THE INFLUENCE OF ORGANIZATIONAL STRUCTURE, RESOURCES AND CULTURE ON PROJECT PERFORMANCE: A STUDY AMONG CONSTRUCTION FIRMS IN PENANG

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A study among construction firms in Penang

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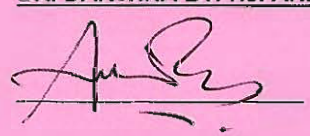

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ABSTRACT

The purpose of this study is to investigate on the influence of organizational structures, resources and cultures on project performance among construction firms in Penang. A survey of a representative sample of 142 respondents was used in this study. This study is a quantitative method and the data from questionnaires were analyzed using Statistical Package for Social Science (SPSS) 22.0. Multiple regression analyses were performed to tests the hypotheses of the study. The findings confirmed that there were two hypotheses, organizational structures and cultures have a positive significant association with project performance. The primary contribution in this study is to enhance the understanding on the significant factors that influence on project performance among managers/contractors in construction firms in Penang.

ABSTRAK

Tujuan kajian ini adalah untuk menjalankan siasatan terhadap pengaruh struktur organisasi, sumber dan budaya ke atas prestasi projek di kalangan syarikat-syarikat pembinaan di Pulau Pinang. Kajiselidik yang mewakili sampel seramai 142 responden telah digunakan dalam kajian ini. Kajian ini adalah kaedah kuantitatif dan data daripada soalselidik dianalisa dengan menggunakan Statistical Package for Social Science (SPSS) 22.0. Analisis regresi berganda telah digunakan untuk menguji hipotesis kajian ini. Keputusan kajian membuktikan bahawa terdapat dua pemboleh ubah tidak bersandar – struktur organisasi dan budaya organisasi yang mempunyai hubungan positif dan signifikan dengan prestasi projek. Sumbangan utama kajian ini adalah untuk meningkatkan pemahaman tentang faktor-faktor signifikan yang mempengaruhi prestasi projek di kalangan pengurus/kontraktor firma-firma pembinaan di Pulau Pinang.

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Finally, I dedicated this work to my family. There is no word to express my gratitude for the support that my wife, Siti Nazira Binti Shaik Harunal Rashid has given me. I could not complete this program without her endless love, patience, understanding and encouragement and also to my son Shah Luqmanul Haqeem, thank you for always being on my side. My heartfelt appreciation also goes to all my family members especially to my parents. I pray to the Al-Mighty to grant every individual who has contributed to this research, bountiful of His everlasting guidance.

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CHAPTER 1

INTRODUCTION

1.1 Background of the Study

In a current business scenario, the construction firms have revolved a great significant challenge due to rapid development and execution of new products and services (Gan, 2000). In Malaysia, the major activities that contribute to the development of the economy growth are came from the residential, industrial, commercial and services sectors. Essentially, according to Jatarona, MdYusof, Ismail and Saar (2015),the Malaysian government is the major client for the construction industry in Malaysia. The projects mostly concentrate on the development of the basic infrastructure likes roads, dams, irrigation works, schools, houses,and other physical foundations. These projects are very useful to boost and sustain the standard of living of the nations. However,there are non-performing projectsreported due to poor management. Jatarona et al. (2015) claimed that in Malaysia, sick projects are reported at 235 in 2013 and 191 in 2014. Though there is the decrement of 20 percent in sick projects, but there is a need for company to systematically monitor the project performanceof the firm.

In 2015, the Malaysian National Budget 2015 has allocated RM770 billion in public projects, however the outcomes are yet unrevealed; thus it stimulates the negative perception from the investors on the public construction project in Malaysia as a whole. Besides, this sector is also reported low profitability and lack managementon training of staff as well as the research and development(Yong and Mustaffa, 2012). Limited trust, minimal cooperation and commitment,

lack communication and collaboration among their stakeholders are among the key problem areas experienced in the Malaysian construction industry (Yong and Mustaffa, 2012).

Nonetheless, currently we are living in the full of comfort and better quality of life compared to decade ago. For instance, in 1998, the country had a bad experienced of economic recession which was reported negative on growth. This negative occurrence was caused by many sick large projects such as highway disrupted East West, Sarawak Bakun Dam and others. In 2004,the position of the economy has changed in which it was recorded the highest growth. This shows that Malaysia managed to achieve remarkable economic growth in Domestic Product (GDP) that recorded an average of 6.3% every year (Budget Year 2008, 2007). Furthermore, the direct foreign investment (FDI) is constant and viable. Malaysian has built world-class infrastructure which can accommodate the industrial growth (Aminah, 2007).

In the construction industry, the demand for distinctive features of the growth rate in the construction requirements are essentially complex, which is grew faster than the increase rate in ability to meet the demand. There are various elements that influence the performance of the construction industry since there are huge infrastructures need to be implemented. In Penang State for instant, the Penang Transport Master Plan has proposed by the state government to completely overhaul its transportation network. The plan could involve infrastructure spending of at least RM27billion. This would generate lots of projects among the construction firms in Penang State. Hence the construction firms need to consider the factors that could contribute to increase the firm performance.

1.2 Problem Statement

Masrom, M. A., &Skitmore, M. (2009) stated that the performances of some contractors are generally unsatisfactory. According to them, this disadvantage may be because of the contractors' absence of dexterity, inspiration or satisfaction. Besides that, based on a survey conducted by Chan &Kumaraswamy (1997) to evaluate failure factors in Hong Kong construction projects, they found that inaccurate decision making by contractor can lead to delay in the projects. Due to this, performance is significant in measuring the growth and sustainability of the organization. Organizational performance has long been viewed in management literature. However, there is still a need to study the importance of firm performance specifically in project performance because it is believed that the stronger project performance will lead to increase the organizational outcome; and thus indirectly it could affect the industrial growth.

Determining the factors that could contribute to best firm performance is actually crucial for the organization. Structures, resources and cultures are the key strategic component that the company should highlight (Wheelen and Hunger, 2015).As indicated by Thompson (1965), organizational structure can be seen as the organization internal setup of connections, power and correspondence and correspondingly and then again Dennis, Richetto and Wiio (1984) characterized organizational structure as "the system of connections and parts existing all through the organization". Meanwhile, resources of organization alludes to the organizational parts of a vocation that are functional in realizing work objectives, could decrease the demand of jobs and their related psychological and physiological expenses; and could stimulate particular development, learning, and advancement (Demerouti, Bakker, Nachreiner, &Schaufeli, 2001).

Whereas, Ankrah& Proverbs (2004) stated that organizational culture is an expansive degree been used as the 'black box' explanation behind a portion of the construction commercial and professional harms, with various parties, through reports and diverse means, calling for a social transformation in the industry. There is a common belief that the organizational culture of the construction firm is one of the factors that has an impact on its performance.

Organizational structures, resources and cultures could influence the project performance by a contractor in a construction company. It is believed that these three elements are important assets for a contractor in order to make an accurate decision which in turn will benefit the company itself. Furthermore, the contractor is a party that is very important for the development of the country in term of economy, engineering development and also for human capital. It is extremely significant for the organizations to be effective in their businesses in turn to endure in the competitive business surroundings such as the construction sector (Arslan&Kivrak, 2008). If the contractors have always failed in the management of their company, how they may help the country in engineering the development and also the economic growth of the nation?

According to Cleland (2004), the organizational configuration is critical in order to boost the life span and development in which the organizations form in numerous distinctive courses with various leadership features but with the identical aims. No matter what the motivation for an organization to opt an operating structure, the same ethics in business apply, alleviate, strengthen, and make money (Sears, Sears, & Clough, 2010). In a survey which conducted by Arslan&Kivrak in 2008, which was done amongst Germany's principal construction firms, the most significant features that bring to success which were recognized such as employee progress, effective risk management, invention, corporations with clients, and lean organizational arrangement.

Cheung, Rowlinson, & Jefferies (2005) concluded that effective organizations produce a hierarchy or structure which apparently exemplifies who is the proficient individual to report for the project work assignments, advancement of work summaries, union recognized prerequisites, cost control administration, transformation of management, project safety matters, client thought and contentment, subcontractor affairs, team building strategies and also concerns of human resource component.

Resources of construction firms provide the methods of achieving the work objectives and it is solicited to carry out activities on a project that are determined by the type and amount of works in which it represents work force on a project in terms of various trades and operatives (Memon& Mohammad Zin, 2011). The basic objective of resource planning and management is to supply and support the project so that established time objectives can be met and costs can be kept within the project budget within the accurate decision made by contractors (Brucker, Drexl, Möhring, Neumann &Pesch, 1999). Shanmuganayagam (1993) expressed that organizational resources recognized as possessions and the planning of the assets, which is of prime priority in creating a feasible planning, is one area in which issues are encountered.

Regardless of the way that it is perceived that organizational culture impacts the development forms in development (Steel &Murray, 2004), just a couple considers have inspected this relationship particularly. Tatum (1989) found that innovative firms in construction persistently take a stab at enhanced efficiency, addressing everything and all colleagues, and looking for upper hands to win ventures. Other than that, Egbu, Henry, Kaye, Quintas, Schumacher and Young (1998) additionally found that the four innovative organizations they inquired about showed certain culture qualities including correspondence versatility, chance resistance and capacity to share information. Correspondingly, Dulaimi, Ling, Ofori and De Silva (2002) turned

out with a conclusion that construction firms ought to make a 'no fault' culture to fortify workers to create and explore different avenues regarding new thoughts.

Previous research has recognized the positive influence of these three variables to the performance of the firms in today's global business context. However, the impact of organizational structures, resources and cultures has been lacking in term of the study on performance by construction firms. Specifically, the relationships between these three variables on performance by construction firms are still limited. There are many previous researchers who have conducted the studies about the project performance by construction firms (Akintoye& MacLeod, 1997; Gann & Salter, 2000; Holt, 1998). However, there is still lack of studies about the effects of organizational structure, resources and cultures in the perspective of project performance among construction firms (Mlinga&Lema, 2000; Raftery, Pasadilla, Chiang, Hui & Tang, 1998). Thus, further quantitative empirical study is needed in order to prove the impacts of these three variables toward the project performance process among construction firms. It is hoped that the result of this research could help the managers or contractors to lessen the pressure among construction firms in achieving their performance target.

1.3 Research Questions

Below is the list of questions that covered in this study:

1.3.1 What is the relationship between organizational structures and project performance?

1.3.2 What is the relationship between organizational resources and project performance?

1.3.3 What is the relationship between organizational cultures and project performance?

1.4 Research Objectives

Below are the objectives of this research in order to find out the influence of organizational structure, resources and culture on project performance among construction firms in Penang:

1.4.1 To determinethe relationship between organizational structureand project performance.

1.4.2 To determine the relationship between organizational resources and project performance.

1.4.3 To determine the relationship between organizational culture and project performance.

1.5 Significance of the Study

1.5.1 Theoretical perspective

In terms of theoretical, this research would help other individual to prove the theory and also support the future research, which can lead to generates good ideas and also provide better understanding.

1.5.2 Managerial perspective

This study could support and help the management to identify the influence of organizational structures, resources and cultures on projects performance among construction firmsas well to make a decision that will benefit the organization itself.

1.5.3 Contractors

The contractors can gain knowledge about the influence of organizational structures, resources and cultures on project performance for their companies. At the same time, they also can gain better understanding about the factors that should be considered in making decisions as they want to maximize the profits of their organizations that are organizational structures, resources and cultures.

1.6 Scope of the Study

In accordance with the title, the purpose of the study is to examine the influence of organizational structure, resources and culture on project performance. Previous studies revealed that organizational structure, resources and cultures have their own impact to the project performance in the organizations. Generally, most of them are focusing on the project performance in the perspective of business without specifically defining the project performance by construction firms.

This study used the construction firms situated in Penang. Construction firms in Penang were used in this study because this state is among the highest number and rapid development and

construction in Malaysia. Besides, due to limited time and resources, only one state is used in this study. The contractor of the firms is the target respondent in this study.

1.7 Definitions of Key Terms

Term definition is an important part to show clearly the relationship of variables in this study. In this study, the factors influencing the project performance by construction firms in Penang are organizational structure, resources and culture. The definition of terms is very important to create better understanding about the topic discussed in this research.

Project Success (Project Performance)	Project success can be characterized as meeting objectives and goals as concurred in the venture arrange. An effective venture implies that the venture has finished its specialized execution, kept up its calendar and stayed with budgetary expenses (Yew et.al., 2003).
Organizational Structure	The regularly arrangement of hierarchical position of lines of power, ways of communicating, rights and obligations of an organization and it verifies how the power, roles and obligations are allocated between the diverse levels of administration in that organization.

Organizational Resources	The meaning of organizational resources is the things that become accessible to generate some products in a business. They will incorporate human, financial (money), capital and raw materials. The greater part of these things is assets that an organization bases its structure and plans on.
Organizational Culture	Culture of organization is the lead of people (conduct) who are a piece of a general public and the suggestions that the people join to their exercises. Culture fuses the estimations of organization, standards, vision, working dialect, systems, propensities, convictions and images. It is likewise the case of such practices and assumptions that are educated to new organization parts as a route for perceiving, and to be sure, thinking and feeling. Organizational culture impacts the way people and gatherings speak with each other, with clients, and with partners.

Table 1.1: Definitions of Key Terms

1.8 Organization of Chapters

Chapter one focuses on the introduction of the study. This chapter discusses the problem statement, research question, research objectives and significance and scope of the study. The definition of the key terms is also explained in this chapter.

Next session is chapter two, the discussion of literature review. In this chapter, the researcher discusses and syntesizes the previous research and gaps of the topics of this study. Then, it followed with chapter three. This chapter explains the details of research methodology. The population and sample of the study, research design, analyses of the data are thoroughly explained.

Chapter four explains the findings of the result; in which detailed out the profile of respondents, the result of data screening as well as the result of each hypothesis. Last but not least, this thesis covers chapter five where the conclusion and discussion of the study are thoroughly discussed.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

The construction industry is a standout amongst the most vital businesses helping Malaysian budgetary development (Jaafar, Ramayah, Abdul-Aziz & Saad, 2007). Moreover, it plays a major and fundamental part in changing the aspirations and the necessities of individuals into reality by physically executing various improvement ventures (Awil& Aziz, 2012). As specified by Memon and Mohammad Zin in 2011, the construction industry is presently a profoundly dynamic area and a standout amongst the most complex ventures. The construction industries accept a fundamental part in the advancement of nations monetary and construct the establishment required for financial change while being a huge supporter to general monetary development (Abdulllah, Chai, Anuar and Tan, 2004). Construction output is characterized as the development starting and development subordinate (Drewer, 1980). As the improvement advances, the construction industry needs to satisfy the augmentation and changes in development request.Ofori (2000) expressed that the significance of taking measures to improve the execution of the construction industry has now been perceived in a couple of countries at various levels of socio-money related headway. Committed offices have been shaped in numerous nations to manage the reliable change of the business, regardless of the way that they have distinctive goals, commitments and levels of power. There are different sorts of endeavors that have been done to expand the nature of the development extend administration so that project delivery system can be expanded. For instance, the legislature had set up one extraordinary organization to screen and facilitate development action in particular Construction

Industry Board Development Malaysia (CIDB). Construction firm which completed the construction job need to enlist with CIDB Malaysia under one of the classifications to be specific building work, designing work and mechanical work and electrical. Aside from that, PusatKhidmatKontraktor (PKK) is the main government organization which expressed order to complete administration in contractors' issues. There are three (3) phases of contractor's enlistment under PKK which are classifications limit offered seven head parcel and different sub head. With this enlistment framework, enrolled construction firms can be guaranteed now and again and part from that, PKK additionally actualize the strategy to enhance the administration techniques so that local building entrepreneur can be more reasonable. Other than dealing with the contractor registrations affairs, push to settle picture of construction industry likewise have been polished. To support nation's construction industry to be more dynamic and can contend in worldwide market, a vital arrangement proposed by CIDB was endorsed. The proposition is going to arrange the key approaches to build up the construction industry by more beneficial and viably contending. Under that arrangement, this construction industry can utilize state - of-the-art innovation and the most recent strategy. There are more than 40,000 organizations in Malaysian construction industry, utilizes 800,000 individuals and is served by around 140 supporting businesses (CIDB, 2000). Fundamentally, the Malaysian construction industry is arranged into four sub segments; residential, non-residential, civil engineering and unique special trade works . Special trade works allude to fundamentally for maintenance, for instance electrical, painting, pipes, carpentry and tiling (Abdul-Rahman, Wang, Wood and Low, 2012).

2.2 Overview of Dependant Variable

These days, the number of contractors in Malaysian construction industry is increasingly. According to the information obtained from a report by Malaysian Public Works Department, the amount of contractor firms exists was more than forty thousand because of the numerous factors.

There are several parties who are specifically included in the construction business, for example customer, specialist, contractor, supplier and local neighborhood. Most of the construction projects greatly dependent with the involvement of the contractors in the projects.Since the contractors are the most critical gatherings in construction project, they can bring about an issue to the project performance itself. The thriving of the project is for the most part relies on upon the ability and efficiency of the construction firm in managing the construction work on site. This is on the grounds that the shortcomings or disappointments of the administration to work efficiently will make issues the construction firms. Thus, the contractors should make an accurate decision in managing and supervising the construction projects in order to ensure the success of the project performance. Generally, the success of the construction project relies on the contractor's efficiency and effectiveness to control and manage all the aspects of construction works. In fact, the weak management of the project can lead to the failure in the construction industry. As mentioned by Abdullah (2004), the contribution of the construction industry in the improvement of the economy is exceptionally extensive, for example skyscrapers buildings, residential areas, the highways and others. With the incredible and astonishing of the building construction, this will open the eyes of the world to recognize our nation. A study conducted by Noulmanee, Wachirathamrojn, Tantichattanont&Sittivijan(1999)stated that the factors of failure and deferments in highway construction in Thailand have found that it might be initiated by all parties involved in the projects. However the main reasons come from insufficiency of

subcontractors and inadequacies between consultant and contractors because of inaccurate decisions made by contractors in confirming sufficient resources before starting the projects. In making decisions that will be profitable for a long time to organizations, the construction firm will take into account the impact of the organizational structures, resources and cultures.

This is because all of these three factors have different effects on the project performance that will be determined by the contractor themselves.

2.3 Discussion of Independent Variables

2.3.1 Organizational Structure

The literature review gives regular characteristics for types of organizational structure and found numerous meaning for the structure. "Basically, structure is the architecture planning of business ability, leadership, skills, practical relationship and management" (Lenz, 1980). Previously, Germain, Dröge& Daugherty in 1994 concluded that organizational structure includes the nature of formalization, layers of hierarchy, level of horizontal integration, centralization of authority (locus of decision-making), and patterns of communication. This is fortified by El Louadi in 1998 in which he stated that organizational structure is viewed as facilitating interaction and communication for coordination and control of the organization's activities.

This is different if comparing to Grossi, Royakkers&Dignum (2007) in which they highlighted that organizational structures are sets of relations between the roles of an organization in which the typical abstract example of such structures is the so-called "vertical differentiation" or "authority structure" of organizations, usually considered to be a "hierarchy" structure.Another

definition of organizational structure by Gerwin and Kolodny in 1992, organizational structure is the way responsibility and power are allocated, and work procedures are carried out, among organizational members. Essentially, organizational structures are assets used to organize work that has been separated into smaller errands (Olson, Slater &Hult, 2005).

Organizational structure includes the arrangement of resources in a way to improve and support particular logistics administration enhancement capacities (Bergfors& Larsson, 2009).

Thus, organizational structure impacts the conduct of parts of organization (Dalton, Todor, Spendolini, Fielding, & Porter, 1980). Krokosz-Krynke (1998) argued that some accept that certain variable, for example, the environment, or technology, define organizational structure. Underdown in 2003 said that organizational structure is the formal arrangement of errand and reporting relationships that controls, organizes, and motivates representatives so that they coordinate to accomplish an association's goal. This is supported by Sablynski (2003) in which he characterized organizational structure as "How work assignments are formally separated, grouped, and coordinated". Moreover, Walton in 1986 recognizes structure as the support for the process of organizing, to incorporate various levels and compasses of responsibility, positions and roles in the organization, and instruments for integration and for the purpose of decision making for the project performance.

Organizational structure is characterized Tushman&Romanelli (2008) as: "The element's pattern of relationships around the components of parts in an organization, the way an organization is set-up and the formally characterized system of an organization's assignments and power relationship. Morris & Brandon (1993) characterized organizational structure as *"... comprises of work positions, their relationships to one another (e.g., autonomous, part of a work-team or*

group, and reporting relationships) and accountabilities for procedure and sub-process deliver". Meanwhile, El Louadi (1998) suggested that organizational structure is implemented in terms of formalization and centralization. Similarly, the significant dimensions that describe an organizational structure are its level of centralization of decision making, the formalization of principles and techniques, and structural separation (John & Martin, 1984). Besides that, according to the theory which is generated by Robbins (1990), dimensions of organizational structure consist of three characteristics including complexity (specialization), formalization, and centralization.

The "nature of formalization" is the degree to which workers are provided with rules and procedures that deprive versus encourage creative, autonomous work and learning (Miner, 1982). Robbins & Coulter in 2005 stated in their research in which formalisation reflects the degree to which jobs within an organisation are standardised and the extent to which employee behaviour is guided by rules and procedures. Previous study conducted by Pugh, Hickson, Hinings& Turner (1968) found that formalization is characterized as the degree to which guidelines, strategies, directions, and interchanges are composed. This is similar as Schminke, Ambrose &Cropanzano(2000) defined formalization as the degree to which the rights and obligations of the standards, technique and guidelines (Schminke*et al.*, 2000). It is supported by Khandwalla(1977) in which he stated formalization as the degree to which rules, strategies, guidelines, and correspondences are formalized or recorded. Besides, formalization in the arrangement of formulation is distinguished as an alternate segment of organizational structure in which Duncan (1976) characterizes it as the emphasis set on accompanying particular principles and techniques in carrying out the formulations of plan. It was different if comparing with the conclusion by Weick in (1979) in which he suggested formalization as a casing of references that

constrain exploration efforts and administers consideration to limited parts of the external environment. Also, formalization supports the recovery of learning that has recently been disguised (Lyles &Schwenk, 1992) and upgrades the causal comprehension of sets of tasks inside units.

Generally, formalization alludes to setting emphasis on following rules and techniques when performing one's task (Pugh *et al.*, 1968). The aim is to facilitate exercises and diminish variability in behavior (Mintzberg, 1979). Formalization might lessen confusion because staffs realize what they are relied upon to do (Thompson, 1967). The utilization of formal, recommended techniques is thought to be connected with additional method of rationale strategy and decision making (Miller, 1987). On the other hand, formalization of policies and systems might diminish assertiveness, and might empower reactive critical thinking instead of empowering proactive behavior in which individuals search for new chances and methodologies (Fredrickson, 1986). One objective of formalization is to routinize redundant exercises and transactions (Ruekert, Walker &Roering, 1985). Formalization might not appear to create an environment for new, imaginative approaches. Because formalization is unlikely to make a climate favorable to creating new plans and testing obscure approaches, it is unrealistic to empower improvement.

Centralization refers to the the degree to which decision-making is concentrated at a single point in the organization (Robbins & Coulter, 2005). Similarly, Lazuras (2006) verbally expressed that centralization occurs when the decision-making ascendancy is vested in top management. This is strengthened by Mcshane & Van Glinow (2003) in which they expressed that centralization happens when the formal decision-making domination is held by a modestly infinitesimal assembly of individuals, ordinarily those at the highest point of the organizational order. Also,

Olson, Slater &Hult(2005) highlighted that centralization refers to the degree that power of decision is nearly held by top managers or is decentralized and appointed to center and lower-level administrators.

Lysonski, Levas&Lavenka(1995) suggested that centralization of decision making is the degree to which the locus of power to settle on choices is designated to higher level of the hierarchy in the organization. Moreover, centralization defined as the degree to which power of decision making is assembled at the top administration level in the organization (Hage& Aiken, 1967). Thoughtfully, centralization alludes to the convergence of decision making power or the level of vertical control in the relationship (Poppo, 1995). All of these would lead to the influence of the project performance of the construction firms.

Complexity defined as the degree of division existing around the occupations in an organization (Robbins, 1990). But it is accepted that complexity in the amount of managerial levels in an association (Daft, 1998). Generally, complexity covers the amount of job titles (scattering of occupations inside an organization), chains of command and levels of management, the degree of training, and geographical dispersion of organizational units from one another. The complexity itself incorporates vertical, horizontal and geographical one (Horwitz & Neville, 1996). According to Anderson in 1999, geographical complexity keeps tabs on the separation between units based on geographical circumstances. In vertical complexity, the norm is the amount of levels in the organization and the layers of management and, finally horizontal complexity refers to the separation and the amount of employments of parallel group in a level. Consistent with a study conducted by Andersen in 2002, complexity or specialization or can be subdivided into three parts that are:

- Horizontal differences – explains how many jobs, professions and strength that are discovered around employees in an organization. It also refers to how much special training and instruction is given by the organization identified with particular tasks.

  At last, it depicts the level of departmentalization which implies, the more jobs, professions, and strength, the more particular training and the more branches (groups, sections and divisions) we find in an organization, the more unpredictable it is.

- Vertical differences – has to do with what number of levels, that is, how sharp or flat the pyramid is. The fewer number of levels, the bigger the span of control of every supervisor.

- Spatial differences – has to do with the physical area of the organization and its people and department. The bigger the separation between them, the more intricate is the organization.

Organizational complexity that has been recognized is the level of formal structural separation inside an organization (Blau, 1972). Ashmos, Duchon& McDaniel (2000) noted that greatly complex organizations are portrayed by numerous word related roles, departments, divisions, levels of power and authority, and the site of operating. Complexity could be discovered in the horizontal differentiation of departments and divisions, the vertical differences of levels of power, and the spatial separation of operating sites (Burton &Obel, 2004). Moorman, Deshpande, &Zaltman in 1993 highlighted that complexity might reduce trust in research relationships for two main explanations. Firstly, greater complexity might imply that researchers and users are not physically close to each other, which interferes with their capacity to create trust in relationships. Also, complexity might undermine trust building as a result of the

probability of greater dissimilarities in norms and beliefs as firms include more divisions, roles and departments.

2.3.2 Organizational Resources

The factors that should be considered for project performance among construction firms include the ambitions and goals of the individuals and the organization as regards to organizational resources, capabilities and strategies (Awil& Aziz, 2012). A construction project includes a group of activities to accomplish its objectives inside a particular measure of time in which every movement requires certain resources, for example labor, materials, equipment, and so on in order to complete relegated tasks and thus productive resource management is a perquisite for its prosperity (Memon& Mohammad Zin, 2011).Organizational resources have a motivational potential, as has been distinguished, for instance, by Hackman and Oldham (1980) in their employment attributes hypothesis. Other than that, the resource view holds that the type, extent, and nature of a company's resources and capacities are significant determinants of its profitability (Amit &Schoemaker, 1993). Also, the differences in performance across firms might be attributed to the fluctuation in firms' resources and capabilities (Hitt, Biermant, Shimizu &Kochhar, 2001). Resources that are significant, difficult to imitate and unique can furnish the support for firms' competitive advantages (Barney, 1991). Basically, resources are the basis for and expedite the execution of firm procedure (Lei, Hitt, &Bettis, 1996).

Hunt (2000) characterizes organizational resources as "the tangible and intangible elements accessible to the firm that empower it to handle proficiently or successfully a market offering that has value for some market segment(s)". Likewise, resources are classified as fiscal, physical,

legitimate, human, organizational, enlightening, and social (Hunt, 2000). Demeroutiet *al.* in 2001 defined organizational resources as the organizational parts of work that are utilitarian in attaining work objectives, could diminish work requests and their partnered physiological and mental expenses, and, at last, could animate individual development, learning and development. Previous study directed by Wernerfelt in 1984 discovered that resource is that which can considered as ability or weakness of a firm.

Basically, organizational resources at a given time could be characterized as those stakes which are tied semi-permanently to a firm, for example brand names, in-house information of engineering, skilled and professional staff, exchange contacts, machinery, productive strategies, capital and others (Wernerfelt, 1984). According to the preservation of resources hypothesis (Hobfoll, 2001), fundamental human motivation is guided at the creation, maintenance, and collection of resources. In addition, resources are esteemed in their own right or because they permit other esteemed resources to be gained or secured (Hobfoll, 2001). An organization requires not claim a resource or ability for it to comprise part of the resource base (Helfat, Finkelstein, Mitchell, Peteraf, Singh, Teece, & Winter, 2009). Grant (1991) was among the first to distinguish and report the vitality of resources in connection to an organization's competitive position and performance. Barney (1986) expounds on the significance of resources by noticing that firms' performance is driven straightforwardly by its items and by implication by the resources that go into their generation. Resources are of intrigue due to what should be possible with them. In particular, resources can be sent to create capacities (Amit and Schoemaker, 1993) which, thus, are connected to performance.

Other sorts of resources, for example tangible and intangible assets, and also skills have been distinguished as underlying the core abilities of a firm (Furrer, Sudharshan, & Thomas, 2001).

Firms can use a variety of tangible and intangible resources and assets to build organizational competencies (Furrer, Krug, Sudharshan, & Thomas, 2004).

The "resource base" of an organization incorporates tangible, intangible, and human resource (or assets) as well as the competencies which the organization claims, controls, or has entry to on a particular groundwork (Helfat*et al.*, 2009). Human capital has long been contended as basic resources in most firms (Pfeffer, 1995). Recent study proposes that human capital property (e.g., education, experience and abilities) and, specifically, the attributes of top managers influence firm outcomes (Pennings, Lee & van Witteloostuijn, 1998). Lei *et al.,* (1996) contend that firms building solid competencies (i.e., from their human capital) have the capacity to exploit vital opportunities.

Firm resources incorporate all assets, capacities, organizational techniques, firm qualities, data, information and others that are regulated by a firm that empower the firm to conceive and implement methods that enhance its effectiveness and viability (Daft, 1998). In the perspective of traditional strategic analysis, firm resources are qualities that firms can use to conceive and implement their strategies (Porter, 1981). Many authors have created lists of firms' characteristics that may enable firms to conceive and implement value-creating strategies through a successful decision-making (Hitt& Ireland, 1986). For the purpose of this element, these various conceivable firm resources could be advantageously classified into three different categories that are physical capital resources (Thorelli, 1986), human capital resources (Wernerfelt, 1989) and organizational capital resources (Tomer, 1987).

- Physical capital resources refer to the physical technology utilized within a firm, a firm's plant and equipment, its geographic location and also the access to raw materials.

- Human capital resources refer to the preparation, experience, judgment, intelligence, relationships, and the understanding between individual manager and workers in a firm.

- Organizational capital resources refer to the firm's formal reporting structure, its formal and informal planning, regulating, and organizing frameworks, as well as informal relations among groups inside a firm and between a firm and those in its environment.

The examples of tangible resources are plant and equipment, mining rights, employees with particular training, firm particular investments by suppliers or wholesalers, and so on (Wernerfelt, 1989).Intangible assets are resources that are non-physical (Furrer*et al.*, 2004). Intangible resources may be grouped as "assets" or "skills" in which they incorporate the intellectual property right of patents, trademarks, copyrights, and registered designs, and additionally contracts, data bases and trade secrets (Hall, 1993). Similarly, Itami& Roehl in 1978 defined intangible resources as intellectual property rights of patents, trademarks, copyrights, and registered designs; contracts and licenses; trade secrets; public knowledge such as published scientific works; personal and organizational networks; organizational culture; and, the reputation of the firm and its products (Itami& Roehl, 1987). Moreover, Hall in 1992 stated that intangible resource of reputation may likewise be ordered as an asset because of its attributes of "belongingness", and whilst it may be defendable to strike as for criticism and defamation, it cannot be said to have the property privileges of, say a trademark, which might be purchased and sold. Besides that, Wernerfelt in 1989 stated the examples of intangible resources which are patents, brand names and reputations. Besides that, firms' resources gifts, especially intangible resources, are troublesome to change aside from over the long-term (Teece, Pisano &Shuen, 1997). For the case in point, while human resources may be versatile to some degree, their abilities may not be significant for all firms, even competitors.

A few proficiencies are dependent upon firm-particular learning, while others are important when coordinated with additional individual competencies and particular firm resources (e.g., complementary assets) which may not be versatile (Teece*et al.*, 1997).

Meanwhile, these resources regularly assume an impressive role in strategy formulation and basically, they might pass on considerable advantage over a range of markets, and accessibility is not a real concern because their ability is not restricted (Wernerfelt, 1989). Amit &Schoemaker in 1993 highlighted that resources are changed over into final products or services by utilizing an extensive variety of other firm stakes and holding components, for example innovation, administration data frameworks, motivator frameworks, trust between employer and employee, and more. According to them, these resources comprise of skill that could be exchanged (e.g., patents and licenses), fiscal or physical possessions (e.g., property, plant and equipment), human capital, and so on.

As by Sveiby in 1997, *"Employee competence involves the capacity to act in a wide variety of situations to create both tangible and intangible assets. The internal structure includes patents, concepts, models, and computer and administrative systems. The external structure includes relationships with customers and suppliers. It also encompasses brand names, trademarks, and the company's reputation or image. Company probably consists largely of its tangible assets and its long-established managerial experience on organizing complex production (an internal structure). A construction company's main asset, if it does not own real estate, is its ability to carry out complex projects (an internal structure)".* From the perspective of organizational resources, resource heterogeneity is the most essential state of resource-based theory and it accepts at least some resource bundles and competencies underlying production are heterogeneous across firms (Barney, 1991).

Alvarez &Busenitz (2001) inferred that resource-based theory prescribes that heterogeneity is important but not sufficient for a sustainable advantage. For instance, a firm can have heterogeneous assets, but not the other conditions inferred by resource-based theory, and those possessions will just produce a short-term advantage until they are imitated.

2.3.3 Organizational Culture

Since its beginning, at first in the field of human studies and in this way in social science, the importance and meaning of the term culture have been emotively questioned. Suffice it to say that there are various originations of culture (Smircich 1983) and therefore numerous definitions. On one hand, culture is seen as something an organization has, while from another point of view, it is something that an organization is. A few authors concerned about the "profound," certain, oblivious sources of culture (Mitroff, 1983), while others accentuate the more explicit, tangible, surface-cultural signs, for example organizational etiquette, reward system and espoused values (Gagliardi, 1986). Barthorpe, Duncan & Miller (2000), in explaining an outline of culture, analyzed the advancement of the term from its affiliation with the development of land and production of crops, to current views as the totality of socially transmitted behavior patterns, symbolization, convictions, organizations, and all different products of human work and thought. Rooke (2001) defined culture as "that unpredictable entire which incorporates information, conviction, symbolization, ethics, laws, custom, and whatever possible competencies and propensities procured by man as a part of social order". A cross-disciplinary definition of culture proposed in Hofstede (2001) was that culture is "transmitted and created content and patterns of

values, ideas, and other typical significant frameworks as elements in the forming of human behavior and the artifacts transformed through behavior".

An alternate well-known anthropological consensus definition took culture to be designed as the methods of thinking, feeling and responding, gained and transmitted primarily by images, constituting the distinctive accomplishments of human groups, incorporating their embodiments in artifacts (Kroeber &Kluckhohn, 1978). Bodley (1994) simplified representation of culture as "what people think, what they do, and the material products they produce." Hofstede (2001) also defined culture as "the collective programming of the mind that recognizes the parts of one group or category of individuals from another". Culture acts like a pattern and shapes behavior and awareness inside a human social order from generation to generation (Miraglia, Law & Collins, 1999). Essentially, it works as a decodifier, defining situations and words, and giving them new meaning (Serpell& Rodriguez, 2002). It is manifested tangibly, in the form of symbols, heroes and rituals (Hofstede, 2001).

Other than that, Drennan (1992) defined culture as 'how things are carried out around here', and recommended that it is the organization's internal environment that has the huge impact on employee attitude and not the external environment, for example rising unemployment or global competition. Riley & Brown (2001) contended that culture is advanced from numerous elements and is impacted by a range of variables that change over time. Culture establishes through the typical and customary strategies by which things are carried out and the acceptable standards are built and turn into the standard while it is established in history, collectively held and sufficiently complex to resist endeavors at immediate control (Rameezdeen&Gunarathna, 2012).

Deal & Kennedy (1982) turned out with a thought that the culture in an association is comparable to emotional disposition in a single person. They prescribed that culture was the component that illustrated why organizations varied so incredibly, even those in the same business.

Successful firms have improved something unique that supersedes corporate procedure, market existence or technological developments to ensure different culture as their priority (Deal & Kennedy, 1982). Next, they had identified five distinctive elements of organizational culture that were environment of the organization, norms and values, heroes, rituals and rites and also communication. In contrast, Byar (1987) pointed out four elements that contribute the beginning of an organizational culture as its past, nature's turf, staffing process and the process of socialization. In addition, culture is on the other hand seen as an integrating system, a wellspring of separation, and a source of and component for embracing uncertainty and continual flux (Meyerson & Martin 1994).

Since all organizations should collaborate with their surroundings, it assumes a significant part in forming an organization's culture. Organizations that work inside a greatly managed environment develop cultures completely unique in relation to organizations that face fierce rivalry in businesses with quickly changing technologies (Byar, 1987). Fey & Denison(2003) recognized and highlighted four dimensions of organizational culture that are favorable to organizational adequacy: adaptability, consistency, contribution, and mission. Adaptability alludes to the degree to which an organization can modify behavior, structures, and frameworks so as to get by in the wake of environmental progressions. Consistency refers to the degree to which convictions, values, and desires are held reliably by members in organization. Contribution refers to the level of participation by the members in organization in the project performance. Mission refers to the

presence of a shared meaning of the purpose of an organization. Meanwhile, organizational culture does not directly give impact on organizational viability; rather, it pushes its impact through forming the behavior of organizational members.

In an uncertain and questionable world, the most paramount part of decision making is to digest the information from the environment to structure the obscure (Waterman, 1990).

In this field, culture is characterized as the conscious and unconscious examples of assumptions, values, and convictions imparted by a group. This "organizational cognition point of view" is presumably the most completely improved perspective of culture (Narver& Slater, 1990). Culture is quintessentially about significance and its creation, institution, and change and it organizes actions by typical means (Weick, 1987). Culture exists in a consistent state of change (Miraglia*et al.*, 1999), and this may account, to some degree for the challenge in defining it. In any case however difficult defining culture has been and proceeds to be, there are various themes common to all the distinctive interpretations evaluated. Among these are the facts that:

- culture is shared and learned;
- culture is emphasized by contextual variables, implying that it is curious just to the group to whom these components apply;
- the underlying fundamental issues are regular and incorporate connection to authority, idea of masculinity and femininity, and methods for managing conflicts; and
- culture shapes conduct and manifests in the form of values and practices.

For example, Deshpandé, Farley & Webster (1993) discovered a direct interface between organizational culture and performance while contending that market introduction was one

subcomponent of culture. Particularly, Deshpandéet *al.* (1993) examined the relationship between culture and business performance in Japanese firms.

They discovered that organizations with cultures that stress intensity (market cultures) and business (adhocracy cultures) beat those with cultures concentrating on inward cohesiveness (clan cultures) or guidelines (hierarchy cultures). From the perspective of contractors who are involved in construction industry, Hofstede (2001) declares that the investigation of culture requires the provision of ethno methodology, and this intimates gaining insight and looking for comprehension of social frameworks from inside and through the definition of the members of that system. This essential principle in cultural studies implies that in seeking to study culture in the construction industry, a non specific definition of culture alone is insufficient. It is important to see culture through the eyes of construction industry members.Besides that, in term of considering the elements of culture in decision making, Bartels (1967) was one of the first to note the significance of the part of culture in ethics decision making recognizing cultural variables, for example values and traditions, religion, law, respects for individuality, national personality and loyalty (or patriotism), and privileges of property as impacting ethics. The impact of cultural and aggregation norms/values on individual conduct was additionally noted by Ferrell & Gresham (1985) in their contingency framework for comprehension ethical decision making inside a business context. Thus, Hofstede (1984) contends that social orders contrast along four major cultural measurements: power distance, individualism, masculinity, and uncertainty avoidance which have connection with decision making process in organization. There are 4 dimensions of cultures which are related to decision making where can influence the project performance as generated by Hofstede (1984):

- Power distance is the degree to which the less powerful individuals in a social order acknowledge inequality in power and think as of it as ordinary.
- Individualism is the culture of individualist as being those societies where people are essential concerned with their own interest and the interest of their immediate family.
- Masculinity is the degree to which people in a society anticipate that men (as opposed to women) to be decisive, aspiring, aggressive, to strive for material victory, and to respect whatever is huge, solid and fast.
- Uncertainty avoidance is described as the degree to which individuals inside a social order are made troubled by circumstances that are unstructured, indistinct, or capricious, and the degree to which these individuals attempt to avoid such circumstances by applying strict sets of accepted rules and a faith in absolute truth.

2.4 Overall review of variables

Variables	Discussions
1)Organizational structure	As mentioned before, Dennis *et al.* (1984) came out with a conclusion that organizational structure as the system of relationships and roles existing all around the organization. As by Damanpour&Gopalakrishnan (1998), organizational structure refers to how and individual and his team inside an organization are facilitated in order to accomplish organizational objectives and goals.

	Consequently, people need to be coordinated and managed while structure is a significant instrument in attaining coordination, as it defines reporting relationships (who report to whom), depicts formal channel of communication, and portrays how separate activities of individuals are joined together. Organizational structure constitutes the principle concepts of any organization. Actually, the wide extent of definitions and the effect of structure on organizational procedures is an evidence of its priority. Essentially, any organizational development is made under the impact of and in affiliation with the measurements of organizational structure or is influenced by it. In perspective of this, accomplishing to empowerment will likewise be specifically identified with organizational structure. Organizational structure presents a configuration in which particular sizes and characteristics of an organization will be offered.
2)Organizational resources	Intangible resources are normally implied and hard to codify (Conner &Prahalad, 1996). They are likewise prone to exchange in imperfect factor markets (Barney, 1996); and display complementarities (Athey& Stern, 1998; Rivkin, 2000). Therefore, intangibles are hard to develop or obtain, and to imitate and accumulate inside the firm (Winter, 1998). For the same explanations, they are additionally difficult to be comprehended and imitated by others (Nelson, 1991). This uncertain imitability is the thing that makes them significant and inclined to be the basis of a practical competitive advantage for a firm (Hall, 1993).

	For most organizations, intangible resources are more significant than tangible resources. Yet, in organization budgetary articulations, intangible resources remain largely invisible (Grant, 1995). As by Kaplan & Norton in 2004, they stated that intangible assets consist of human capital (employee's skills, talent and knowledge), information capital (Databases, information systems, networks, and technology infrastructure) and organization capital (culture, leadership, and employee alignment, teamwork, and knowledge management). Besides that, an arrangement of physical and tangible resources includes ground, human resource, cash and technology (Jannatifar, Shahi&Moradi, 2012). According to Amit &Schoemaker in 1993, tangible resources may be natural resources, building structures, land, plant and equipment, heritage and cultural assets, or any other form of infrastructure while the financial, information and human resources, including intellectual property, are not included.
3)Organizational culture	Egan (1998), which made solid cases about the potential of culture to undermine performance, has brought issues to light of the part of culture in construction and this is evidence in the developing research interest and productions on culture and identified issues. As demonstrated by Tijhuis (2001), construction industry members, for example construction firm need to wind up additional awareness to the significance of this phenomenon of culture and its indication and effect "on the process and product of construction business."Additionally, it

	is a normal conviction that organizations that have developed inside similar environments typically have similar cultures and related attitudes concerning ways of doing business (Oney-Yazici, Giritli, Topcu-Oraz&Acar, 2007). Shockingly, for quite a while, its priority has been understated and culture has been treated as the "black box" of the industry with large portions of the construction industry ills being traced to it without much by method for formalized research into culture to show the degree of its impact (Kanji & Wong, 1998).

Table 2.1 : Overall Review of Independent Variables

2.5 Hypotheses Development

The development of hypotheses is based on the extant review of previous literatures. Thus, this study proposed three hypotheses as follows:

Hypotheses 1: There is a positive significant relationship between organizational structure and project performance among construction firms in Penang.

Hypotheses 2:There is a positive significant relationship between organizational resources and project performance among constructionfirmsin Penang.

Hypotheses 3:There is a positive significant relationship between organizational culture and project performance among construction firms in Penang.

2.6 Research Framework

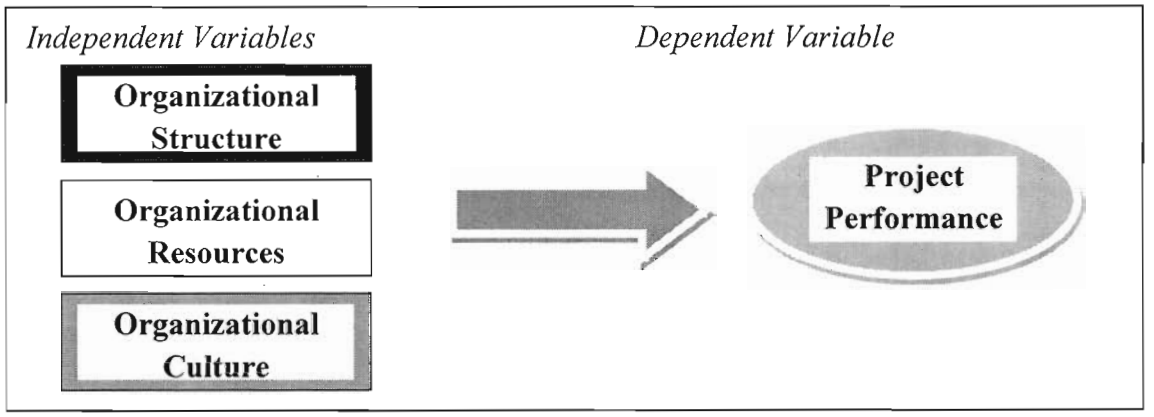

Figure 2.1: Research Framework

A research framework is a collection of interrelated concepts, like a theory but not necessarily so well worked-out. Besides, the research framework or the theoretical framework is a plan structure and strategic which investigation will conducted to obtain answers to the questions pertaining to a particular study and to control the variance.

In this research, a theoretical framework for the influence of organizational structure, resource and culture on the project performance by construction firmsis developing based on the objectives and previous literature reviews that related with this field. The reason to conduct this study is to identify the significant impact of variables on the performance of the projects.

The figure above illustrates the schematic diagram for the theoretical framework for this study. There are three independent variables in this research that are influence the project performance that are made by contractors which are organizational structure, resources and cultures. While for the dependent variable is performance of the project. There are consisting of three elements for each independent variable. This figure shows that the independent variables are positively relationship to the dependent variables.

CHAPTER 3

METHODOLOGY

3.1 Introduction

The aim of this chapter is to develop and also to discuss a theoretical framework of the relationship among three factors (organizational structures, resources and cultures) that have been identified as important in designing experiments to this study. This chapter also includes a description of research approach, target population and sampling on how many respondents were includes and the way the respondents were selected, the design of administering questionnaires and also the data collection method to be adopted in which derived from primary and secondary sources.

The research approach is a descriptive study in order to ascertain and be able to describe the variables that influenced the project performance as discussed in the literature review. The factors influenceddecisions made are important to the contractors in order to recognize the best ways for making decisions for the organizations.

The data analysis uses the SPSS software for the statistical analysis. The level of measurement for the variables analyzed is also discussed in this chapter.

3.2 Research Design

Research design is the framework or plan for a study based on guide to collect and analyzing data. The choice of the explanatory and descriptive depends on the nature of the research and how the researcher perceives it.This research is a basic research of study to generate knowledge

and understanding the study. The result of the study usually can be applied to improve the project performance process among construction firm by making better decision through an understanding of the influence of each variables that are organizational structures, resources and cultures. These study also known as descriptive research because it was applied from the previous researcher and where it is to determine and investigate the cause and relationship between the dependent variable and independent variable. The flowchart of the methodoly used in this research is as follows:

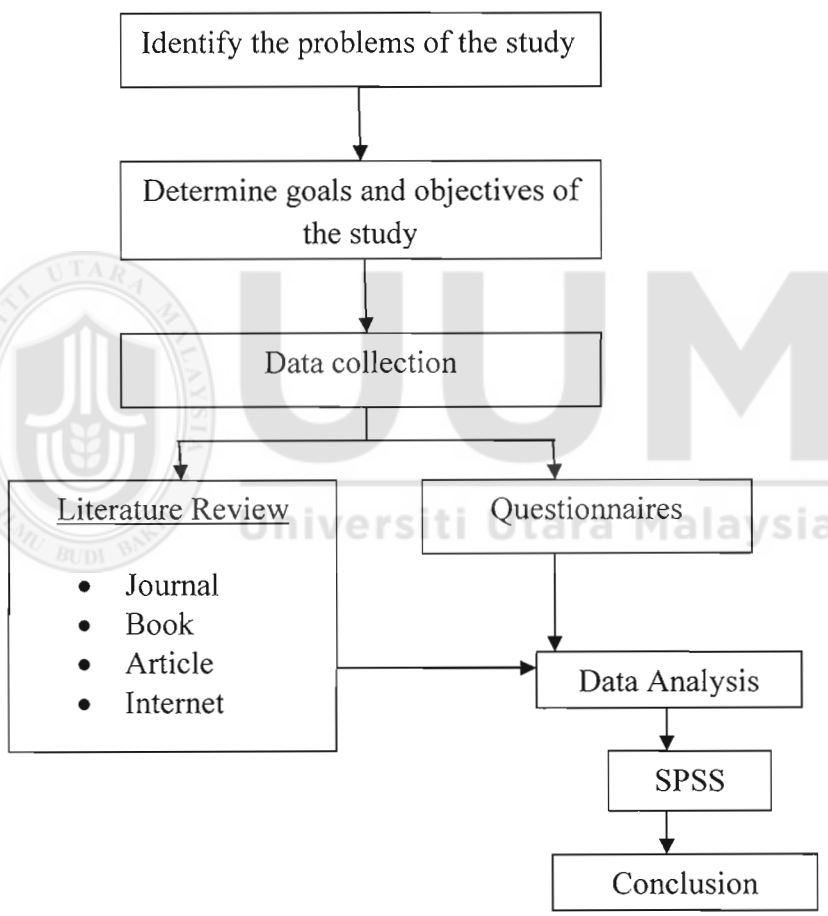

Figure 3.1: Research Design Flow

3.3 Population and Sampling

According to Sekaran (2003), population refers to the entire group of people, events or things of interest that can be a focus for the researcher to investigate. A sample is a subset of the population, and it includes some members selected from it. Sampling is the process of selecting an appropriate number of elements from the population, so that results from analyzing the sample can be generalizable to the population.

3.3.1 Population

A research population is generally a large collection of individuals or objects that is the main focus of a scientific query. It is for the benefit of the population that researches are done. However, due to the large sizes of populations, researchers often cannot test every individual in the population because it is too expensive and time-consuming. This is the reason why researchers rely on sampling techniques.

A research population is also known as a well-defined collection of individuals or objects known to have similar characteristics. All individuals or objects within a certain population usually have a common, binding characteristic or trait.

The target population in this study comprised of 3146 of construction companiesin Penang, Malaysia. This study focuses to the company who are registered at the Construction Industry Board Development Malaysia (CIDB) and PusatKhidmatKontraktor (PKK) around Penang state. All respondents are from the construction firms from class G3 to G1 (CIDB registered) and Class D to F (PKK registered).

This group of respondents selected because there are among the top there (3) of the highest numbers registered with CID and PKK.According to a report of Malaysian Public Works Department (2011), there are more than 3000 construction firms who are active in public and electrical works at Penang. This population will constitute people from all ethnic groups of Malaysia such as Malay, Chinese, and Indian. Thus, the targeted and potential respondents are the construction firms who are operationalat Penang state.

3.3.2 Sample and Unit of Study

Samples of 300 questionnaires were distributed randomly to respondents among construction companies in Penang. The sample size is considered to be the most feasible, time and cost efficient for the researcher.

3.3.3 The Sampling Method

Sampling methods are classified as either *probability* or *non-probability*. The Probability samples have been chosen in this study. In probability samples, each member of the population has a known non-zero probability of being selected. Probability methods include random sampling, systematic sampling, and stratified sampling. The advantage of probability sampling is that sampling error can be calculated. Sampling error is the degree of which a sample might differ from the population. When inferring to the population, results are reported plus or minus the sampling error.

3.3.4 Variables and Measurement

In section A, the questionnaire is designed to gather information on the personal demographics. Nominal scale was used to measure demographic variable. Nominal scale is a measurement consists of assigning items to groups or categories. No quantitative information is conveyed and no ordering of the items is implied. Nominal scales are therefore qualitative rather than quantitative. Religious preference, race, and sex are all examples of nominal scales. Frequency distributions are usually used to analyze data measured on a nominal scale. The main statistic computed is the mode.

Variables measured on a nominal scale are often referred to as categorical or qualitative variables. This is basically a way of categorizing or grouping behaviour, where the actual numbers are simply labels or identifiers. It is one that allows the researchers to assign subjects to certain or groups. For example:

Gender: Male ☐

Female ☐

In section B and C, the interval scale was used to measure the degree of agreement or disagreement with a series of statement related to variable studied in 5 points *Likert scales*. Interval scale takes the notion of ranking items in order one step further, since the distance

between adjacent points on the scale are equal. The scales items employ 5 point as described below:

Strongly disagree	1
Disagree	2
Neutral	3
Agree	4
Strongly agree	5

Table 3.1: Scale measurement

In conducting the study, researcher used a structured questionnaire. All measurements used are derived from previous studies that have been published in academic journals. All responses in this study were made on a Likert five-point scale. The five-point scale was adopted because it is the most common scaled-response from used by recent researcher (Gwinner, 2006) and the ability to provide the most accurate measurement (Hair, Black, Babin, & Anderson, 2010).

Table 3.2 presents the list of items for organizational structure, resources, culture where the questionnaire was adopted:

Variables	Items	Authors
Organizational Structure	1. There can be little action taken in the organization until a superior makes a decision. 2. A person who wants to make his/her own decisions would be quickly discouraged in the organization. 3. Even small matters have to be referred to someone with more authority for a final decision.	**Adapted Ian Hodgkinson & Paul Hughes (2016)**

	4. Any decision a person in the organization makes has to have his/her boss's approval. 5. Most people in the organization follow written work rules for their job. 6. How things are done in the organization is never left up to the person doing the work.	
Organization Culture	1. For project to be successful, specific work skill training are given to all employees. 2. Employees' rewards and penalties are clearly communicated to ensure better projects performance. 3. All suggestions for better projects performance are appropriately rewarded in cash and kind. 4. In this company, workplace decisions are made through consensus to ensure better project performance. 5. Management regularly provides customer/supplier feedback and set-up opportunities in direct, face to face meeting and team members and customer/supplier for better projects performance.	**Adapted from Charles M.Jumba (2013)**

Table 3.2 : Organizational Structure, Resources and Culture Items

3.4 Time Horizon

The time horizon is the time estimated for the study to be completed. The researcher has to spend about 6 months to complete the study. It includes the data collection process which involved the distribution of the questionnaires to the respondents, the analysis of the data and also the presentation of the data obtained.

3.5 Data Collection Technique

Two types of data were composed in this research. They were primary data and secondary data.

3.5.1 Primary Data

Primary data is data collected or produced by the researcher specifically to address the research problem. There is a survey using questionnaire used in this research to collect the primary data. In this approach, a formal questionnaire was prepared and distributed in order to gain specific information from the target group of respondents.

3.5.2 Secondary Data

Secondary data is data collected that previously collected for other purposes but can be used in the study. Some previous research result may be taken as reference for the current research. There are several secondary data including journals and articles from online journals and other periodical from libraries related to the problem area are needed to provide knowledge to the area of the study.

Dillman (1978) approach to survey design was used to plan the data collection and develop a questionnaire. Questionnaire approach will be used for this study and the questionnaires were designed and comprise of three section. For section A, it is about the demographic factors,

section B is about the independent variables and section C about the dependent variable. The sample group is come from construction company in Penang and the sample size is about 300.

3.6 Data Analysis Technique

Objectives	Method of Analyses
Demographic Variable	Frequency
To determine the influence of organizational structure on project performance among construction firms in Penang.	Multiple Regression Analysis
To determine the influence of organizational resources on project performance among construction firms in Penang	Multiple Regression Analysis
To determine the influence of organizational culture on project performance among construction firms in Penang	Multiple Regression Analysis

Table 3.3: Data Analysis Technique

3.7 Summary

This chapter discussed and explained the relationship between dependent variables and independent variable for this study. By using all of the information in the literature review, the researcher can define the major concepts that will use in this study. The theoretical framework designed based on literature review in previous chapter.

The population and sample size portrays the population and sample selected by the researcher to gather information. The instrumentation used by the researcher is the questionnaire to gather primary data for the study. The procedure of the study illustrates how the primary data and secondary data were collected by the researcher to complete the study. Finally, the data analysis explains how the researcher organized and analyzed the data that was obtained during the survey.

There are many research methods researchers can use to conduct their study, and there are even more differences and names for them. But apart from what name they are given, suitable methods should be chosen for the situation at hand. This is an overview of the methods that the researcher used in this study. The researcher used survey method to collect the primary data and used secondary sources to complete the study.

The next chapter is Chapter Four, Data Analysis and Findings describes how SPSS is used in this research for analyzing the raw data. This processed data is presented in tables, graphs and charts. The purpose of data analysis is to measure the response from the construction firm. The findings describes about what did the researcher do and found while making the study and it tell the readers about those things which were unnoticed or are new as compare to the old ones.All the data from questionnaire will be interpret using SPSS to ensure the items in the questionnaire are consistent in measuring the variable of the study. Explanation of the result from SPSS will be discussed more detail in coming of the chapter.

CHAPTER 4

RESULTS AND FINDINGS

4.1 Introduction

This chapter presents the analysis of responses obtained from the questionnaires distributed to the respondents. The findings of this chapter will answer the research objectives that have been discussed in Chapter One. Descriptive and inferential analyzes were executed using Statistical Package for Social Science (SPSS) version 22 for Windows.

4.2 Response Rate

In any studies, the first thing that is usually reported is the response rates. The response rate is equal to the number of questionnaires received divided by the number of questionnaires sent out. A total of 300 questionnaires form has been distributed to construction firms in Penang State.

From total 300 questionnaires, fortunately, 142 questionnaires were completed. Therefore, there are 47.3 percent of respondent rate was obtained (see Table below). Most of the questionnaires received were answered completely, and there is no questionnaire that has been dropped off. Based on Sekaran and Bougie (2010), if more than 25 percent of items are not fully answered, the questionnaire is subject to be dropped in the data set for analysis.

Table 4.1
Sample Study Response Rate

Questionnaire Distributed	**300**
Returned Questionnaires	142
Incomplete Questionnaires	0
Usable Questionnaire	142
Response Rate (142/300)	**47.33%**

4.3 Demographic Profile of Respondents

Section A of the questionnaire consists of seven items which assess the demographic profile of the respondents. The items are gender, age, level of education, rank, length of service, experience and with current company. The full analysis of demographic and background of the respondent is shown in Appendix E. Detailed descriptive statistics on the participants' demographic profile are presented in Table 4.2. It is noted that out of 142 respondents in this research, the majority of the respondents working as others position (technician, supervisor, site coordinator, site supervisor, engineer electrical, technical assistant and surveyor) 25.4 percent and follow by Project Manager 24.6 percent. Out of 142 respondents, 31 percent have been in the current position around 4 to 6 years and 39.4 percent with the company around 4 to 6 years. Most of the respondents is male with 83.8 percent out of 142 respondents, and 23.9 percent are 45 years old. It can be concluded that there are a large number of male employee compared to female employee in Construction Firm. Most of respondents are Diploma holder (47.9 percent) with the experience 15 years (24.6 percent).

Table 4.2
Demographic Profile of Respondents

Demographic	Characteristic	Frequency	Percentage (%)
Position	Chief executive officer	7	4.9
	Chief operation officer	12	8.5
	Managing director	18	12.7
	General manager	25	17.6
	Manager	9	6.3
	Project manager	35	24.6

	Others	36	25.4
Demographic	**Characteristic**	**Frequency**	**Percentage (%)**
Period in current position	1-3 years	40	28.2
	4-6 years	44	31.0
	7-9 years	18	12.7
	10-12 years	13	9.2
	12-14 years	8	5.6
	15 years and above	19	13.4
Period in company	1-3 years	32	22.5
	4-6 years	56	39.4
	7-9 years	24	16.9
	10-12 years	11	7.7
	12-14 years	5	3.5
	15 years and above	14	9.9
Experience in industry	1-3 years	24	16.9
	4-6 years	30	21.1
	7-9 years	25	17.6
	10-12 years	23	16.2
	12-14 years	5	3.5
	15 years and above	35	24.6
Gender	Male	119	83.8

	Female	23	16.2
Age	21-25 years	22	15.5
	26-30 years	26	18.3
	31-35 years	25	17.6
	36-40 years	19	13.4
	41-45 years	16	11.3
	45 years	34	23.9
Highest education	Master or higher	7	4.9
	Degree	40	28.2
	Diploma	68	47.9
	SPM/STPM	27	19.0

Section B of the questionnaire consists of six items which assess the firm information. The items are full time employees, length of Business operating, project have been handled, project have been completed, project currently handled and customers. The full analysis of the firm information is shown in Appendix E.

Detailed descriptive statistics on the firm information are present in Table 4.3. It is noted that out of 142 respondents in this research, 29.6 percent full time employees work in the company around 4 to 6 years followed by 22.5 percent work in the company around 1 to 3 years. Most of the companies are operating between 7 to 9 years with 40.8 percent. The range of project handled and project have been completed by company are 2000. The table also shown, currently

projects of the construction firm are 400 where 55.6 percent customer from both (government agencies and private institution). This can be shown in the below:

Section B	Characteristic	Frequency	Percentage (%)
Full time employees	1-3 years	32	22.5
	4-6 years	42	29.6
	7-9 years	30	21.1
	10-12 years	15	10.6
	12-14 years	7	4.9
	15 years and above	16	11.3
Length of Business operating	0 years		
	1-3 years	5	9.8
	4-6 years	31	21.8
	7-9 years	58	40.8
	10-12 years	22	15.5
	12-14 years	8	5.6
	15 years and above	18	12.7
Projects have been handled		0 - 2000	
Projects have been completed		0 - 2000	
Project currently handled		0 - 400	
Customers	Government agencies	0	0
	Private institution	63	44.4
	Both	79	55.6

Table 4.3 Firm Information

4.4 Data Screening

Data screening was done to ensure that the data collected is clean and ready for further statistical analysis. This is important so that the data are reliable, useful and valid to test the causal theory.

The analysis of missing data showed that there is zero percent of missing values for all items in the questionnaire. Thus, there are no missing values in the data. The full results for missing value analysis were in Appendix E.

4.5 Factor Analysis

The result of the factor analysis is as depicted in Table 4.4 and Table 4.5. All factors are loading accordingly with KMO of more than 0.6.

Table 4.4

Factor Analysis

	Factor 1	Factor 2	Factor 3	Factor 4
Organizational structure 1	.929			
Organizational structure 2	.928			
Organizational structure 3	.925			
Organizational structure 4	.921			
Organizational structure 5	.914			
Organizational resources 1		.884		
Organizational resources 2		.714		

Organizational resources 3		.894		
Organizational resources 4		.915		
Organizational resources 5		.898		
Organizational resources 6		.878		
Organizational resources 7		.903		
Organizational resources 8		.917		
Organizational culture 1			.925	
Organizational culture 2			.775	
Organizational culture 3			.916	
Organizational culture 4			.930	
Organizational culture 5			.854	
Project performance 1				.780
Project performance 2				.871
Project performance 3				.897
Project performance 4				.903
Project performance 5				.909

Table 4.5

Summary of KMO, Eigenvalues and Variance of variables

Factors	KMO	Eigenvalues	Variance (%)
Factor 1 : Organizational structure	.852	0.265	85.30
Factor 2 : Organizational resources	.915	6.161	77.01
Factor 3 : Organizational culture	.881	3.889	77.78
Factor 4 : Project performance	.820	3.814	76.27

Note: KMO Kaiser-Meyer-Olkin

4.6 Reliability Analysis

Reliability data existed when a test to measure data was done repeatedly and produces the same results. In this research, the reliability test is applied to test the scale items. Cronbach's Coefficient Alpha is adopted to generate the data and its value tends to increase with an increase in the number of scale items. According to Sekaran (2003), the closer Alpha value to 1, it represented a high level of reliability (Cronbach's Alpha = > 0.90). If the Alpha value is less than 0.6, it may be predicted that instrument used in the study had a low reliability (Cronbach's Alpha = < 0.60). If value of Alpha is more than 0,7 (Cronbach's Alpha = 0.7 < 0.9), it indicates the instrument is good and acceptable reliability. Table 4.6 shows that the value of each variable is more than 0.7, which mean the instrument is good and reliable.

Table 4.6
Reliability Analysis

Variables	Number of Items	Cronbach's alpha
DEPENDENT VARIABLE		
Project performance	5	0.922
INDEPENDENT VARIABLES		
Organizational structure	5	0.956
Organizational resources	8	0.957
Organizational culture	5	0.928

4.7 Correlation Analysis

Zikmund (2003) stated that the Pearson Correlation coefficient is a statistically measure of the strength of a linear relationship between two metric variables. This Correlation coefficient represents the relationship between two variables that are measured on the same interval or ratio scale. Pearson correlation coefficient (r) is applied to examine the link between variables and two-tailed significant level is used to test null hypothesis. Moreover, the coefficient (r) indicates that the direction of the relationship and also the magnitude of the liner relationship. The coefficient at ranges from +1.0 indicates perfect positive relationship to -1.0 indicates perfect negative relationship. A correlation of 0 means there is no linear relationship between the two variables (Hair et al., 2002). The result of the correlation analysis is as presented in Table 4.7. The results show that organizational structure is positively correlated with project performance, however organizational resources is negatively correlated. For organizational culture, the result represents no significant link between both factors.

Table 4.7
Correlation Analysis

Variables	M	SD	1	2	3	4
1. Organizational structure	3.8620	1.17689	1			
2. Organizational resources	2.9868	1.18937	-.633**	1		
3. Organizational culture	2.8845	1.24053	-.650**	.894**	1	
4. Project performance	3.4803	1.23474	.464**	-.178*	-.127	1

$p \leq 0.01$

4.8 Multiple Regression Analysis

This study was used more independent variables to make a prediction towards dependent variable. Therefore, the multiple regression analysis is appropriate to use in this study. Multiple regression analysis was used to analyse either there is the link between the independent variable namely project performance, and dependent variables – organizational structure, resources and cultures. The details analysis of multiple regressions can be referred at Table 4.8 below. Collectively, the result explained that R Square value is .273, and the model was statistically significant. This result demonstrates that 27.3 percent of the variance in project performance among construction firms was explained by the three independent variables that is organizational structure, resources and cultures as predictors. The remaining 72.7 percent of project performance were contributed by other factors not included in this study. This model is significant, as indicated by the F-value = 17.24 and significant value is .000 ($p < .01$). Individually, the findings show that only organizational structure and culture have the significant positive association with project performance ($\beta = .647$, $t = 6.69$, $p = .001$; $\beta = .433$, $t = 2.59$, $p = .001$).

Table 4.8
Regression Analysis

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig
(Constant)	.100	.634		.158	.875
Organizational structure	.678	.101	.647	6.688	.000**
Organizational resources	-.162	.170	-.156	-.949	.344
Organizational culture	.431	.166	.433	2.589	.011**

R Square = 0.273

F = 17.24

R = 0.522

$p \leq 0.01$

4.9 Conclusion

This chapter presented and discussed the findings of the study. Based on the results obtained, two factors were positively and significantly related to project performance. The summary of the hypotheses are as presented below. The next chapter will discuss the research implications, limitations and recommendation and direction for future research.

Table 4.9: Summary of Hypothesis Testing

	Statement of hypotheses	Results
H1	There is a positive significant relationship between organizational structure and project performance among construction firms in Penang.	Supported
H2	There is a positive significant relationship between organizational resources and project performance among construction firms in Penang.	Rejected
H3	There is a positive significant relationship between organizational culture and project performance among construction firms in Penang.	Supported

CHAPTER 5

DISCUSSIONS, RECOMMENDATIONS AND CONCLUSION

5.1 Introduction

In this last chapter, the researcher provides a brief overview and summarizes the findings that obtained from the Chapter Four. It is important that the researcher need to conclude and provide a recommendation in this study that based on the research findings. The section of this chapter is divided into summary of the research, expectations of result, limitation and recommendation of the research.

The recommendations of research include opinion from the researcher. Besides that, the researcher also provides a suggestion for future research subsequently to enhance the value of the study that benefitting many parties in the future. This chapter can facilitate the reader to understand the implication of this study, recommendation and suggestions for the future research.

5.2 Summary of the Research

The main purpose of this study is to examine the relationship between organizational structure, resources and culture on project performance. Multiple Regression Analysis was conducted to test the research hypotheses. Multiple regression analysis was used to analyse either there is the link between the independent variable namely project performance, and dependent variables – organizational structure, resources and cultures.The findings revealed that two independent variables (organizational structure and culture) were significantly positively related on project performance.

5.3 Expectations of Results

The researcher expects that the construction firms, who act as the respondents in the survey can determine the influence of organizational structure, resources and cultures to the project performance by them according to the priority of each variable. As discussed before in the previous literature review, each variable give its own influence to the project performance by construction firms. The result of this study has indicated that the most important variable that gives huge influence towards the project performance among construction firms is organizational structure.Organizational structure can be highlighted as a way of the company think about hierarchy, assign task to employee and ensure the workforce works as a team to achieve a goal of the company. The goal of the construction company is to avoid overlapping of task and confusion among employees at construction site that would affect the capital of the company. For example,a situation in which two or more employees perform the same task in a same project would lead to cost and time consume. Thus, in order to perform in certain project, the first aspect that needs to take into consideration is organizational structure. Secondly, the association between organizational culture and project performance is also a positive significant link. This finding supports the statement by Deal & Kennedy (1982) that culture has made organizations varied so incredibly, even those in the same business; in which it would then influence the project performance of the organization. This means that the good culture could cultivate staff in the organization to perform best management practices and thus it significantly affects better project performance of the firms.

Thirdly, the finding of the relationship between organizational resources and project performance is not supported the hypothesis 3; in which claimed by previous studies that the most important element that will lead to the better performance of organization is organizational resources. This finding proves that the resources of the firm cannot provide any significant impact to project performance. With the results of this study, we could assume that the factors that contribute to influence project performance are not subjected to only basic tangible and intangible resources. The most important elements that impact project performance of construction firms in Penang are those elements that relate with organizational behavior (structure and culture); as what suggested byRainey &Steinbauer (1999) that organization viability depends on upon the usage of the development of behavior of human resources in organization.

5.4 Limitations and Direction for Future Research

The first limitation of the study is confined to the construction firms and thus it cannot be generalized to all other private sector agencies. The sample for this study is also limited to three classes in CIDB, namely gred G1 to G3. Thus, the views are strictly limited to these classes. In addition, some of the owner of the construction firms involved in the daily operation and administrative work, and this is expected to affect the process of data collection. The study is limited to the extent of the honesty and sincerity of the respondent in reply to the questions through a questionnaire to reflect respondent's true confessions. There are also required data that cannot be disclosed due to confidentiality and restricted of the company.

The second limitation which recognized from this research is a time constraint. The time provided to conduct this study is only limited to five months (June to November). The time

constraint has reduced the respondent's response rate (47.33%, n=142). Therefore, if a more realistic time is provided, then the response rate might have increased which, in turn would allow for more accurate generalizations. Due to this, the researcher focuses on a sample that accessible to him only. This study only focused on the three classes (G1-G3) of construction firms in Penang State. It was felt that with longer time horizon, it would be possible to get more data from other classes that would enable a generalization be made to all classes (G1-G7) construction firms in Penang state.

The third and last limitation, this study is a cross-sectional design in which data were gathered at one point within the period of study. This due to the time to complete the study was very limited. This may not be able to capture the development issues and causal connections between variables of interest. Future research, however, will certainly benefit from collecting longitudinal data.

5.5 Recommendation

In this research, it was not possible to determine the effect of the decision making processes on the performance of the projects or works. The decision-making processes occur during the entire projects, while the performance of projects or works is measured at the end of the process. Therefore, it is not possible to determine which decision affects the performance. To study this effect in the future, an experimental research is recommended, although it can be hard to manipulate the decision making in works. Another possibility is to measure the technical and project performance after each decision to allocate the effect of decisions making to the project performance.

There are several directions or recommendations for future research that the researcher wants to highlight. Firstly, as mentioned in this research, this research studied the relationshipbetween organizational structure, resources, and cultures on project performance. In future research, it is interesting if the study will focus on the impact of decision making on organizational structures, resources, and cultures toward project performance. Thus, we also can study about the impact of decision making among project manager toward the existing organizational structures, resources and cultures.The contractors can make better decision at the future and also can reduce the potential for loss in the organizational profitability.

Last but not least, it is interesting to conduct the same type of research in other industries. This research is conducted in the context of the construction industry, which is described as a complex product and system industry. It might be however interesting if the results of this research can be compared with similar research in other industries and compare the differences and similarities between the industries. The comparison will probably highlight the differences between the industries, but also might offer the opportunity to discover patterns that were not found in this research that are useful for construction industry.

5.6 Conclusion

Performance issue in the public and private construction project are reported in the Malaysia Auditor Report from 2002 to 2012. Repetition of the same problem highlighted in the report indicates that there is no study was made to indentifying the root cause of the problems. This problem will continue burdening the construction industry as well as affecting the performance of the project. The effect of low performance in construction will definitely affect the consumer

as the end user and this would lead to anger of public to construction industry and our government itself.In avoiding these from happening, this study was conducted in order to help construction firms in Penang to identify the factors that influence the project performance.

The aim of this studyis to investigate on the influence of organizational structures, resources and cultures on project performance among construction firms in Penang. The result of this study indicated that all three factors were positively and significantly related to project performance. Based on the findings, this study has discussed the research hypotheses and provides some recommendation towards the construction industry and for future research. For the conclusion, in order for increase the effectiveness of project performance among construction firms, it is important for the top management of construction firms to identify the related factors that would influence the project performance. The management also needs to educate the employees to follow written work rule of their job, understand the authority in their task and know how to make accurate decision when required. The best working culture is also a significant role in making firms succeed. Subsequently this will help the construction firm to strive for excellence in order tocontribute to the achievement of the Government Transformation Programme (GTP) to reduce the issues of lack of quality assessment and assurance.

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APPENDIX

OTHMAN YEOP ABDULLAH
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24 April 2016

TO WHOM IT MAY CONCERN

Dear Sir/Madam

DATA COLLECTION

COURSE: **Research Paper**
COURSE CODE: **BPMZ69912**
LECTURER: **Dr. Darwina bt Hj. Ahmad Arshad**

This is to certify that the following is a postgraduate student from the OYA Graduate School of Business, Universiti Utara Malaysia. He is pursuing the above mentioned course which requires him to undertake an academic study and prepare an assignment. The details are as follows:

NO.	NAME	MATRIC NO.
1.	Shah Nizam Bin Osman	811100

In this regard, I hope that you could kindly provide assistance and cooperation for him to successfully complete the assignment given. All the information gathered will be strictly used for academic purposes only.

Your cooperation and assistance is very much appreciated.

Thank you.

"KNOWLEDGE, VIRTUE, SERVICE"

Yours faithfully,

ROZITA BINTI RAMLI
Assistant Registrar
for Dean
Othman Yeop Abdullah Graduate School of Business

c.c - Student's File (811110)

COLLEGE OF BUSINESS
UNIVERSTIY UTARA MALAYSIA

RESEARCH QUESTIONNAIRE

THE INFLUENCE OF ORGANIZATIONAL STRUCTURE, RESOURCES AND CULTURE ON PROJECT PERFORMANCE: A STUDY AMONG CONSTRUCTION FIRMS IN PENANG

I am graduate candidate working on my master degree in Management at University Utara Malaysia, Kedah. I am carrying out a study on The Influence of Organizational Structure, Resources and Culture on Project Performance among Construction Firms in Penang state. The study is part of my master's research paper, supervised by Dr. Darwina Binti Ahmad Arshad (UUM). I would appreciate it very much if you could spare some time going through the questionnaire.

This questionnaire been sent to invite you to take part in my research. All information provided will kept confidential and is used for academic purpose only. There is no right or wrong answers in this study. Please answer all questions as honestly as possible. Participation is strictly voluntary.

I would be most grateful if you could complete and submit the questionnaire before 1st Oktober 2016. Please feel free to contact me if you have any questions concerning this study. Thank you in advance for your kind co-operation.

Shah Nizam Bin Osman (811100)
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Universiti Utara Malaysia
Tel : 016 – 402 4680
Email : shahnizam.osm@gmail.com

A SURVEY ON
PROJECT PERFORMANCE AMONG CONTRACTORS IN PENANG

Please answer the following question by ticking (✓) the number that best represents your (dis)agreement with the following statements

Sila jawab soalan berikut dengan menandakan (✓) pada bilangan yang terbaik mewakili bersetuju (tidak bersetuju) dengan kenyataan berikut.

SECTION A: PERSONAL INFORMATION

Q1 *Please **tick (/)** or **fill in the blank** where appropriate.*

1. **What is your current position in the business?**
Apakah kedudukan semasa anda dalam perniagaan?

	Chief Executive Officer *Ketua Pegawai Eksekutif*
	Chief Operation Officer *Ketua Pegawai Operasi*
	Managing Director *Pengarah Urusan*
	General Manager *Pengurus Besar*
	Manager *Pengurus*
	Project Manager *Pengurus Projek*
	Other (please specify) *Lain-lain (Sila nyatakan)*

2. **How long have you been in the current position?**
Berapa lama anda berada dalam kedudukan semasa?

	1-3 years
	4-6 years
	7-9 years
	10-12 years
	12-14 years
	15 years and above

3. **How long have you been with the company?**
Berapa lama anda berkhidmat dengan syarikat itu?

	1-3 years
	4-6 years
	7-9 years
	10-12 years
	12-14 years
	15years and above

4. **How long have you been experienced in this industry?**
Berapa lama anda berpengalaman dalam industri ini?

	1-3 years
	4-6 years
	7-9 years
	10-12 years
	12-14 years
	15 years and above

5. **Your Gender : Male (M) or Female (F)**
Jantina Anda : Lelaki (L) atau Perempuan (P)

	Male (Lelaki)
	Female (Perempuan)

6.	**Your age is:** *Umur anda :*		21-25 years 26-30 years 31-35 years 36-40 years 41-45 years 45 years and above
7.	**Your highest level of education is:** *Pendidikan tertinggi anda :*		Masters or higher Degree Diploma SPM/STPM

SECTION B: FIRM INFORMATION

Q2	***Please tick (✓) or fill in the blank where appropriate.*** ***Sila tandakan (✓) atau isikan tempat kosong mengikut kesesuaian***	
8.	**How many full time employees presently work in your business?** *Berapa banyak pekerja sepenuh masa pada masa sekarang yang bekerja dalam perniagaan anda?*	1-3 years 4-6 years 7-9 years 10-12 years 12-14 years 15years and above
9.	**How many years has your business been operating?** *Berapa tahun perniagaan anda telah beroperasi?*	1-3 years 4-6 years 7-9 years 10-12 years 12-14 years 15years and above
10.	**How many projects have been handled by your company since the operation?** *Berapakah projek yang telah dikendali oleh syarikat anda sejak beroperasi?*	_____ **projects** / *projek*
11.	**How many projects have been completed?** *Berapakah jumlah projek yang telah berjaya disiapkan?*	_____ **projects**/ *projek*
12.	**How many projects are currently being handled by your company?** *Berapakah projek yang dikendali oleh syarikat anda sekarang?*	_____**projects** / *projek*
13.	**Who is your customers?** *Siapakah pelanggan anda?*	**Government Agencies/** *Agensi Kerajaan* **Private Institutions/** *Institusi Swasta* **Both/** *Kedua-duanya*

SECTION C:

Section C includes Q3 , Q4 , Q5 and Q6 . Please tick (✓) the scale of your choice from strongly disagree to strongly agree.

Bahagian C termasuk Q3, Q4, Q5 dan Q6. Sila tandakan (✓) skala pilihan anda daripada amat tidak bersetuju kepada amat bersetuju.

Q3	**How strongly do you agree or disagree with each of the following statements about your organizational structure?** *Sejauh mana anda bersetuju dan tidak bersetuju dengan setiap kenyataan mengenai struktur kerja di organisasi anda?*	**Strongly Disagree/** *Amat Tidak Bersetuju* **1**	**Disagree/** *Tidak Bersetuju* **2**	**Neutral/** *Neutral* **3**	**Agree/** *Bersetuju* **4**	**Strongly Agree/** Amat Bersetuju **5**
14.	**Little action cannot be taken in the organization until a superior makes a final decision.** *Tidak ada sedikit tindakan pun akan diambil sehingga pihak atasan membuat keputusan*					
15.	**A person who wants to make his/her own decisions will be quickly discouraged in the organisation.** *Tindakan membuat keputusan sendiri tidak digalakkan didalam organisasi.*					
16.	**Even small matters have to be referred to someone with higher authority for a final decision.** *Sebarang keputusan muktamad harus dirujuk kepada individu yang berpangkat/ berkuasa walaupun dalam hal-hal yang kecil.*					

17.	**Any decision a person in the organisation by any individual should get his/her top management approval.** *Apa-apa keputusan yang dibuat oleh seseorang di dalam organisasi perlu mendapat kelulusan dari pihak atasan dahulu.*					
18.	**Most people in the organisation will follow written work rules of their job.** *Kebanyakan orang di dalam organisasi akan membuat kerja mengikut peraturan kerja bertulis yang telah disediakan.*					

Q4	**How strongly do you agree or disagree with each of the following statements about your organization resources?** *Sejauh mana anda bersetuju dan tidak bersetuju dengan setiap kenyataan mengenai sumber-sumber organisasi di syarikat anda?*	**Strongly Disagree/** *Amat Tidak Bersetuju* **1**	**Disagree/** *Tidak Bersetuju* **2**	**Neutral/** *Neutral* **3**	**Agree/** *Bersetuju* **4**	**Strongly Agree/** Amat Bersetuju **5**
19.	**The organization has adequate equipment, tools and machineries to carry out planned activities** *Organisasi ini mempunyai kelengkapan yang cukup , peralatan dan jentera untuk menjalankan aktiviti yang dirancang*					
20.	**The organization has sufficient financial resources to carry out planned activities throughout a financial year**					

	Organisasi ini mempunyai sumber kewangan yang mencukupi untuk mènjalankan aktiviti yang dirancang sepanjang tahun kewangan.					
21.	**The organization has sufficient qualified top management team.** *Organisasi ini mempunyai kumpulan pengurusan atasan yang berkelayakan.*					
22.	**The organization has adequate management staff.** *Organisasi ini mempunyai kakitangan pengurusan yang mencukupi.*					
23.	**There are more employees in the management division than its operation division.** *Terdapat lebih pekerja di bahagian pengurusan berbanding di bahagian operasi.*					
24.	**Individual employees have relevant skills to carrying out specific roles.** *Setiap pekerja mempunyai kemahiran yang relevan untuk melaksanakan kerja-kerja khusus.*					
25.	**The organization has constantly acquired new knowledge related to its operation.** *Organisasi ini sentiasa mendapat pengetahuan baharu yang berkaitan dengan operasi.*					
26.	**The organization has deliberately facilitated knowledge sharing across its different departments.** *Perkongsian pengetahuan dikongsi dengan mudah ke seluruh jabatan yang berbeza di dalam organisasi.*					

Q5	**How strongly do you agree or disagree with each of the following statements about your organizational culture?** *Sejauh mana anda bersetuju dan tidak bersetuju dengan setiap kenyataan mengenai budaya kerja di organisasi anda?*	**Strongly Disagree/** *Amat Tidak Bersetuju* **1**	**Disagree/** *Tidak Bersetuju* **2**	**Neutral/** *Neutral* **3**	**Agree/** *Bersetuju* **4**	**Strongly Agree/** Amat Bersetuju **5**
27.	**For project to be successful, specific skill and training are given to entire employees.** *Bagi memastikan projek tersebut berjaya, kemahiran dan latihan yang khusus diberikan kepada semua kakitangan.*					
28.	**Employees' rewards and penalties are clearly stated and explained in order to ensure improved projects performance.** *Ganjaran dan hukuman kepada pekerja akan disampaikan dengan jelas dan terang untuk memastikan prestasi projek yang lebih baik .*					
29.	**Suggestions for projects performance improvement in the organization are rewarded in cash and kind.** *Cadangan untuk meningkatkan prestasi projek dalam organisasi adalah diberi ganjaran dalam bentuk wang tunai.*					
30.	**Workplace decisions are made through consensus in turn to ensure better project performance.** *Di syarikat ini, keputusan di tempat kerja dibuat melalui consensus (ihmak) untuk memastikan prestasi projek yang*					

	lebih baik.					
31.	**Management regularly provides customer/supplier feedback and set-up opportunities to ensure better projects performance.** *Pihak pengurusan biasanya menyediakan maklum balas pembekal/pelanggan dan membuka peluang untuk memastikan prestasi projek yang lebih baik.*					

Q6	**How strongly do you agree or disagree with each of the following statements about work in your organization?** *Sejauh mana anda bersetuju dan tidak bersetuju dengan setiap kenyataan mengenai kerja di organisasi anda.*	**Strongly Disagree/** *Amat Tidak Bersetuju* 1	**Disagree/** *Tidak Bersetuju* 2	**Neutral/** *Neutral* 3	**Agree/** *Bersetuju* 4	**Strongly Agree/** Amat Bersetuju 5
32.	**We think ourselves when carrying out given task.** *Kami berfikir sendiri apabila diberi tugasan.*					
33.	**We respond immediately to unexpected problems.** *Kami memberi maklumbalas dengan segera kepada masalah yang tidak diduga.*					
34.	**We try new approaches to solve problems.** *Kami cuba menggunakan pendekatan yang baharu untuk menyelesaikan masalah.*					
35.	**We take risks when producing new ideas in carrying out a given task.**					

	Kami mengambil risiko apabila menghasilkan idea-idea baru dalam melaksanakan kerja yang diberi.					
36.	**We demonstrate originality in our work.** *Kami mempamerkan keaslian dalam melaksanakan kerja.*					
37.	**We identify opportunities of new work process.** *Kami mengenalpasti pelbagai peluang untuk proses kerja yang baharu.*					

SECTION D: FIRM PERFORMANCE

Q7	**Relative to your industry's average or to comparable organizations, what is your opinion of the performance of your organization in regard to the following criteria?** *Berkaitan dengan purata industri atau yang setanding industri anda, apakah pandangan anda terhadap prestasi organisasi anda dalam mengambil kira kriteria berikut?*	**Very Weak/** *Amat Lemah* **1**	**Weak/** *Lemah* **2**	**Neutral/** *Neutral* **3**	**Strong/** *Kuat* **4**	**Very Strong/** *Amat Kuat* **5**
38.	**Long term profitability** *Keuntungan jangka masa panjang*					
39.	**Revenue Growth** *Pertumbuhan Hasil*					
40.	**Financial resources (liquidity and investment capacity)** *Sumber kewangan (cairan dan kapasiti pelaburan)*					

41.	**Public image** *Imej Awam*				
42.	**Client loyalty** *Kesetian pelanggan*				

SECTION E: PROJECT PERFORMANCE

Q8	**How strongly do you agree or disagree with each of the following statements about your Project Performance for the last 12 month?** *Sejauh mana anda bersetuju atau tidak bersetuju dengan pengalaman organisasi anda terhadap Prestasi Projek dalam tempoh 12 bulan yang lepas.*	**Strongly Disagree/** *Amat Tidak Bersetuju* **1**	**Disagree/** *Tidak Bersetuju* **2**	**Neutral/** *Neutral* **3**	**Agree/** *Bersetuju* **4**	**Strongly Agree/** Amat Bersetuju **5**
43.	**Met or exceeded volume expectation (no. of project)** *Memenuhi atau melebihi jumlah jangkaan (Bilangan projek)*					
44.	**Met or exceeded overall revenue expectations** *Memenuhi atau melebihi jangkaan hasil keseluruhan*					
45.	**Met or exceeded return on investment expectations** *Memenuhi atau melebihi pulangan atas pelaburan*					
46.	**Met or exceeded customer expectations** *Memenuhi atau melebihi jangkaan pelanggan*					
47.	**Met or exceeded the first year number of completed project.** *Memenuhi atau melebihi bilangan tahun pertama projek yang telah siap*					

		No----------Full Knowledge Tiada----------Penuh Pengetahuan Pengetahuan				
		1	**2**	**3**	**4**	**5**
48.	**To what extent do you feel you possess knowledge regarding the questions asked in this questionnaire?** *Sejauh manakah anda rasa anda mempunyai pengetahuan mengenai soalan yang ditanya dalam soal selidik ini?*					
49.	**To what extent do you believe the responses given by you accurately reflect the 'realities' of your organization involvement in your current business situation?** *Sejauh manakah anda percaya jawapan yang dikemukakan oleh anda tepat mencerminkan 'realiti' penglibatan organisasi anda dalam keadaan perniagaan semasa anda?*					

THANK YOU VERY MUCH FOR SPENDING YOUR PRECIOUS TIME ANSWERING THE QUESTIONNAIRE.

Your contribution to this study is highly appreciated.

Please use this space to write any comments you wish to make

Regression

Notes

Output Created		29-OCT-2016 21:50:34
Comments		
Input	Data	C:\Users\Compaq\Documents\chapter 4 shah\shah document.sav
	Active Dataset	DataSet1
	Filter	<none>
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	Split File	<none>
	N of Rows in Working Data File	142
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on cases with no missing values for any variable used.
Syntax		REGRESSION /MISSING LISTWISE /STATISTICS COEFF OUTS R ANOVA /CRITERIA=PIN(.05) POUT(.10) CIN(95) /NOORIGIN /DEPENDENT respondent /METHOD=ENTER MEAN_OS MEAN_OR MEAN_OC /SAVE PRED ZPRED SEPRED MAHAL MCIN RESID ZRESID DFBETA SDBETA DFFIT SDFIT.
Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.06
	Memory Required	3036 bytes
	Additional Memory Required for Residual Plots	0 bytes
Variables Created or Modified	PRE_1	Unstandardized Predicted Value
	RES_1	Unstandardized Residual
	ZPR_1	Standardized Predicted Value
	ZRE_1	Standardized Residual
	SEP_1	Standard Error of Predicted Value
	MAH_1	Mahalanobis Distance
	DFF_1	DFFIT
	SDF_1	Standardized DFFIT
	DFB0_1	DFBETA for (Constant)
	DFB1_1	DFBETA for MEAN_OS
	DFB2_1	DFBETA for MEAN_OR
	DFB3_1	DFBETA for MEAN_OC
	SDB0_1	Standardized DFBETA for (Constant)
	SDB1_1	Standardized DFBETA for MEAN_OS
	SDB2_1	Standardized DFBETA for MEAN_OR
	SDB3_1	Standardized DFBETA for MEAN_OC
	LMCI_1	95% Mean Confidence Interval Lower Bound for respondent
	UMCI_1	95% Mean Confidence Interval Upper Bound for respondent

[DataSet1] C:\Users\Compaq\Documents\chapter 4 shah\shah document.sav

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	MEAN_OC, MEAN_OS, MEAN_OR[b]	.	Enter

a. Dependent Variable: NORESPONDENT

b. All requested variables entered.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.229[a]	.053	.032	40.473

a. Predictors: (Constant), MEAN_OC, MEAN_OS, MEAN_OR

b. Dependent Variable: NORESPONDENT

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12540.375	3	4180.125	2.552	.058[b]
	Residual	226055.125	138	1638.081		
	Total	238595.500	141			

a. Dependent Variable: NORESPONDENT

b. Predictors: (Constant), MEAN_OC, MEAN_OS, MEAN_OR

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	41.006	24.103		1.701	.091
	MEAN_OS	1.202	3.857	.034	.312	.756
	MEAN_OR	7.950	6.473	.230	1.228	.221
	MEAN_OC	.730	6.326	.022	.115	.908

a. Dependent Variable: NORESPONDENT

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	53.77	86.85	71.50	9.431	142
Std. Predicted Value	-1.880	1.628	.000	1.000	142
Standard Error of Predicted Value	3.530	12.215	6.577	1.705	142
Adjusted Predicted Value	52.17	92.41	71.52	9.533	142
Residual	-85.852	83.517	.000	40.040	142
Std. Residual	-2.121	2.064	.000	.989	142

Stud. Residual	-2.189	2.099	.000	1.004	142
Deleted Residual	-91.411	86.448	-.017	41.233	142
Stud. Deleted Residual	-2.220	2.126	.000	1.008	142
Mahal. Distance	.080	11.850	2.979	2.186	142
Cook's Distance	.000	.078	.007	.011	142
Centered Leverage Value	.001	.084	.021	.016	142

a. Dependent Variable: NORESPONDENT

Factor Analysis

Notes

Output Created		29-OCT-2016 22:11:21
Comments		
Input	Data	C:\Users\Compaq\Documents\chapter 4 shah\shah document.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	142
Missing Value Handling	Definition of Missing	MISSING=EXCLUDE: User-defined missing values are treated as missing.
	Cases Used	LISTWISE: Statistics are based on cases with no missing values for any variable used.
Syntax		FACTOR /VARIABLES OS1 OS2 OS3 OS4 OS5 /MISSING LISTWISE /ANALYSIS OS1 OS2 OS3 OS4 OS5 /PRINT INITIAL CORRELATION SIG DET KMO EXTRACTION ROTATION /FORMAT BLANK(0.5) /CRITERIA FACTORS(1) ITERATE(25) /EXTRACTION PC /CRITERIA ITERATE(25) DELTA(0) /ROTATION OBLIMIN /METHOD=CORRELATION.
Resources	Processor Time	00:00:00.08
	Elapsed Time	00:00:00.10
	Maximum Memory Required	4100 (4.004K) bytes

Correlation Matrix[a]

		OS1	OS2	OS3	OS4	OS5
Correlation	OS1	1.000	.890	.851	.766	.782
	OS2	.890	1.000	.837	.782	.775
	OS3	.851	.837	1.000	.812	.771

	OS4	.766	.782	.812	1.000	.896
	OS5	.782	.775	.771	.896	1.000
Sig. (1-tailed)	OS1		.000	.000	.000	.000
	OS2	.000		.000	.000	.000
	OS3	.000	.000		.000	.000
	OS4	.000	.000	.000		.000
	OS5	.000	.000	.000	.000	

a. Determinant = .003

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.852
Bartlett's Test of Sphericity	Approx. Chi-Square	818.555
	df	10
	Sig.	.000

Communalities

	Initial	Extraction
OS1	1.000	.864
OS2	1.000	.861
OS3	1.000	.856
OS4	1.000	.848
OS5	1.000	.836

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.265	85.302	85.302	4.265	85.302	85.302
2	.354	7.071	92.372			
3	.178	3.556	95.929			
4	.117	2.350	98.278			
5	.086	1.722	100.000			

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component
	1
OS1	.929
OS2	.928
OS3	.925
OS4	.921

OS5	.914

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Rotated Component Matrix[a]

a. Only one component was extracted. The solution cannot be rotated.

Factor Analysis

Notes

Output Created		29-OCT-2016 22:12:03
Comments		
Input	Data	C:\Users\Compaq\Documents\chapter 4 shah\shah document.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	142
Missing Value Handling	Definition of Missing	MISSING=EXCLUDE: User-defined missing values are treated as missing.
	Cases Used	LISTWISE: Statistics are based on cases with no missing values for any variable used.
Syntax		FACTOR /VARIABLES OR1 OR2 OR3 OR4 OR5 OR6 OR7 OR8 /MISSING LISTWISE /ANALYSIS OR1 OR2 OR3 OR4 OR5 OR6 OR7 OR8 /PRINT INITIAL CORRELATION SIG DET KMO EXTRACTION ROTATION /FORMAT BLANK(0.5) /CRITERIA FACTORS(1) ITERATE(25) /EXTRACTION PC /CRITERIA ITERATE(25) DELTA(0) /ROTATION OBLIMIN /METHOD=CORRELATION.
Resources	Processor Time	00:00:00.05
	Elapsed Time	00:00:00.11
	Maximum Memory Required	9080 (8.867K) bytes

Correlation Matrix[a]

		OR1	OR2	OR3	OR4	OR5	OR6	OR7	OR8
Correlation	OR1	1.000	.633	.750	.780	.740	.731	.750	.809
	OR2	.633	1.000	.599	.601	.604	.564	.533	.571
	OR3	.750	.599	1.000	.870	.770	.666	.811	.782
	OR4	.780	.601	.870	1.000	.785	.768	.793	.799
	OR5	.740	.604	.770	.785	1.000	.812	.772	.796
	OR6	.731	.564	.666	.768	.812	1.000	.796	.800
	OR7	.750	.533	.811	.793	.772	.796	1.000	.846
	OR8	.809	.571	.782	.799	.796	.800	.846	1.000
Sig. (1-tailed)	OR1		.000	.000	.000	.000	.000	.000	.000
	OR2	.000		.000	.000	.000	.000	.000	.000
	OR3	.000	.000		.000	.000	.000	.000	.000
	OR4	.000	.000	.000		.000	.000	.000	.000
	OR5	.000	.000	.000	.000		.000	.000	.000
	OR6	.000	.000	.000	.000	.000		.000	.000
	OR7	.000	.000	.000	.000	.000	.000		.000
	OR8	.000	.000	.000	.000	.000	.000	.000	

a. Determinant = .000

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.915
Bartlett's Test of Sphericity	Approx. Chi-Square	1189.380
	df	28
	Sig.	.000

Communalities

	Initial	Extraction
OR1	1.000	.781
OR2	1.000	.510
OR3	1.000	.799
OR4	1.000	.838
OR5	1.000	.806
OR6	1.000	.770
OR7	1.000	.816
OR8	1.000	.841

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %

1	6.161	77.013	77.013	6.161	77.013	77.013
2	.561	7.018	84.031			
3	.370	4.624	88.655			
4	.275	3.442	92.097			
5	.220	2.750	94.846			
6	.185	2.313	97.159			
7	.140	1.751	98.910			
8	.087	1.090	100.000			

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component
	1
OR1	.884
OR2	.714
OR3	.894
OR4	.915
OR5	.898
OR6	.878
OR7	.903
OR8	.917

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Rotated Component Matrix[a]

a. Only one component was extracted. The solution cannot be rotated.

Factor Analysis

Notes

Output Created		29-OCT-2016 22:12:50
Comments		
Input	Data	C:\Users\Compaq\Documents\chapter 4 shah\shah document.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>

	Split File	<none>
	N of Rows in Working Data File	142
Missing Value Handling	Definition of Missing	MISSING=EXCLUDE: User-defined missing values are treated as missing.
	Cases Used	LISTWISE: Statistics are based on cases with no missing values for any variable used.
Syntax		FACTOR /VARIABLES OC1 OC2 OC3 OC4 OC5 /MISSING LISTWISE /ANALYSIS OC1 OC2 OC3 OC4 OC5 /PRINT INITIAL CORRELATION SIG DET KMO EXTRACTION ROTATION /FORMAT BLANK(0.5) /CRITERIA FACTORS(1) ITERATE(25) /EXTRACTION PC /CRITERIA ITERATE(25) DELTA(0) /ROTATION OBLIMIN /METHOD=CORRELATION.
Resources	Processor Time	00:00:00.06
	Elapsed Time	00:00:00.06
	Maximum Memory Required	4100 (4.004K) bytes

Correlation Matrix[a]

		OC1	OC2	OC3	OC4	OC5
Correlation	OC1	1.000	.624	.819	.823	.790
	OC2	.624	1.000	.640	.668	.533
	OC3	.819	.640	1.000	.853	.701
	OC4	.823	.668	.853	1.000	.733
	OC5	.790	.533	.701	.733	1.000
Sig. (1-tailed)	OC1		.000	.000	.000	.000
	OC2	.000		.000	.000	.000
	OC3	.000	.000		.000	.000
	OC4	.000	.000	.000		.000
	OC5	.000	.000	.000	.000	

a. Determinant = .014

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.881
Bartlett's Test of Sphericity	Approx. Chi-Square	591.666
	df	10
	Sig.	.000

Communalities

	Initial	Extraction

Output Created		29-OCT-2016 22:13:20
Comments		
Input	Data	C:\Users\Compaq\Documents\chapter 4 shah\shah document.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	142
Missing Value Handling	Definition of Missing	MISSING=EXCLUDE: User-defined missing values are treated as missing.
	Cases Used	LISTWISE: Statistics are based on cases with no missing values for any variable used.
Syntax		FACTOR /VARIABLES PP1 PP2 PP3 PP4 PP5 /MISSING LISTWISE /ANALYSIS PP1 PP2 PP3 PP4 PP5 /PRINT INITIAL CORRELATION SIG DET KMO EXTRACTION ROTATION /FORMAT BLANK(0.5) /CRITERIA FACTORS(1) ITERATE(25) /EXTRACTION PC /CRITERIA ITERATE(25) DELTA(0) /ROTATION OBLIMIN /METHOD=CORRELATION.
Resources	Processor Time	00:00:00.08
	Elapsed Time	00:00:00.11
	Maximum Memory Required	4100 (4.004K) bytes

Correlation Matrix[a]

		PP1	PP2	PP3	PP4	PP5
Correlation	PP1	1.000	.795	.520	.545	.599
	PP2	.795	1.000	.646	.673	.707
	PP3	.520	.646	1.000	.887	.831
	PP4	.545	.673	.887	1.000	.809
	PP5	.599	.707	.831	.809	1.000
Sig. (1-tailed)	PP1		.000	.000	.000	.000
	PP2	.000		.000	.000	.000
	PP3	.000	.000		.000	.000
	PP4	.000	.000	.000		.000
	PP5	.000	.000	.000	.000	

a. Determinant = .010

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.820
Bartlett's Test of Sphericity	Approx. Chi-Square	631.635

df	10
Sig.	.000

Communalities

	Initial	Extraction
PP1	1.000	.608
PP2	1.000	.758
PP3	1.000	.804
PP4	1.000	.816
PP5	1.000	.827

Extraction Method: Principal Component Analysis.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.814	76.273	76.273	3.814	76.273	76.273
2	.697	13.946	90.219			
3	.195	3.899	94.117			
4	.185	3.705	97.822			
5	.109	2.178	100.000			

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component
	1
PP1	.780
PP2	.871
PP3	.897
PP4	.903
PP5	.909

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Rotated Component Matrix[a]

a. Only one component was extracted. The solution cannot be rotated.

Notes

Output Created		29-OCT-2016 22:14:26
Comments		
Input	Data	C:\Users\Compaq\Documents\chapter 4 shah\shah document.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	142
	Matrix Input	
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the procedure.
Syntax		RELIABILITY /VARIABLES=OR1 OR2 OR3 OR4 OR5 OR6 OR7 OR8 /SCALE('OR') ALL /MODEL=ALPHA.
Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.01

Scale: OR

Case Processing Summary

		N	%
Cases	Valid	142	100.0
	Excluded[a]	0	.0
	Total	142	100.0

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

Reliability Statistics

Cronbach's Alpha	N of Items
.957	8

Reliability

Notes

Output Created	29-OCT-2016 22:14:47
Comments	

Input	Data	C:\Users\Compaq\Documents\chapter 4 shah\shah document.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	142
	Matrix Input	
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the procedure.
Syntax		RELIABILITY /VARIABLES=OC1 OC2 OC3 OC4 OC5 /SCALE('OC') ALL /MODEL=ALPHA.
Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.02

Scale: OC

Case Processing Summary

		N	%
Cases	Valid	142	100.0
	Excluded[a]	0	.0
	Total	142	100.0

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

Reliability Statistics

Cronbach's Alpha	N of Items
.928	5

Reliability

Notes

Output Created		29-OCT-2016 22:15:11
Comments		
Input	Data	C:\Users\Compaq\Documents\chapter 4 shah\shah document.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>

	N of Rows in Working Data File	142
	Matrix Input	
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the procedure.
Syntax		RELIABILITY /VARIABLES=PP1 PP2 PP3 PP4 PP5 /SCALE('PP') ALL /MODEL=ALPHA.
Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.01

Scale: PP

Case Processing Summary

		N	%
Cases	Valid	142	100.0
	Excluded[a]	0	.0
	Total	142	100.0

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

Reliability Statistics

Cronbach's Alpha	N of Items
.922	5

Correlations

Notes

Output Created		29-OCT-2016 22:19:53
Comments		
Input	Data	C:\Users\Compaq\Documents\chapter 4 shah\shah document.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	142
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each pair of variables are based on all the cases with valid data for that pair.

Syntax		CORRELATIONS /VARIABLES=MEAN_OS MEAN_OR MEAN_OC MEAN_PP /PRINT=ONETAIL NOSIG /STATISTICS DESCRIPTIVES /MISSING=PAIRWISE.
Resources	Processor Time	00:00:00.03
	Elapsed Time	00:00:00.02

Descriptive Statistics

	Mean	Std. Deviation	N
MEAN_OS	3.8620	1.17689	142
MEAN_OR	2.9868	1.18937	142
MEAN_OC	2.8845	1.24053	142
MEAN_PP	3.4803	1.23474	142

Correlations

		MEAN_OS	MEAN_OR	MEAN_OC	MEAN_PP
MEAN_OS	Pearson Correlation	1	-.633**	-.650**	.464**
	Sig. (1-tailed)		.000	.000	.000
	N	142	142	142	142
MEAN_OR	Pearson Correlation	-.633**	1	.894**	-.178*
	Sig. (1-tailed)	.000		.000	.017
	N	142	142	142	142
MEAN_OC	Pearson Correlation	-.650**	.894**	1	-.127
	Sig. (1-tailed)	.000	.000		.066
	N	142	142	142	142
MEAN_PP	Pearson Correlation	.464**	-.178*	-.127	1
	Sig. (1-tailed)	.000	.017	.066	
	N	142	142	142	142

**. Correlation is significant at the 0.01 level (1-tailed).

*. Correlation is significant at the 0.05 level (1-tailed).

Explore

Notes

Output Created		29-OCT-2016 22:41:24
Comments		
Input	Data	C:\Users\Compaq\Documents\chapter 4 shah\shah document.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>

Missing Value Handling	N of Rows in Working Data File	142
	Definition of Missing	User-defined missing values for dependent variables are treated as missing.
	Cases Used	Statistics are based on cases with no missing values for the dependent variable or factor(s) being analyzed.
Syntax		EXAMINE VARIABLES=MEAN_PP /ID=respondent /PLOT BOXPLOT HISTOGRAM NPPLOT /COMPARE GROUPS /STATISTICS DESCRIPTIVES EXTREME /CINTERVAL 95 /MISSING PAIRWISE /NOTOTAL.
Resources	Processor Time	00:00:00.95
	Elapsed Time	00:00:01.09

Case Processing Summary

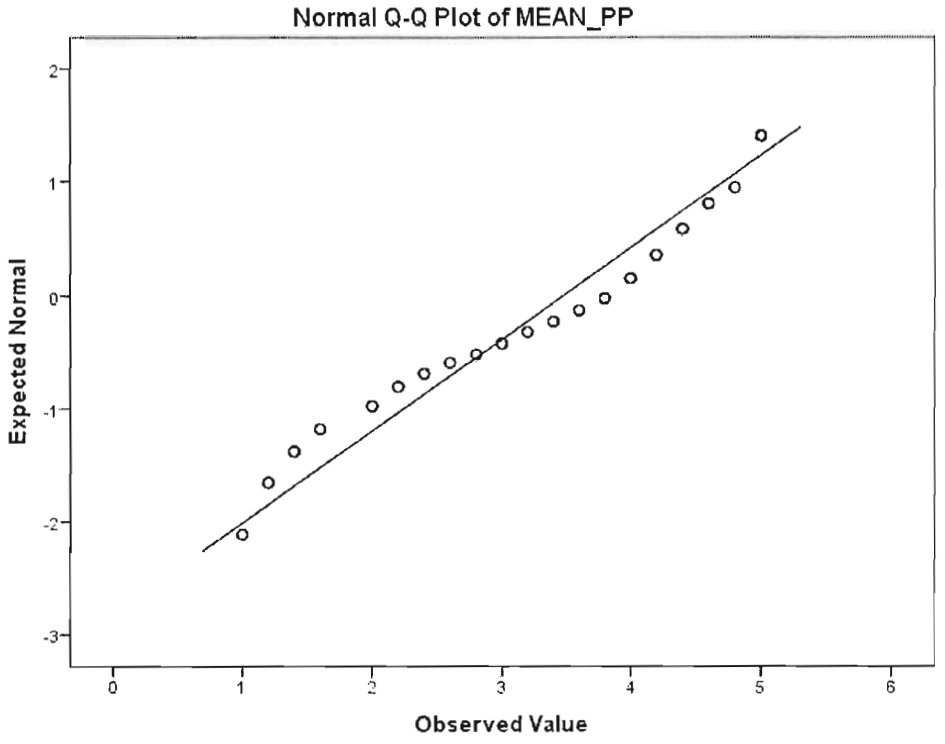
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
MEAN_PP	142	100.0%	0	0.0%	142	100.0%

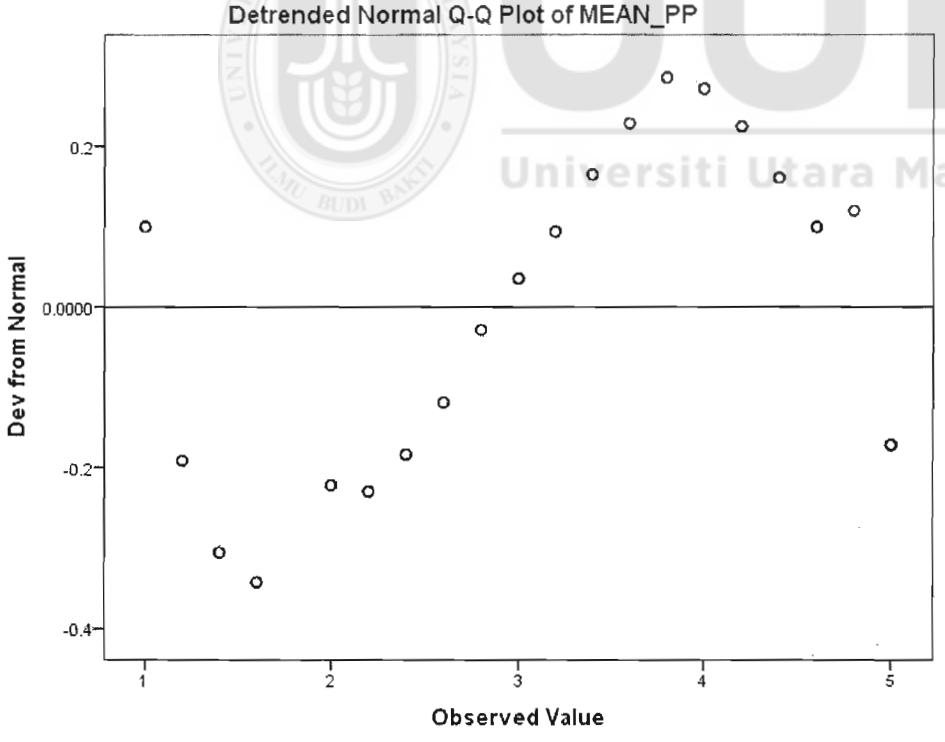
Descriptives

			Statistic	Std. Error
MEAN_PP	Mean		3.4803	.10362
	95% Confidence Interval for Mean	Lower Bound	3.2754	
		Upper Bound	3.6851	
	5% Trimmed Mean		3.5288	
	Median		3.8000	
	Variance		1.525	
	Std. Deviation		1.23474	
	Minimum		1.00	
	Maximum		5.00	
	Range		4.00	
	Interquartile Range		2.00	
	Skewness		-.511	.203
	Kurtosis		-.969	.404

Extreme Values

			Case Number	NORESPONDENT	Value
MEAN_PP	Highest	1	1	1	5.00
		2	2	2	5.00
		3	4	4	5.00





Syntax		EXAMINE VARIABLES=MEAN_OS MEAN_OR MEAN_OC MEAN_PP /ID=respondent /PLOT BOXPLOT HISTOGRAM NPPLOT /COMPARE GROUPS /STATISTICS DESCRIPTIVES EXTREME /CINTERVAL 95 /MISSING PAIRWISE /NOTOTAL.
Resources	Processor Time	00:00:03.57
	Elapsed Time	00:00:03.64

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
MEAN_OS	142	100.0%	0	0.0%	142	100.0%
MEAN_OR	142	100.0%	0	0.0%	142	100.0%
MEAN_OC	142	100.0%	0	0.0%	142	100.0%
MEAN_PP	142	100.0%	0	0.0%	142	100.0%

Descriptives

			Statistic	Std. Error
MEAN_OS	Mean		3.8620	.09876
	95% Confidence Interval for Mean	Lower Bound	3.6667	
		Upper Bound	4.0572	
	5% Trimmed Mean		3.9369	
	Median		4.4000	
	Variance		1.385	
	Std. Deviation		1.17689	
	Minimum		1.20	
	Maximum		5.00	
	Range		3.80	
	Interquartile Range		1.85	
	Skewness		-.917	.203
	Kurtosis		-.605	.404
MEAN_OR	Mean		2.9868	.09981
	95% Confidence Interval for Mean	Lower Bound	2.7895	
		Upper Bound	3.1841	
	5% Trimmed Mean		2.9989	
	Median		2.6875	
	Variance		1.415	
	Std. Deviation		1.18937	
	Minimum		1.00	
	Maximum		4.75	

	Range		3.75	
	Interquartile Range		2.38	
	Skewness		.143	.203
	Kurtosis		-1.523	.404
MEAN_OC	Mean		2.8845	.10410
	95% Confidence Interval for Mean	Lower Bound	2.6787	
		Upper Bound	3.0903	
	5% Trimmed Mean		2.8861	
	Median		2.6000	
	Variance		1.539	
	Std. Deviation		1.24053	
	Minimum		1.00	
	Maximum		5.00	
	Range		4.00	
	Interquartile Range		2.40	
	Skewness		.161	.203
	Kurtosis		-1.481	.404
MEAN_PP	Mean		3.4803	.10362
	95% Confidence Interval for Mean	Lower Bound	3.2754	
		Upper Bound	3.6851	
	5% Trimmed Mean		3.5288	
	Median		3.8000	
	Variance		1.525	
	Std. Deviation		1.23474	
	Minimum		1.00	
	Maximum		5.00	
	Range		4.00	
	Interquartile Range		2.00	
	Skewness		-.511	.203
	Kurtosis		-.969	.404

Extreme Values

			Case Number	NORESPONDENT	Value
MEAN_OS	Highest	1	1	1	5.00
		2	2	2	5.00
		3	13	13	5.00
		4	14	14	5.00
		5	16	16	5.00[a]
	Lowest	1	110	110	1.20
		2	104	104	1.20
		3	128	128	1.40
		4	66	66	1.40
		5	10	10	1.40[b]
MEAN_OR	Highest	1	67	67	4.75
		2	93	93	4.75

		3	1	1	4.63
		4	5	5	4.63
		5	7	7	4.63[c]
	Lowest	1	91	91	1.00
		2	82	82	1.00
		3	57	57	1.00
		4	42	42	1.00
		5	30	30	1.13
MEAN_OC	Highest	1	7	7	5.00
		2	67	67	4.80
		3	68	68	4.80
		4	126	126	4.80
		5	52	52	4.60[d]
	Lowest	1	140	140	1.00
		2	133	133	1.00
		3	91	91	1.00
		4	82	82	1.00
		5	74	74	1.00[e]
MEAN_PP	Highest	1	1	1	5.00
		2	2	2	5.00
		3	4	4	5.00
		4	13	13	5.00
		5	16	16	5.00[a]
	Lowest	1	133	133	1.00
		2	89	89	1.00
		3	85	85	1.00
		4	67	67	1.00
		5	128	128	1.20[f]

a. Only a partial list of cases with the value 5.00 are shown in the table of upper extremes.

b. Only a partial list of cases with the value 1.40 are shown in the table of lower extremes.

c. Only a partial list of cases with the value 4.63 are shown in the table of upper extremes.

d. Only a partial list of cases with the value 4.60 are shown in the table of upper extremes.

e. Only a partial list of cases with the value 1.00 are shown in the table of lower extremes.

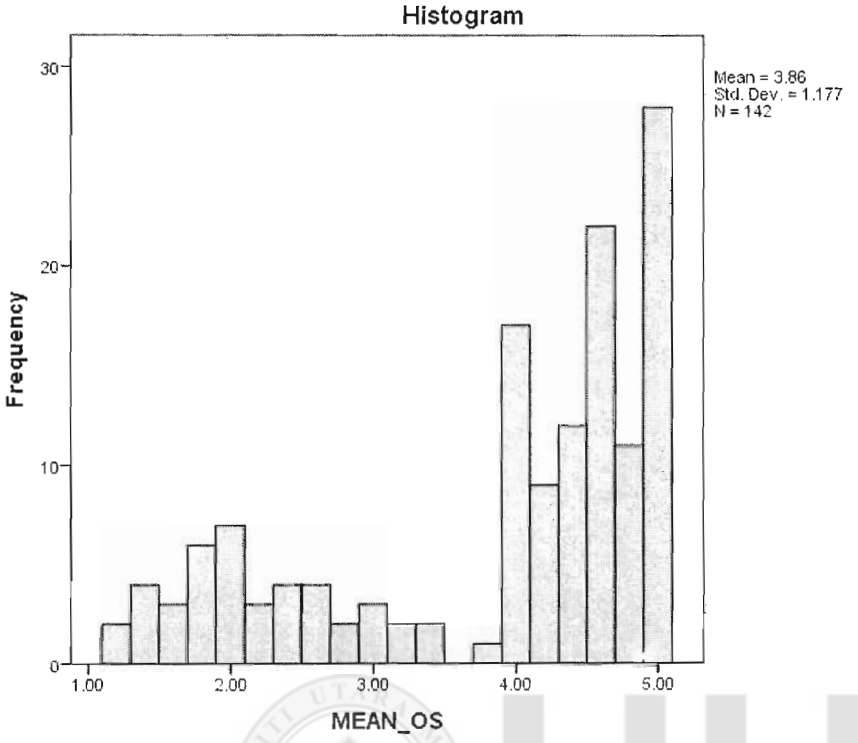
f. Only a partial list of cases with the value 1.20 are shown in the table of lower extremes.

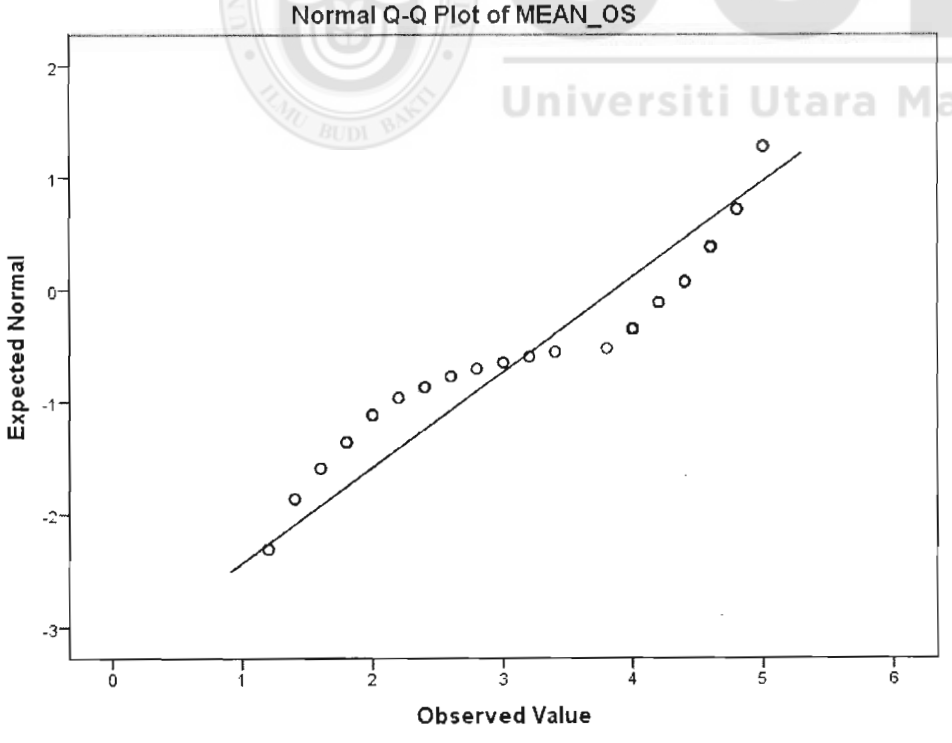
Tests of Normality

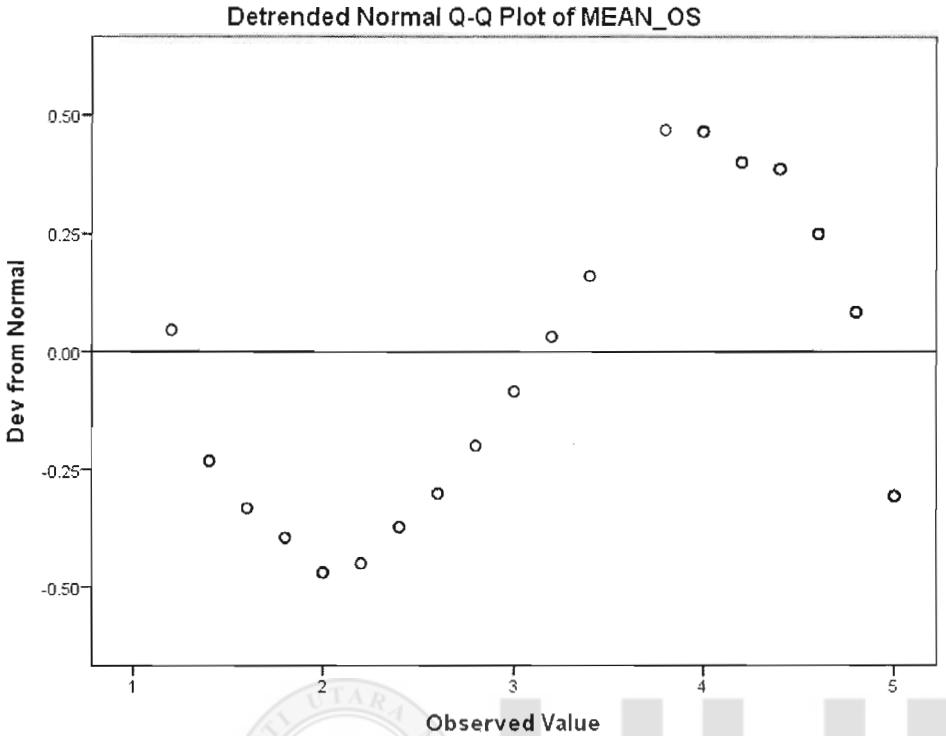
	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
MEAN_OS	.244	142	.000	.828	142	.000
MEAN_OR	.159	142	.000	.886	142	.000
MEAN_OC	.181	142	.000	.895	142	.000
MEAN_PP	.149	142	.000	.914	142	.000

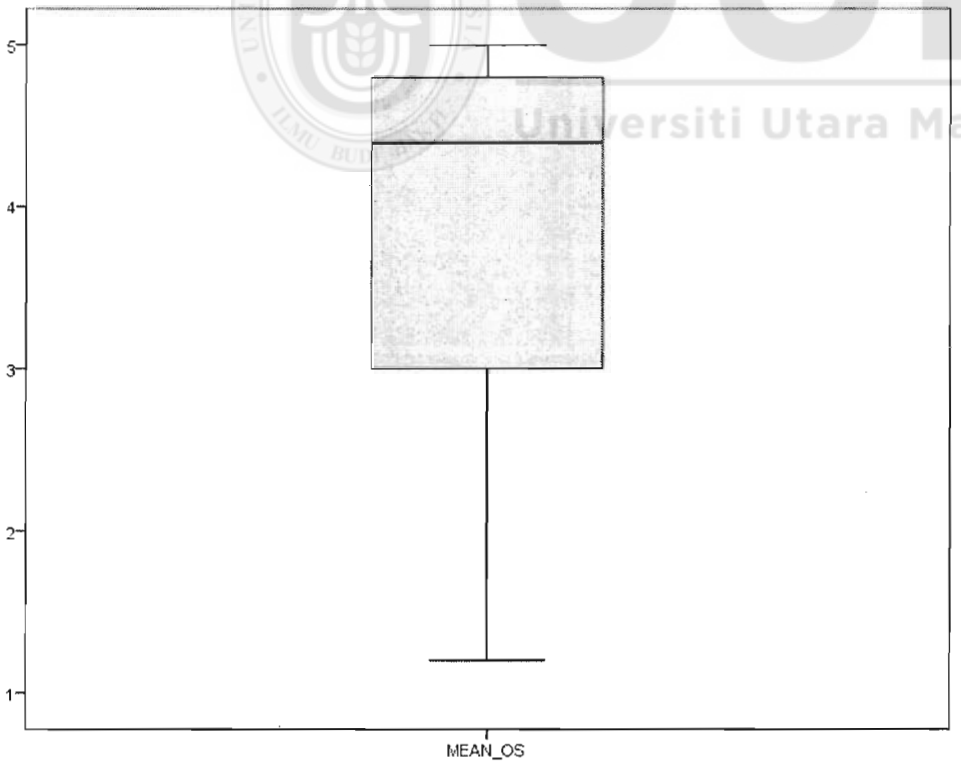
a. Lilliefors Significance Correction

MEAN_OS









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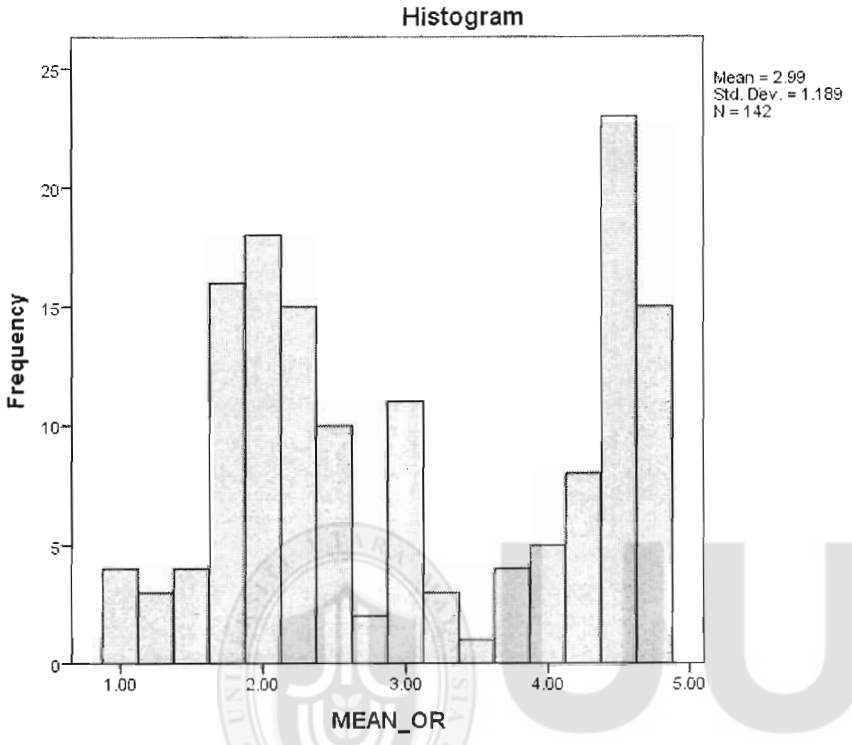
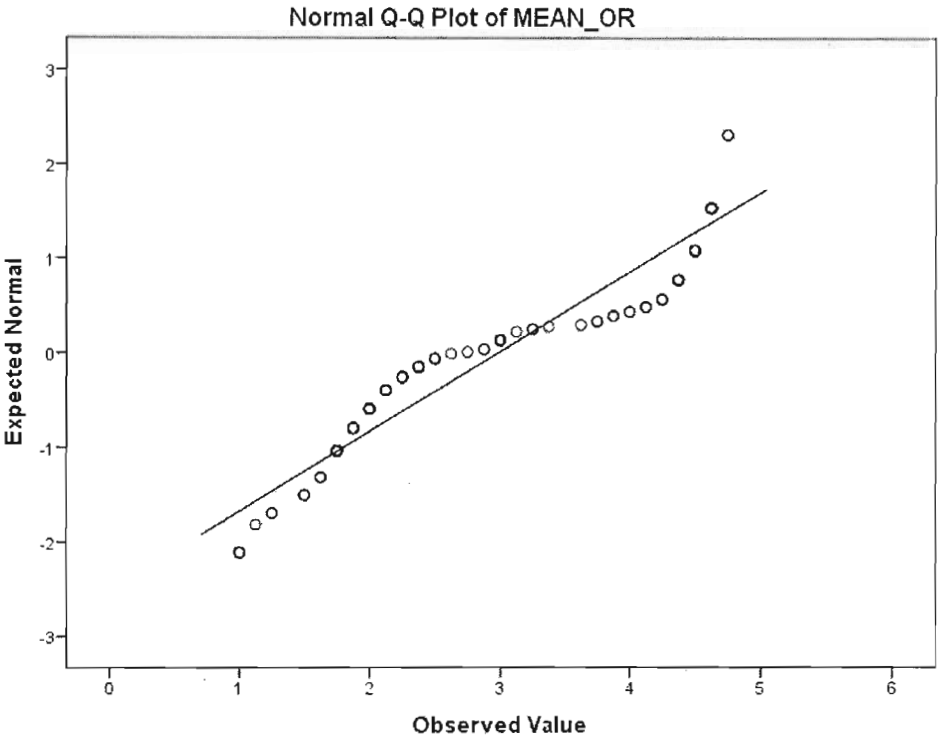
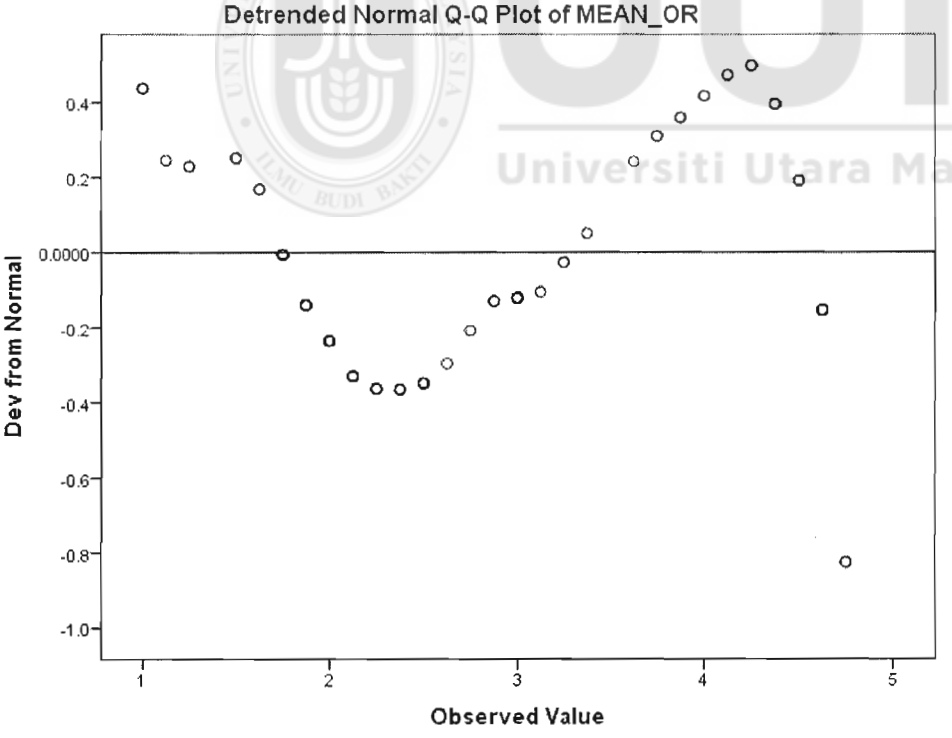
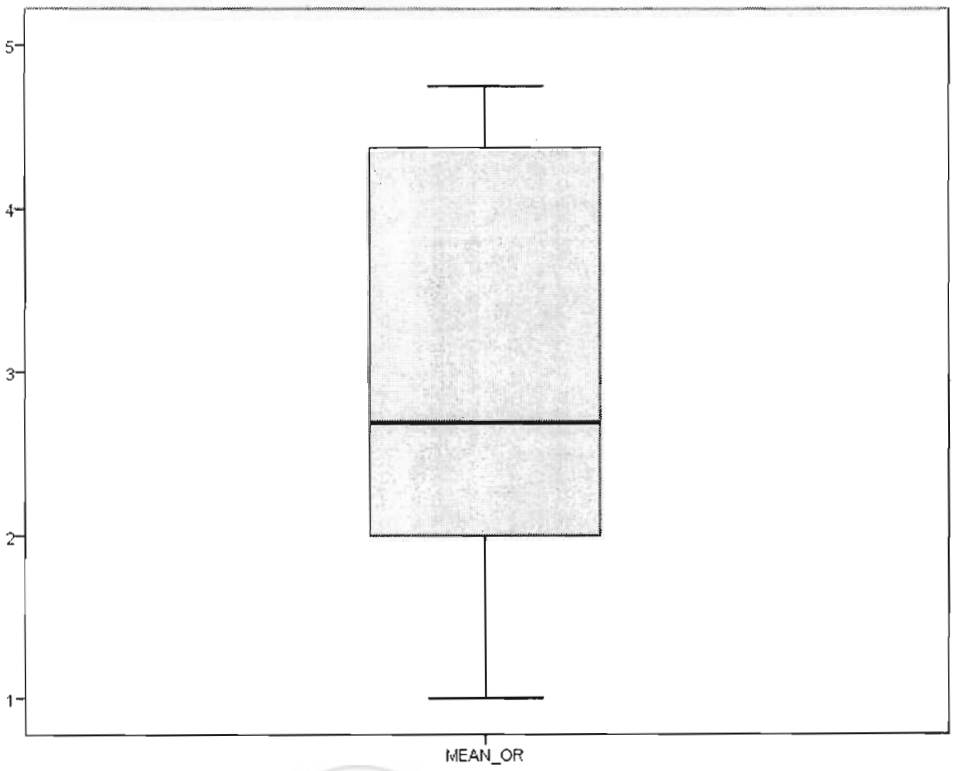
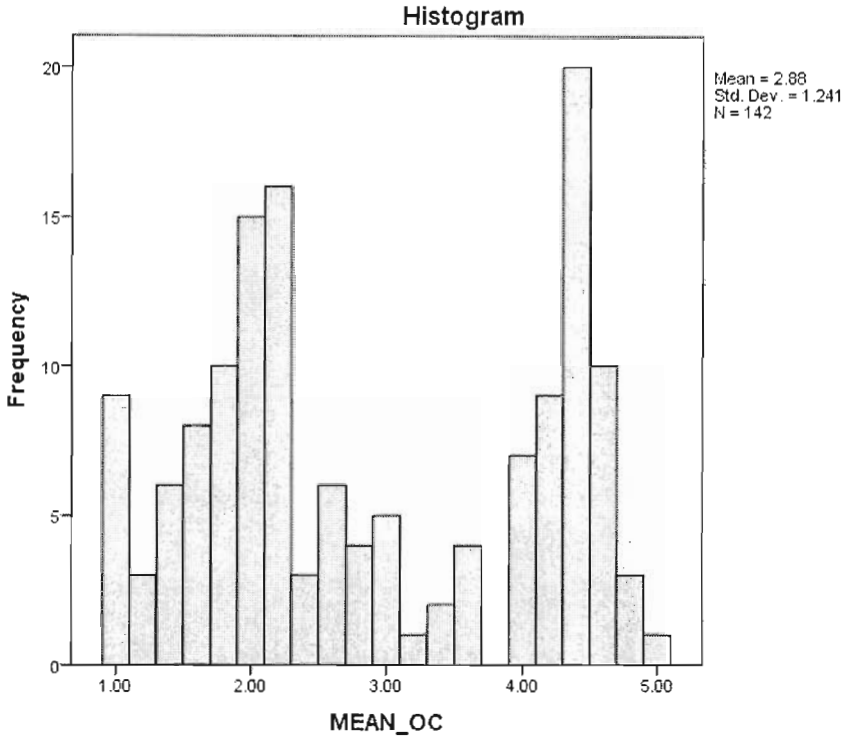


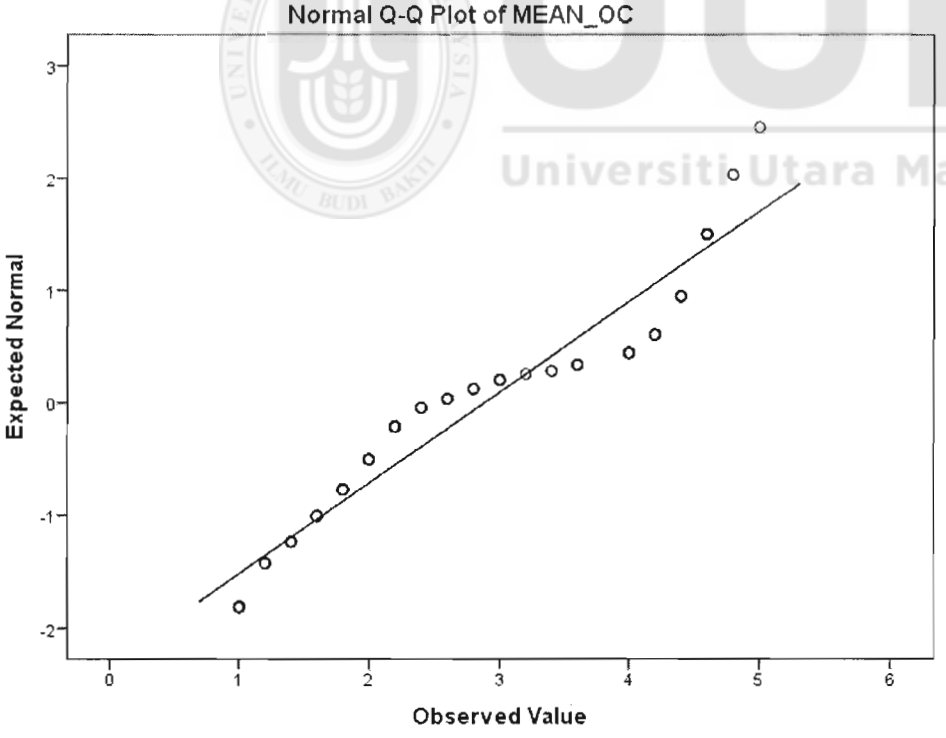


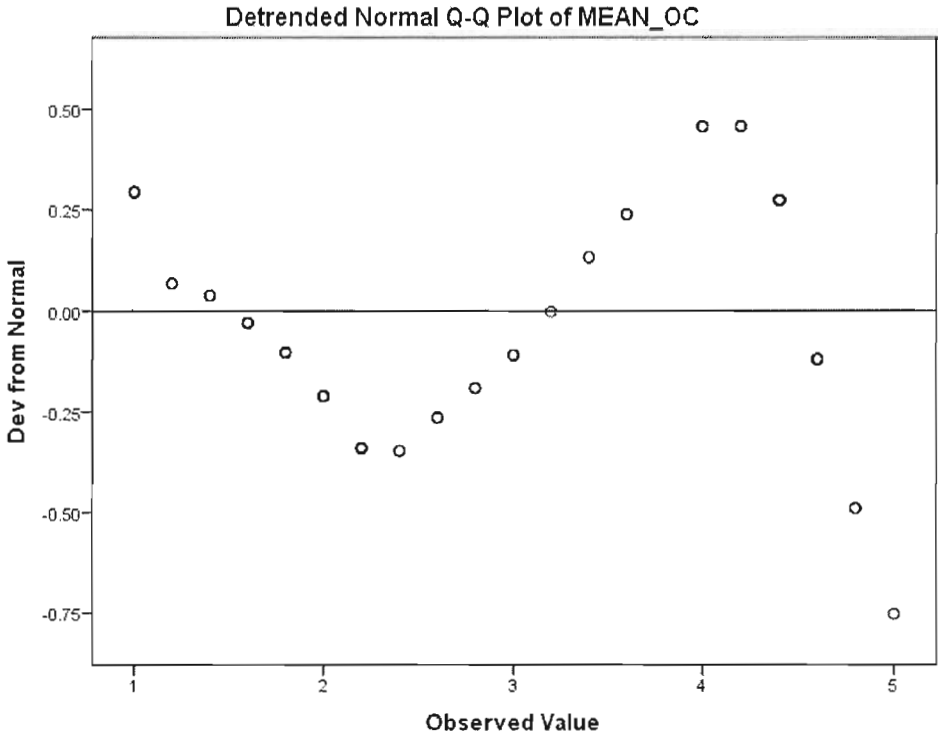


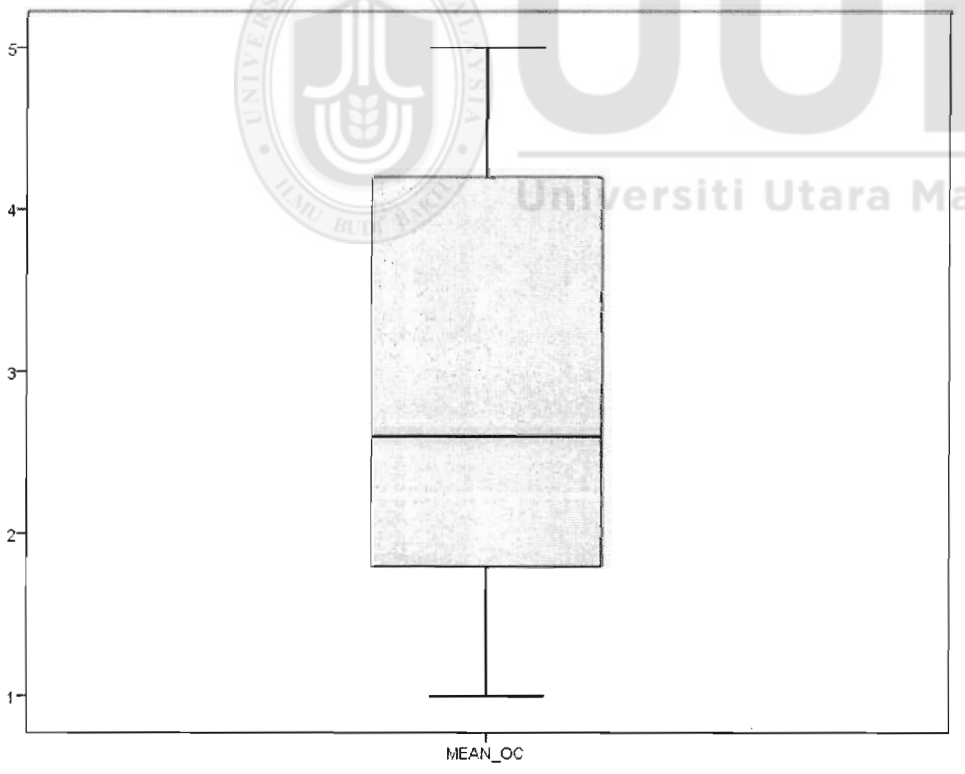


MEAN_OC

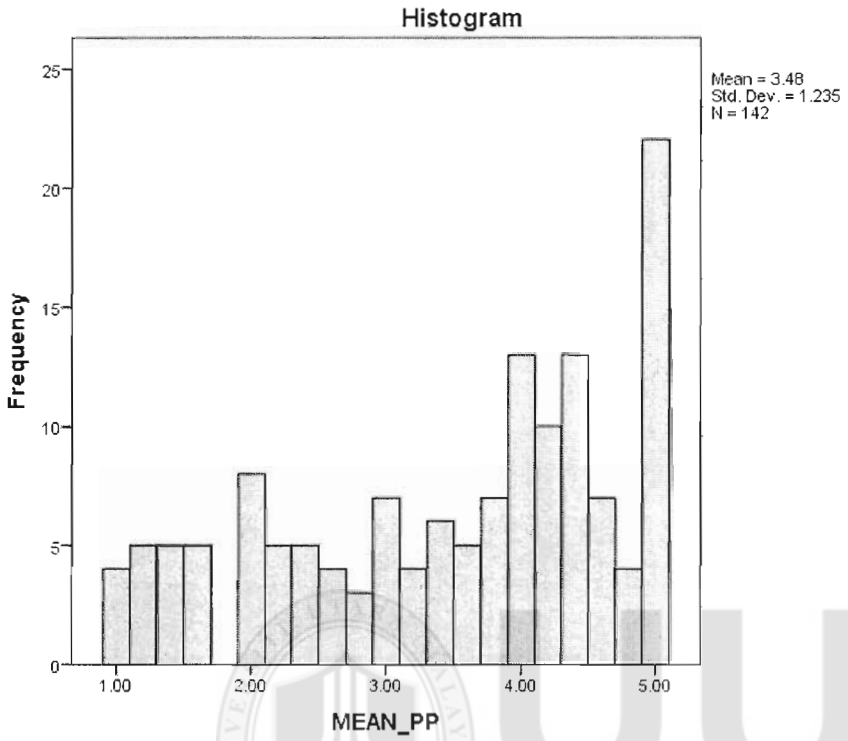


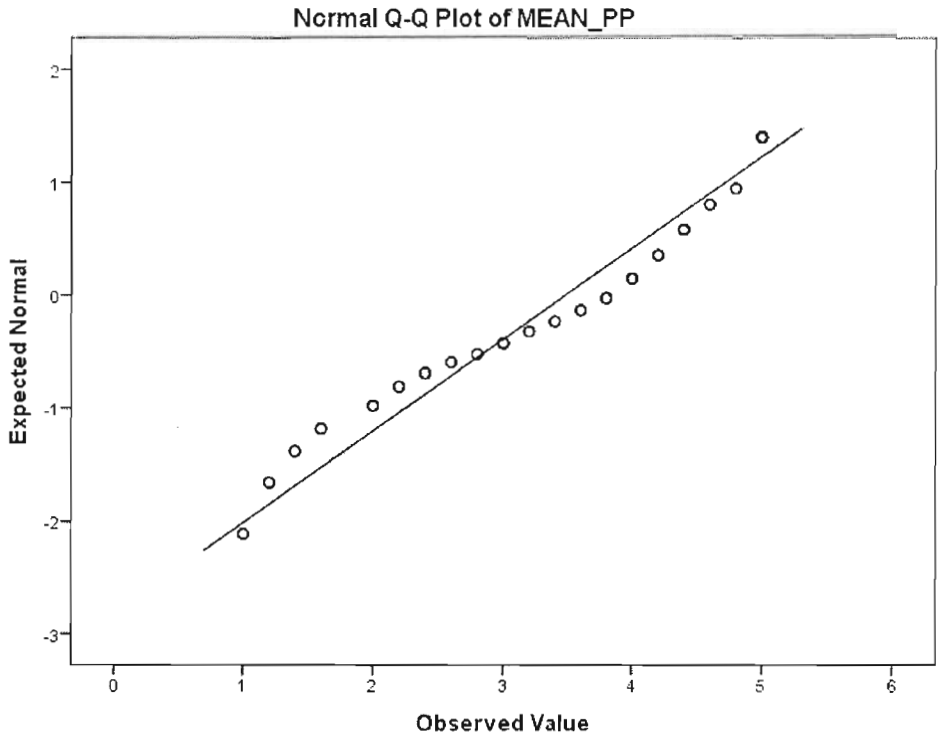


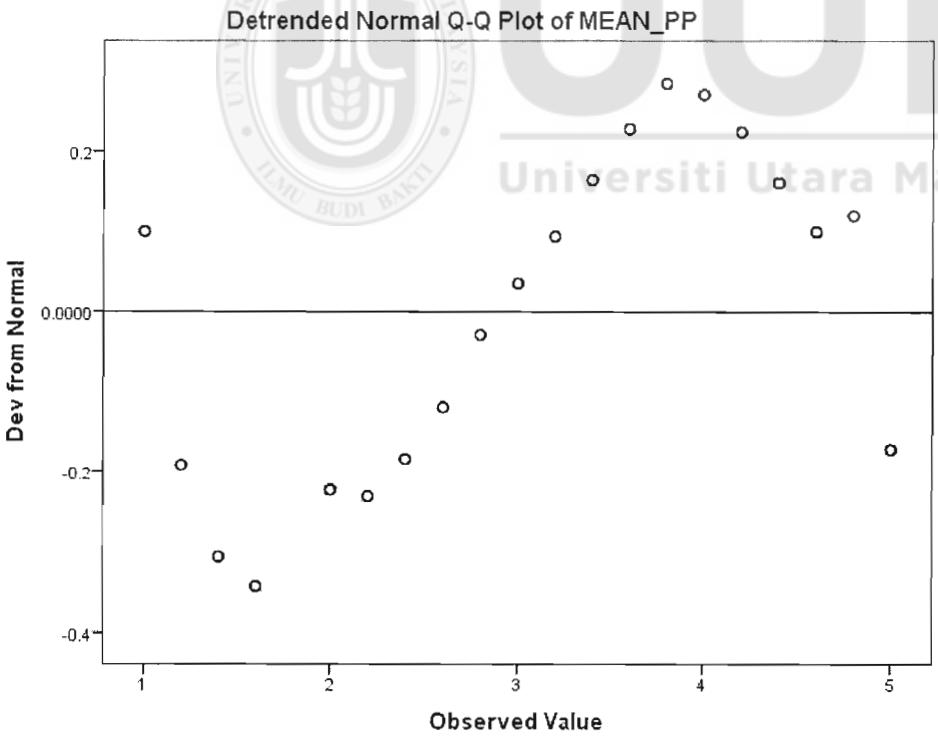


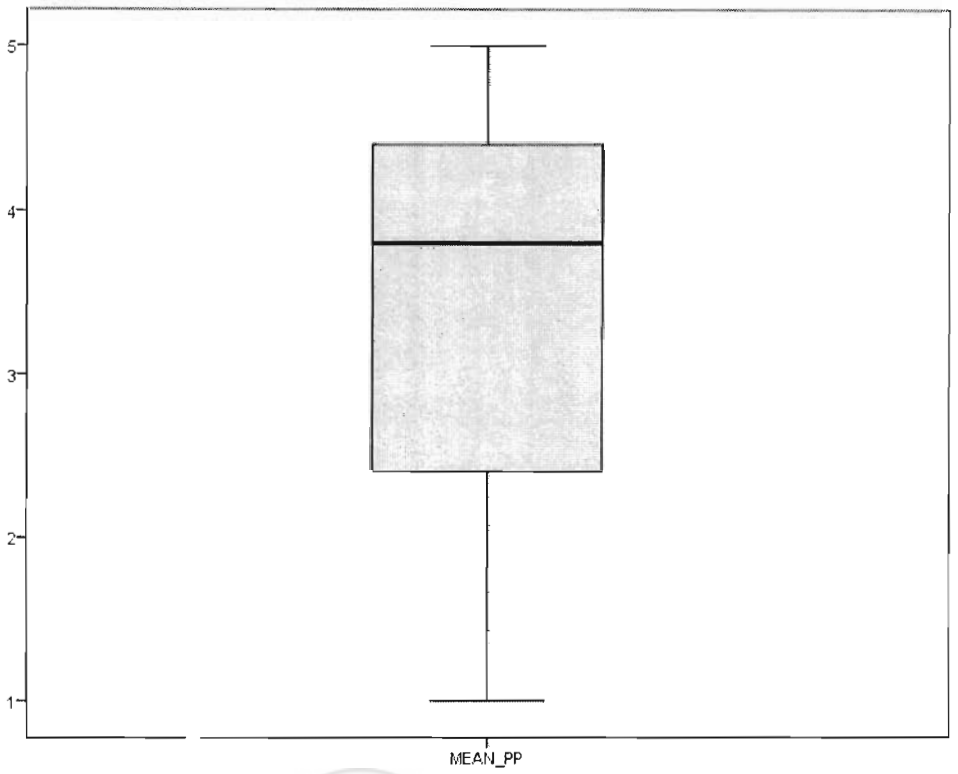


MEAN_PP









Frequencies

Notes

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Statistics

		Position	Period in position	Period in organization	Experience in industry	Gender	Age	Education level	Current full time employees
N	Valid	142	142	142	142	142	142	142	142
	Missing	0	0	0	0	0	0	0	0
Mean		4.87	2.73	2.60	3.42	1.16	3.58	2.81	2.80
Std. Error of Mean		.157	.143	.126	.151	.031	.151	.067	.132
Std. Deviation		1.871	1.705	1.502	1.804	.370	1.795	.798	1.578

Frequency Table

Position

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	CEO	7	4.9	4.9	4.9
	COO	12	8.5	8.5	13.4
	MD	18	12.7	12.7	26.1
	GM	25	17.6	17.6	43.7
	MANAGER	9	6.3	6.3	50.0
	PM	35	24.6	24.6	74.6
	others	36	25.4	25.4	100.0
	Total	142	100.0	100.0	

Period in position

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-3 years	40	28.2	28.2	28.2
	4-6 years	44	31.0	31.0	59.2
	7-9 years	18	12.7	12.7	71.8
	10-12 years	13	9.2	9.2	81.0
	12-14 years	8	5.6	5.6	86.6
	15 years and above	19	13.4	13.4	100.0
	Total	142	100.0	100.0	

Period in organization

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-3 years	32	22.5	22.5	22.5
	4-6 years	56	39.4	39.4	62.0
	7-9 years	24	16.9	16.9	78.9
	10-12 years	11	7.7	7.7	86.6
	12-14 years	5	3.5	3.5	90.1

	15 years and above	14	9.9	9.9	100.0
	Total	142	100.0	100.0	

Experience in industry

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-3 years	24	16.9	16.9	16.9
	4-6 years	30	21.1	21.1	38.0
	7-9 years	25	17.6	17.6	55.6
	10-12 years	23	16.2	16.2	71.8
	12-14 years	5	3.5	3.5	75.4
	15 years and above	35	24.6	24.6	100.0
	Total	142	100.0	100.0	

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	male	119	83.8	83.8	83.8
	female	23	16.2	16.2	100.0
	Total	142	100.0	100.0	

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	21-25 years	22	15.5	15.5	15.5
	26-30 years	26	18.3	18.3	33.8
	31-35 years	25	17.6	17.6	51.4
	36-40 years	19	13.4	13.4	64.8
	41-45 years	16	11.3	11.3	76.1
	45 years and above	34	23.9	23.9	100.0
	Total	142	100.0	100.0	

Education level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Master or higher	7	4.9	4.9	4.9
	Degree	40	28.2	28.2	33.1
	Diploma	68	47.9	47.9	81.0
	SPM/STPM	27	19.0	19.0	100.0
	Total	142	100.0	100.0	

Current full time employees

	Frequency	Percent	Valid Percent	Cumulative Percent

Valid	1-3	32	22.5	22.5	22.5
	4-6	42	29.6	29.6	52.1
	7-9	30	21.1	21.1	73.2
	10-12	15	10.6	10.6	83.8
	12-14	7	4.9	4.9	88.7
	15 and above	16	11.3	11.3	100.0
	Total	142	100.0	100.0	

Business operating

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	1	.7	.7	.7
	1-3 years	4	2.8	2.8	3.5
	4-6 years	31	21.8	21.8	25.4
	7-9 years	58	40.8	40.8	66.2
	10-12 years	21	14.8	14.8	81.0
	12-14 years	8	5.6	5.6	86.6
	15 years and above	18	12.7	12.7	99.3
	11	1	.7	.7	100.0
	Total	142	100.0	100.0	

Customers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	private institutions	63	44.4	44.4	44.4
	both	79	55.6	55.6	100.0
	Total	142	100.0	100.0	

Regression

Notes

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	Cases Used	Statistics are based on cases with no missing values for any variable used.

	MEAN_OC	-.127	-.650	.894	1.000
Sig. (1-tailed)	MEAN_PP	.	.000	.017	.066
	MEAN_OS	.000	.	.000	.000
	MEAN_OR	.017	.000	.	.000
	MEAN_OC	.066	.000	.000	.
N	MEAN_PP	142	142	142	142
	MEAN_OS	142	142	142	142
	MEAN_OR	142	142	142	142
	MEAN_OC	142	142	142	142

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	MEAN_OC, MEAN_OS, MEAN_OR[b]	.	Enter

a. Dependent Variable: MEAN_PP

b. All requested variables entered.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.522[a]	.273	.257	1.06445	.273	17.240	3	138	.000

a. Predictors: (Constant), MEAN_OC, MEAN_OS, MEAN_OR

b. Dependent Variable: MEAN_PP

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	58.602	3	19.534	17.240	.000[b]
	Residual	156.363	138	1.133		
	Total	214.965	141			

a. Dependent Variable: MEAN_PP

b. Predictors: (Constant), MEAN_OC, MEAN_OS, MEAN_OR

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.100	.634		.158	.875		
	MEAN_OS	.678	.101	.647	6.688	.000	.564	1.774
	MEAN_OR	-.162	.170	-.156	-.949	.344	.196	5.102
	MEAN_OC	.431	.166	.433	2.589	.011	.189	5.301

a. Dependent Variable: MEAN_PP

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions			
				(Constant)	MEAN_OS	MEAN_OR	MEAN_OC
1	1	3.710	1.000	.00	.00	.00	.00
	2	.261	3.769	.00	.09	.02	.03
	3	.015	15.561	.00	.01	.88	.93
	4	.014	16.533	.99	.89	.10	.04

a. Dependent Variable: MEAN_PP

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	1.9761	4.8478	3.4803	.64468	142
Std. Predicted Value	-2.333	2.121	.000	1.000	142
Standard Error of Predicted Value	.093	.321	.173	.045	142
Adjusted Predicted Value	1.9240	4.8801	3.4824	.64592	142
Residual	-3.03087	2.17641	.00000	1.05307	142
Std. Residual	-2.847	2.045	.000	.989	142
Stud. Residual	-2.868	2.075	-.001	1.003	142
Deleted Residual	-3.07561	2.24245	-.00215	1.08225	142
Stud. Deleted Residual	-2.947	2.101	-.004	1.010	142
Mahal. Distance	.080	11.850	2.979	2.186	142
Cook's Distance	.000	.145	.007	.014	142
Centered Leverage Value	.001	.084	.021	.016	142

a. Dependent Variable: MEAN_PP