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**Preliminary Report**

**TPK4505- Specialization Project**

**Dept. of Production and Quality Engineering**

**“Dynamics of Project Success Criteria”**

**Submitted by:**

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MSc. in Project Management

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**1- Introduction**

This specialization project, *Dynamics of project success Criteria,* is written by stud. Zomorod Roshani at the department of Production and quality management (TPK). This project is conducted in the 3rd semester as a part of a master degree in Project Management at NTNU with collaboration of Talisman Energy Norge AS. This pre-study comprises a brief preface of the abovementioned topic, subtasks, WBS and Project’s main deliverables.

**2 - Background**

There are various definitions of project success criteria which have been introduced in scientific papers. The primary definition is the ability to comply with time, cost and scope requirement which is called the “golden triangular” and is related to the efficiency of the performing project organization([Atkinson, 1999](#_ENREF_2)). Although there are plenty literature around the topic of project management success criteria, research concerned with changes to success criteria during the execution phase and the impact of these changes on the overall performance is nevertheless scarce(Hussein, 2012).

Hussein (2012) has discussed changes of success criteria and has concluded three reasons for that: First, the lack of alignment between corporate strategies and project objectives. There is not a comprehensive investment on front end management or concept selection which will lead to a misalignment between project objectives and business objectives. It has also discussed that coming up with a list of success criteria is difficult, not only because of competing criteria but also because of the judgment which is made by different stakeholders over different time horizon ([Westerveld, 2003](#_ENREF_6)). The empirical study by Hussein (2012) shows that 61 %( out of 145) of projects rely on traditional view of project success criteria which are cost, budget and performance. On the other hand another result shows that the success dimension of benefit to customer /owner is of primary importance among assessors([Lipovetsky et al., 2002](#_ENREF_3)). Furthermore, achieving the long term and wider benefit requires strong involvement of sponsor and the project owner ([Munns and Bjeirmi, 1996](#_ENREF_5)).

In 1994, in an editorial on developments in project management, Turner has observed that there are lots of papers around the topic “How to achieve project success” (The key factors), however few papers have discussed “how success is measured or judged”. According to Hussein (2012) lack of success criteria measurability is another cause of change which will fall under the first category. This could be because of soft success criteria like e.g. customer satisfaction or easy to use of a product which are subjective and are dependent on people perception and perspective. This lack of measurement will lead to an ambiguity about project success criteria which could cause changes in success criteria.

Second , the poor attitude of project team. Project team have poor attitude toward the project success criteria and attitude has defined as the willingness to carry out the task. ([Andersen and Jessen, 2003](#_ENREF_1)). If success criteria are not used proactively for managing the project then it will fall under this category.

Third, change in success criteria due to the changes in the environment which is not under the control of project organization. Like a change in regulation or change in stratefy.

The third reason is about the uncertainty outside the project control; due to that this research is limited to investigating on the first and second reason.

**3-Problem Statement:**

Since there is not comprehensive investigation within published case studies or literature reviews regarding dynamics of success criteria, doing both, an empirical and theoretical research in order to get knowledge about the causes of unwanted changes in success criteria is the main matters of this research.

In this study, it will be tried to answer following questions:

* Why there is a lack of alignment between corporate strategies and project objectives? Or in other words why success criteria are poorly aligned with business strategies?
* Why project team agreed upon project success criteria but don’t work toward achieving them? Or in other words, what makes people (project team) unwilling or reluctant to do what they have agreed?

Lack of adaptability

**4-Literature:**

|  |  |
| --- | --- |
| Article Nu. | Why there is change in success criteria? |
| 1 | 1. There is no alignment between project objectives and business objectives (strategy), due to the reason that project managers are not engaged in strategically issues.
2. The matter off not setting success criteria according to different project type and different stakeholder expectation
 |
| 2 | 1. Strategically managed project will conclude in business result achievement ( Shenhar et al.(2005,p.3)). there is a misalignment between business strategies and project objectives due to a “objectivist” point of view or a lack of “subjectivist” point of view .
2. There is a lack of study on how measure and judge project success criteria!
 |
| 3 | 1. People act as what they believe in and not according to what the fact is ( could be related to number 5).it also emphasize on the mentioned reasons of change in success criteria.
 |
| 4 | 1. Objectively measuring the project success is an illusion. It is depend on qualification, project category and etc.
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| 5 | 1. The effect of project management on changing the success criteria
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| 6 | 1. How to do a better front-end concept selection?
 |
| 7 | 1. Project manager with a good communication skill, decoding and encoding, can cause team satisfaction and performance, which can be used to prevent unwanted (success criteria) changes.
 |
| 8 | 1. how to see the picture( both project and product life cycle and give some tips for preventing changes
 |

1. **SHENHAR, A. J., DVIR, D., LEVY, O. & MALTZ, A. C. 2001. Project success: a multidimensional strategic concept. *Long range planning,* 34, 699-725.**
2. Today project managers should be as the same as strategic leaders. due to the today rapid changing world, there is no time to share this responsibility between project managers who work on “getting the job done” and other managers who concerns with “doing the right job” or in other words concern with business aspect . Project management should not be focused on operational view; they should participate or have even the whole responsibility (more common in small companies) of strategic views as well. Then there would be no differences between project success and product success!(Sharing these two responsibilities could be one cause of misalignment between project objectives and business strategies or in other words by doing the whole process by project managers it will cause to have less misalignment).this will improve the organizational effectiveness. Finally, this kind of concept selection will help to have a more aligned execution objectives and business objectives.
3. One size doesn’t fit all; try to set different success dimension for different project (according to type, size, complexity…)Project team could have different perception regarding success dimension of Different project type. For example in super high tech projects, overrun is a “most likely to happen” event! Or customer expectation on these kind of projects is a quantum leap solution and an enormous advantageous in effectiveness!(by distinguishing between different project type we can see different stakeholders perspective on the project success! )Some projects (high tech) will prepare people for the future and (reputation, gain new market...)Have training to project team about different kind of project and their different success realization! As an example: projects at the higher end of the uncertainty dimension, build new capabilities for the future, Then should not consider to finish the project on time or on budget as an important project success criteria because the success will be realized in another success criteria dimension.
4. **IKA, L. A. 2009. Project success as a topic in project management journals. *Project Management Journal,* 40, 6-19.**
5. *How to have strategically managed project?*

Look at projects as a temporary organization (Packendorff, 1995) and change the view to a contingent or subjective approach. This paper talks about how project success has evolved from 1960s till 21 century. The emphasize was in project management success into project/ product success and by 21 century into project/product, program, and portfolio success. The result reveals that the dominant view is the “objectivist” one and there is also an emergency of a “subjectivist” point of view and an ideographic and qualitative view point. The paper argues about 2 other alternative for “objectivist”. First, “contingency” approach which is the opposite of “one best way of project success” and second, “subjective” approach which discuss about success grounded in empirical narratives of success and failure.

1. Few researches on success criteria or its link with success factors could be a reason of success criteria ambiguity and lack of measurement ability. It is good to have an empirical study with Talisman!

Further it comes up with the result that the research focus on project success was on the success factors and much less on success criteria or the link between success criteria and success factors. In other words there has been less written about how success is measured or judged (the criteria) (Turner, 1994). It is time for authors to address the absence of empirical research about project success in different organizational contexts (Hyvari, 2006).

1. **ANDERSEN, E. S. & JESSEN, S. A. 2003. Project maturity in organisations. *International Journal of Project Management,* 21, 457-461.**

Project maturity might be used as an indication of the organizations ability to use projects for different purposes. Maturity is consisting of knowledge, attitude and action. Refer to the paper “*often people act based on what they believe is true, rather than what fact actually reveals about the truth*”(p.458).Refer to Forrester(1968), this paper has mentioned the “perceived influence” which is about a principle that belief is stronger that fact.

According to its result: Projects need more focus on the simultaneous thinking of hard and soft issues. The organizations need more knowledge and better understanding of the starting-point of the project. The project practice seems to be at its lowest at the operational level. (Emphasizing the reason for change which has mentioned by Hussein 2012)

1. **DE WIT, A. 1988. Measurement of project success. *International journal of project management,* 6, 164-170.**
2. *Why are project success criteria ambiguous, and how they should be measured?*

The paper discuss that success is time dependant, for that reason objectively measuring the success of a project is an illusion. Considering 1) all and often conflicting criteria of the stakeholders, 2) changeability of project objectives during the project life cycle and 3) the hierarchical dimension to success for each level of management in an organization, will show that it is difficult to come up with a set of objectives (success criteria)

As the paper stated” *without a clear understanding of to which category a project primarily belongs and the identification of the rankings, there can be no basis for the determination of success*” further it has discussed one way of classifying project which is by project motives : Necessity opportunity, Prestige and research.

More it states that referring to a project as being a success or failure without qualification is nonsense.( In order to understand project success measurement, we should explore different projects. Don’t try to understand the absolute terms of success and failure, however to identify what went right and what went wrong and why, then apply the lessons learned on later projects if appropriate )

1. **MÜLLER, R. & TURNER, R. 2007. The influence of project managers on project success criteria and project success by type of project. *European Management Journal,* 25, 298-309.**
2. *How project managers can affect the changes of success criteria.*

The paper discusses that project managers focus on different success criteria depending on their traits .We can say that for example if project manager is not from local and is a foreigner then it can be misunderstood about the importance (prioritization) of success criteria and can lead to leading the project team toward achieving his/her perceived prioritized success criteria. Then in order to decrease the possible changes of success criteria a local Project manager should be considered.

1. **WILLIAMS, T. & SAMSET, K. 2010. Issues in front‐end decision making on projects. *Project Management Journal,* 41, 38-49.**
2. *How keep projects aligned during project life cycle?*

The paper discuss about the need for alignment between business strategy and the project concept but even if it is achieved, it is still the danger of project gradually becoming unaligned with organizational goals.

The paper explains about the bounded rationality and cognitive biases that are natural to humans and how these biases can cause a wrong concept selection. According to the author the involved biases are divided into sho explanations. For preventing the consequences, flexibility (as one option) should be considered in the project strategy, both in the front end concept stage and further on.

1. **HENDERSON, L. S. 2004. Encoding and decoding communication competencies in project management–an exploratory study. *International Journal of Project Management,* 22, 469-476.**
2. *How can we prevent the unwanted change in success criteria?* (project manager better communication skill🡪 better share understanding of the project success criteria🡪 could prevent unwanted changes)

The paper is about the affect of project manager communication skill, encoding and decoding, on team member “satisfaction and productivity”. It refers to pinto and pinto (1991) that manager’s afford to clarify and establish shared agreement for deliverables positively influence team member satisfaction. First this share agreement will reduce unwanted changes. second, according to the Reference number (5) ([Müller and Turner, 2007](#_ENREF_4)) team satisfaction is the most influential success criterion.

1. **JUGDEV, K. & MULLER, R. 2005. A retrospective look at our evolving understanding of project success. *Project Management Journal,* 36, 19.**

 Give some tips on how to be aligned with business strategy and also discuss on how prevent unwanted changes (success criteria).

Developing a list of project stakeholders at the beginning of the project and try to determine which success category each of them fills it.The use of project success indicators for both efficiency and effectiveness of the project (in order to cover the whole project/product life cycle).be sure that there are CFSs that will address all stakeholders wants and needs.

9) **BURKE, C. S., STAGL, K. C., SALAS, E., PIERCE, L. & KENDALL, D. 2006. Understanding team adaptation: A conceptual analysis and model. *Journal of Applied Psychology; Journal of Applied Psychology,* 91, 1189.**

How can teams adapt themselves in a changing environment? And how this adaptation can affect team performance!? How can team practice it?

This Article argues the construct of team adaptation versus team learning, innovation and problem management and their … and it results that adaptation is a fundamental part of many team funtions

 Although it could be seen that team adaptation and team learning have significant overlap, Team learning is latent and its transition to team adaptation might never happen. Goes deeply, Team learning is a pre condition for team adaptation and It is not sufficient but is an essential condition for team adaptation.

Innovation is another mentioned construct which is closely related to the team adaptation .The author discuss that adaptation is related to the realignment of performance. On the other hand innovation can make a team to be either realigned in the performance or could act as an obstacle to its realignment.

Team problem management is the last one which is mentioned by the author. author explains that in order to manage a problem, adaptability is not always an issue.

**5- Project objectives and scope of work**

The objectives of this research is:

1. Conduct a comprehensive literature review covering the up-to-date
literature on the topic of project success criteria (priorities) with
specific emphasis on literature that
addresses the issue of how to understand and prevent unwanted changes.

And if there would be further investigation and interest in the topic, The master thesis objective could be:

2) Develop a framework for addressing and preventing unwanted or
uncontrolled changes to success
criteria.

This paper will be conducted through a comprehensive literature review and a brief empirical research on the reasons for changes to project success criteria. The main sources of theoretical information are scientific papers, books and published case studies. In order to gather relevant empirical data a simple questionnaire will be prepared and used during the surveys and interviews. It should be mentioned that due to time limitation and difficulty of finding many companies in different industries in such a little time, in this paper the interview is limited to few number of project managers in a single industry. Therefore, the source of practical data required for this paper will be collected from one of the middle size international companies (Talisman Energy) in Norway. As an operator company, there are lots of contractors involving in the project (oil and gas projects), then the focus could be on contractors, client perception of success criteria and its dynamics.

**6-Research approach:**

In This study an inductive research strategy was chosen to answer research questions. This paper aims to conduct a theoretical research as well as a practical research to get more detailed description of dynamics of project success criteria. To do so, both a comprehensive literature review and a brief empirical research will be done.

First, scientific databases will be greatly searched to find relevant articles, books, journal papers and published case studies in order to investigate the elements which have been introduced by literature as those contributing in changes on success criteria. Next, a prepared questionnaire will be used to conduct the survey among few number of project managers within oil and gas industry in the case company. What project managers identified as the reasons of change in success criteria and how they prevent such changes would be listed through surveys and interview. Then, the finding from literature research and case study will be used in order to develop existing works and make comparison.

**7-Project Master Plan:**

In order to fulfill the objective of this project, a work breakdown structure has been developed. Besides, activities which need to be done with approximate duration are shown in the attached plan. In addition, Project main milestones and deliverables have been identified in this plan.

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| --- | --- |
| **Date** | **Description** |
| 21.9.2012 | Pre-study report |
| 19.10.2012 | Midterm report  |
| 24.10.2012 | Midterm presentation |
| 21.11.2012 | Final literature list |
| 21.11.2012 | Project draft |
| 04.12.12 | Final oral exam |
| 21.12.12 | Project submission |

|  |  |  |
| --- | --- | --- |
| **Task**  | **Start**  | **End** |
| **Pre study Report** | **3 Sep (week 36)** | **21 Sep(week 38)** |
| **Searching databases** | **3 Sep(week 36)** | **22 Oct(week 43)** |
| **Review relevant literature and case studies**  |  **3 Sep(week 36)** | **26 Oct(week 43)** |
| **Generate questionnaire/interviewing/gathering data** | **22 Oct(week43)** | **9 Nov(week 45)** |
| **Write the progress report** | **1 Oct(week 40)** |  **19 Oct(week 42)** |
| **Analysis of collected information** | **22 Oct(week 43)** | **16 Nov(week 46)** |
| **Produce Final report** | **1 Oct(week 40)** |  **23 Nov(week 47)** |
| **Analysis of collected information** | **22 Oct(week 43)** | **16 Nov(week 46)** |

**8-Work Breakdown Structure (WBS):**

**9-References**

ANDERSEN, E. S. & JESSEN, S. A. 2003. Project maturity in organisations. *International Journal of Project Management,* 21**,** 457-461.

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.

LIPOVETSKY, S., TISHLER, A., DVIR, D. & SHENHAR, A. 2002. The relative importance of project success dimensions. *R&D Management,* 27**,** 97-106.

MÜLLER, R. & TURNER, R. 2007. The influence of project managers on project success criteria and project success by type of project. *European Management Journal,* 25**,** 298-309.

MUNNS, A. & BJEIRMI, B. F. 1996. The role of project management in achieving project success. *International Journal of Project Management,* 14**,** 81-87.

WESTERVELD, E. 2003. The Project Excellence Model®: linking success criteria and critical success factors. *International Journal of Project Management,* 21**,** 411-418.

 Hussein, B. A.,(2012). Preliminary investigation of project success criteria in Norway. *Causes of change to project success criteria: a study based on project management practices in Norway. Project management institute*

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**Problem Statement 2 :**

* Why project team agreed upon project success criteria but don’t work toward achieving them? Or in other words, what makes people (project team) unwilling or reluctant to do what they have agreed?
1. *How can we understand and prevent unwanted changes?*

*Binge proactive is always better that being reactive.*

* 1. One way of preventing unwanted changes is by encoding and decoding competencies in project Management (Linda S.Henderson,2004).Refer to the Lina S.Hendeson(2004) “ *encoding and decoding are significantly associated with team member satisfaction, while project manager’s encoding is significantly associated with project team productivity* “.Communication is an essential competency for project managers in order to come up with a share understanding between different parties. On one hand project managers should effectively negotiate with project stakeholders and on the other hand they should communicate the result with project team members who may have different perception of project success. More the author observes an essential relation between decoding and encoding-core communication components- and project team member satisfaction and productivity.

Research has shown that, communication play an important roles in monitoring and feedback of project data and in communicating of project goals by project leader(Linda S.Henderson, 2004), on the other hand ambiguity in project objectives and measuring of success criteria, especially soft success criteria which could be perceived differently by different people, are one of mentioned reasons for change in success criteria. Then we can prevent changes in success criteria by enhancing communication competency in project management. To get deeper in communication competency Linde S. has break the communication into decoding and encoding components.

**The important predictors of each adaptive performance dimention!**

1. ***How can we survive in such a situation? (How can we adapt ourselves to the changing condition?)***

2.1) after a change in success criteria happened , it is important that each level of individual, team and organization have the capability to adapt themselves to the new situation.Different authors have discussed about different levels of adaptability(e.g., Michelle A.Donovan 2000, Anita Williams Woolley 2003). Michelle A.Donovan (2000) has looked at individual level. Regarding the rapidity and types of change that an organizations face, the author has come up with eight different dimensions of adaptive performance in individual level, but depend on the job, the profile of its adaptive performance requirement would vary along the eight mentioned dimensions.

|  |  |
| --- | --- |
| Dimensions of Adaptive Performance  | constructs that are indicative of each dimension |
| Solving Problems Creatively |  General intelligence, problem understanding and problem solving construct  |
| Dealing With Uncertain and Unpredictable Work Situations | Personality and temperament Constructs, like self esteem, self efficacy and locus of control  |
| Learning Work Task, Technologies, and Procedures | Cognitively oriented construct  |
| Demonstrating interpersonal Adaptability |  |
| Demonstrating Cultural Adaptability |  |
| Demonstrating Physically Oriented Adaptability |  |
| Handling Work Stress |  |
| Handling Emergencies or Crisis Situations |  |

This classification is good as we can find the root causes of each adaptive performance dimension and if needed strengthen that .However there is still not a deep review on all dimensions. Regarding first and second dimensions, Hussein (2012) has identified Problem solving as a one dimension of adaptive performance for the type three changes in success criteria, changes which happen due to the uncertainties in the environment. However the author here has distinguished between problem solving dimension and dealing with uncertain / unpredictable work situations dimension and believe that dealing with uncertain situations is the related dimension for type three changes. This is a vague point here which should be clarified!! It is important to clearly identify the dimensions of adaptive performance for a specific job, and then the individuals could receive relative trainings. However, Kozlowski (1999) has discussed that by focusing on individual’s knowledge, skills and abilities we cannot achieve team effectiveness or team performance. Due to the fact that team working is not just the matter of individuals, it is also the matter of interaction and coordination.

P243, ina rabti b team effectiveness nadare!!

On the team level, Anita Williams Woolley (2009) has discussed the affect of outcome versus process focus teams on team performance and team adaptation. The author has reached the result that in dynamic environments, outcome focus teams have better performance, better action identification and a higher ability to adapt work processes.

*Why outcome focus teams do better than process focus teams in dynamic environment?*

Outcome focus teams concentrating on the goal and have the ability to consider different approaches in order to fulfill a task or catch a goal. As a result outcome focus teams will show a greater flexibility in adapting their performance strategy to the changing task conditions. There is also a correlation between action identification level and adaptation behavior level. Outcome focus teams have a higher action identification level which makes them to be more adaptive. ( Anita Williams Woolley, 2009)

On the other hand process focus teams which are concentrating on means are good in role identification, assigning task to members and determining how these activities will be coordinate between people and over time. Then they could do better in a membership change situation as they know what exactly the new member should do. However, because they identify actions at a low level, people will lose their ability to look at the big picture and the higher level team goals. In whole, as the author has observed, in compare to outcome focus teams, they will show a more resistance to a midpoint strategy intervention (Anita Williams Woolley ,2009).

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*How can we build an outcome focus team?*

As the table below shows, the author discusses on what affect teams to be either outcome or process focused.

|  |  |
| --- | --- |
| **What makes teams to be either process focus or outcome focus?** |  **Short Explanation** |
| **Individual Level** : The affect of Individual-level cognitive neuroscience  | If a person has a tendency on “how” thinking is unlikely to shift to “what” thinking or vice versa. (Blajenkova et al.2006, Kozhevnikov et al.2005). |
| **Team level**: The way a team is launched and encouraged to organize work. | The startup team tendency in either outcome or process focus has substantial influence on the subsequent decisions the team makes. (Anita Williams Woolley, 2009). |
| **Organization Level** : existence of strong routines or script in the work environment | E.g. like different organizational culture. Organic structures culture is result oriented and outward facing since mechanic structure is process oriented and inward facing. (Burns and Stalker ,1994) |

Should I also discuss the propensity of individuals to either “ how” or “what” system?

Or

How to have mechanistic or organic organizational structure?

To go deeper on team level, the result by Anita Williams Woolley (2009) revealed that the way a team in initiated has a high affect on structuring team focus. To sum it up by Referring to the author:*”* *Teams that begin by reaffirming role and task assignments and project schedules before discussing project objectives are setting themselves up to be process-focused. In contrast, a team that begins its work by having an in-depth discussion of what members want to accomplish stands a better chance of reaping the benefits of an outcome focus, particularly in a dynamic environment.” (Intervention)*

Emphasizing Terrebery(1968) prediction, adaptability has became an important part of organizational effectiveness in nowadays turbulent environment.

Environment is dynamic 🡪 the need for a theory that shows development and performance! Team performance as it develops!

Continiouse improvement and adabtability are part of performance capability and. Necessitate skill and knowledge with experience!

Performance and learning are entwined and performance is developmentally dynamic

Focall level :indi, 2, team, time