my boss handles his workers.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f.</td>
<td>The competence of my supervisor in making decisions.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g.</td>
<td>Being able to do things that don't go against my conscience.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>h.</td>
<td>The way my job provides for steady employment.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i.</td>
<td>The chance to do things for other people.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>j.</td>
<td>The chance to tell people what to do.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>k.</td>
<td>The chance to do something that makes use of my abilities.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>l.</td>
<td>The way company policies are put into practice.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>m.</td>
<td>My pay and the amount of work I do.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>n.</td>
<td>The chances for advancement on this job.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>o.</td>
<td>The freedom to use my own judgment.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>p.</td>
<td>The chance to try my own methods of doing the job.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>q.</td>
<td>The working conditions.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>r.</td>
<td>The way my co-workers get along with each other.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>s.</td>
<td>The praise I get for doing a good job.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>t.</td>
<td>The feeling of accomplishment.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

THANKS FOR YOUR PARTICIPATION IN THIS SURVEY!
APPENDIX B

Figure 5: Histogram After Transformation from Normality Test

Task Uncertainty

Participative Budget

Job Performance

Job Satisfaction
APPENDIX C

Figure 6: Normal Probability Plot After Transformation from Normality Test

Normal Q-Q Plot of TASK UNCERTAINTY 1

Normal Q-Q Plot of PARTICIPATIVE BUDGET 1

Task Uncertainty
Participative Budget

Normal Q-Q Plot of PER 1
Normal Q-Q Plot of SATISFACTION 1

Job Performance
Job Satisfaction
APPENDIX D

Figure 7: Box Plot to Test Outliers for Each Variables After Transformation of Normality Test

Task Uncertainty

Participative Budget

Job Performance

Job Satisfaction
APPENDIX E

Table 10: Results of Reliability Test

<table>
<thead>
<tr>
<th>Cronbach's Alpha</th>
<th>Cronbach's Alpha Based on Standardized Items</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>.420</td>
<td>.455</td>
<td>4</td>
</tr>
</tbody>
</table>