

**ESTABLISHING THE NORM OF ORGANISATIONAL STRUCTURE FOR
PUBLIC WORKS DEPARTMENT**

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A capstone project report submitted in partial fulfillment of the
requirements for the award of the degree of
Master Project Management

**Faculty of Civil Engineering
Universiti Teknologi Malaysia**

DECEMBER, 2010

To my beloved wife and family

ACKNOWLEDGEMENT

First of all, I would like to express my sincere appreciation to my project supervisor, Dr. Fauzy Hashim Yaacob of the Faculty of Management and Human Resource, Universiti Teknologi Malaysia, for his generous advice, patience, guidance and encouragement during the years of my study.

I would like to express my sincere thanks to all the architect, mechanical, electrical and civil engineers who generously spent their precious time to participate in answering the questionnaire questions, focus group interview and individual interview of my project data collections and comments on my works. Their opinions and comments are useful indeed. My juniors and friends, who have provided assistance in arranging the interviews, also deserve my special thanks.

Finally, I am most thankful to my wife and family for their support and encouragement given to me unconditionally in taking this capstone project report.

Without the contribution of all those mentioned above, this work would not have been possible.

ABSTRACT

Establishing a norm for project organisational structure is a very crucial and challenging task. In order to establish the new norm the individual or project manager has to look into the current norm existing in the organization such as JKR. Then the second factor is to look into the needs of the people involved in the particular project itself. This particular process will definitely takes time because it falls under the authority of human resource department. So, the aim of this study is to look into the project existing norm of organizational structure, problems related to it and finally to suggest and propose an improvement to the current existing norm. There are three distinguished phases in the study: phase 1 involves determination of the topic, aim, objectives, scope and literature review; phase 2 comprises of Research design, research questions and questionnaire preparation supplemented by focus group interview together with individual expert interview question and followed by data collection from the respondent involved; phase 3 consist of analyzing the data and subsequently propose the solution for the improvement of the norm. As found out by observation at the site and face to face interview that all those projects are managed by one professional staff full time at the site. Finally the outcomes of this study are establishment of the norm that could apply to other JKR project as a whole in the same category.

ABSTRAK

Menetapkan satu norma baru bagi struktur organisasi projek bukan satu perkara yang mudah dan agak mencabar. Bagi membolehkan satu norma struktur organisasi projek dapat ditetapkan maka setiap individu yang bertanggungjawab perlu melihat dan memerhatikan terlebih dahulu apa sebenarnya yang terdapat dalam struktur yang sedia ada dalam projek JKR. Perkara kedua yang perlu diperhatikan adalah apakah keperluan yang diperlukan oleh setiap individu dalam kumpulan projek tersebut. Untuk melaksanakan proses ini tentunya mengambil masa dan kebetulan pula pihak yang sebenarnya bertanggungjawab dalam mengatur pertukaran dan keperluan perjawatan adalah Unit Pembangunan Sumber Manusia, Cawangan Pengurusan Korporat, JKR. Terdapat tiga peringkat dalam kajian ini. Fasa pertama adalah melibatkan perkara menentukan tajuk, tujuan, objektif, skop dan kajian literatur dan temuramah awalan. Fasa kedua melibatkan rekabentuk kajian, soalan kajian dan persediaan soalan bancian ditambah dengan temuramah berkumpulan dan juga individu serta disertai dengan pengumpulan data daripada pihak yang berkenaan. Fasa ketiga pula meliputi analisa data-data yang dikumpul dan seterusnya mencadangkan penetapan norma baru. Adalah didapati dari pemerhatian dan temuramah bahawa ketiga-tiga projek tersebut diuruskan oleh seorang pegawai tapak sepenuh masa. Akhirnya hasil keputusan dari kajian ini ialah penetapan norma yang boleh digunapakai bagi projek JKR yang lain dalam kategori projek yang sama.

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CHAPTER 1

INTRODUCTION

1.0 Background

Jabatan Kerja Raya (JKR) or Public Works Department (PWD) as it was formerly known has been formed since 1872. Since it started with the traditional method of organizational structure for quite sometime and has undergone a few changes in type of procurements. Until recently due the tremendous changes happening here locally and abroad JKR has to embark on the transformation of reorganisation or known as restructuring process of JKR organization so that it will align with the current development (www2.jkr.gov.my/v2/malay/aboutus/OS_history).

Nowadays, matrix organization structure has been practiced by many organization and they are in the process of implementing it in many stages. Some has gone to the stage where they have really implemented it and had seen the success of its implementation. JKR has started implementing the matrix organizational structure somewhere in the beginning of 2007 and since then, is in the transitional process of adjusting it from the former traditional (classical) functional organizational structure to the matrix organizational structure. Of course there must be some kind of resistance from the organization especially the lower group but since it is a top management

decision, then everybody has to oblige. Since JKR have adopting it as their daily routine job now and the feel that something is lacking especially by the project manager and program manager to improve it further. This is usually true because the cross functional group has to do dual reporting to two different bosses although there are in the project team. (Kerzner. H. Project Management, 2006).

There was already a paper prepared by the Complex Project Management Branch to come up with some form of a norm for Design and Build project in Woman and Child Hospital in Kuala Lumpur General Hospital organizational structure with 14 professional staff comprising Engineers from JUSA level, grade J54, J48 and J44 together with 7 supporting staff from the grade J36 and J22. Since this project has been postponed due to some allocation constraint and subsequently this proposal paper submitted for an approval from the top management consisting the first norm of the JKR organizational structure could not be put forward into implementation (Prokom, JKR, December 2007).

1.1 Problem Statement

JKR has not launched any new norm for the organizational structure and human resource needs but the posting of staff and allocating of human resource is still going on based on the current need, the application of post requested by various JKR Branch through the Human Resource Unit in Ministry of Works and the approval of post by the Public Service Department. As quite a number of projects that running progressively and smoothly, many of them managed to be completed on time but not to deny, a few projects has created mess and jeopardize or smear the reputation of JKR as a whole. JKR top management was not happy with the progress due to so many reasons. One of the reasons was due to lack of staff. Recently the government through Public Service Department (PSD) has agreed to increase the number of JKR

personnel quite substantially but still could not suffice the real need on the project site.

By June 2010 JKR was having 3,047 engineers which comprises of 2,712 civil engineers, 287 electrical engineers, 324 mechanical engineers, 290 architects and 246 quantity surveyors serving JKR and other government related agencies. These professionals are supported with the 7,789 non-professional staff including technical assistant (assistant engineer), technician and draughtsman. Other than that JKR staffing is supported by the non-technical staff which out-numbered technical staff with the capacity of 11,511 staffs. As this number is quite huge to manage, a proper norm has to be set and this study has to look into ways and means so that there will be a proper norm for organizational structure and human resource needs to be established and put in place (Human Resource Management Division, Ministry of Works).

As the organization moved from the traditional type of organizational structure to matrix organizational structure there was also a norm set in the traditional type organization and subsequently as the organization change to a new organization structure there would be new norm start to form and become a new standard norm. As this study is to establish the norm for the project current matrix organisational structure for JKR Health Federal project, then a thorough study need to be done and carried out in proper manner in order to get the expected result.

As the document in JKR is very hardly available to obtain especially regarding the pass experienced and lesson learned because of the absent of culture in JKR to record and document lesson learned of the history of the JKR in documenting the norm and the human resource needs so, the sole interview with the experts with questionnaire survey is very much appreciated. Due to time limitation, so only limited number of individual interview and one focus group interview could be performed besides the questionnaires. So by going through analyzing and comparing the current practice outline in the Literature Review of the other people works and experienced, questionnaire and documents available, it is expected that the three objectives outline

below can be accomplished and able to be established the norm for the project organisational structure for JKR Health Federal project.

1.2 Purpose and Aims

The objective of the study is to review the existing JKR project organizational structure and compare with other international organizational, agencies and finally to come up with better norm of project organisational structure for JKR federal health project.

1.3 Research Questions

1. What are the norm or standard that is being used and practice in meeting the current JKR project organizational structure?
2. What are the weaknesses now in implementing the project organizational structure ?
3. What are the solution and strategies to be used in developing to enhance the standard or norm for project organizational structure?

1.4 Objective

1.4.1 General Objective

Prior to determination of this study's objectives and scope, early search and works on this topic and several discussions relating to that has been done together with the guidance from author's supervisor Dr. Hashim Fauzy Yaacob and JKR management. All reading materials are obtained from Universiti Teknologi Malaysia's library facilities including the internet search for journal and book.

To Study the form of norm being practiced in JKR project organizational structure and at the same time to look into approaches that can be used to develop the norm further. Finally, to look into the weaknesses existing now in the norm, in order to enhance the norm so that it could be implemented later in the future.

1.4.2 Specific Objective

1. To identify the existing norm that is being practice in the present JKR project organisational structure.
2. To look into the problems and weaknesses that present in project organisatioan sttucture.
3. To develop a new norm that could be implemented in other JKR projects.

1.5 Scope of Study

In this study, three Design and Build projects of building project that are being carried out under the current matrix organizational structure of JKR's Health Facilities Branch, will be investigated. The project are ;

- i. Rehabilitation Hospital in Cheras, Federal Territory (166 beds) Package II – The proposed Construction of Main Hospital Building, Quarters and all supporting building.
- ii. The proposed Design, Construction and Upgrading of 8 New Block at Kuala Lumpur General Hospital; Ambulatory Care Centre (ACC)
- iii. Allied Health Science College at Ulu Kinta, Ipoh, Perak

Limitation of the study

- not inclusive of state's or district projects.
- not inclusive of traditional and conventional project.
- not inclusive of projects under different branches other than Health Facilities Branch.
- not inclusive of project which is less than RM 200 millions or more RM500 millions.
- The study assumes that the contractors involved in these projects are normal average contractor which doesn't give hiccup to the project performance.

1.6 Significant of the study

This study is very important because by using the norm as a standard we can know where JKR is really standing and if it is below the standard then JKR has to look into the possibility on how much JKR has to work harder in order the achieve the standard or the norm that has been set to be the successful organizations or reliable public technical agency.

The effort is seen very critical and crucial to avoid further wastage of time and energy as well as the budget beginning from the project planning where millions of public funds channeled through the construction of public projects and infrastructure including the deployment of human resource and other cost incurred pertaining to the project such as land acquisition, scope determination, site investigation, survey cost, consultant fees and other cost charge by public authorities and service provider companies.

If the finding of this study proven to be practical and viable, then it could be later be translated to be used and as an initial steps to transformed JKR organizational structure to be very structured and practical to achieve the best quality, performance and success to fulfill the government's intention.

As pointed out by White D., Fortune J. (2002), the main three critical criteria that should be the focus of every project manager is the meet client's requirements followed by completed within schedule and completed within budget. He mentioned that much of the literature reveals that factors against which success is judged are time taken, cost and the extent to which client requirements are met or even better exceeded.

1.7 Definition of term

1.7.1 Conceptual definition

1.7.1.1 Norm

In simple dictionary sociology term is given as the social norm expected patterns of behaviour studied in sociology, statistical norm, actual patterns of behaviour studied in sociology. Where in business it defines as rule or standard considered acceptable behaviour in a group or society. In philosophy the norm is almost alike that is a rule for behaviour or a definite pattern of behaviour, departure from which renders a person liable to some kind of censure.

In Merriam-Webster is **1.** authoritative standard – model **2.** a principle of a right action binding upon the members of a group serving to guide, control or regulate proper and acceptable behaviour **3.** Average- **a.** a set of standard of development or achievement usually derived from the average or median achievement of a large group **b.** a pattern or transit in the behaviour of a social group **c.** a widespread or usual practice, procedure or custom.

1.7.1.2 Organizational Structure

An organizational structure is mainly hierarchical concept of subordination of entities collaborate and contribute to serve common aim and which will determine the modes to operate and performs. Subsequently allows the allocation of responsibilities for different function and processes to differentiate entities such as branch, department, workgroup and individual (en. Wikipedia.com). According to definition by dictionary.bnet.com organizational structure is the form that is evident in the way divisions, departments, functions and people link together and interact.

1.7.1.3 Project Organisational Structure

A proper project organisational structure designates the structure, somewhat like a chart in which projects are worked on so that the project organizational structure will work smoothly until project completion according to project specification and contract requirements.

1.7.1.4 Cross-functional Team

A cross-functional team is a group of people with a few various functional or linear functional expert groups working toward a common goal which may include people from all level of the organisation in finance, operations or implementation, finance, marketing and human resources departments. The growth of self directed cross-functional team has influenced decision making process and organisational structure although management theory like to profound that every type of organisational structure needs to make strategies, tactical and operational decision, new procedures have started to emerge that work best with team (en.wikipedia.com).

1.7.1.5 Matrix organisation

The matrix organisational structure usually group company's staff by product and function whereas in government or public agency it is usually group by project and function. A matrix organisation regularly uses team of staff to accomplish work, in order to take advantage of the strength as well as the weakness of functional and project forms. An example would be a company that produces two products (en.wikipedia.org).

According to Kerzner (2006) matrix structure can be strong, weak or balance. The strength of the matrix is based upon the man who has more power or influence over the workers in the project: project manager or functional manager.

- **Strong /Project Matrix:** If the project manager has more influence over the worker, then the matrix structure function considered as strong matrix as seen from the project manager perception.
- **Weak/Functional Matrix:** If the functional manager is more influential than the project manager, then the organisation function as a weak matrix as seen by the project manager.
- **Balanced/Functional Matrix:** The most common difference between a strong and weak matrix is depend very much on whose command resides: project manager or function manager. If the project manager has more command and is recognised by the function manager and the worker as being technical expert, then the functional manager allowed the worker to take direction from the project manager. This is clearly a strong matrix organisational structure but if it is the reverse than it will the weak organisational structure.

According to wikipedia among these matrixes, there is no best format because success is always depends on the organisation's purpose and function.

1.7.1.6 **Human resource**

In simple term the **Human resource** is the term used to describe about the manpower or staffing of workforce of an organisation. In almost any organisation nowadays there is already a department which responsible or in charge of the human resources function, implementing strategies and policies relating to the management of individual in the organisation. The function title is usually abbreviated by the initial HR. (en. Wikipedia.com).

1.7.1.7 **Human Resource Needs**

According to Werner, J.M., DeSomone, R.L. Need assessment is a process by which an organization's Human Resource Development needs are identified or managed. A need assessment identify;

- An organization's goal and it's effectiveness
- Discrepancies between employee's skill and skill required
- Discrepancies between employee's skill and skill required in the future
- The certainty of condition under which Human Resource Development activity may occur.

1.7.1.8 Management

As given by the www.thefreedictionary.com management is the act, manner or practice of managing, handling, supervision or control of something such as people or peoples in group or organization.

1.7.1.9 Conceptual definition of Project management

Project management is the discipline of planning, organizing and managing resources to bring about successful completion of specific project goals and objectives (en.wikipedia.com).

According to Kerzner (2006), overview definition of project management is planning, organizing, directing and controlling of company resources for a relatively short-term objective that has been established to complete specific goals and objectives. Further more, project management utilizes the system approach to management by having functional personnel (the vertical hierarchy) assigned to a specific project (the horizontal hierarchy).

1.7.2 Operational definition in JKR

1.7.2.1 Norm

In this study the norm for the organizational structure and human resource needs must be well accepted and practiced by the organization or department so that there will be a standard usage by everybody, be the officer in charge of human resource allocation or posting and everybody in the department or the organization.

1.7.2.2 Organisational Structure

In this study the organisational structure is somewhat like the organizational structure of the branch and department related with the communication relationship and delegation of designated power flow. In simple term is the JKR organizational structure which shows all the various JKR designation starting from JKR Director General, Deputy Director General and followed by all the Senior Directors and Directors.

1.7.2.3 Project Organisational Structure

As the name suggests, all the definitions above is very much related to JKR project but more importantly is, a project based organisational structure. In simple term this project organizational structure is used for any project such as below:-

- iv. Rehabilitation Hospital in Cheras, Federal Territory (166 beds) Package II
– The proposed Construction of Main Hospital Building, Quarters and all supporting building.

- v. The proposed Design, Construction and Upgrading of 8 New Block at Kuala Lumpur General Hospital; Ambulatory Care Centre (ACC)
- vi. Allied Health Science College at Ulu Kinta, Ipoh, Perak

The organizational structure in term of organizational chart of these project is shown in Appendix A1, A2 and A3.

1.7.2.4 Cross-functional team

In this study for JKR cross-functional team for a project such General Hospital Kuala Lumpur members may include engineers from mechanical, electrical, architect, civil and quantity surveyor branch which still answerable to their own respective bosses for the final decision making.

1.7.2.5 Matrix Organisation

For the matrix organization in this study will refer to JKR matrix organization structure or matrix organization as now being used and practiced by JKR..

1.7.2.6 Human resource

In this study the human resource is defines as the human asset or staff own by the JKR organisation at present.

1.7.2.7 Management

In this study the normal reference of management is the management of JKR that manage, organize and administer of JKR organization itself.

1.7.2.8 Project Management

The definition of project management is the process of the act and handling of the tangible project per se in JKR or intangible project such any program carried out by Complex Project Management Branch which has start and finish target and not repetition process.

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