How can project management add value on implementation of strategy?: a study applying project management and OPM3 skills during strategy implementation process.

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How can project management add value on implementation of strategy?: a study applying project management and OPM3 skills during strategy implementation process.

A dissertation submitted in partial fulfilment of the requirements of the Royal Docks Business School, University of East London for the degree of **MSc Project Management**

May, 2013
13,285 words

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Abstract

Strategy implementation always comes as a painful task for many corporations around the world also not accomplishments of what was planned is definitely a meaning of financial or business opportunities losses. Trying to find solutions many researchers have developed theories to base their knowledge but not yet the magic portion has been found. Therewith some companies have tried making use of project management skills to put in practice all has been planned to achieve advantage goals. Due the recent and fast growing of project management discipline, companies have taken a “look” on this possible useful set of skills.

The intention of this research is to find out how project management skills can be applied to strategy implementation and how it would be useful on the whole process to lead corporations to better results and use of strategies.

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1. Introduction.

In today`s world corporations face changes, opportunities and challenges all the time, because of that, a dynamic and well planned actions have to be taken to cross all kind of environmental situations and possible development. According to Andrews ”Corporate strategy is the pattern of decision in a company that determines and reveals its objectives, purposes, or goals;” (Andrews K. 1987, pg. 2)

Trying to achieve strategic advantage in competitive economic environment, a contribution of PMBOOK Guide (2008) argues that the organizational project management is a collection of skills, tools, knowledge and techniques applied in a certain environment to reach the aims desired by the companies.

Based on the needed of changing strategies, companies day after day are searching for a magic portion to sort barriers when the strategy comes to be implemented. Furthermore, cost, time and quality are always issues to be taken on discussion by the board of directors to efficiently implement strategies.

However, in the past two decades, project management discipline has been spread its importance into business world, therewith, knowledge and skills involved in this practices have become more familiar into corporations place intending to achieve any competitive advantage, no matter what they are. One of the greatest milestones on project management field was in 1969 with the foundation of Project Management Institute, known as PMI.

According to Rad and Raghavan (2000), project management is one of the most increasing disciplines in todays world, but despite of the high increase utilization’s rates of project management, can also be seen high rates of failures in projects. Crawford (2000) justifies this inefficiency to a lack of adequate procedures and standards of management.

Therewith, project management activities emerge as organization’s unit responsible for organize and standardize practices to lead a better application to day-to-day business activities. Also communication of its practices throughout the hierarchical levels plays a significant importance on the development of project management skills into corporations, leading to decrease mistakes occurrence and prioritization of process to achieve targets desired on the strategy planning time.

However, this topic intends to research how efficient and effective the use of project management best practices to introduce, change or even develop organizations strategies could be. Relevant aspects of project management are meant to be discussed, evaluated and if necessary tailored to fit in the implementation of strategies inside companies.

Furthermore, identify strategy processes such as what strategy is about, development and implementation, project management skills and tools, including Organizational Project Management Maturity Model (OPM3), will raise issues to be discussed and, if possible, find some solutions to deal with difficulties during the implementation of strategy process.

The methodology chose to drive this research is literature review analyze, in which best practices and possible applicability are meant to be found on the discussion of this subject. Relevant authors were chosen to create a scenario of discussion of different point of views and knowledge to lead better solutions for the issues raised.

Also, the discussion of each discipline is designed separately to give a clear understanding of facts that are inherent to follow the logic of the discussion proposed in this study, in which at the end will be all combined to build a big picture of what is all about, leading the reader to chronological perception of the facts involved in the implementation of strategy using project management practices.

Key factors will be discussed together, linking their applicability on day-to-day environment of projects and possibly best solutions to deal with issues or barriers involved are meant to be suggested.

Beginning with explaining strategy and its core competence, highlighting key factors of this applicability and what it stands for is the first subject discussed on the literature review, after that development of strategy and implementation of strategy process are discussed to illustrate the steps that corporations have taken when come to gain strategic advantage of competitors.

However this approach can be said that is much more business as usual (daily corporations activities) than proper use of project management skills to introduce strategies to companies. Relevant authors are used to base the discussion, but no one of them relates to implementation of strategy with project management. The idea of that is to collide both methodologies at the end and suggest its applicability.

Further, project management approach is described as the same as strategy's application (isolated) intending to clarify aspects inherent to what it stands for. Aspects such as cost, time, scope, quality, risk and benefits are explained to better understanding when the planning of implement strategy using project management comes to the discussion at the end of this study.

Also a model to implement strategy, already developed by the Project Management Institute (PMI), the OPM3 (Organizational Project Management Maturity Model) is described in this research intending to add best practices and knowledge already developed in use by corporations.

Moreover the combination of both knowledge areas, business strategy and project management comes to the end of the sub chapter of literature review giving a picture of what is all about, based on a relevant author Tony Grundy and his book “Implementing strategy through project management” the description of the process and relevant factors are made to base the findings of this research.

Therewith, best practices are meant to be suggested to better development of this combination of two important set of skills, in which can aggregate advantages, certainty and manageable process always intending to better achievements on core business of companies.

2. Literature Review.

As the proposal of this study is to analyze the aspects of implementation of strategy using project management and OPM3 (Organizational Project Management Maturity Model) inside companies, the structure of the literature review will focus on the main aspects of each discipline separately, high lightening key factors that play significant importance and attribute efficiency to the process as a whole.

Topics are separated into main fields involved will be developed to clear understand of the reader and also to raise main factors that could lead to answer the discussion raised in this research. Also the intention of this structure is to analyze aspects, which are part of the core of each discipline, therewith, show the importance of steps that should be raised during the planning process of this methodology.

Involving implementation of strategies in organizations using project management as a tool, the footpath chosen to illustrate and to base the knowledge is defining each discipline isolated, take key factors and relate them together to create a solid basement to the discussion afterwards. The combination of issues at the end will also help to develop links between each single discipline to the others, relating then together and analyzing possible advantages and disadvantages of the use of these methodologies.

Also contribution of authors, who have already been stepped on this field of research will be analyzed and included to give even more strength on the findings. The logical sequence of the topics were chosen according to relevance and needed to develop a sequential thought, they are:

- Business strategy
- Development of strategy
- Implementation of strategy
- Project management
- Project management maturity model, OPM3
- Implementation of strategy using project management

2.1. Business strategy

Firstly we should understand the meaning of strategy and what it stands for, so due to the fast-changing environment into business world, companies of any size, operation market, culture or geographic location market have been pushed to respond faster to changes happening day after day into its environment, such as new products release, political issues, environmental aspects and, of course, customers needs.

A summary statement of strategy according to Andrews K. (1987) shows that a specific product line and services offered or developed by the corporation, the market and market segments for which products or services are at this moment or will be designed for, the channels of logistic are needed to reach the market target, the financial aspects involved, mainly the return over the investment, are facts that corporations take as baseline to strategically reach their goals through the market battles.

More specifically Porter (2005) argues that strategy is about to differ from the competitors, choosing different ways to deliver a set of activities or abilities that can provide an unique value for the company, gaining advantage from the competitors into the market. In which could be specific product, price differentiation, distribution and attractive advertisement. However strategy can be defined as “a pattern in a stream of decisions” (Mintzberg, 1999). Also Andrews K. (1987, 2) adds, ”Corporate strategy is the pattern of decision in a company that determines and reveals its objectives, purposes, or goals;”

Also companies do not want only survive on the market, the nature of all business organizations is grow and prosper into the market segment, therewith, business strategy is also a way of achieving sustainable growth, increase profitability or even change the market segment. As Henry, A. (2008) argues, “firms must undertake an analysis of their external and internal environment, to ensure their own internal resources and capabilities are more than sufficient to meet the needs of the external environment”.

However, the contributions of the authors can lead to a clear draw of strategy, meaning that the join of a pre-established footway targeting the corporation’s goals and a set of decisions through the process of taking the company to the point desired can be considered as a business strategy. Also a set of decision throughout the way are part of strategy of any firm, they are also based on the business core and focus on the target pre established at the development of strategy time.

Continuing follow Porter’s thoughts managers have to play new rules including make their corporations more flexible to respond more efficiently and rapidly to market changes, so taking Porter’s point of view, how could corporations be on top of their rivals on the market pitch? According to Ohmae (1982) A successful strategy is that combines stronger the corporation’s strengths to customers’ needs better than its competitors, Kay (1993) complements adding that the strategy is the match between organization’s capabilities of doing its business and the relationship with its stakeholders: employees, customers, shareholders, and suppliers.

Due to this fact, the reinforcement of a flexible and manageable footpath can be classified as essential, as Henry, A. (2008) adds flexibility is the key to good strategy thinking, it is better go round of obstacles than try to go through them. The action of a flexible strategy management approach, in which Porter and Henry collides against to project management approach to management of scope, the need of a core to be followed and surely the planning process of project implementation.

However, as could be seen before, strategy is all about changes, not meaning changing targets desired, but when something changes the environment the likelihood of some respond it back is almost sure. Then can be said that the strategy should be manageable and flexible to cope with its environment occurrences, to better accomplish desired targets and results. What was left is, if the project management techniques can cope with inevitable changes during the process and if it is valuable the use of it to implement strategies in corporations, as according to PMBOOK (2005), a defined scope is required to plan the all project performance. That will be discussed further in this research.

2.2. Development of strategy

In the fast moving business world, corporations face changes and market needs in a daily basis, so the need for fast response to achieve market competitive is vital to every type of business. Although many managers have dreamed with perfect solution to keep their corporations fitted on the market, changes and improvements are essentially pushed to their desks to keep up with external needs.

For this, strategic changes are needed, Henry (2008) argues that: "strategic change is about changing the way in which an organization interacts with its external environment, it is about creating new and innovative ways of doing business".

Recognizing the need for a strategy inside the corporation, the first step to go on, according to Porter, is identify the goal desirable by the company and the proposal of that, also matching with the company's operations, market involved and customers need. Also Ohmae (1982) reinforces that three factors have to be considered while developing a strategy, they are: the corporation itself, the competition in which it is involved (market segment) and the customers target.

Furthermore Porter cites "the essence of strategic positioning is to choose activities that are different from rivals. If the same set of activities were best to produce all varieties, meet all needs, and access all customers, companies could easily shift among them and operational effectiveness would determine performance." (Porter, 2005 pg. 48).

According to Porter, when a corporation chooses only one strategy, it is more likely to achieve competitive advantages and perform better than its competitors. However, if the same company applies more than one generic strategy at the same time, it will perform less efficiently. Porter referred to the latter type of corporation as being “stuck-in-the-middle”. Despite this, the spread of international competition is compelling more organizations to focus on a single combination of generic strategies (Harrison & St. John, 1998).

However, after decide which strategy fits the purpose and goals of the company, managers and strategy developers should take on board, in developing the scope, factors such as time-consuming of the implementation, cost-effective and alignment with corporate vision and mission also weighting the benefits against the effort spent on the implementation.

According to Dyson (1995), a strategy development is a management process that involves consultation, negotiation and analyzes of what is aimed by the company in the future to create a set of decisions to be made towards the target. Also points described below are variables playing together to well development of the strategy needed to achieve the corporation’s results. They are:

- Duration of the strategy – mostly dependent on the rate of changes happening in the segment. E.g. technology devices industry tends to change faster than food industry;
- Financial support – availability of financial resources for investment on the changes, commonly decided by the directors based on the return expected on the benefits of the strategy results of the corporation.
- Human resources – Availability of human capital to perform the strategy’ needs, such as specific skilled work force, extra work force to expand the productivity, essential training and etc.
- Marketing targets – must be researched based, factors such as size of the population of customers target, ethnical issues, acceptability of product or service, competitors, economic situation, are issues that can show if the strategy is achievable or not.
- Corporation structure – capacity of production, efficiency, use of new technologies, resources, flexibility and many others.
- Risk – evaluation of all main risks involved, assessment of the impacts on the strategy scope, risk response plan and likelihood of happening.

However, as said before Porter referrers to the use of two or more generic strategy can lead corporations being “stuck-in-the-middle”, but Dyson argues that one of the most important thing during the strategy planning process is assess the risks involved and elaborate a panel of strategy options to ensure a safe and risk prevented implementation and results achievement.

So an interdependent matrix can be developed based on the main factors of strategy formulation above:

Figure 3 - Matrix of interdependent factors of strategy development

Main factors of the strategy are known, the step forward of the corporation is how to implement it achieving all the targets wanted and planned by the company. Also, as Dyson argues that a range of strategies should be developed and left on the side as "second option" lead us to the question, how can the corporations manage with a plenty of different strategies into different areas inside the company, not being stuck in the middle as Porter says?

2.3. Implementation of strategy

As the aim of strategy implementation is to deliver the objectives and missions wanted by the corporation to reach the targets necessary, to be more competitive, cost efficient or increase the market target. The process, sometimes, can not roll out as smoothly as planned during the development process, in which can be assumed most of the time because of the constantly environment changes.

Furthermore, implementing strategy into corporation, is in fact a set of a work package - the identification of general strategic objectives; the formulation of specific plans; resource allocation and budgeting; monitoring and control procedures (Lynch, R. 2006, pg. 615) - that involves all the corporation's departments. The figure below illustrates Lynch's theory:

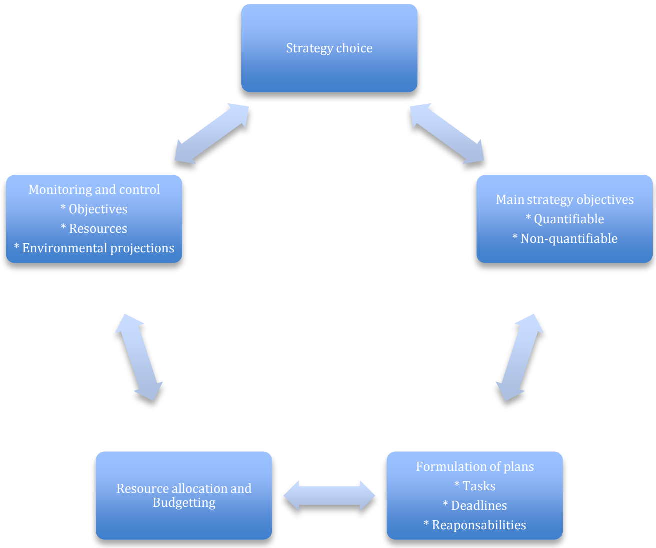


Figure 4 - The basic implementation process (Lynch, R. 2006)

Also Lynch (2006) argues that there are three different types of strategy implementation process, they are:

- Comprehensive implementation programmes - it is when corporations face a major change in the environment, subsequently having to suddenly change the strategy operating that moment. E.g. financial crisis usually make companies review their budgets for research and development or even suspend employees' hires for some period of time. This type of implementation is completely time driven due to fast response to difficulties faced; also a close coordination is required for its success.

- Incremental implementation programmes – it is usually linked to high levels of uncertainty in the market, surprised R&D results or rapidly changing markets segments are more likely to push corporations to use this approach. The uncertainty is managed by a flexible strategic approach to risks due to most of the activities are unclear till outcomes come up.

- Selective implementation programmes – represents substantial changes in the company, can be used on the whole corporation or only into few departments, but with significant changes on the procedures, price, quality, market segment targets and so on. E.g. Lamborghini automobile on the early 60's decided to produce sportive cars together with the already existed tractor industry.

Although many professionals might think that strategy is only concerns of the top management, contradicting the real situation, Rue and Holland (1989) says that: the process of implementing a strategy throughout the company involves the workforce as a whole, also they reinforce that the main factors, that are relevant for efficient implementation process, are mostly handle by the operational level into corporations.

In past research Buys and Stander developed a chart showing the main factors that affect the implementation process. See below:

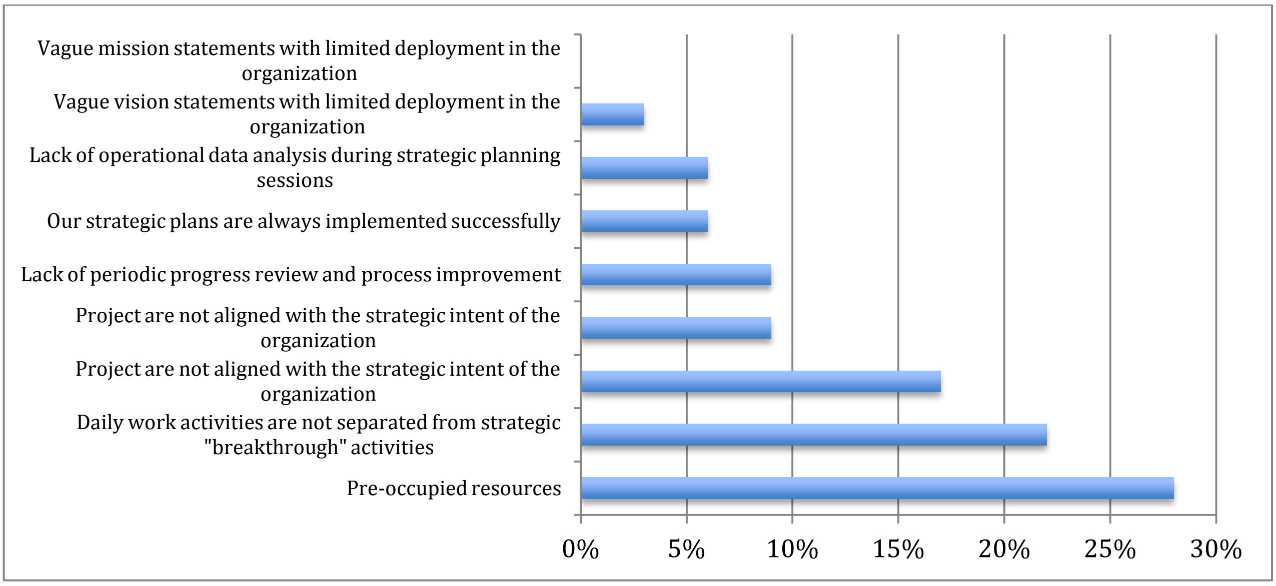


Chart 1: implementation rate of failure (Buys and Stander. 2010 pg. 6)

As can be seen the two highest issues to implement strategy are pre occupied resource and daily work activities. Therewith the question that rises to our mind is: how can project management help to deliver strategy implementation successfully?

2.4. Project management

Project management can be considered as a new discipline due to its development, in which has been increasing since 1980's with the proposal of set standards for managing projects successfully and constant improvements. Researchers and practitioners have been concerned with high levels of projects failure into corporations, so the development of the discipline is desired for almost every corporation in the world intending to minimize financial losses also maximize opportunities to increase business.

However, corporations have structures set for day to day business and daily management activities, that is what PRINCE2 calls business as usual (PRINCE2, 2009), as we know project is a temporary endeavor undertaken to create a unique product, service or result (PMBOK Guide, 2008), so the project management work comes across to the "business as usual" bringing up expertise and knowledge to deal with particular situation, in which corporations tend to undertake as parallel of day to day work intending to achieve some specific goals.

A statement produced by the APM (Association for Project Management) can better illustrate the meaning of this discipline:

"Project management is the process by which projects are defined, planned, monitored, controlled and delivered such that the agreed benefits are realized. Projects are unique, transient endeavors undertaken to achieve a desired outcome. Projects bring about change and project management is recognized as the most efficient way of managing such change". (APM Body of knowledge, 2008, pg. 2)

Furthermore, project management can be named as the process of transforming inputs (business needs), using constraints and mechanisms (performance parameters, people, skills and tools) into outputs (project products/ services). Therewith, project management is nothing more than a "transformation" process, but what makes this transformation process so valuable as a management process to be performed?

Larson and Gray (2011), Pinto (2010), Shtub, Bard and Globerson (2005) state that the project process is a interaction of planning, scheduling, controlling, assessing and managing skills towards an objective. Taking the authors thoughts a sequential set of activities can be visualized on following, in which describes more clear the role process of managing a project.

1. Scoping the project: it is where the project starts, requirements for the project have to be clearly identified, viability of deliverables, specification of products/ services, pre-requisites for accomplishment, risks identification and impact on the project.

2. Planning the project: some the researchers usually mention this step as the most important during the life-cycle of a project, as they explain the importance of a well elaborated actions plan could definitely avoid some mistakes or uncertainty in the future. Also a well-developed plan adds value on the stage of controlling and managing the products as well as measurement tool, once the product can be only compared against something that was desired and developed before. Main factors are:

a. Budgeting the project: in where all the financial support are allocated to tasks needed, sources of support, stages of tasks, identification of critical spending, tolerances, procedures of authorization on possible tolerances break,

b. Resources allocation: during the planning stage, the identification of tasks and process must be made at the beginning of the stage, so then the resource allocation can be planned and contract with suppliers can be arranged in advance, avoiding possible supply interruption, disagreements with quality standards required for full accomplishment of products.

c. Human resources: specialized skills are needed in almost every project, so the understanding of requirements to develop products and services during the delivery of projects have to be identified and organized to cope with necessities. Also availability of those skills has to be planned to avoid any interruption on performing the stages of projects.

d. Scheduling: it is the process to identify the length of tasks and predecessor of each of them and organize according to the corporation's structure and needs. Scheduling is generally based on the PBS (product breakdown structure) and WBS (work breakdown structure), see more details in appendix 2.

3. Controlling the project: after all the planning stage have been completed, the controlling the project stage has more to do with the day-to-day work, in which the project manager, together with team members perform the work to deliver the project's outcomes, using all tools and resources (already planned and scheduled) available to perform the work. Furthermore, it is part of this stage the assessment of projects accomplishment, in which the team management can compare the evolution and gain obtained during the stages against the plan developed to achieve them, as known projects are a collection of tasks and single products to achieve a final results. Pinto (2010).

4. Closing the Project: it is when the project approaches to the final results and accomplishment of the goals wanted, in this stage is the time of check the project plan against what has been produced. Also lessons from the project should be taken on board for possible future projects (PRINCE2, 2009). The hand over of the product/ service to the customer and realization of final improvements, if needed. Furthermore a detailed documentation of the process and activities is needed, intending to register benefits accomplished with the project.

Therewith combining the variables to be controlled in the project with the group of activities in order to manage them yet can be said that it is the fundamental set of skills and process to cope with any project in order to achieve desirables successfully.

However project management methodologies are set in place to deliver projects successfully, it does not guarantee outcomes as planed before, according to Buys and Stander (2010) research there are five big elements that can ruin a project, if not controlled properly. See chart below.

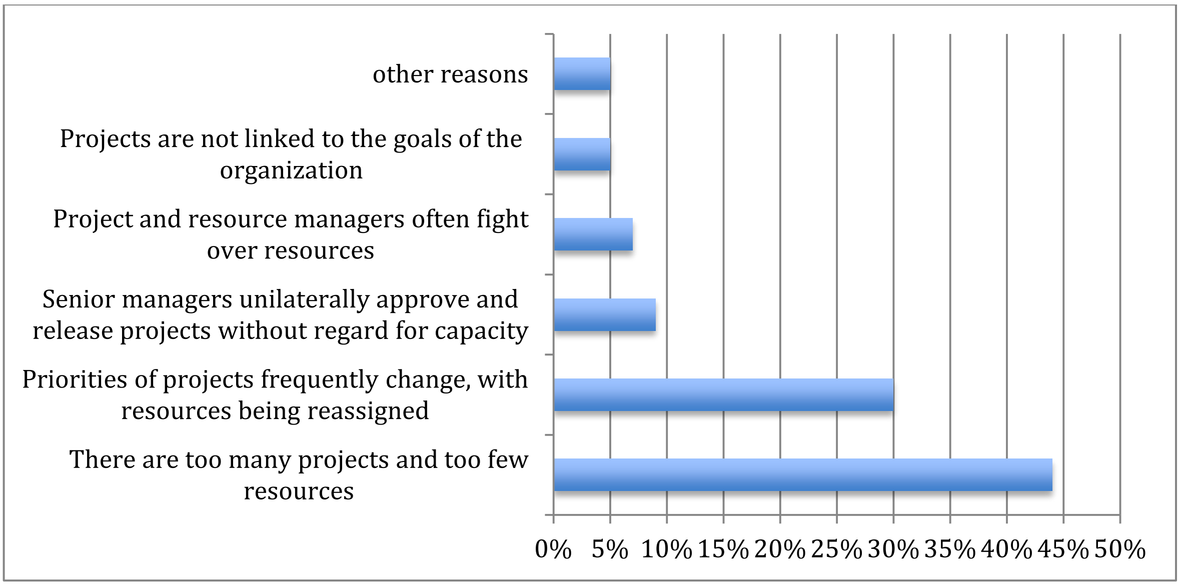


Chart 2: Project implementation rate of failure (Buys and Stander. 2010 pg. 7)

According to the research developed by Buys and Stander, running too many projects at the same time and change the projects priorities are responsible for nearly three quarters of projects failure, so how can running parallel projects and changing priorities be avoided using project management during the process of strategy implementation?

2.5. Project management OPM3 maturity model

Known as OPM3, The Organization Project management Maturity Model is a standard developed by PMI (Project Management Institute) to help corporations understand organizational project management and its value on the implementation of organizational strategies (OPM3 guide, 2003 pg. 3).

As described before a project is a temporary endeavor undertaken to create a unique product, service or result (PMBOK Guide, 2008), as the same strategy implementation is a set of changes and tasks towards a desired goal by organizations. Therewith, the process of implementing strategies can be said that is a project with start and end pre established at the planning phase.

However, as project management has increased the adepts of its use on the past two decades, and also its approach of dealing with projects can be applied to every kind, size and complexity of projects, needing only to be tailored to projects needs, the creation of a standard for complex projects, such as corporate strategy implementation can also add valuable help to its performance.

Furthermore, organizations can also use the OPM3 method not only on the whole structure, but also as in specific departments of it, taking the point that some of departments into corporations need a rapidly change or restructuration without move all the others around, the OPM3 or the others project management techniques, can simply help the designing and implement those changes required.

Yet, companies planning adopt the OPM3 together with day-to-day work, can gain value and implementing it step by step, in which according to organizational situation could be managed based on the its priorities, for example, starting with efficient sectors which could lead to capital savings, after invest this capital on the expansion of production, in which could increase revenues and so on.

One of the key points of using the organization project management maturity model is to identify inside the organization how it is the actual approach to project management, and then compare with desired goals in strategy implementation. Furthermore, the OPM3 method is based on best practices, already used in previous projects, and recognition of the corporation's capabilities to deal with this practices.

Also OPM3 is a cyclic method of improvement, consisting on four base steps, standardize to measure to control and after continuously improve (OPM3 guide, 2003 pg. 6), to achieve this level three consistent interlocking elements are needed to be understood, they are: OPM3 guide (2003)

- Knowledge – the users have to be aware of the best practices, methodologies and concepts of OPM3 and the organizational project management ideas.
- Assessment – in this part the users are asked to identify the current position of the firm structure comparing to OPM3 best practices.
- Improvement – after assessed the current position against the OPM3 practices, the improvement desired can be planned and implemented as a project.

It is valid to remember that this process can be applied over and over again till the company reaches the desired goals; the Project Management Institute also highlights that this is a cyclic methodology and none corporation can achieve the mature standard in just one go. But Kerzner (2005) adds that all the steps can be overlapped according to the company's appetites for risk.

To achieve the OPM3 benefits into a defined corporation Kerzner (2005) has contributed developing a step sequential theory, in that he says that the best way of achieving excellence using the OPM3 method is comprised of five levels. They are:

- Level 1 – Common Language; the corporations recognizes the importance of using project management on its daily practices, them a terminology of standards are developed to better communicate the information throughout of the departments, minimizing risks of misunderstandings and lack of efficiency.

- Level 2 – Common Process; the necessity of standardized processes is vital to evaluate how efficient is the applicability, leading to a constant improvement on that, in which can be set as baseline to future projects undertake by the corporation.

- Level 3 – Singular Methodology; in this level, the company should combine all methodologies already in use to create a single way to deal with different tasks, as the two steps before this one should minimize the chances of mistakes and also facilitates the cross-functional work, in which according to PMBOK Guide, projects are most dealt with cross-functional skills. (PMBOK Guide, 2004).

- Level 4 – Benchmarking; the necessity of constant improvement was already highlighted before, so a comparison with best practices is vital to achieve competitive advantage. In this level executives have to decide what benchmark and who benchmark.

- Level 5 – Continuous Improvement; the information of the benchmark is taken to evaluate and asses what the company has been achieved and what the desired targets are, also this last step can be performed with step before to keep moving the corporation's processes to perfection, or at least to a constantly improvement.

(Kerzner, 2005, pg. 40 – 43).

However, the accomplishment of all those steps described above, does not guarantee the success of maturity achievement, but higher the chances significantly (Kerzner, 2005, pg. 40). Yet as mentioned before, the opportunity to overlap steps during the process implementation can be applied by using programme or portfolio management techniques, in which could save time for the company in the fast moving environment.

2.6. Implementation of strategy using project management

As project is defined as endeavor with an objective and end pre-established (PMBOK Guide, 2005), implementing strategy into any corporation can be said that fulfill all requirements to be manage as a project. Once, according to Potter (2005), the implementation of strategy is a process that leads the organization to achieve competitive advantage on its strategy performance. It is where companies gain value differing from competitors.

Yet according to Grundy (2005), an other way to explain strategy implementation is a process of manage complex project by combining business analyses and project management techniques in order to implement business strategy and to deliver corporation's desired goals, in which he names as "Strategic Project Management" (SPM).

Johnson, Scholes and Whittington (2008) contribute that strategy project is usually organized in the shape of projects in order to involve teams of people committed to work on specific strategic issues during a defined period of time. Also they add saying: "projects can be instituted in order to explore problems or opportunities as part of the strategy development process, alternatively can be instituted to implement agreed elements of a strategy". (Johnson, Scholes and Whittington. 2008, pg. 578)

Although all practices of implementing strategies are focus on the continuing business development and make clear the idea of constant improvement process, in which could go against the idea of projects description (temporary endeavor), the cycle of process could be broken down into smaller projects, but compounding a bigger project desired, classified as a programme or portfolio, then be managed constantly towards the goals desired. Appendix 1 clarifies the difference between the conventional project management approach and the "strategic project management".

According to Grundy (2005) to make the use of the strategic project management on implementation of strategy process there are 4 key factors to be firstly developed when implementation of strategy comes to be done; he classifies them as solid base to walk through the process and as a "project diagnosis", they are:

• Scoping the project	One of the biggest mistakes managing strategic projects is underestimate the scope. The scope is very much driven by three key elements: size, length and key interdependences of tasks or services.
• Defining the key issues	Should be done before projects objectives, as it needs to explore more about why need to look at the project at first. It requires a harder look on why current problems have place and are intended to change. Techniques such as fishbone analysis and performance drivers are suggested to achieve good overview.
• Identify project's key issues	After diagnosed the context of the project, the project key objectives can be set with clarity. There might be some

	dimensions of project to be including. For example: Strategic, organizational, financial and operational objectives. See more Appendix 3
• Anticipating the project's stakeholders and difficulties	Identify stakeholder involvement, affects on the relation, possible no agreements with changes in process, which are all problems that can affect the performance of project implementation.

Table 1: Key factors of diagnosing strategic projects. Source Grundy (2005)

However Johnson, Scholes and Whittington (2008) go further of Grundy's contribution, saying that all projects should also have:

- Top management commitment, in which Finlay produced a statement describing the importance of top management.

"Knowing where and how to direct their efforts to best overcome resistance to change is an important attribute for the modern leader-manager, and the widespread use of project teams means that skills in project management have become a key requirement." (Paul Finlay, 2000, pg. 401).

- Milestones and review checkpoints, projects should have clear outset milestones scheduled, it provides opportunities for assessment of achievements also reviews and adjustments if required.
- Appropriate resources allocation, strategy implementation and project management are areas which human resources is the most of resources needs, so identification skills need and availability of it, is a fundamental part of planning process, lack on resources (in this case human resources) can play great damages on the project delaying, over spending or even failing, in which can lead the corporation to losses or miss business opportunities.

Still following Grundy thoughts the next step to be taken to achieve effectiveness on the process is identify attractiveness of aspects that are inherent of decision making, he highlights that a series of questions could clarify the easier footpath to be taken also align with the Corporation's capabilities to deal with certain aspects.

The factors are: strategic attractiveness, financial attractiveness, implementation difficult, uncertainty and risks, and acceptability to stakeholders. As the most relevant for this study is the implementation difficult further information of the others aspects can be found on Appendix 4.

Implementation difficult comes as description of the factors involved in each strategy chosen by the company, Grundy (2005) argues that aspects like time, cost, effort and gains on the future have to be specifically identified and discussed before any decision be taken. Taking this thought can be assumed that the project design also depends on the choice of the strategy chosen.

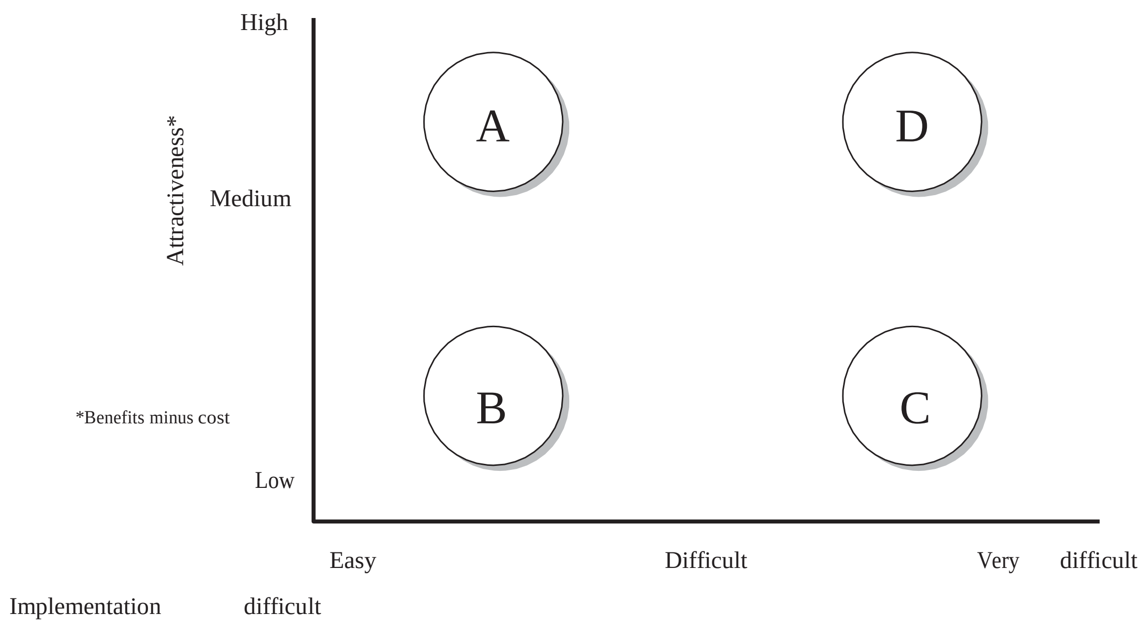
Furthermore Grundy suggests the use of "the strategy option grid" (the Strategic Option Grid is a most valuable tool for appraising strategic projects options and evolve in its effectiveness, particularly through additional questioning) (Grundy, 2005, pg. 40), is a completely useful way to find out any possible mistakes before the implementation process takes place.

Key questions to be asked intending to develop the strategic option grid are:

- How inherently difficult is the strategy to implement over time?
- Do we have all the key competencies to implement it?
- Is this the kind of strategy we naturally do well?

After the identification of key issues inherent to the strategy has been developed a matrix to appraisal the options is suggested to be created. Named "Attractiveness and implementation difficult" known as "AID" analyzes, it is based on scores given on the appraisal of each option evaluation. As it is shown on the example below.

Figure 3: Attractiveness/implementation difficulty ('AID') analysis



The process of selecting the strategy passed, now is the time of development of the project, not meaning the project management skills starts now, as could be seen it also helped on the development and selection of the best one which fits the corporation's capabilities and goals.

Grundy (2005) recommends that the first step in this stage is use the work breakdown structure (see details Appendix 2), in which tasks are broken till reach single achievable tasks in order to complete the whole final desire, he also add that "This produces more and more details until a complete listing of activities is created. Whilst at this stage these activities are not phased over time, this should give a really detailed idea of project activities" (Grundy, 2005 pg. 51).

Furthermore, work breakdown structure helps on the fully understanding of resources and funding, leading to better identification of resource and financial tasks consumers. A detailed activity of the project is also gained developing the work breakdown of process needed to achieve the final results.

Once the breakdown has been created, the next stage is to begin to organize tasks over time; Gantt chart is the most used in this case. Gantt chart is consisted on organizing activities over time and identifies time consumption and predecessors' tasks; also parallel tasks can be run as long as they have no dependencies on previous tasks (Grundy, 2005).

Yet, running tasks on parallel could save time on the project performance, on the other hand tasks can possible be delayed, possibly if a task is delayed, which might not be an obvious decision sometimes, some cases is wise to program new starts for the activity based on the accumulation of many tasks at the same period. Grundy (2005) alerts to when a high number of tasks are taken simultaneously efficiency can declines after certain point.

Following the work breakdown structure delegate roles and responsibilities is the step to be taken, definitions of who will be in charge to deliver what is the essential of carry the project out. Grundy (2005) adds that the first step in a project means half way and the enthusiasm is easily shared around, but the monitoring and continual management are vital to keep project's members committed with what have to be delivered.

Also, as mentioned before, the importance of milestones during the project plays significant help on the management duties, checkpoints are always necessary to compare the achievements against plans, in this case also could be used as team performance assessment, helping the manager in charge evaluate reasons of staff dissatisfactions or low levels of productivity.

Grundy (2005) contributes that the closing project phase can be in two ways, assessing the achievements of what was planned then decide if any repair or complementary tasks have to be taken to achieve those goals or handle the outcomes of the project to the users. Taking these points can be said that the process is the same implanted on every project, as long as it reaches the final stage.

Also he concludes “Management necessitates drawing together traditional techniques of project management (such as activity and critical path analysis) with the more strategic techniques of AID analysis, stakeholder analysis”. (Grundy, 2005 pg. 57).

3. Research Methodology

Identifying how project management can add value to implementation of corporate strategies as main objective of this study, the methodologies used to achieve outcomes desired will be; literature review of main text books in the field, case studies related to the subject and articles describing any particular strategy used.

Fitting the processes of implementation of strategy in companies into a project environment can help identify all key aspects that can lead it to a successful project, in which according to PRINCE2 (2009) there are 6 subjective aspects, they are: risk, quality, time, cost, benefits and scope.

Applying aspects of project management such as; planning, implementing and controlling, to all stages of strategy changes will create framework of techniques that could be useful for further activities depending on the process of strategy changes desired.

Without basement to measure success in strategic plans, the only methodology to be applied in this study would be qualitative research approach, in which can provide previous experiences (by analyzing case study) and literature review of the author's knowledge, trying to evaluate, highlight and analyze aspects inherent to the adoption of this methodology.

Analyzing the main points of the literature, this study intends to evaluate factors that are crucial to implement strategy using project management and further applying OPM3 best practices, as could be seen the structure of the literature review was developed splitting all the disciplines involved to achieve the best knowledge collection.

Beginning the discussion with strategy meanings could be figured that more than just a path chosen by corporations to achieve results in the future, strategies in general carry in its core a need for flexibility to deal with changes during the way to achievements. As Mintzberg (1999) adds Flexibility is the key for strategy.

Also during the development of strategy (subchapter after) an important point relevant for this study was identified, Porter (2005) highlights that many companies go for more than one generic strategy at the same time, in which according to him, would lead corporations to be "stuck in the middle" or in better words fail the tasks achievements.

Therewith, the question to be answered is: How can executives manage with a plenty of different strategies into different departments of their corporations without being stuck in the middle as Porter says?. To answer this question on the data analyzes chapter, a qualitative method was used to better find best practices also a comparison with the ICI case experience will give more strength to the analyzes.

On the implementation of strategy area, are discussed the process of it highlighting the steps to be followed and what it stands for, based on the conventional approach, in which project management methods are not used, the use of a qualitative research developed by Buys and Stander the identification of main issues that leads strategy implementation to failure will be suggested based on project management skills and how to better avoid them.

The qualitative research developed by Buys and Stander is based on a survey applied in South Africa in where fifty companies from eight different sectors (engineering, mining, defense, medical, aerospace, information technology and telecommunication) were chosen to sample issues in their projects applicability. The survey was sent to 313 managers part of the companies and the rate of responses was 14% (44 responses from 32 organizations).

Furthermore, analyzing the literature two important questions to develop the logical approach were identified, they are:

- How can corporations make the most of their workforce during the strategy implementation roll out process? And:
- How can project management help to deliver strategy implementation successfully?

Answering these question above will be developed by literature review where the suggestion of best practices are meant to be identified, surely matching the applicability with error avoidance during the process.

On the other hand as the intention of this research is to use project management, the explanation of the process of project management skills were identified during the literature review chapter, therewith some issues were identified in which could lead projects (any kind) to failure.

Also taking Buys and Stander previous quantitative research the two biggest factors that lead projects to fail were identified, according to that, before starting the application of project management skills and processes, suggestion of how to better deal with these issues must be made to minimize the risks of failure during the process. However based on the qualitative research of Buys and Stander a question was raised, that is: How can corporations run parallel projects and change priorities be avoided in the process of strategy implementation?.

To answer the question above a combination of literature analyze and case study analyze will be developed during the data analyzes to better clarify issues inherent to this points and ways to deal with that are intended to be found based on the previous experiences on the field.

The case of ICI experience, in which Grundy describes in his book (Strategy implementation through project management, 2005) and the quantitative research of Buys and Stander (Linking projects to business strategy through project portfolio management, 2010) are extensively used and valuable for this study.

As part of Grundy's book the case of ICI describes the experience of the author within the company during change period, describing the challenges faced Grundy illustrates the whole environment and situations that happened, based on that the process of decisions and the way was planned all the actions give the perfect picture for relevant analyzes in this study.

Therewith in the data analyzes the author of this study thought that would be valuable make links between them with the approach developed by Project Management Institute (PMI) the OPM3 (Organizational Project Management Maturity Model) to better clarify aspects and issues involved on the application of business strategy into corporations.

4. Data analyzes

As mentioned before the market place now a days is a fever pitch in where companies fight for their "best piece of the stake" twenty-four hours per day, seven days per week, so a constant change environment is surely found no matter who the competitors are and what market segment the company is involved in, for this a flexible and risk forecasted strategy is more likely to beat the competitors on the game.

Yet, corporations are likely to develop their strategies in short term (one to three years) and long term (three to five or more years ahead), meaning that the forecast plays a significant importance on the development process, as no matter how the planning process takes care over unpredicted events and likelihood of risk, there will be always some threats trying to take the plan out of its rail.

However if a deviation is needed to better cope with uncertainties faced a revaluation of the projects scope can be made and alterations can be adapted and a new plan developed again (surely changes on the timescale, budget and quality will occur), in which Mintzberg, Quinn and Ghoshal (1999) call "Emergent strategy" companies usually evolve their strategy as they go along with the implementation process, meaning that adaptation is a continuous process to respond a changing environment and situations happening along the way.

But on the other hand contradicting the approach above, Chandler (1986) argues that first the strategy should be developed then the company tailored to accomplish the requirements for its implementation, also strategy is only able to fit the corporation based on the capabilities of doing what have to be done. In fact this approach would be much more suitable to apply project management techniques, in which describes a pre fixed scope, time scale and budget (PMBOOK, 2008), avoiding deviations and changes during the performance.

According to the discussion opened above, two approaches of project management can be taken to avoid misunderstandings on flexibility of projects, first as Mintzberg, Quinn and Ghoshal (1999) argue that the development of emergent strategy can be made based on uncertainties that might occur during the strategy implementation, taking this business approach an addition to a parallel project in which will compound a project portfolio allowing fast switch between them minimizing cost and scheduling impacts.

On the other hand, Meredith and Mantel (2012) add that hardcore projects can lead to avoidance of flexibility; in some cases flexible managers and or project's scope easily could save projects from failure with simple changes. Therewith they add, "it is critically important to the success of strategy implementation that the middle management and project managers fully understand the parent organization's objectives in undertaking the selected strategy and approach" (Meredith and Mantel, 2012 pg. 45).

However communicating the strategy goals during the development phase seems to be the most efficient and lower cost way to deal with flexibility issues on implementation phase. Empowering managers to make decisions based on the knowledge of strategy's goals also can add value on the process, probably saving money and time on project and keeping up with opportunities faced.

As it could be seen before, strategy is the chosen way to do things happen inside a corporation towards its goals, so the development process of the strategy plays a big factor to the effectiveness of that, also in the implementation process and the success of its accomplishment.

The development of strategy starts with selection of the goals desired by the company aiming competitive business achievements, therewith the selection of possible strategies have to be evaluated and assessed against the firm's capabilities.

According to Meredith and Mantel (2012) factors such as: cost of strategy, capability of the company undertaking the strategies, flexibility in dealing with possible challenges, convenience to implement and use benefits are players on the decision make time.

However the market segment the company is, there are three most popular different types of strategies as mentioned by Porter, as can be seen in the table below, in which he also adds that applying more than one of them together can lead to low performance of achievements.

Variety-based positioning	Based on product or service, usually set by industry or service companies in general, providing product/service used as it is. Neither focus on client nor customization. E.g. mobile devices industries
Needs-based positioning	Specialized in a certain segment of customers, in which a set of activities can better assess the customers targeted by the

	company. E.g. Private banks
Access-based positioning	Focus on accessing customers in different ways, such as geographical or scale. E.g. some franchising chains, which allow open shops in cities only bigger than a certain population.

Table 2: Description of strategies according to Porter.

But on the other hand, Ohmae (1982) adds that if a corporation choses an identical approach that has been used by its competitors to reach the market goals a short cut has to be taken by the company to differ from its competitors, a example in which many companies tend to do is "price war" in which by his experience can lead to a short term advantage for customers but may be an income sorrow in the long term.

Furthermore the selection of just one of the strategies above is more likely to happen on small and medium size companies, as shown on the Sony case study (Appendix 7), large corporations tend to deal with large numbers of products in different segments, in which Sony's new CEO Howard Stringer had to deal with transformations on different departments along implementing reduction of cost on process.

As seen before, strategies have to be flexible to deal with external and internal changes affecting its targets, so during the development process can be add two different hypothesis of dealing with changes combining project management and strategy work, they are:

Scenario 1

Taking Porter's contribution that companies could "stuck in the middle" applying two or more strategies at the same time, as flexible core scope should be used, leading the project approach to the most common techniques in project, evaluating and managing the six subjects variables: scope, time, cost, quality, risk and benefits (PRINCE2, 2009). Allowing the project to be manageable between these areas and respond to changes more efficiently.

For example: A necessity of increase in production is forecast in the middle of a product release, managers can opt for outsource some of the production, raising the cost of it, but attending all customers' needs.

Scenario 2

Dyson argues that companies should have two or more strategies to be left on the side as second option, in which contradicts what Porter stands by, so two different approaches can be used in this scenario, the first one is to develop the same structured project (as described above) for every strategy plan, then if the first is going to fail the project can be closed and the other option overcome to fulfill the company's need. Or a Programme can be developed to implement as many strategy's project as desired by the company. As PMBOOK Guide (2008) describes programmes as group of distinct projects that in some way are linked or lead to a major product desired.

So taking the second scenario as valid for many large corporations how can corporations manage with a plenty of different strategies into different departments inside them without being "stuck in the middle" as Porter says?

The characteristics of appliance different types of strategies are suitable to be managed by using programme or portfolio management due to the complexity of tasks; high level of control needed and cross-functional activities. Also these two methods allow small projects be running in parallel achieving fast implementation and benefits realization.

As mentioned before a programme is the join of different projects deliveries compounding a bigger outcome at the end, the same is for portfolio in which can be compounded by programmes and projects aiming to achieve a bigger result at the end.

However, according to PMBOK guide (2008), portfolios and programmes are consistent by several different activities, following the thought that a small project has to take in consideration cost, scheduling, benefits, risk, quality and many others factors, programmes are the collection of projects with the same outcomes, predecessor tasks and towards the same strategies.

On the other hand, portfolios refer to programme or projects grouped together to facilitate management work and to meet strategic business objectives, also the main aim of portfolio is to use prioritization on projects deliveries to better deal with uncertainty and changes along the way.

Furthermore, portfolio management has much more links with the business strategy than single projects, basically the scope of portfolios go along with organization's goals, being flexible to any change occurring during the work period.

To reinforce the acceptability of using portfolio management to manage different strategies an example extracted from PMBOK body of knowledge can simply explain the useful use of this methodology to add value on strategy implementation.

"*For example, if an infrastructure company that has the strategic objective of maximizing the return on its investments, may put together a portfolio that includes a mix of projects in oil and gas, power, water, roads, rail, and airports. From this mix, the company may choose to mange related projects as one programme. All of the power projects may be grouped together as a power programme. Similarly, all of the water projects may be grouped together as a water programme" (*PMBOK body of knowledge, 2008, pg. 8).

However the fact that the use of portfolio management be considered a tool to implement strategies in companies, the qualitative research developed by Buys and Stander (2010) still pointing out the difficult of deliver projects successfully. According to their research forty-seven percent of projects failure is due to running many projects with few resources and thirty percent is because of changes on priorities and resources reallocation.

Therewith how can deal with resources on running parallel projects? And how can change priorities without resources being reassigned in the process of strategy implementation?

Starting with resources allocation, PMBOK guide (2008) adds that, after scope being developed and the work breakdown structure is designed the resources allocation can begging. It starts with estimating activities resources, where the identified tasks are planned and the resources are assemble to deliver the final products or services.

According to Buttrick (2005) in 1993 a research developed by the University of Southern California analyzing 165 teams in a number of successful organizations found out that there are two reasons for projects resources allocation failure, they are:

- Project objectives unclear.
- The right people were working on the project at the wrong time.

Also Buttrick (2005) highlights that resources are often reassigned to projects on the basis of good intention, rather than good information. Moreover, an effective resource allocation and commitment is, therefore, needed to meet three conditions according to Buttrick:

1. *"Have to have a clear view of how resources are being consumed on a project bay project basis.*

2. *Have to have visibility of the resources available, or soon to be available, within the forecasting horizon of the company.*
3. *Commitment of resources should be based on clear information and forms the basis of an agreement between the departments providing the resources and the projects consuming the resources." (*Buttrick, 2005, pg. 221).

Therewith identifying the aspects described above by Buttrick and using the project management approach for resources allocation can avoid some mistakes during the allocation of resources.

Meredith and Mantel (2012) suggest the using of the "resource loading method", in which describes the individual resources amounts to an existing agenda requirements. Basically this method is based on the work breakdown structure and the schedule of tasks, it starts identifying needs of resources and when it will be consumed, consequently better understanding of allocation can be gained from using this tool.

Also scheduling deliveries of resources and/ or hiring workforce on the time of project needs avoids unnecessary money spending, even though many of the staff are part of the company, overbook their workable hours also can decrease productivity performing tasks, consequently leading the project to one more problem.

According to Pennsylvania Electric Company (more details see Appendix 6), just during pilot program to test the new planning software, was saved $300,000 (+/- £194,000) on a specific activity, which could use 40 percent less workforce but still deliver on the same time as before.

The new activities planning resource methodology had the intention to maximize operational activities and minimize use of resource, as that time the company was crossing expansions on activities that led to shortage of resources.

Headquartered in Johnstown and with over 574,000 customers, Pennsylvania Electric Company adopted this method through a special computerized system that is based on resource constraining module, which establishes labor requirements of all procedures. Can be said that the structure of resources allocation is similar to when the work breakdown structure and the activities plan are made. (Meredith and Mantel, 2012, pg. 409).

Therewith, minimizing the risks of failure in project and portfolio management, the essential of this discipline can add great value on its tools applied to strategy implementation.

However, how can corporation make the most of its workforce during the strategy roll out steps? Continuing follow Rue and Holland (1989) thoughts, an efficient way to make things happen inside a determined company is to communicate through hierarchical levels, making the communication flows either downward or upward are basically one of the best tools could be applied.

So taking this thoughts as baseline to develop a strategy implementation plan efficiently, what is necessary to have a effective communication system to make things change throughout levels to enforce the all strategy plan requirements have been achieved towards the target? Rue and Holland (1989), argues that, to have an efficient communication channel, the strategy plan has to be *Comprehensive* and *Consistent* to every level.

Comprehensive means according to Cambridge Dictionary: complete and including everything that is necessary, but Rue and Holland (1989) go further, comprehensive by their definition in this context refers to the all range of techniques used to achieve the strategy target, probably involving, increase on resources allocation, creation of a reward system to encourage people go through and do the job more efficiently, or even change the way activities are grouped and distributed over the departments, have to be clear and fixed into employees during the action.

Furthermore, Porter adds that to have rational and target's driven decision making to cope with risks occurring during the day to day work, the strategic think has to be clear and understood by the person who is in charge to do it, otherwise a little step out of the line can damage the process as a whole.

Consistent, by Rue and Holland (1989) means that, to have a well successful implementation process, the footpath chosen must be solid and well known by every person involved, the techniques involved should be crystal clear exposed to all levels in which it belongs to. But on the other hand Porter's thoughts go against saying that managers have to play new rules including make their corporations more flexible to respond more efficiently and rapidly to market changes.

Although the convergence between the authors can be considered that: comprehensive context should be set up into the corporation's targets desired, consistency can also be applied in this environment but not as a way without possible changes, but as a consistent thinking towards the target of the implementation process so, allowing decision makers to be more flexible to deal with risks occurring during the process, in which can minimize impacts to the project of implementation as a whole.

According to Business Essentials Guide (2010) a free flow of information throughout the hierarchical levels can add value to the aspects following, they are:

- Planning – establish objectives and drive towards the goals, in which all plans have to contribute to achieve, also establish strategies to achieve them based on rules, procedure, budget, policies and day to day work.
- Control – to measure how far it has been achieved against the plan, performance, and possible deviations can be identified and fast corrected to minimize impacts or take action over possible changes.
- Problem - Solving/ Decision - making – identify and analyse possible risk likelihood and impact on the project, fast response to possible deviation and evaluation of best solutions.
- Co-ordinating – clear communication leads to avoidance of double work or lack of effort spend on the job that needs to be done, lack of communication in this aspect can lead a misunderstand then task done incorrectly.
- Organizing – well organized communication facilitates to understand the sequence of what have to be done, such as priority tasks or even into projects there might be predecessor task, in which can delay the achievement of the corporation's goals if it is not done before continues.
- Commanding – to share the tasks according to each competence required, evaluation of achievements and also motivation of employees.

Yet, communication plays a significant part when we come to talk about cross functional tasks, in such big companies the strategy, mostly, covers all departments into it, so a cross functional interface and easy flow of information must be dealt to avoid certain kind of misunderstandings. Still follow Rue and Holland (1989), each of department would fight for its interest, for example: finance always tries to reduce costs; marketing desires to cover wider market segment and so on.

Identification of cross-functional issues can be pre visualized considering the four factors following: Rue and Holland (1989).

- Formulation – observations of strengths and weaknesses of the corporation, in which a review of departments involved should be done to identify potential conflict of interest.
- Trade-offs – negotiation on the development process is the base to achieve a smooth implementation process, in which can avoid conflicts described above.

- Communication – spread the strategy objectives and outcomes is a way to give different departments the same information, avoiding task conflicts.
- Participation – Functional Managers who have been part of formulation and implementation process have better knowledge what is the requirement to achieve the end of the day work.

Defining all factors explained above, the share and organization of the all information involved must be by levels (Rue and Holland, 1989). However, the need of sharing information should be clear towards the goals, asses and evaluate the importance of different kind of information can not only prevent the corporation's secret goes to the competitor's hand, but also let each hierarchical level do only what they have been asked to do, so contributing as a part of the whole process.

Grundy (2005) explains on the case of ICI that communication gave a very valuable advantage at that moment, according to him, flow of information throughout levels made the process of understanding the aims and changes during that period.

Also, as explained on the case, the fact that the company operates internationally and different directories, when the acquisitions of new companies were made, the process of integrating operations had to be clearly communicated and orchestrated plan minimizing risks of merger them.

However, as the main issues of using project management skills were discussed above and possible ways of dealing with them were suggested, the final question of this study comes to analyze the workability of joining project management skills to strategy implementation.

How can project management help to deliver strategy implementation successfully? And how the use of OPM3 adds value to this approach?

According to PRINCE2 (2009) there are six variables inside the projects to be controlled, they are: cost, timescale, quality, scope, risk and benefits, but on the other hand PMBOK Guide (2005) highlights only three of them, scope, cost and timescale. However both of these methodologies set parameters to be based in order to keep up with requirements needed to deliver the project in the successful manner desired at the beginning of it.

Also, the Organization Project Management Maturity Model has the same characteristics as projects of any other industry, could be organizing in only a single project, a programme (group of projects), or even in a portfolio (group of programmes and projects), in which corporations of great size usually tend to design portfolios due to the high amount of different projects undertaken to achieve a successful and more accurately manageable strategy implementation.

To better illustrate the use of project management skill and OPM3 the case study of ICI experience gives the perfect environment situation to analyze key factors involved on this process. Based on the experience of Tony Grundy, that time recent hired to work for ICI global technology; he shows how challenges were faced and approaches used.

With three plants, research in the UK, R&D and processing in the USA and operations in Europe, the ICI Corporation was facing great increase on its activities and mergers opportunities.

Therewith different types of projects were on the desk to be managed according to expectations. Apart from integration issues the project manager had to develop a plan for three years activities of the company.

First step chosen was to arrange meetings to have overview of the situation of all tasks to be taken and plan the actions forward, in which OPM3 and Project management support the initial stages should be for knowing what is going on and assess the current situation.

After, identified all the position of current projects and projects about to come, the manager started to workout on planning them. Three projects could be identified, they are:

1. The 3 years division plan – very high level of complexity due to be based on integration outcomes of new acquisition the USA and Europe.
2. 2 more acquisitions, small business in the UK and one in Scandinavia.
3. Low morale of his staff.

Also some issues into the projects were identified to better find solutions to deal with, they are: Large number of projects (according to Buys and Sanders research one of the greatest cause of project failure), ill-defined parameters (timescale, outputs, inputs, difficulty and value), interdependencies between projects (the 3 years plan based on some outcomes from incorporation of new acquisitions) and workload (emergent projects, further acquisitions and high growth) in which can be considered as changes during the way, as discussed before this is a serious issue on project management discipline, scope change.

Using the backwards technique, from outcomes desired comes to the beginning of the process, the manager could analyze priorities on the projects splitting process and linking them to possible predecessor tasks. Also a way to do find the same results of the author is using the work breakdown structure, in which both are concerned of same aspects, changing only the methodology of doing them.

Applying portfolio management approach in which refers to programme or projects grouped together to facilitate management work and to meet strategic business objectives, portfolio is also to use prioritization on projects deliveries to better deal with uncertainty and changes along the way.

According to Grundy (2005) he applied his soft side of project management to identify a possible future issue, as he recognized that the morale of staff was low, he decided to prioritize this project, avoiding low performance on the future, in which he adds that: "the importance of my staff is vital to the success of all projects we are taking, so to avoid the resource shortage on the future I have decided to prioritize this project" (Grundy, 2005 pg. 8).

As one of the main issue of project failure is deal with many projects with less resources (raised by Buys and Standers research), the ICI case has shown that it is possible avoid this problem with better planning of resources allocation. If there were not the identification of "staff morale" issue and the success of results achievements, probably the outcome of the other projects would be different.

Along with the "morale project" a very close attention was paid on the critical path of the whole portfolio of projects, may because of the past year planning document was delayed to the deadline without time able for corrections. It is a very common practice known in project management, called lessons learned, also OPM3 classifies as constant improvement process.

Lessons learned and constant improvement PMBOK (2008) and OPM3 (2003) add that it is the process of getting information from previous experiences, intending to improve or find the right way to deliver a project on the specifications. Based on all projects are different in many aspects, both literature completely support flexibility on methodologies, trying better fit the real situation of any project.

During the way of running the projects a new issue raised to the managers desk, due to new acquisitions a project of transfer pricing (between off shore companies) had to be established, changing the scope of the 3 year plan, in which would be affected by some revenue figures.

After 4 weeks time of all projects running, the outcomes from them were:

- Detailed 3-year plan on time, including the tolerance for possible changes.

- The “staff morale” was closed successfully (guarantying resources to accomplish the parallel projects).
- Transfer price project on going according to planned.
- New acquisition and integration of new companies on planning.

Despite of all cases of acquisition and necessity of running projects in the ICI company, no signs of standardization could be found, due that the new project manager started to implement the maturity model for project management on the company, as Grundy says: “it was essential for the constant development and become the project number one” (Grundy, 2005 pg. 9).

As the OPM3 stands for continuous improvement on the maturity of project management into corporations, the five aspects of building up a cohesive structure to run projects smoothly and be prepared to deal with changes during the way while implementing strategies are:

- Common Language; the corporations recognizes the importance of using project management on its daily practices, them a terminology of standards are developed to better communicate the information throughout of the departments, minimizing risks of misunderstandings and lack of efficiency.
- Common Process; the necessity of standardized processes is vital to evaluate how efficient is the applicability, leading to a constant improvement on that, in which can be set as baseline to future projects undertake by the corporation.
- Singular Methodology; in this level, the company should combine all methodologies already in use to create a single way to deal with different tasks, as the two steps before this one should minimize the chances of mistakes and also facilitates the cross-functional work, in which according to PMBOK Guide, projects are most dealt with cross-functional skills. (PMBOK Guide, 2008).
- Benchmarking; the necessity of constant improvement was already highlighted before, so a comparison with best practices is vital to achieve competitive advantage. In this level executives have to decide what benchmark and who benchmark.
- Continuous Improvement; the information of the benchmark is taken to evaluate and asses what the company has been achieved and what the desired targets are, also this last step can be performed with step before to keep moving the corporation’s processes to perfection, or at least to a constantly improvement.

Applying the steps described above, could add strength to the process of project management tools to perform strategy implementation, also following the descriptive footpath and establishing priorities between projects the portfolio management approach can be used on bigger context, as explained on the case o ICI experience.

Therewith could be seen that project management and OPM3 had a valuable importance and also shown that using this methodology corporations tend to have better results on strategy implementation.

5. Recommendations

As the subject of this research involves project management and as mentioned before that it is a "new discipline" in constant development, the applicability of it on strategy implementation has not been extensively researched. Therewith a lack of quantitative data is surely found.

However based on this research, main factors can be named and highly recommended for further researches, not only involving project management methods, but also ways to improve the use of it on business as usual process (as the OPM3 suggests).

Furthermore measurements methods are unclear when comes to define project success during the strategy implementation, also as mentioned before, extensive quantitative data is not found to discuss further improvements. Also specific data of different sectors are not found, as could be seen in this study the use of a survey elaborated based on different industries was needed to develop thoughts further.

Deficiencies on some soft side of project management were identified, such as communication issues, according Rue and Holland (1989) to have a well successful implementation process, the footpath chosen must be solid and well known by every person involved, the techniques involved should be crystal clear exposed to all levels in which it belongs to. Therewith a lack of communication procedures was found, ways of deal with information and mostly how to spread it on the right way of letting people know what is important to them know.

Yet, as mentioned by Buys and Sanders, project management rates of failure are most linked with planning activities (resources allocation and priorities), therewith a identified lack of procedures and ways of dealing with it on day to day work is surely found. Possible researches on this subject could lead the development of its better practices and understand what are the majors barriers to achieve successfully delivery.

6. Conclusion

Intending to analyze implementation of strategies through project management tools, this research has picked some of the main issues that usually happen combining the disciplines, also using the help of some previous research deficiencies were found and possible solutions were suggested to better deal with.

Yet, a case of using project management to implement strategy was used to better illustrate the environment of this practice, highlighting challenges faced and applicability of concepts.

Beginning with the identification of strategy failure rates, could be seen that project management can fulfill inefficiencies on the process of traditional business strategy implementation, applying portfolio management methodology would minimize the likelihood of things go wrong, leading to a more efficient manageable procedures.

Also intending to find the perfect way of using project management, some of the inefficiencies faced by project managers were put on show to identify some possible solutions. Based on the quantitative research made by Buys and Stander two high level issues were identified, they are: change priorities and too many projects with few resources.

As suggested on data analyzes, solutions to overcome these barriers in projects were made, also the ICI experience case can contribute to answer that strategy implementation can be applied as a project and be manageable as one.

Furthermore, could be seen that due to strategy environment fast changing, the applicability of portfolio management fit the purpose of strategy plan, according to the high link with business strategy and flexibility involved on the process.

Yet, large corporations are big in numbers of departments, market segment and location, therewith implement strategy in the whole corporation is likely to be exhaustive, so project portfolio management also facilitates to split the process in smaller packages letting to the managers the decision where, how and when to implement them.

However, an other point found in this research, is what takes to make the most of workforce during strategy implementation, according to the discussion can be seen that either project management or traditional strategy implementation face the same obstacle, communication.

Analyzing this issue the need for cohesive communication strategy plan is vital to make information flows either downward or upward, according to Business Essentials Guide

(2010) the free flow of information help base decision making, planning and acting during strategy. Due to the fact that strategies are meant to be flexible to deal with uncertainties, the corporation's goals should be in everyone's mind involved on implementing, leading to fast response and cohesive attitudes to guide the planned actions.

Based on the discussion above, can be said that project management and organizational project management maturity model are helpful on the strategy implementation, sorting out barriers that each singular discipline comes with, the junction of all best practices together can be seen as a set of activities specifically designed to deliver outcomes.

To conclude with, as the intention of this research, based on the literature review and analyze of cases study is valid to mention that project management has a helpful contribution, not only to implement strategies but also, identification, development and execution of business strategy.

Combining best practices of methodologies and elaborating a well-planned action map is one of the essential for achieving advantage implementing strategies through project management. Furthermore OPM3 has shown an efficient way to introduce project thinking into corporations, achieving constant development of its activities on day-to-day business.

Also due to the very little amount of past researches in this area, can be said that project management adds value to the process of business strategy implementation, as mentioned on the study above, surely not able to affirm any perfect set of practices that leads to guarantee success, but intending to bring benefits for the development of the subject.

No quantitative measurements could be found on this study, as it is about management activities. However practices were put together intending to find solutions for barriers faced by professionals who have worked with strategy implementation. Further recommendations were made based on issues faced during the research period of this study, intending to highlight major problems on the field.

7. Reference.

Andrews, K. R. (1987). The concept of corporate strategy. Third edition. Homewood, Illinois: Richard D Irwin.

BPP Learning media (2010) Business Essentials Guide: marketing and promotion. BPP Learning Media, England, UK.

Buys, A. J. And Stander, M. J. (2010). Linking projects to business strategy through project portfolio management. South African Journal of Industrial Engineering May 2010 Vol 21(1): 59-68

Buttrick, R. (2005). The project workout. Third edition. Pearson Education Ltd. Essex, UK.

Chandler, A. (1986). The evolution of modern global competition. Harvard business school press. Boston, USA.

Crawford, J.K. (2000). Making a place for success. Project Management Best Practices Report, [S.l.; s.n.], june, http://web.ebscohost.com/ehost/pdfviewer/pdfviewer?sid=39dfbe0b-9059-4143-9eab-497fd91d608c%40sessionmgr13&vid=21&hid=128. Accessed 15/02/2013

Dyson, R. G. (1995). Strategic Planning: Models and Analytical Techniques. – John Wiley & Sons Ltd. England.

Finlay, P. (2000). Strategic Management – An introduction to Business and corporate Strategy. – Pearson Educational Ltd. England

Gray, F. C. and Larson, E. W. (2011). Project management: the managerial process. 5th edition. McGraw-Hill/Irwin Inc. New York, the USA.

Grundy, T. (2005). Strategy implementation through project management. 2nd edition. Thorogood ltd. England, UK.

Harrison, J.S. & St John, C.H. (1998). Strategic management of organizations and stakeholders: Concepts and cases. Cincinnati, Ohio: South-Western College Publishing.

Henry, A. (2008). Understanding Strategic Management. Oxford University Press. Oxford, UK.

http://dictionary.cambridge.org/dictionary/british/comprehensive?q=comprehensive

Johnson, G., Scholes, K. & Whittington, R. (2008). Exploring Corporate Strategy – Text & cases. 8th edition. Pearson Education Ltd. Essex, UK.

Kay, J. (1993). The foundations of corporate success. Oxford: Oxford University Press. http://web.ebscohost.com/ehost/pdfviewer/pdfviewer?sid=39dfbe0b-9059-4143-9eab-497fd91d608c%40sessionmgr13&vid=21&hid=18. Accessed 20/02/2013.

Kerzner, H. (2005). Using the project management maturity model – Strategic planning for project management. 2nd edition. . – John Wiley & Sons Ltd. England.

Lynch, R. (2006). Corporate Strategy. 4th edition. Pearson Education Ltd. Essex, UK

Mintzberg, H., Quinn, J. B. and Ghoshal, S. (1999). The strategy process. Revised European edition. Pearson Education Ltd. Essex, UK.

Meredith, J. R. and Mantel, S. J. (2012). Project management: a managerial approach. 8th edition, John Wiley & Sons Ltd. England

Ohmae, K. (1982). The Mind if the Strategist, The Art of Japanese Business. – McGraw-Hill, Inc. The USA.

Pinto, J. K. (2010). Project management: achieving competitive advantage. 2nd edition. Pearson Education Ltd. Essex, UK.

PMI. (2003) Organizational project management maturity model, OPM3. Knowledge foundation. Project management institute, Pennsylvania, the USA.

PMI. (2008) Project management body of knowledge (PMBOK Guide). Fourth edition. Project management institute, Pennsylvania, the USA.

Porter, M. E. (2005). Competitive advantage. Creating and sustaining superior performance. Free Press; New edition edition. The USA.

Rad, P. F. and Raghavan, A. (2000). Establishing an organizational project office. AACE International Transactions, ABI/INFORM Global, p.P13A, 2000.

Shtub, A., Bard, J. F. and Globerson, S. (2005) Project management: Process, methodologies, and economics. 2nd edition. Pearson Education Ltd. Essex, UK.

Shtub, A., Bard, J. F. and Globerson, S. (1994) Project management: Engineering, technology and implementation. 1st edition. Pearson Education Ltd. Essex, UK.

8. Appendices.

Appendix1 – Difference of Conventional and Strategic Project Management

	CONVENTIONAL PROJECT MANAGEMENT	STRATEGIC PROJECT MANAGEMENT
Link with business strategy	Abstract and distant	Direct and explicit
Project definition	Usually portrayed as a "given"	Highly flexible, creative, depending on options
Project planning	Follows on directly from project definition	Only done once a project is set
Attitude to detail	Absolutely central – it is all about control	Important but only in context – try always to see the big picture
The importance of stakeholders	Emphasis on formal structures – project manager and team sponsor	Far-reaching stakeholder analysis; requires continual scanning
The importance of uncertainty	Coped with through critical path analysis (after activities planning)	Do uncertainty analysis first, then plan activities

Source: Grundy (2005).

Appendix 2 – WBS (work breakdown structure) and PBS (Product breakdown structure).

Write about PBS

The product breakdown structure this seeks to identify all products to be generated by the project to confirm the scope of what it is required to deliver. it starts with the single product that the project is intended to deliver, which is the sum of a list of components. For example, a desktop computer comprises a screen, a keyboard, a mouse and a processing unit, which is itself the sum of smaller components, such as the hard drive, the motherboard, the power supply and the case. Figure 1 overleaf shows a training course as a collection of component products. The training course is a "starter" product, but everyone's expectations of it may be different. To understand these better, break this high- level, poorly defined product into ever-smaller component parts until it has been expressed as the entire set of building blocks needed throughout the whole project. initially, the training course can be split into three smaller components: the specified course, the prepared course and the delivered course. it may be possible to estimate the development time and cost of each of the three products but there is unlikely to be enough information about them, so the specified course is decomposed into the gathered requirements and the course definition document. These are difficult to subdivide further, so this "root" stops there. the prepared course can be subdivided into many further products, each of which becomes redundant as those below it describe it better. For instance, there is no need to describe delegate materials – they are the sum of exercise briefs, sample solutions and copies of slides.

Planning should be a team effort, so it is wise to involve interested stakeholders in creating a product breakdown structure. A facilitator, usually the project manager, should lead the process. It can help to post reminder notes on a board as products are identified. the facilitator should recap frequently what has been described so that everyone has a clear and common understanding.

There are usually differences about products that should be in or out of scope. For instance, some may wish to include post-course coaching sessions (product 3.2) at which delegates meet the lecturer after the event; others may disagree. Each product identified will take time and money to develop and deliver, so a conclusion must be reached when the plan is created. If a product is to be excluded from the project but its development is still necessary to it, it remains on the product breakdown structure as an "external" product that must be accommodated in the plan eventually.

What began as a single deliverable is now much better defined as a list of component parts that together describe the scope of the project. the starter product has been decomposed into:

1.1 Gathered requirements

1.2 course definition document

2.1 course schedule

2.3 course bookings

2.2.1 Lecturer notes

2.2.2 Presentation slides

2.2.3.1 exercise briefs

2.2.3.2 sample solutions

2.2.3.3 copies of slides

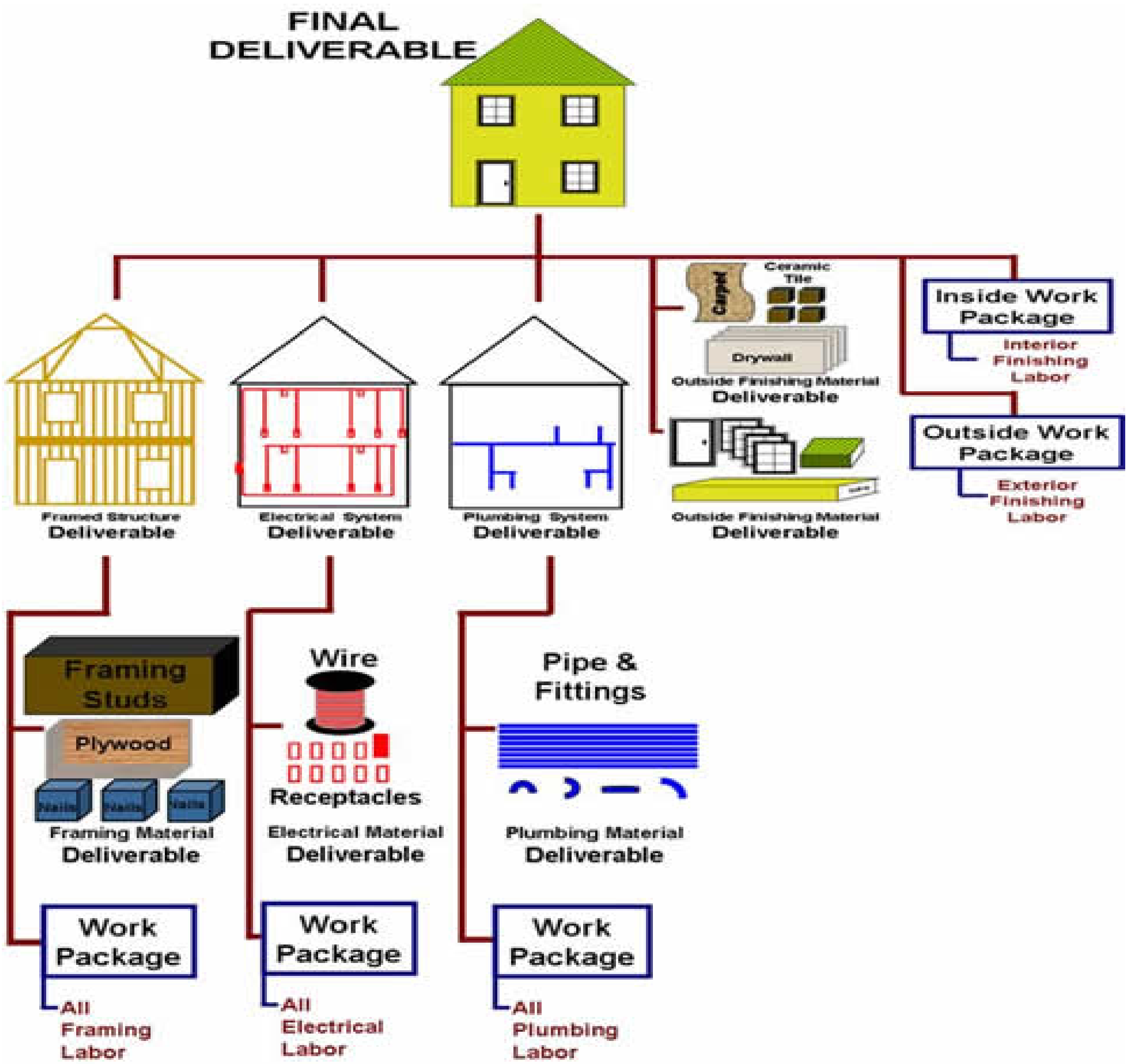
3.1 trained users

3.2 Post-course coaching sessions

3.3 completed course appraisals.

How detailed should a product-based plan be? the answer is the same regardless of whether the plan focuses on products or activities. As the plan will be used to delegate and control the delivery of products, the products that make up the end product should be subdivided only so far as the project manager can monitor their progress regularly and frequently.

Project managers should ask themselves – and their project steering groups – how long they would be prepared to wait to discover whether a product had been completed or not. A good rule of thumb is 2–3 weeks. Figure overleaf shows some common errors in a product breakdown structure.

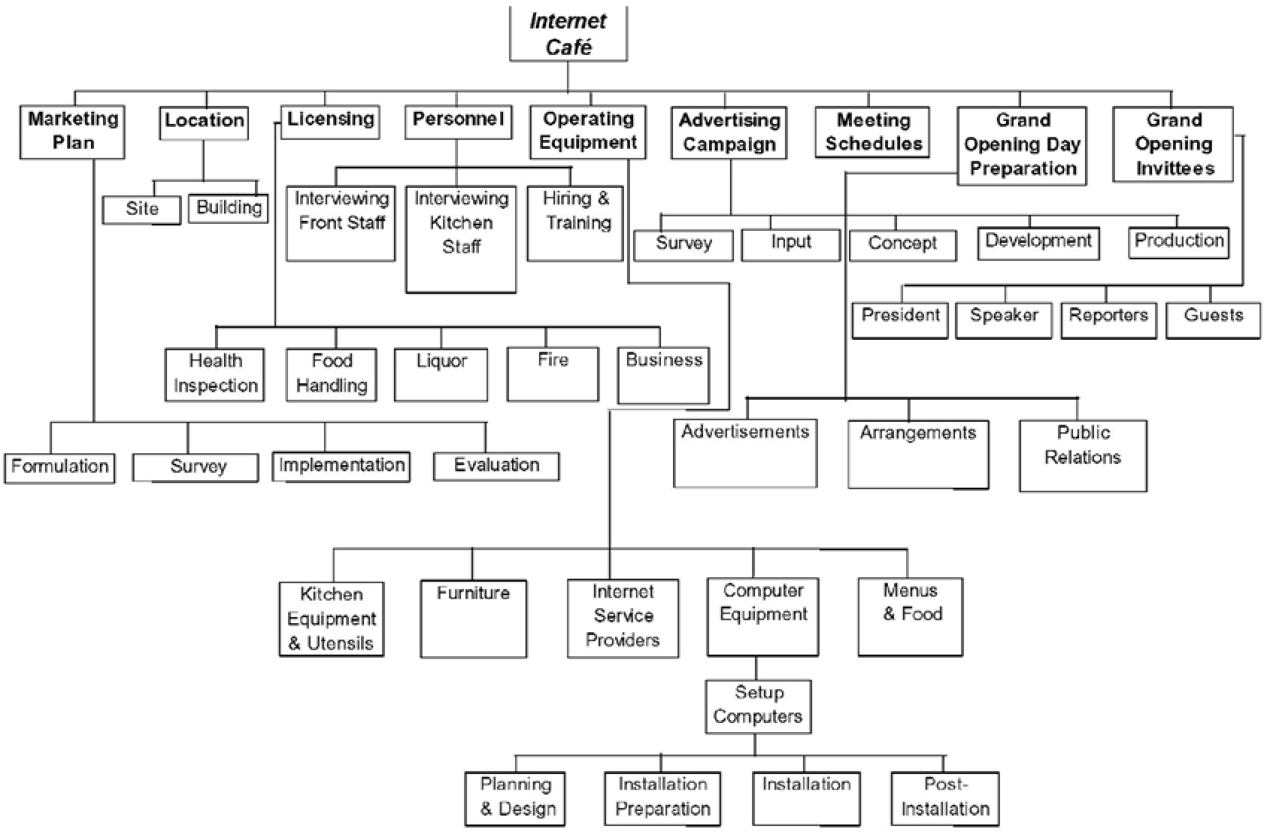


Source: http://www.qualitydigest.com/inside/quality-insider-article/work-breakdown-structure-quality-strategies-complex-eto-environments.

Project WBS

PMI® defines the concept of a project work breakdown structure

WBS as: A deliverable-oriented hierarchical decomposition of the work to be executed by the project team to accomplish the project objectives and create the required deliverables. It organizes and defines the total scope of the project. Each descending level represents an increasingly detailed definition of the project work. The WBS is decomposed into work packages. The deliverable orientation of the hierarchy includes both internal and external deliverables.



Source:

http://imageserver.ebscohost.com/img/imageqv/actual/0io/20040201/1739107.jpg?ephost1=dGJyMNXb4kSepq84y9f3OLCmr0uepq5Srqa4SK6WxWXS

Appendix 3 - Key factors of diagnosing strategic projects. Source Grundy (2005)

For instance, strategic objectives might include:

- Penetrating a market to gain a certain percentage of market shares
- Gaining a particular competitive position
- Creating new opportunities for strategy development
- Generating tangible synergies or spin-offs in other areas of the business.

Operational objectives – for their part – might include:

- Improving efficiency levels
- Resolving performance difficulties or bottlenecks
- Simplifying operational processes
- Achieving world-class operational standards
- Achieving very high customer service standards, or zero defects
- Developing new processes.

Organizational objectives might include:

- Building existing competencies
- Creating entirely new competencies
- Improved team working
- Increasing organizational responsiveness and flexibility
- Simplifying the organization
- Creating specific behaviors – for example, leadership, creativity, strategic thinking
- Shifting the organizational mind-set
- Making it a genuinely international organization.

Financial objectives might include:

- Improved rate of return on assets
- Improved return on sales or margins
- Reduced costs
- Payback over a particular period (for an investment)
- Net present value: (the economic value of the future volume of net cash flows less investment).

Appendix 4 - implementation difficult

Strategic attractiveness:	This depends upon the strength of the factors driving growth and competitive pressure (in a particular market),and also on the existing and future competitive position.
Financial attractiveness:	The value and cost drivers underpinning the strategic move and which drive cash inflows and outflows, and the relative investment at stake determine this.
Implementation difficulty:	This is the cumulative difficulty over time.
Uncertainty and risk:	These are the fundamental assumptions upon which the strategy is founded and their degree of sensitivity to external and internal shock.
Acceptability to stakeholders:	This is the level of existing and (probable) future support for the strategy, given the agendas and influence of the key players with an impact on it.

Questions

Strategic attractiveness

- What are the key growth drivers (the factors causing the market to grow) impacting on your strategy?
- How are these likely to change in the future?
- What is the overall level of competitive pressure in the market (consider buyer power, supplier power, threat from entrants, rivals and substitutes)?

- How might this change?
- What is our competitive position (relative value added to customers compared to costs) and how is this changing?
- How can we innovate to shift the attractiveness of the industry?

Financial attractiveness

- What are the key value-creating activities in the business and which add most/least value?
- How do these activities interact with one another?
- What are the key value and cost drivers within these activities? (Value drivers are those things either inside or outside of the business that either directly or indirectly generate cash; cost drivers are those same things that produce cash outflows.)
- How can we squeeze more value out of the business (without undermining its competitive pressure)?

Implementation difficulty

- How inherently difficult is the strategy to implement over time?
- Do we have all the key competencies to implement it?
- Is this the kind of strategy we naturally do well?

Uncertainty and risk

- What are the key external uncertainties and risks?
- What are the key internal uncertainties and risks?
- How might some uncertainty/risk factors compound with others to undermine the strategy and impact on shareholder value?

Acceptability to stakeholders

- Who are the key stakeholders with an influence over?
  a) The strategic decision, and
  b) Its implementation?
- What, given their agendas, are the patterns of stakeholder influence overall?
- Given this, does the strategy have sufficient commitment to succeed?

Appendix 5 – ICI experience (case study)

ICI Bioventure was a (then) £100 million turnover mini-group of companies with operations in three countries:

- The UK: a research centre in the UK; also some minor product processing activities
- The US: a significant bioventure business with both seed development activities and seed processing, which had been acquired in the last two years
- In Europe: a very recently acquired business in continental Europe which was a major and successful product processing operation. (By 'recently' I mean one week before I arrived on the scene.)

ICI Bio venture's headquarters was located in a beautiful rural setting, in woodland. It shared a common site with a large part of ICI, which we will call ICI Global Technology. I was to have a joint reporting relationship to the European General Manager (who in turn reported to the Managing Director of the International Bio venture Division) and also to the Divisional Financial Controller, ICI Global Technology.

Following ICI's recent acquisition of its European seeds operation and the appointment of the former Head of Finance, Planning and Acquisitions as its Finance Director, I was identified by my consulting company as being the 'ideal candidate' to be seconded for 'between three to six months' to fill this role.

Meanwhile, I had made the mistake of taking a whole two weeks' holiday in North Yorkshire. While I was combating the coastal sea mist (at the same time as the rest of the country was baking in 30°C heat),my superiors were busy plotting my next six months' work.

A case study of managing projects strategically – ICI Bioventure although the following events of this story occurred some years ago, the experiences are as vivid as if they had happened yesterday, and the learning are equally valid. So let us time-travel back to the late 1980s, when the author was seconded from a large consulting group to become Head of Finance, Planning and Acquisitions, of a division of ICI. This business no longer operates in a similar form to how it did then. We will call the division ICI Bioventure.

I returned to my desk on Monday morning expecting to have a week on low power. Instead, I found a note which read:

'Dear Tony,

I expect you have had a most restful two weeks. I know how pleased you will be that we have found you another project to keep you out of the office. From 9am tomorrow you will be (until further notice) the Head of Finance, Planning and Acquisitions for the fast-growing, £100m turnover of ICI Bioventure.

We know a bit about the assignment, which I can share with you. However, their finance people have offered to tell you more about it so I guess a quick session with myself and the client partner will help you gain a good overview.'

Following the major acquisition in Europe this obviously raised integration issues which needed to be project managed. Worse, the US subsidiary had posted some disappointing (to put it kindly) results. So this was a very urgent and important diagnosis project to ascertain why this had happened, what measures could be taken to ameliorate this situation, and to find out what lessons could be learned generally.

Another (certain-to-become) project was the need to deliver a three-year divisional plan over the following three and a half months. This project would naturally be influenced by the outcome of integration work on both the US and (More recent) European acquisition.

In case anyone believes that I was about to have a really quiet time – away from the hub-bub of consulting projects, then can I just add that the Division was also contemplating another major acquisition in the UK. Fortunately, ICI's bid was 'unsuccessful', which meant that I was not engulfed in post-integration work from that particular direction (the good news).The bad news was that no sooner than we had dried the tears from our eyes, immediately one manager spotted a smaller UK acquisition and another manager identified an additional acquisition target in Scandinavia.

'Absolutely Great', I thought when I heard the news.

With new projects coming thick and fast I was beginning to wonder whether I would ever escape even when my successor, a senior finance manager from elsewhere in the Group, was due to arrive in four to six months' time.

My own team of three qualified accountants was also in something of a state on my arrival. Not only had two of them been working around the clock on the abortive UK acquisition, just immediately before my arrival, but also their morale seemed at an all-time low. This acquisition had generated some interesting differences of opinion, which had left them feeling somewhat, bruised. And now they had some smart management consultant telling them what to do!

So, by this stage, if you have not felt strategic project overload then you should have. Not only was there a potentially much greater project workload than could possibly be handled with the existing resource but it threatened to get even worse.

What other emergent projects could come out of the woodwork? Fortunately, I had already had my holiday so at least I did not have to project manage having that too.

Now it is apparent from this situation that:

a) I faced a large number of projects,

b) That most of these were ill-defined in terms of timescales, outputs, inputs, value and difficulty,

c) There were significant interdependencies between these projects,

d) The existing workload could be magnified by additional, emergent projects including further acquisitions, post-acquisition work, other business development projects, and also in setting up the necessary infrastructure to cope more effectively with high growth.

On top of these projects I had three additional projects to manage:

1. I had been thinking about moving consulting firms for some time and the letter I had on my desk on my return from Yorkshire was the final straw. I needed, in the same period of time, to find a job in another consulting firm and to achieve this without detriment to the ICI secondment (which might otherwise have tarnished my reputation, which I sought to retain intact).

2. As the secondment ran through the summer months, I wanted to move my family down to ICI (from 120 miles away) so that they were not bored silly over the summer months – and I would also be able to see them.

3. I had also planned to have a minor, but important, operation during that period. So, remembering what I had learnt about project management, I sought to apply it to the situation with gusto.

First, I identified the overall goals of the total project. These were:

• To deal with all the management issues thrown at me by the ICI situation without letting any balls drop.

• To achieve the handover smoothly and, if possible, to move on in four to five months rather than in six. And especially, to avoid the project lasting longer than six months.

• To learn a lot in the process, and to (justifiably) add to my CV that I had been a senior line manager at ICI.

• To find a job elsewhere (from my consulting firm) in the process.

• To avoid undue disruption to my family.
• To avoid disrupting my final MBA exams (which I took five weeks into the secondment).

I had taken the important project management principle on board: ‘Manage backwards from the project objectives’.
My second step was to do a thorough diagnosis of the current situation. This in itself was reasonably complex and required a mini project in its own right. This was completed by the end of week one. An associated mini (soft) project was to establish credibility with my own team (who admitted some weeks later in the pub that they had been ‘waiting for me to fall over’ – not that I gave them any opportunity).
At this juncture I reasoned that besides establishing a project plan overall for the next four to five months, the main priority was to improve the morale of my team.
I felt that unless I did this then I would not have sufficient resources to be able to address the mountain of work associated with both acquisitions and with the ICI three-year plan.
Intuitively, I had therefore identified the soft critical path of activities which I would need to manage to stand a good chance of success.
Although my team did not (at that point) feel concerned about the three-year plan,
I decided we needed to create a project plan for that process in detail, with key activities, outputs and milestones. My staffs were a little surprised at my insistence on this point at first, until they reflected that the previous year the planning inputs had been late and needed re-work, causing a last minute panic of considerable magnitude.
I needed that like a hole in the head – just at the time when the acquisitions-hungry management team went in search of prey in September, following the summer holidays.
I was also wary of the near certainty of making another acquisition during the summer months, as I knew this would generate significant integration work into early autumn. And, in addition to this, I had a slightly uncomfortable feeling about some transfer pricing issues which were beginning to bubble up in the UK.I had had some (limited) experience of transfer pricing disputes from the past when I worked in a French company. I felt that the people at ICI were likely to be much nicer about sorting this (a key project assumption) but human beings are fickle, and I was liable to be disappointed.

So, after the first four weeks we had successfully put in train:
• A project plan to cover the next four months of activity.

• A detailed plan for the three-year plan – which was now being implemented.

• The morale of my team was very good and there was a definite sense of purpose and confidence requiring a team-building project.

• The UK acquisition had fallen by the board, but was now replaced by the smaller acquisition target. This had begun my New Project Number One.

• The first quarter's management reporting (a mini project) had highlighted that US operations had major performance problems. New Project Number Two was to investigate this situation.

• I had visited the new acquisition in Europe and highlighted the action areas in management reporting and planning.

• A possible new project for the Scandinavian acquisition target had appeared. I talked our top management out of proceeding with this on the grounds that:

a) Was it really attractive/did it fit our strategy?

b) Would we be able to do it and integrate it effectively?

c) Would it be credible to put a business case for this acquisition to

Group Head Office at a time when our credibility had taken something of a hammering? This new project was put on ice.

• New Project Number Three was to sort out the transfer-pricing problem.

• New Project Number Four was to deal with integration issues around the (now consummated) small UK acquisition.

A final project – New Project Number Five became one to set up an acquisition process (pre, during and post deal).

The ten key learning lessons for Strategic Project Management from this case studyare:

1. Diagnose the project sufficiently, especially the reasons why there are problems. What are you looking to get out of it, what are the overall deliverables?

2. What options are available to create these deliverables?

3. What further projects (or mini projects) will also be required to reach these deliverables?

4. What key taken-for-granted assumptions have you made, and what could go wrong, when and how, if these are not fulfilled?

5. Be prepared to say 'No' to projects (or sub-projects) which are either not fundamentally attractive or are too difficult – given your resources or other reasons, or both.

6. Do not skimp on mini-projects (such as improving team morale) that are on the 'soft' critical path.
7. Recognize new projects for what they are (for example, transfer pricing was sufficiently complex to be called a 'project').
8. For each and every project, anticipate ahead of the activity the likely value that it will create.
9. Position each part of the project effectively within the organization so that it gets the attention it deserves.
10. Recognize that personal agendas of both yourself and of others have to be identified and managed, too.

This experience at ICI therefore demonstrates the utility of a number of project management techniques. These include:
• Defining the project (or projects)
• Defining project scope and interdependencies
• Targeting the deliverables (or, in more traditional language, the 'results')
• Identifying the key activities (or sub-projects)
• Planning and managing timescales
• Mobilizing resources.

But in addition to these more traditional aspects of project management, we also see:
• Problem diagnosis
• Looking at options – not only for which projects to do but how to do them (especially acquisitions)
• Managing stakeholders – those individuals with an interest in the project
• Dealing with uncertainty
• Trading-off not merely tangible but also less tangible value
• Creating a strategic vision for the project
• Identifying key implementation difficulties. The above areas reach beyond the domain of traditional project management, carrying us explicitly into the land of strategy, finance and organizational analysis, and into what was to become Strategic Project Management.

Appendix 6 – Benefits of resource constraining at Pennsylvania Electric

Pennsylvania Electric Company, headquartered in Johnstown, PA, operates generating facilities with a capacity of 6,950 megawatts to serve 547,000 customers over an area of 17,600 square miles. The Generation Division Planning Group is responsible for planning all maintenance and capital projects. In the early 1980's, the group used manual methods of planning with hand-drawn charts. Of course, planning is now computerized, which is faster, allows "what if" analyzes, and controls more than just the previously monitored critical path.
A special feature of the computerized system is its resource constraining module, which establishes labor requirements across all jobs. In the pilot program to test the new software, $300,000 was saved when it was discovered that a particular job could be done with 40 percent fewer mechanics than normally used and still complete the job on time.
After worker-hours are input to the program by activity, actual progress is monitored and schedule and cost deviations are highlighted for management attention. This allows management to make adjustments to recover the schedule, slow the project down, or acquire more funds to get the project back on schedule. Obviously, there are always some emergencies outside the plan that must be handled on an exception basis. But with this software, management knows what effect different actions will have on the basic plan and ca thereby makes the best use of available resources to handle the emergency with minimal impact on the plan.

Source: A. J. Cantanese, "At Penelec, Project Management is a way of life." Project management journal, vol. 21.
Meredith and Mantel (2012, pg 409-410).

Appendix 7 – Sony Corporation – more restructuring

In the year 2005 Stringer become the CEO of the company. He identified five major factors and challenges that need to be rectified by the company in order to overcome from the challenges faced. The five challenges includes attaining profitability across all the business and subsidiaries, getting rid of the company long run silo culture, making and providing customers with products in line matching with the industry standards, diversifying the company operations into non strategic assets and investments, improving the company competencies in the service and software. The company new CEO announced another round of restructuring in the year 2005. The company planned to break the silo walls and also tried to eliminate the decentralized structure of the company, which has been maintained, by the company since long (Nathan 2001).

The company adopted the new organizational structuring in the year 2005, in the month of October the company has been reorganized into five business segments. This mainly includes, games business unit, electronics unit, personal solutions business unit, entertainment group and financial holdings group or unit. Through this new structure the company aimed towards achieving coordination across all business areas including mainly technology, planning, manufacturing, marketing and sales. The company has been aided by this new structure and has eliminated the problems of product designing and their redundancies. Apart from this new business strategy of the company the organization has also announced an internal slogan i.e. "*Sony united*" this is mainly aimed at promoting the company team work and cooperate the business practices and bring them together using the key resources (Frisch 2003).

The company has also discontinues its robotic unit due to its lower revenue generation. The company another unit named as Sony's Qualia, which mainly deals in luxury electronics has also been discontinued. The other several businesses, which are discontinued by the company, include mail order shopping company, cosmetic makers and chain of restaurants. More than one third of the company subsidiaries businesses were involved in the businesses other than electronics and entertainment business of Sony Corporation. The company restructuring efforts in year 2005 also included reviving of its television business (Nathan 2001).

The company launched its Bravia brand of the LCD televisions in the year 2005; this move included heavy expenditure on advertisement in order to face the competitors like LG and Samsung etc. after the restructuring in the year 2005 the company by the end of 2006 has improved its revenue stream and reported a net profit of 123 billion. This was highly attributed to the Bravia LCD television brand of the company launched in the year 2005. The efforts put in the year 2005 by Stringer put the company back on the right track and this also led to the strengthening of the product development capability and improved capability of the company (Aswathappa and Dash 2007).

Source: http://myassignmenthelp.info/assignments/strategic-management-planning-assignment-help-sony-corporation-restructuring-case-study/