Reasons for failure of web-based application IT projects – An Empirical Study in Malaysia

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ABSTRAK (MALAY)

Sebab-sebab kegagalan projek aplikasi Teknologi Maklumat berasaskan sesawang: Satu kajian empiris di Malaysia

Setiap tahun, organisasi rugi berjuta-juta ringgit kerana aplikasi berasaskan sesawang teknologi maklumat projek gagal. Penyelidikan menunjukkan bahawa untuk projek aplikasi teknologi maklumat berasakan sesawang, syarikat mempunyai kesukaran untuk menyiapkan projek dalam masa yang dijadualkan, dalam bajet, memenuhi skop atau mana-mana kombinasi. Kajian yang dibuat oleh Kumpulan Standish dapat menggambarkan fakta ini. Tujuan kajian ini adalah untuk mengenalpasti faktor-faktor yang mempengaruhi kegagalan projek aplikasi teknologi maklumat berasakan sesawang. dalam konteks Malaysia. Empat belas artikel yang terdiri daripada jurnal dan pangkalan data carian telah dikaji dan 56 faktor kegagalan telah dikenal pasti. Satu kajian rintis telah dijalankan untuk empat puluh pengurus projek dan 10 faktor kegagalan yang utama telah dikenal pasti, matlamat projek yang tidak jelas, kekurangan sokongan dari pengurusan atasan, tiada tanggapan yang positif bahawa projek itu akan membawa manfaat, kualiti kerja berpasukan yang rendah, pengurusan projek yang tidak berkesan, tiada sistem baik untuk ganjaran, kekurangan sumber (kewangan dan sumber manusia), komunikasi yang tidak berkesan, kekurangan penglibatan oleh pengguna dan tiada proses pemantauan dan maklum balas. Satu lagi tinjauan kemudiannya telah diedarkan kepada pengurus project IT di Malaysia untuk memahami yang manakah faktor-faktor daripada sepuluh faktors yang telah dikenalpasti pengaruh kegagalan aplikasi berasaskan jaringan teknologi maklumat (IT) projek. Kajian ini dapat mengenal pasti faktor-faktor yang pengaruh kegagalan berasaskan jaringan teknologi maklumat (IT) projek untuk membantu syarikat meningkatkan kejayaan untuk project yang berasakan jaringan IT.

ABSTRACT

Reasons for failure of web-based application IT projects – An Empirical Study in Malaysia

Every year, organizations lose millions of dollars due to failure of web-based application information technology (IT) projects. Research continually show that companies have difficulty with web-based application IT projects to complete on time or on budget or within the scope or any combination of the mentioned. The data on project outcomes according to the Standish Group's study is introduced in order to illustrate these facts. The purpose of this study is to identify the factors influencing failure of web-based application IT projects, particularly in the Malaysian context. A pilot study was conducted on forty project managers that have experience handling failed web-based IT projects. Top ten failure factors identified in the pilot survey are that lack of clarity of goals, lack of top management support, there is lack of perceived usefulness, poor teamwork quality, ineffective project management, no reward and recognition system in place, insufficient resources (funding and personnel), ineffective communication, lack of users' involvement and no system of monitoring and feedback. Survey was then distributed to 400 IT project managers and received 155 responses which equivalent to 39% of the response rate. The significance of this research lies in the fact that its results will add to the knowledge in the project management field by identifying the relative importance of the factors that impact web-based application IT project failure. Thus, project managers, team members and other stakeholders of web-based application IT project can spend more time and resources focusing on the important factors in order to implement the project successfully which will deliver more value back to the business.

CHAPTER 1

INTRODUCTION

1.1 Introduction

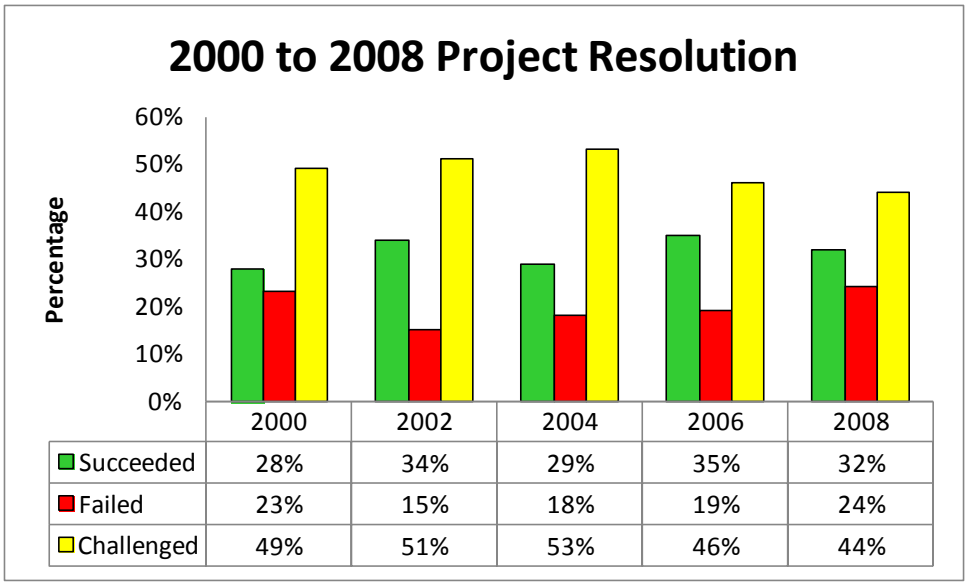
As the popularity of information technology increased in our life, businesses are also looking to Internet and related technologies to improve productivity and develop solutions to business problems. Organizations are often facing challenges when implementing IT solutions in their environments. The Standish Group "CHAOS Summary 2009" (StandishGroup, 2011) conducted research and found out where more than half of the projects are failed or challenged. As a result of the difficulty encountered during the implementation of IT projects, organizations have found it beneficial to have a process driven approach to managing IT projects (Davenport, 2005). Organizations try to adopt best project management practices and improve internal processes to help mitigate the risk of IT project failure. This research would like to understand the factors that influence the failure of web-based application IT project.

This chapter would begin with background of the study to provide some overview of the research. We will discuss the problem that we intend to solve under problem statement title. It would then followed by research objective to explain how this research is able to solve the problem highlighted in problem statement. Key terms definition will be explained in order to assist the understanding. The chapter would end with significance and value of this study.

1.2 Background of study

IT has played a very important role in today's globalized economy in organizations to improve profit margins, remain competitive and increase shareholder value. However, research done by Standish Group indicates that in 2008, 32% of projects were successful by completing the projects on time, on budget and within the scope (with customer required features and functions). 44% were on challenged status which means the projects suffered from one or more of the following symptoms; exceeding budget, exceeding schedule and not within the scope (altering scope to less than what was originally expected when the project was initiated). Failed means projects that are canceled prior to completion have money and time invested in them without a production system being delivered. There are 24% of the projects which were cancelled prior to completion or delivered or never been used by the customers. Figure1.1.1 shows the 2000 to 2008 project resolution indicator published by Standish Group.

Figure1.1.1: 2000-2008 project resolution indicator published by Standish Group



	2000	2002	2004	2006	2008
Succeeded	28%	34%	29%	35%	32%
Failed	23%	15%	18%	19%	24%
Challenged	49%	51%	53%	46%	44%

Source: Standish Group Chao Report

In today's challenging business environment, the changes in the market are happening dramatically. In order to stay competitive in the market, organizations must improve their business practices and procedures in order to follow the pace. Organizations are focusing on upgrading their capability to generate and communicate accurate and timely information. Therefore, organizations are making massive investments in information technology (IT) in order to get the help from IT to improve performance, reduce costs, increase productivity, or improve product quality.

Successfully implementation of IT Project has become the major foundational implementation and management element to many organizations. This is due to project failure can potentially affect the well being of the entire corporation. For example, if the IT project is to provide information to enable management to facilitate their decision-making efforts, the failing of the projects will not be able to support that purpose. As a result, the management cannot consistently make good business decision due to lack of appropriate performance information and might future causing the business unit to fail.

1.3 Problem statement

Projects are facing an unacceptably high failure rate even though the projects are managed by project professionals. The ultimate goal to be achieved by project manager is to ensure that the project is on track (scope), on time (schedule) and within budget (cost) to satisfy customers. Based on Standish Group 2009 research, projects incur high degrees of failure, with at least 60% or more of projects experiencing some form of fault (cancelled or challenged). Most of the previous studies were focusing on critical success factors of general Information Technology (IT) projects. However,

despite the huge amount of researches conducted in the past, the failure of rate of IT projects is still very high.

This research is therefore looking at the other angle which is the factors that influence the failure of IT projects. To be specific, this research is specific to web-based application IT projects and only to Malaysia context. Reason focusing on web-based application IT projects because of the unique risks, rapid development requirements, short technology life, rush-to-market demands and the multiple dependencies on other projects (Taylor, 2004). Web-based application IT projects also negatively distinguished from other projects because of the difficulty in successfully balancing time, budget and quality requirements (Bennington, 2004). Therefore, it is very critical for companies to understand the factors that will influence the failure IT projects so the top management and also project managers will focus on these factors to reduce the risk of the failure of project and will use the company resource effectively (resource based view theory).

1.4 Research objective

More and more companies are investing in web-based application IT projects with the hope that investment will give satisfying return of investment back to the companies by improving profit margins, ensuring the company to remain competitive and increasing shareholder value. This study intends to examine the factors that will influence the failure of IT projects. The failure factors identified at the end of this research will enable top management and project managers of the companies to study in detail for them to avoid repeating the same mistake. They can then focus their resources on the factors to ensure successful implementation of the IT projects.

1.5 Research questions

In seeking to clarity the above objectives, this study attempts to answer the following question:

1) Identify all the factors that influence the failure of web-based application IT projects based on previous researches.
2) Identify the top ten factors that influence the failure of web-based application IT projects by using pilot study.

1.6 Definition of key terms

This section defines the key terms used in this study:

Critical Success Factors (CSF): Identify those factors that are necessary to meet the desired deliverables of the customer on a project. Typical CSFs can include the adherence to schedules, budgets, quality and change control process along with the appropriateness and timing of signoffs (Kerzner, 2006).

Failed projects: Projects that have exceeded budget or schedules, did not meet a customer's expectations, or not used (StandishGroup, 2011).

Information technology projects: Defined as projects involving computer software, telecommunications and computer hardware (Schwalbe, 2004).

IT projects: Refers to any project involving the procurement/development and the subsequent deployment of an IT solution (Williams, 2009).

IT project success: a set of user requirements, both functional and non-functional, that are finished on schedule, within the cost assigned and meeting the end users requirements (scope that is pre-defined and agreed upon). Success of IT projects will help to improve organizational goals and enhance efficiency or effectiveness (Karlsen, 2005)

Not successful IT projects: projects that did not meet customer requirements, quality requirements, or have cost or schedule overruns (StandishGroup, 2011)

Perceived usefulness. In the context of this study, this means important, useful, or helpful (Kendrick, 2009).

Project: A temporary endeavor undertaken to create a unique product, service or result. (PMI, 2008).

Project cost: The estimated total cost of the project, determined by the project schedule and project resource requirements determined during the project planning process (Oren, 2009).

Project management: Defined as "the application of knowledge, skills, tools and techniques to meet project requirements" (PMI, 2008)

Project Management Body of Knowledge (PMBOK: An inclusive term that describes the sum of knowledge within the profession of project management (PMI, 2008).

Project Management Institute (PMI): The PMI is a nonprofit professional organization dedicated to advancing state-of-art project management; promoting professionalism in project management; and providing a medium for the exchange of project management problems, solutions and applications (PMI, 2008).

Project Management Professional (PMP): A person certified as a PMP by the Project Management Institute (Schwalbe, 2006)

Project managers: Project managers are the leaders in charge of overseeing the day-to-day project operations. The secure the appropriate resources for the project from planning until the closure of the project. They also provide leadership to the project team (Gido, 2006). The person assigned by the performing organization to achieve the project objectives (PMI, 2008).

Project schedule: The time required to complete the project through all planned phases of activity (Oren, 2009).

Project scope: Refers to accomplishing the project objectives and achieving and the customer's expectation (PMI, 2008).

Project team member: The person who reports directly or indirectly to the project manager and who performs assigned tasks or works as a part of his or her assigned duties (PMI, 2008)

Stakeholders: The end-users or clients, the people from whom requirements will be drawn, the people who will influence the design and ultimately, the people who will reap the benefits of your completed project (Edara, 2011).

Triple constraint: Project scope, time and cost used as the criteria to manage and evaluate projects (Schwalbe, 2006)

Web- based application IT projects: An application that is usable only with an active Internet connection and that uses HTTP as its primary communications protocol, also called web application.

1.7 Significance of the study

Prior study has suggested that many of the web-based application IT project disasters are avoidable (Heerkens, 2002). Many times, warning signs are obvious long before an IT project begins to fail (not meeting cost or not meeting schedule or not meeting all the required specification. However, proper actions are not taken in time to prevent the project from failing to meet all the stakeholders' specifications.

The significance of this research lies in the fact that its results will add to the knowledge in the project management field by identifying the relative importance of the factors that impact web-based application IT project failure. The results of this study may also be utilized in both the academic and in real business world to increase their abilities to succeed with projects that are increasing in complexity and enterprise impact. Thus, project managers, team members and other stakeholders of web-based application IT project can spend more time and resources focusing on the important

factors in order to implement the project successfully. As a result, the improved project outcomes delivering more value back to the business due to the increase of customer satisfaction level and will then generate a higher return on investments for web-based application IT project.

This research adds to the current research on the impacts of critical success factors that influence IT projects success. The findings of this research could have a significant effect on decisions that project managers and senior management make with respect to IT projects. In turn, an improved project success rate in IT projects would most likely lead to greater customer satisfaction, a higher return on investments for IT initiative, increased work compensations to employees and job satisfaction which will reduce employees turn around rate. An increase in project success rates result in the confident from the companies to invest in IT projects in order to help to improve efficiency and effectiveness of companies processes, this can contribute to improving the economies of developing countries.

1.8 Organization of the remaining chapters

This research is organized into five chapters. The chapter one provides introduction, background of the study, problem statement, research objective, research questions, significance of the study and definition of key terms. Chapter two provides introduction of the chapter two, literature review for information technology project management, research for failure factors for web-based application IT project, explanation on pilot survey to identify top ten failure factors for web-based application IT projects, literature review on dependent variable and ten independent variables, application of resource based view theory, theoretical framework and

hypotheses for this research. Chapter three illustrates the research design, study setting, unit of analysis, sampling method, method of data collection, time horizon of study, measurements, statistical data analysis and the summary for chapter three. Chapter four will present the analyses done for the study and also the findings of the study. Chapter five will discuss the recapitulation of the study findings, discussion of the findings, practical implication of the study, limitation and direction for future. Lastly is the overall conclusion for this research.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

Many of the projects undertaken by organizations involve IT. IT is a part of an organization's critical infrastructure or "backbone" for competing in today's global economy. Government and industry organizations are increasingly reliant upon IT to obtain and maintain a competitive edge and because of this reliance; organizations must make enormous capital investment. This chapter contains a review of the previous literature research in order to give an overview of literature, identify failure factors of web-based application IT project, theoretical framework, hypotheses development and the application of Resource-Based View theory to this research.

2.2 Information Technology project management

The PMI defines a project as "a temporary endeavor undertaken to create a unique product, service or result." The term "temporary" is important because projects are intended to have a "definite beginning and a definite end" (PMI, 2008). Operations are ongoing and repetitive while projects are temporary and unique. Projects are usually implemented to achieve an organization's strategic plan and are undertaken at all levels. Projects may involve a single unit or cross organizational boundaries thus becoming a means for implementing business strategies. Many of the projects undertaken by organizations involve IT systems. IT project is "a finite piece of work that implements information technologies within cost and time constraints and is directed at achieving a stated business benefit" (Bennington, 2004). Web-based application IT project are usually a part of business process reforms and can have an

immense impact upon organizational activities and possibly modify the organization's vision (Kuruppuarachchi, 2001). Web-based application IT projects are different from other projects because of the unique risks, rapid development requirements, short technology life, rush-to-market demands and the multiple dependencies on other projects (Taylor, 2004). Web-based application IT projects also negatively distinguished from other projects because of the difficulty in successfully balancing time, budget and quality requirements (Bennington, 2004).

2.3 Factors that caused web-based application IT project to fail

Web-based application IT project implementation is a process of great complexity which involves a lot of factors and different conditions. Potential of failure factors and the results differ substantially from each other. The factors proposed in the literature vary for every project manager. Literature review is used to identify the potential failure factors. Table 2.2.1 shows the comparison of failure factors of web-based application IT project from past literature. Fourteen articles which were from individual journal and database searches were reviewed; fifty six possible failure factors were identified. Top ten failure factors from past literature are lack of clarity of goals, lack of top management support, there is lack of perceived usefulness, poor teamwork quality, ineffective project management, no reward and recognition system in place, insufficient resources (funding and personnel), ineffective communication, lack of users' involvement and no system of monitoring and feedback. However, these ten top failure factors were not used directly in this research as independent variable; instead a pilot study was conducted to identify the ten failure factors. This approach can study the top ten failure factors that are really related to the subject which is the failure factors for web-based application IT project.

Table 2.2.1 Comparison of failure factors of web-based application IT projects from past literature

No	Factors	(Ranjan, 2011)	(Harper, 2011)	(Krigsman, 2008)	(Speight, 2007)	(Qassim, 2007)	(Carlos, 2005)	(Al Neimat, 2005)	(OGC, 2005)	(Schriver, 2004)	(Gartner, 2004)	(Hinge, 2003)	(Winters, 2003)	(Coley, 2001)	(Sosik, 2000)
1	Deviation from timetable/ budget														√
2	Lack of technical knowledge			√											
3	Lack of leadership			√											√
4	Ignoring project warning signs						√								
5	Enterprise management of budget resources						√								
6	Inadequate testing Processes						√								
7	Competing priorities						√								
8	Lack of prioritization and project portfolio management						√								
9	Lack of organizational support						√						√		
10	Business politics						√						√		
11	Provides universal templates and documentation						√						√		
12	Insufficient resources (funding and personnel)			√			√								
13	Poorly defined roles and responsibilities					√	√								

No	Factors	(Ranjan, 2011)	(Harper, 2011)	(Krigsman, 2008)	(Speight, 2007)	(Qassim, 2007)	(Carlos, 2005)	(Al Neimat, 2005)	(OGC, 2005)	(Schriver, 2004)	(Gartner, 2004)	(Hinge, 2003)	(Winters, 2003)	(Coley, 2001)	(Sosik, 2000)
14	Poor control against target					√									
15	Number of organizational units involved					√									
16	Misunderstanding of scope/objective requirements					√									
17	Staff turnover					√									
18	Change is senior management ownership					√									
19	Inadequate skills and mean					√		√							√
20	Manager fail to plan and manage change									√					
21	Manager fail to plan and manage scope									√					
22	Lack of perceived usefulness		√												
23	No change control process		√	√		√	√					√		√	
24	Business reasons for project failure		√												
25	Business strategy superseded		√												
26	Failure of parent company to deliver		√												
27	Higher cost of capital		√												

No	Factors	(Ranjan, 2011)	(Harper, 2011)	(Krigsman, 2008)	(Speight, 2007)	(Qassim, 2007)	(Carlos, 2005)	(Al Neimat, 2005)	(OGC, 2005)	(Schriver, 2004)	(Gartner, 2004)	(Hinge, 2003)	(Winters, 2003)	(Coley, 2001)	(Sosik, 2000)
28	Estimates for cost and schedule are erroneous		√				√						√		
29	Inappropriate disaster recovery		√												
30	Misuse of financial resources		√												
31	Lack of clarity of goals		√			√	√	√			√			√	√
32	Take over of client firm		√												
33	Too big a project portfolio		√												
34	Bad decisions						√		√						
35	Lack of critical success factors measurement								√						
36	Lack of users' involvement					√	√	√	√		√			√	
37	Poor teamwork quality						√		√						
38	Poor vendor management			√		√			√						
39	Governance issues within the contract		√		√										
40	Unrealistic timeframes and Tasks				√	√	√	√						√	
41	Deficiencies in organizational change management				√						√				

No	Factors	(Ranjan, 2011)	(Harper, 2011)	(Krigsman, 2008)	(Speight, 2007)	(Qassim, 2007)	(Carlos, 2005)	(Al Neimat, 2005)	(OGC, 2005)	(Schriver, 2004)	(Gartner, 2004)	(Hinge, 2003)	(Winters, 2003)	(Coley, 2001)	(Sosik, 2000)
42	Ineffective communication			√	√		√	√					√		
43	Overruns of schedule and cost		√		√		√								
44	Incomplete requirements & specifications				√		√				√		√	√	
45	New or radically business process/task				√	√									
46	Stakeholder conflict				√	√	√								
47	Employment of new technology				√	√									
48	Copy-and-Paste Deployment														
49	Failure to set and manage expectations	√		√	√	√	√						√		
50	Poor risk mgmt	√			√		√								
51	Lack of top management support	√		√	√	√	√	√	√				√		
52	No Infrastructural Support to Teams Working on Projects	√													
53	No feedback and monitoring process was available	√													
54	No reward & recog system in place	√													
55	Ineffective project management	√	√	√	√	√	√	√	√		√		√		√
56	Lack of effective methodologies	√				√									

2.4 Pilot survey to identify top ten failure factors for web-based application IT project

Total fifty six failure factors identified emerged from literature were sent to forty project manager that handled failed web-based IT projects before through e-mail. Refer to Appendix A for pilot survey questions. Thirty completed survey were received which equivalent to 75% of the response rate. All of the questionnaires were filled up completely by respondents and were valid to be used for further analysis.

All the respondents were IT project managers, they selected one failed IT project that they handled previously to answer the survey. From the pilot survey result, 60% respondents used failed web-based application IT project to answer the survey, > 50% of respondents were from electronic industry where they manage the IT system enhancement in the company. For the failed project size, small project (project cost less than RM200,000) has 50%, medium project (project cost more than RM200,000 but less than RM500,000) has 43% and large project (more than RM500,000) has 7%.

Top ten failure factors were identified from the pilot survey. Table 2.3.1 shows the comparison of top ten failure factors from past literature and pilot survey. Only four failure factors from pilot survey are same with top five past literature review due to different focus for past literature and this study namely ineffective project management, lack of top management support, lack of users' involvement and ineffective communication. This survey mainly focuses on web-based IT projects in Malaysia while most of past literature is for general IT projects in global (questionnaire was posted on website).

Table 2.4.1 Comparison of top ten failure factors from past literature and pilot survey

Top ten failure factors from past literature	Top ten failure factors from pilot survey
Ineffective project management	Ineffective project management
Lack of top management support	Lack of top management support
Lack of users' involvement	Lack of users' involvement
Ineffective communication	Ineffective communication
Scope creep	Lack of clarity of goals
No change control process	Poor teamwork quality
Failure to set and manage expectations	Insufficient resources (funding and personnel)
Incomplete requirements and specification	Lack of perceived usefulness
Unrealistic timeframes and tasks	No reward and recognition system in place
Stakeholder conflict	No feedback and monitoring process was available

From the pilot survey results, the research dependent variable will be failure of web-based application Information Technology (IT) project while the ten independent variables will be using the top ten failure factors identified in pilot survey namely lack of clarity of goals, lack of top management support, there is lack of perceived usefulness, poor teamwork quality, ineffective project management, no reward and recognition system in place, insufficient resources (funding and personnel), ineffective communication, lack of users' involvement and no system of monitoring and feedback.

2.5 Dependent variable: failure of web-based application Information Technology (IT) project

Project management success or failure relates to managing the triple constraint parameters of time, cost, and scope; taking a broader view of project success from the perspective of the stakeholders throughout the project life cycle. Project management is failed when the triple constraint parameters and overall objectives of the project are not met (Cooke-Davies, 2002).

When IT project success criteria is not formerly defined and measured, project outcomes and utilization of project resources will not be utilized (G. Thomas, & Fernandez, W., 2008). Thomas and Fernandez identified three best practices of having an agreed upon definition of success, consistent measurement, and utilizing the results. IT project failure can also be explained as a finite piece of work that is not finished within budget, on time, and meeting the stated specifications; is not used by its intended constituents; and does not leads directly to the organization's improved efficiency or effectiveness (Nelson, 2006).

2.6 Independent variable

2.6.1 Lack of clarity of goals

In project management context, project goals is demanded to be clearly defined at the initiation phase and be made clear to all stakeholders. This is important in order for project team members to be fully committed to achieving the project objectives. Lack of clarity of goals was one of the failure factors identified by Harper (2011), Qassim (2007), Carlos (2005), Al Neimat (2005), Gartner (2004), Coley (2001) and Sosik (2000).

Communication of project goals represents an important team process, goals that are not clearly define will cause IT project to fail. Goals that are clearly defined and communicated allow group members to gain an unambiguous understanding of what is to be accomplished. Such goals are related with active forms of leadership that initiate structure for group members (Bass, 1990). Active communication by the leader may be required for team members to comprehend task-related expectations (Thompsom, 1999).

Goal clarity has been identified as key determinants of effectiveness (Zwikael, 2010). Team that has a clear goal set up can stirs up action and energizes the team (Locke, 2002). They also concluded that when the goals are clearly clarified at the beginning of the project team formation, the project team members tend to focus their attention and effort directly toward relevant activities that will lead to the success of the project rather than distracted by extraneous activities that will cause the failure of the project.

Goal setting is an effective way to ensure the team direct their interest, mobile effort and increase the project team's determination to achieve the client desired goals (Curtis, 2000). The goals set must be SMART which means specific, measurable, aggressive yet achievable, relevant and time-bound in order to achieve success (Katzenbach, 1993). The SMART strategy is an essential to ensure the goals are clearly clarified and can easily be understood by team members from the conceptual phase and to be realized in the final phase.

2.6.2 Lack of top management support

IT project implementation is perceived by top management as the item that can help organization to achieve its strategic tangible and intangible strategic goals (Soja, 2008). Intangible strategic goals refer to organization development and growth, customer satisfaction or information availability. While tangible strategic goals refer to operating cost reduction or an increase of profitability. From the other view, success of an IT project implementation can actually help to increase value of the business from usage of the IT project system (Z. L. Nah, 2003), vice versa, the failure of IT project will bring significant impact to the organization. Martin, 2007 studied the roles of top management in three IT implementation cases. The research

recommended eight tasks top management can do in order to enhance the chances of successful IT project implementation. The tasks included taking a change leadership role to oversee and coordinate the efforts of multiple change leaders, attending to changing employee behaviors, concentrating on cultural and organization environmental contextual factors. These tasks could potentially change employee behaviors, shaping the organization's cultural response to project, having a carefully crafted communication plan that offers sufficient lead time for employees to get used to the idea of doing their jobs in a different way, participating the project implementation from beginning to end with the project team, resolving different types of political issues in the organization and addressing other factors beyond cultural factors (Martin, 2007).

Additionally, there is literature also conclude where the failure of IT project is due to lack of top management support (Fowler, 2007). Some IT project start as a result of grass-roots initiatives rather than executive level strategic decisions made by the organization. These projects may be initiated to solve the minor problem and looking at big whole picture to understand the root cause of the issue facing. There may be no the appropriate amount of high level buy-in from the outset. Vice versa, leaders can also contribute to IT project failure through not listening to those doing the work and insist on following his decision when selecting the project to be implemented. It is defined as one of the failure factors by Carlos (2005), Winters (2003), Qassim (2007), Al Neimat (2005), OGC (2005), Speight (2007), Krighsman (2008) and Ranjan (2011).

Leaders need to be able to discern between the organizational noise inherent in change efforts and organizational noise that is indicative of a real problem (Glaser, 2005). In summary, both management and those who doing the work (employees) need to understand each other needs which is to resolve the issue and to ensure the project that will be implemented is aligned with organization direction.

Most of the organizations have project management steering committee, top management can participate in the steering committee to keep an eye on the project status. The closer view of the project would be become the project champions, top management can then be the supporter of the implementation of the project and also give signals to employees where the project is important to the organization (Somer, 2004). In summary, top management should have early participation in IT project implementation; this can encourage and monitor the acceptance of employees in the organization through their change behavior. Nah, 2003 research highlighted that top management support have influence on both commitment to change management and commitment to resources which were necessary factors for success in IT project implementation.

Top management needs to provide help or support to project team members to move into a high performance team. Teamwork can create synergies and get problem solved in an effective and efficient way. Top management support is important in the early stages of project implementation (Akkermans, 2002). Their help in clearly defining and ensuring the objectives of the IT project is aligned with organization's vision is important to ensure the implementation of the IT project will help the project to move at the correct direction at the very beginning. Project that has the "blessing"

from top management will normally have smooth implementation path. Based on the literatures reviewed, top management is a necessary and important factor in the IT project implementation. Top management and IT project success has positive relationship in research conducted by IP Chuan (2010), Nah (2003) and Brown (2007).

2.6.3 Lack of perceived usefulness

Perceived usefulness is the degree to which a person believes that using a particular system would enhance his job performance (Davis, 1989a). Lack of perceived usefulness was one of the failure factors identified by Harper (2011). If the users do not believe where the system will help him in doing his job, they will resist the acceptance of the system and will then cause the failure of the IT project implementation. Perceived usefulness of the system will affect the behavioral intentions of the users to use the system, users will accept and use the new system if they think it will bring benefits to their work performance (Amoako-Gyampah, 2004). Lack of perceived usefulness is one of the factors for the failure of IT project (Harper, 2011). It can be assumed that the greater the lack of perceived usefulness of using the system, the more likely that the implementation of the system will fail.

Perceived usefulness can be used to measure how the technology (implementation of IT project) can increase the user job performance (Liang, 2009). It is also a measure of user acceptance for the new IT system. Users' mental acceptance of an IT system is highly influenced by their attitude toward using the system even before the implementation of the IT system (T. Nah, & Teh, 2006). Research on Technology Acceptance Model also concluded that perceived usefulness has a strong significant

effect on attitude (Davis, 1989b). Another research (Yu, 2009) also concluded that perceived usefulness significantly influences attitude. In Nah (2006) research, they also found that there was significant relationship between perceived usefulness and attitude which will affect the acceptance of an IT system.

2.6.4 Poor teamwork quality

Team is defined as "a group of people working or playing together" or "come together as a team to achieve something" in Oxford Dictionary. Project teams refer to people who are working alongside project managers to deliver the actual work (Huemann, 2010); a group of interdependent individuals working cooperatively to achieve the project objective (Gido, 2006); a collection of individuals who will work together to ensure the success of the project (Phillips, 2004); the group that is performing the work of the project (PMI, 2008); or the group of people working towards a common objective to achieve success (Dvir, 2005).

Teamwork in projects is demanded, if success if the goal of work being conducted. Teams that can execute quick projects are the global norm, rather than the exception (Day, 2004). Due to this awareness and need, for projects to complete on a positive attitude, investigation is required to find what variables are necessary and which items contribute negligible value to a project result (Leybourne, 2007). Leadership will meet the need for a new language of the new century, making cooperative development happen (Lang, 2007).

This study is focus on IT project team. IT project teams refers to a team that working on developing, stalling and implementing computer systems and applications in an