

Critical Success Factors (CSFs) in Project Management: Critical Review of Secondary Data

Abdulrahman B. Alotaibi and Eng. Abdallah F. Al Nufei

Abstract— Project management research and literature has increased tremendously over the recent decades. Researchers and practitioners considered it likely that project management methodologies are not sufficient to deliver successful implementation of projects. Despite the vast amount of project management models discussed in literature and the potential practical advantages of such models, project critical success factors has become a habitual theme within the body of knowledge in project management to complement existing approach. This research explores what factors are most critical to project success and successful implementation of project management techniques or methodologies. The arguments in the research are negotiated on the theory of project management, project management methodologies and critical success factors in project management. In context, this research provides a critical appraisal of secondary data directly related to critical success factors in project management. The major contributions of the study lie in the fact that practitioners and researchers are made aware of the importance of CSFs and their implications for successful project implementation and research agenda.

Keywords — Critical Success Factors (CSFs), Project, Project management, Organisation, Project implementation, Project managers.

1 INTRODUCTION

Project management remains efficient tool to handle or manage novel and complex activities. In fact, research indicates that it is more efficient and effective than traditional methods of management [1]. However, existing studies [1, 2, 3] have linked the success of project management with the final outcome of the project. Both theoretical and empirical research in project management highlighted the implications of project failure/success on project management practice. Though, researchers have argued that the objectives of project management and the project are entirely different because project management objective tends to focus mainly on the control of time, cost and progress which should not be misconstrued with measuring project success [1, 2, 3], [7].

In context, the objectives of both project management and the project are completely dissimilar because practitioners have claimed that it is possible to achieve a successful project even when management has failed and vice versa [2], [7]. The case study of projects such as Concorde, Thames Barrier and the Fulmar North Sea oil project which are considered relative successes notwithstanding the failure of project control aspect [7] demonstrate the difficulty implication and interpretation which exist within the project management practice. For example, how should project management and project success be defined? And what factors are considered crucial towards successful management and implementation of projects? More critically, does distinction exist between “the success of a

project” and “the success of project management activity”? If there are any variations between the terms, to what extent does that variation impact on the practice of project management?

Following the above background, the essence of this research is to critically explore critical success factors in project management and their implications for both research agenda and practical experience of project leaders/managers within organisations. To achieve the broad research aim of the paper, we draw on the theoretical framework of project management and project success. In another perspective, the literature surrounding critical success factors and what factors are considered critical to successful implementation of project by organisations are reviewed. Furthermore, the research pragmatically discusses the implications of overlaps that exist between project and project management. By literature review, there are certain factors which are identified as crucial to the successful implementations of project in practice. What is not clear is whether those factors are truly dependable and could guarantee both project and project management success. However, it is important to state that both theoretical and empirical studies have generated lists of critical success factors; each of the critical success factors (CSFs) tends to differ in its scope and purpose [1, 2, 3, 4], [8]. In this instance, it becomes essential to review these critical success factors and their implications for project management practice. In addition, given the variations in the different factors revealed in literature as CSFs of project management; it would not be entirely wrong to assume that there are ambiguities in determining whether a project is a success or a failure. Studies have revealed that it is still not clear how to measure project success or failure differently because a successful project to a client might mean failure to management [7, 8, 9]. In clearer term, the outcome of projects can be valued differently by the various stakeholders (otherwise called project value hypothesis in this study). For example, if the project outcome

- *Abdulrahman B. Alotaibi is a seasoned project management practitioner with over 20 years' experience and holds a master degree in project management. He is currently pursuing doctorate research degree at the University of Portsmouth, Portsmouth, United Kingdom, focusing on critical success factors and project management methodologies in the context of successful project implementation. PH:+44752225567. E-mail: abdulalot100@gmail.com*
- *Eng. Abdallah F. Al Nufei currently work as Director of Contracting in Riyadh Chamber of Commerce and Industry and has over a decade experience in project management. He is a member in committee of follow-up Riyadh metro project as a representative of region Governor, Riyadh, Saudi Arabia. PH- +966560235556, E-mail: a.nufei@rddci.org.sa*

satisfy the client but does not meet the specifications of the top management within the organisation hence project value hypothesis thus emerged. This perhaps constitutes a gap in project management literature which needs to be address. Likewise, the interaction between project success and project management success still remains unclear in project management literature. There might be additional discourse about the practical implications of bridging the gap between project success and project management success in delivering successful project implementation and control. Thus, this study argues that harnessing the various CSFs together and re-classified them based on practical feasibility is imperative for effective project management.

This research is organised as follows. In the next section, the theoretical framework of project management is presented followed by a literature review. In the first instance, we explore the definition of project and project management. In another section, what is considered a successful project and then review list of factors consider critical to the successful implementation of projects. The review is followed by the research findings and discussion, practical implications for researchers and managers, and conclusion.

2 THEORETICAL FRAMEWORK OF PROJECT MANAGEMENT

Project management (PM) has evolved over the years with earlier focus on project scheduling problems and reasons for project failure rather than project success [10, 11, 12, 13, 14, 15]. These studies [10, 11, 12, 13, 14, 15] assumed a project to be a failure when the project completion time exceeded its due date, or expenses overran the budget, or outcomes did not satisfy the organisation's pre-determined performance criteria. However, several other research studies investigate why projects often fail and listed several factors believed to have been attributed to the success or failure of project management [16, 17, 18]. In another perspective, research indicates that project continue to be describe as failing despite the management [18]. Experts believed that a successful project is that which is managed to time, quality and budget. The critical used to evaluate whether a project is successful or not has practical implications on project management implementation. One argument found in literature is that project management tools and methodologies are increasingly becoming global phenomena, however, experts and practitioners continue to use tried and tested failed approach to determine the success or failure of projects.

The current trend is that project managers need to understand what practical factors are crucial towards the successful management of projects. In this instance, the chances of successful implementing the project goals within time, quality and cost becomes more realistic. Surprisingly, this has been found as not always the case. The reason being that project environment is very complex with different vested stakeholders. Improving project implementation performance by means of understanding critical success factors or components of the project becomes essential to wide arrays of stakeholders. These present an ongoing challenge for every project managers. Often typical project managers have

responsibility to ensure that projects are successfully implemented and deliver stakeholders satisfaction. In addition, empirical research has confirmed that projects are usually implemented within the context of a complex, turbulent, and unpredictable environment [18]. Therefore, several authors have suggested that the project managers understand what factors are crucial to the successful management of project [10, 15, 16, 17, 18]. In context, this would help the project manager understands where attention and priority needed to be focus. There could be danger in completely diverting attention to a more specific aspect of project. The differential priorities thesis in project management is very controversial when view in the context of practical project management. First, there is tendency to neglect some strategic aspects of the project should the critical success factors are wrong. Secondly, since it has been established that project vary from country to country which connotes the complexity and dynamism of project environment, it is equally true that critical success factors would differ from country to country. Another criticism to differential priorities thesis is that project need to be manage with every stakeholder's in mind. The satisfaction of one stakeholder could be different from another stakeholder as previous established. The fundamental challenge is to understand what is project and project management. In addition, the project managers need to understand the difference between project success and project management success. We have seen in the introductory section that project success does not necessarily mean project management success. If this is the case, what potential implications could arise for practitioners and experts in project management? However, in the next section we examine the meaning of project and project management and some of the implications of the differential priorities thesis in project management.

3 DEFINITIONS OF PROJECT AND PROJECT MANAGEMENT

The definitions of what constitute a project and project management has remains controversial in literature. It is important that to manage a project; practitioners must define and understand what is a project. A project is an organisation of people dedicated to a specific purpose or objective. According to [19], a project as a human activity that achieves a clear objective against a time scale. Other theorists believed that project often involves large, expensive, unique, complex and high risk undertakings which need to be completed within a particular date (time), involves money (cost), deliver values (quality) and some expected outcomes [9, 11, 13, 16, 18]. In fact, it can be inferred from existing studies that all projects must have a well-defined objectives and sufficient resources to accomplish the tasks. Meanwhile, [20] in their work titled "A Project Management Dictionary of Terms" posit that a project is a combination of human and non-human resources pulled together in a temporary organisation to achieve a specified purpose. In this context, a project generally have a start and end date; compose of specific goal or target; involves series of complex activities; denote that plans could deviate if not manage properly; and all tasks must be completed within

budget and time. [7], concludes that a project is the achievement of a specific objective which involves a series of activities and tasks which consume resources.

Having explored the meaning of project, what then is project management? It is imperative to state that project management though an emerging field of management has likewise generates controversial debates among academics and practitioners. Project management means the process of controlling the achievement of the project objectives [7]. In another context, project management means the application of a collection of tools and techniques to direct the use of diverse resources toward the accomplishment of a unique, complex, one-time task within time, cost and quality constraints [20]. The management of any project requires that organisation carefully plan, coordinate and direct the resources (both human and nonhuman) for the attainment of the project objectives on time, cost and quality. Although several literatures have suggested that project management is not easy to define and that definitions differ across various disciplines and background of the authors [7, 10, 11, 19, and 20]. The British Standard for project management BS6079 [21] defined project management as the planning, monitoring and control of all aspects of a project and the motivation of all those involved in it to achieve the project objectives on time and to the specified cost, quality and performance. It is clear from these studies [7, 19, 20, 21] that project management success depends on the project team motivation, completion of the project on time and within lay down cost, quality and performance. However, practitioners and academics in project management might require careful approach to such criteria for defining project management success. It has earlier been argue that project can be classified as a success yet the project management experience is not. This is because meeting the specification of a project based on time, cost and performance to the client might be overall determination of what success is in project. However, this is not always the case; the project environment has several stakeholders and involves highly complex structures and dynamics to meet stakeholders' expectation. In context, depend on who is evaluating the success or failure of the project; success to one stakeholders might means failure to another stakeholder.

According to [23], consolidated matrix approach could help understand and moderate different views in project management including the assessment. In this case, project management was described as the art and science of converting vision into reality. This definition of project management seems more highly controversial. For example, is project management an art or a science? Scholars have yet to agree whether project management is art or science. This is the source of controversy to the definition of project management as presented by [23]. In addition, project management is understandably an emerging field and the context in which academics and practitioners perceived its application to manage projects in practice would arguably depend on their prior backgrounds and disciplines. Furthermore, how can project management help translate or convert vision into reality? Research suggests that project management is simply an evolving phenomenon which will remain vague enough to be non-definable [18]. While it could be true that project

management seems non-definable, there is need to understand what project management means to a particular organisation. It is clear that organisations have to define what project management means to them using their respective procedures which could be a practical guide to manage projects. However, the need to have a unified definition of project management can never be over-emphasized. Empirical studies tend to have revealed that project management continues to fail because included in the definition are an inadequate set of criteria for measure success, cost, time and quality [8, 12, 14, 18, 21]. If these criteria such as cost, time and quality are actually wrong; then what factors are crucial to the successful management of project? However, does meeting the criteria such as time, cost, quality and lay down performance procedures really define whether a project is a success or failure? Quite more important, as revealed in this research, project success is different significantly from project management success. This perhaps could have been a source of trouble to the field of project management.

4 CRITICAL SUCCESS FACTORS (CSFs) IN PROJECT MANAGEMENT

The principal aim in this section is to review existing literatures on project management to identify what are the most commonly factors (otherwise called critical success factors) necessary for successful project management. A review of literature on project management suggests that there are several possible indicators which are imperative and considered critical to successful management of projects. This review suggests that understanding these critical success factors (CSFs) in project management would enable project managers achieve higher possibility of attaining successful project outcomes. Although, there are practically disarray of views and definitions of what actually constitute CSFs hence unified treatment of the concepts do not exist among scholars and researchers in project management. For example, should critical success factors be closely linked to the successful delivery of the project outcomes or satisfaction of the project stakeholders? Given the controversial debates about the concept of CSFs, factors such as project control, good schedules, fully utilisation of budget, top management support, access to organisational resources, competence of the project manager and project team, clarity of project goals, motivation of project team members, effective communication between project stakeholders, and effective coordination of project activities would be seem insignificance should the project failed to meet stakeholders expectations and goals. However, is stakeholders' satisfaction the ultimate definition of what constitute a successful project management?

In the past decades, [28] considered that what is really important and crucial is whether project stakeholders are fully satisfied by its results. Following this, [25] controversially defined critical success factors as those components that are required to establish an environment where projects are

managed consistently with excellence. These early researchers seem to have concluded that clients' satisfaction or stakeholders' satisfaction is the main factor of successful projects failed to consider what is success or excellence in project management. More controversially, should successful management of projects be classified as success if the project outcomes satisfied stakeholders or clients but fail to be deliver within due term, budget and quality?

[29] provides systematic classification of CSFs into two main groups of factors namely – strategic and tactical – which influence project performance at various stages of project life cycle. Factors such as project mission, project scheduling, and top management support are included as strategic factors while client consulting, human resource selection and personnel training made the list in the tactical factors. In addition, [30] augmented the range of CSFs by considering the specifics of the various stages of project life cycle. What is clear is that these studies tend to be suggesting that CSFs vary across different phases of project life cycle. Nevertheless, success factors are elements of the project that the project manager and the project team can influence to increase the chance of successful projects [12, 19]. Exploration or identification of critical success factors is the subject of several recent studies, among them we quote: The research conducted by [12, 19, 21, 27, and 36] has explored the success factors of project management knowledge in temporary organisations. Other studies have focused on the analysis of success factors at different levels of analysis [1, 3, 5, 7]. For example: [7] analyzed the success factors according to the phases of the project life cycle (the development phase, the construction phase and the operational phase). Other authors, such as [12, 19, 21, 27, and 36] analyzed the success factors by type of industry (thermal industry and power industry) in their definition of success factors, they considered a categorization of factors as stakeholders and stages of the project (project feasibility, project environment, project company, project contractors, sellers of projects). Other authors have defined success factors depending on whether it is the direct and indirect factors; internal and external factors [21, 27, and 36]. [17, 19, 36] have classified the factors into five standard categories: organizational factors, human factors, process factors, technical factors and factors of the project.

5 PROJECT SUCCESS AND PROJECT MANAGEMENT SUCCESS

Following the review of literature, the question can be asked: what is the distinction between project success and project management success? A number of attempts have been made to distinguish between the term "project success" from "project management success". Project success, according to empirical studies [15, 25, 36] is measured against the overall

objectives of the project. What these studies suggest is that the success or failure of a project practically depends on the project objectives which are tied closely to the outcome of the project. In this context, whether a project succeeds or fails is a function of delivering the project to meet stakeholders' expectations or anticipated benefits. This is often controversial debate on how well to define project success [1, 5, 7, 25, 26-29]. The project success philosophy depends on how many stakeholders are involved in the project. The anticipated benefits of project are what actually define the success of a project [36]. The project managers must therefore identify and evaluate the interest of the different stakeholders and practically determine what it is they expect from the project. In other words, the benefits management is crucial towards successful delivery of project. What then is project management success?

Project management success is measured against the prevalent and customary measures of performance against cost, time, and quality [1, 6-9, 25, 36]. Quite essential to the project management success is the stakeholders or clients satisfaction. This is demonstrated in figure 1. However, studies have confirmed that project success is a component of project management success [12, 19, 21, 27, and 36]. The successful management of project also depends on some of the following factors:

1. The conformity of the organisation to embrace enterprise-wide risk management and the level of education on application of risk management techniques to projects.
2. The risk categorisation process and how well the organisation can actually assign risk ownership.
3. Effectiveness of the project team.
4. The integrity of the performance measurement baseline.
5. The level of support from the board or senior management.
6. Keeping risk register more practicable and visible.
7. Risk allocation and responsibility for risk taking.

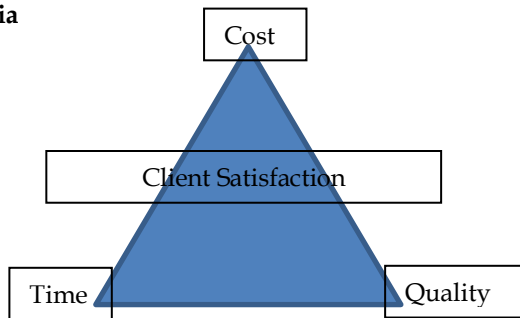
On the other hand, analysis of six recent project management "bodies of knowledge identified 60 core elements that are central to the way a project manager perceive how to implement project [38]. In context, experts recognized that delivering project success is necessarily more difficult than delivering project management success [36]. How correct can this be? More explicitly, there is increasing need to summarize and harness the various factors into a unified framework as to guide project implementation of project management in practice. Perhaps, this could be subject of future research.

The success of project has been linked to the following factors based on review of these literatures [1, 3, 6-11, 18, 21, 25-30]:

1. Competition
2. Client satisfaction
3. A definite goal
4. The implementation process
5. The perceived value of the project
6. Third parties
7. A realistic goal

8. Profitability
9. Market availability

Figure 1: Widespread and Conventional PM Success Criteria



6 METHODOLOGY

The main method used in this work is critical review of secondary data. These data help provide insights on project management. The review of existing literatures was closely connected to work that are directly related to critical success factors on project management. On the first search, the related articles on project management which were about 150 published journals were collected and then judgmental selections of the published papers were done. The aim of the selection was to include article that contribute directly to critical success factors in project management into the study. This further reduces the work to 40 articles published papers in peer review journals. Meanwhile, two articles were deliberately removed because they are mainly editorial review. It may have been more beneficial to include other method of data collection such as interview and survey questionnaire in the study. Future research might want to improve upon this and add primary data collection method to the study. However, notwithstanding the limitation of the research, this research contribute to the project management literatures as practitioners and academics are made aware of the possible factors which are crucial to successful implementation of project management.

7 DISCUSSIONS

Studies have suggested that the narrow definition of tasks in successful project management provides an indicator of why project management success and project success are not directly correlated [7, 18, 25, 27, 29-31]. The importance of project techniques in achieving project objectives has been highlighted in literature. One of the findings from literature is that project success is often commented on at the end of the project management phase. This is often the period project management success is known because the budget, schedule and quality criteria can be measured [1, 5, 7]. In clear context, success is judge on whether the project management criteria have been satisfied rather than the project success [7]. In this case, project management success is typically identical with project success and thus inseparable. The success of project depends on the improved application of project management techniques.

According to [1, 3, 5, 7], the major factor for the

successful implementation of project management is that the project manager and team become the focal point of integrative responsibility. Thus, [7] argued that this implies that the focus for success in both spheres should lie with the project team and would tend to exclude the client from any role in project success. The client has an important role in determining project success according to [7]. However, there seems to be contradictory ideas because most literatures indicate that client satisfaction is crucial towards determination of a successful project [11, 18, 21, 22, 23]. Nevertheless, individual responsibility is critical to the success of a project and the entire project management.

The competence of the project manager and project team, compliance with the rules and procedures, quality of subcontractors' services and support of the senior management are all crucial to the overall success of project and project management. There have been, nevertheless, considerable changes in the criticality of success factors. Some studies attempt to differentiate between success factors and critical success factors [1, 5, 7, 10-14, 31, 36]. These literatures added more confusion to the project management literature. The criteria for measuring project success and project management success differs. In most studies, the criteria include cost, time, quality and client satisfaction ([1- 5, 7, 14- 21]). However, factors related to the project include the size and the value of the project, uniqueness of the project activities, project life-cycle, urgency and density of the project network. In another perspective a number of factors were related to the project manager which includes ability to delegate authority, ability to trade off, ability to coordinate, competence, commitment, perception of role and responsibilities. In addition, four major factors were related to the project team members such as technical background, communication, trouble shooting and commitment. The study further identify factors related to the organisation to include top management support, project organisational structure, functional managers' support and project champion. In conclusion, the factors relating to environment of the project include political environment, economic environment, social environment, technological environment, nature, client, competitors and sub-contractors. All these factors make it difficult to effective determine the success of project or the success of the project management. These factors are rather a guide to help effective implementation of projects to the satisfaction of the various stakeholders. Meanwhile, it can be argue that every project must be screen from the onset to determine the complexities and risks involved, this techniques is critical to the success or failure of any project.

8 CONCLUSION

This research has been about the critical assessment of what factors that contributes to the successful management of project. The main objective was to review secondary data and identified critical success factors in project management. The study provides useful insights on project management and identified some factors which have been revealed in literature as crucial to the successful management of project. However,

findings from literature suggest that project management success is quite different from project success. This is a great contribution to knowledge within the project management discipline.

The research revealed the overlapping relationship between projects and project management and the critical success factors which are necessary for the effective implementation of project. What is clear from the study is that concentration on critical success factors in project management can be described more broadly as 'hard issue'. There are lots of controversial debates regarding what factors are crucial towards successful management of project. However, this work has demonstrated different factors which might affect different aspect of the project and project management. Lastly, one must bear in mind that understanding the critical success factors of project management would enable practitioners deliver tangle benefits of project management techniques. Successful project management would also enhance the right project. The selection of project from the beginning to differentiate which project is right or likely to fail is the most significant factor to the total project success.

ACKNOWLEDGMENT

The authors would like to thank the various authors whose research works have contributed to this research.

REFERENCES

- [1] Avots, I. (1969). Why Does Project Management Fail? *California Management Review*, 12, 77-82
- [2] Wit, A. D. (1988). Measurement of Project Success. *Project Management*, 6(3), 164-170.
- [3] Kerzner, H. (1989). *Project Management... A Systems Approach to Planning, Scheduling, and Controlling*. New York: Van Nostrand Reinhold.
- [4] Kumar, D (1989). Developing Strategies and Philosophies Early for Successful Project Implementation. *Project Management*, 7(3), 164-171.
- [5] Cash, H. and Fox, R. (1992). Elements of Successful Project Management. *Journal of Systems Management*, 10-12
- [6] Baker, B. N., Fisher, D. and Murphy, D. C (1974). Factors Affecting Project Success. *National Technical Information Services*, N-74-30092, September.
- [7] Munns, A. K., and Bjeirmi, B. F. (1996). The Role of Project Management in Achieving Project Success. *International Journal of Project Management*, 14(2), 81-87.
- [8] Belassi, W., and Tukel, O. I (1996). A New Framework for Determining Critical Success/Failure Factors in Projects. *International Journal of Project Management*, 14(3), 141-151.
- [9] Pinto, J. K., and Slevin, D. P. (1989). Critical Success Factors in R & D Projects. *Research Technology Management*, 31-35, January-February.
- [10] Balachandra, R. and Raelin, J. A. (1984). When to Kill that R & D Project. *Res Management* (July - August), 30-34.
- [11] Bedell, R. I. (1983). Terminating R & D Projects Prematurely. *Res Management* (July - August), 32 - 35.
- [12] Hall, P. (1980). *Great Planning Disasters*. London: Weidenfeld and Nicolson.
- [13] Morgan, H. and Soden, J. (1979). Understanding MIS Failures. *Database*, 5, 157-171.
- [14] Hobday, M. (2000). The Project-based organisation: an ideal form for managing complex products and systems? *Research Policy*, 29(7-8), 871-893.
- [15] Hodgson, D., & Cicmil, S. (2006). *Making Project Critical*. Basingstoke: Palgrave Macmillan.
- [16] Morris, P. W. G., & Hough, G. H. (1993). *The Anatomy of Major Projects*. Chichester: John Wiley & Sons.
- [17] Gallagher K. C. (1995). *Information Technology and Project Management Conference Proceedings*, London. 19-20 September, 19-36.
- [18] Atkinson, R. (1999). Project Management: Cost, Time and Quality, two best guesses and a phenomenon, its time to accept other success criteria. *International Journal of Project Management*, 17, 337-342.
- [19] Ress, B. (1993). *Project Management Demystified*. E and FN Spon, London
- [20] Oisen, P. R (1971). Can Project Management be defined? *Project Management Quarterly*, 2(1), 12-14.
- [21] British Standard in Project Management 6079. ISBN 0 580 25594 8
- [22] Association of Project Management (APM). *Body of Knowledge (BoK) Revised January (version 2)*.
- [23] Turner, J. R. (1996). Editorial: International Journal of Project Management Association Global qualification, Certification and Accreditation. *International Journal of Project Management*, 13(3), 109-118.
- [24] Prabhakar, G. P. (2008). What is Project Success: A Literature Review. *International Journal of Business and Management*.
- [25] Kerzner, H. (1987). In Search of Excellence in Project Management. *Journal of Systems Management*, 38(2), 30-40.
- [26] Kerzner, H. (2001). *Project Management: A Systems Approach to Planning, Scheduling and Controlling* (7th ed.). New York: John Wiley & Sons.
- [27] Baccarini, D. (1999). The Logical Framework Method for defining project success. *Project Management Journal*, 30(4), 25-32.
- [28] Baker, B. N., Murphy, D. C., & Fisher, D. (1983). *Factors Affecting Project Success*. *Project Management Handbook*. New York: Van Nostrand Reinhold.
- [29] Schultz, R. I., Slevin, D. P., & Pinto, J. K. (1987). Strategy and tactics in a process model of project implementation. *Interfaces*, 17, May-June, 34-36.
- [30] Pinto, J. K., & Slevin, D. P. (1988). Critical Success Factors across the project life cycle. *Project Management Journal*, 19(3), 3-10.
- [31] Shenhar, A., Levy, O., & Dvir, D. (1997). Mapping the dimensions of project success. *Project Management Journal*, 28(2), 5-13.
- [32] Bavelas, A. (1968). *Project echo: Use of project techniques to define reality in difficult cultures*. Stanford University.
- [33] Lim, C. S., Mohamed, M. Z. (1999). Criteria of Project Success. *International Journal of Project Management*, 17(4), 243-248.
- [34] Morris, P. W. G. (2001). Updating the Project Management Bodies of Knowledge. *Project Management Journal*, 32(3), 21-31.
- [35] Pinto, J. K., & Slevin, D. (1987). Critical Factors in Successful Project Implementation. *IEEE Transactions on Engineering Management*. Em-34(1).
- [36] Cooke-Davies, T. (2002). The Real Success Factors on Projects. *International Journal of Project Management*, 20, 185-190.
- [37] Ramage, P., & Armstrong, A. (2005). Measuring Success - Factors impacting on the Implementation and use of Performance measurement with Victoria's human services agencies. *Evaluation Journal of Australasia*. 5(2), 5-17.

- [38] Cooke-Davies, T. (2000). Towards Improved Project Management Practice. PhD Thesis, Leeds Metropolitan University.

IJSER