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The link between organizational strategy and projects

A comparative study between theory and
practice

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Preface

This master thesis was written as a finalization of the MSc. Project Management – program at the Norwegian University of Science and Technology (NTNU) at the Department of Industrial Economics and Technology Management.

We would like to express our special regards to our master thesis supervisor, Associate Professor Tim Kristian Andreas Torvatn for his kind supervision and guidance throughout the research process. His guidelines, comments and support have given us the confidence to work on an advanced project management topic.

Even though our interviewees and case companies are anonymous we would like to express our deepest regards to all of the contact persons that trusted us, provided us the information we needed and also contribute in our learning experience from their experiences.. They showed deep interest in the research questions gave us their valuable time and tried their best to contribute by giving satisfactory answers and explanations.

Last but not least we want to thank our fellow students, our family members and friends for providing us with the support and the environment for accomplishment of our goals.

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Abstract

One of the major objectives of doing a project is to deliver the organizational strategy. One project can deliver one or more strategies. Earlier, a lot of work has been done on strategic management and project management, but on what happens in between these two has not been discussed in such extent previously. This thesis is an effort to investigate the link between the organizational strategy and the projects.

By understanding and questioning theory and practice, a framework has been established. It explains the factors that affect the link between organizational strategy and the projects. It also explains which of these factors have a potential in future to link the organizational strategy with the projects.

The results have shown that communication, skilled and capable people and the organizational culture are the key factors that link the organizational strategy with the projects. But at the same time, the current effect of communication and skilled and capable people is considerably less than desired by the organizations.

This report is a contribution in the field of organizational project management. In addition to contribute to an interesting field for further research, the results can be used by the researchers and practitioners that are interested to improve the effect of organizational strategy in the projects and also the other way around.

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1 Introduction

1.1 The context

Our daily life is a mix of thinking, actions and the environment in which we live or act. Thinking is based on short and long term goals, action is based on our individual ability to act or react in different situations, and the environment where we live in an interface that make, remake or develop our thinking also affects our action. Majority of successful people use their thinking, turn them into actions and get what they want.

If the same scenario is taken into consideration for a bigger group of people, then their thinking, actions and environment is also affected by each other. This grouping of people makes it more interesting. The objectives of different groups are different and the way the collective thinking and action takes place makes the whole group successful or unsuccessful.

If the simple example above is applied to organizations, thinking would be equivalent to organizational strategy based short and on long term goals, actions as operations/projects, and the environment in which the people of these organizations work or interact. It can be concluded that the successful organizations are the ones that can link their strategy with the operations and the projects.

The difference between operations and the projects is that operations are normally repetitive and people work there on long term basis, so they are able to deliver both short and long term goals of the organization. While the projects are temporary and the people working in the projects work on short term basis, so it is possible that they can lose the broader picture of the organizational strategy. That is the basis for this research work. How the organizations are linking the organizational strategy with the projects? What happens in between? What kind of factors is effecting this relation and what kind of factors is important to link the organizational strategy with the projects?

1.2 Theoretical Background

According to Project Management body of knowledge (PMBok) is project defined as:

“A project is a temporary endeavor undertaken to create a product or service or result.” (PMI, 2008, p. 5)

Temporary means that it has a start and end time. The project outcome is based on the objectives of the project and sometimes this outcome give benefits for years. A given example is construction of a national monument (PMI, 2008).

When we apply skills, knowledge, methodologies, techniques and tools for meeting the objectives of a project, it is called project management. It contains five major process groups as initiating, planning, execution, controlling and closing (PMI, 2008).

The modern organizations are using program and portfolio management for project management. Figure 1 illustrates the relationships between projects, program and portfolio management (PMI, 2008). It shows how organizational goals and strategies are connected to the individual projects. If something is being planned on an organizational level, it affects the projects based on the importance of the project for the organization, cost and future objectives of the project. On the other hand it is also determines the organizational support for different projects on the basis of risks, benefits, resources, short and long term goals (PMI, 2008).

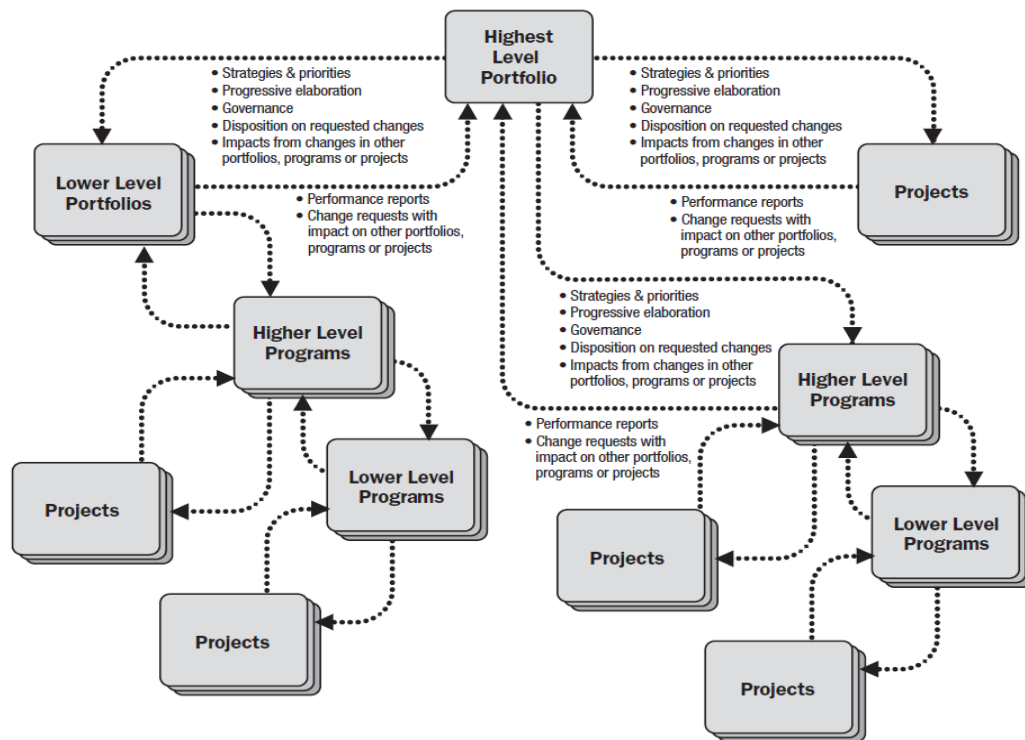


Figure 1 Portfolio, program and project management interaction (PMI, 2008, p. 8)

Projects are normally considered as a source of an organization to achieve the strategic plan. A project can deliver one or more strategic objectives of a firm. Some examples of these strategic plans are; increasing market demand, meeting customer requests, deal with legal requirement or some kind of technological advancement. In some organizations all projects are organized by a centralized project management office and in some organizations projects are done by individual project managers who work across different functional groups of the firm. Therefore organizational design also affects the project, program or portfolio management (PMI, 2008)

A lot of authors have recognized that projects are the temporary organizations that have limited time, budget and objectives. But the traditional project management is task oriented. Therefore in a temporary organization project managers find it difficult to manage internally (project itself) and externally with the organization. Projects rarely fail due to the technical problems but majorly fail due to organizational challenges (Aarseth, 2012).

It can be concluded that organizations use projects as a way to implement strategy. Therefore the project performance affects the organizational strategy. Different

organizations have different ways of linking the organizational strategy with the projects. This study report is going to dig deeper in the theories and practices regarding the linking of organizational strategy with projects.

1.3 Practical Implications

As discussed in the theoretical background that it is a demanding task for projects to meet the organizational challenges due to the temporary nature. These challenges can be well understood by the previous knowledge, use of the knowledge in practice, and learn from it to create the knowledge for the future. This continuous improvement in this area will make project environment less complex and the organizations will be able to get the benefits by reaching their strategic goals through projects.

This study will contribute in the research area by merging the theory and practice and try to explore the link between the organizational strategy and the projects. For researchers that are interested in organizational project management and organizational strategy, this study will provide useful information about the practices that are being held by project managers in different industrial sectors. This study will also provide the information about what project managers think about exploring the benefits from this research area.

For the top management in the organizations, this study will address the factors that they can consider while development and execution of the projects. The project managers can also get benefits from this study to explore the benefits associated to the different factors that affect the link between the organizational strategy and the projects.

1.4 Research Questions

The major purpose of the research is to explore the link between organizational strategy and projects. The question is broken down further into the following

- 1- How organizations are linking the organizational strategy with projects
- 2- What is the current effect of the factors that affect the link between the organizational strategy and the projects
- 3- What are the factors that are considered important in linking the organizational strategy and the projects

2 Theory

In this chapter we will first introduce some general theory about strategy and projects. Further we will present, in an alphabetical order, theory about the identified factors that can potentially affect the link between organizational strategy and projects.

2.1 Strategy

There are a lot of different perspectives and views on strategy, and how it should be defined. De Wit and Meyer (2010, p. 596) defines strategy as “a course of action for achieving an organization’s purpose”.

Earlier the business landscape was simpler and therefore the business strategies could be more complex. Now most businesses are more complex, and therefore need to change their strategies accordingly. Instead of tightly linked systems or leverage core competencies, the strategy should shape the processes by simple rules and focus on key strategic processes to gain long-term competitive advantage (Eisenhardt & Sull, 2001). A lot of articles point out that business strategy is how a company decides to place itself in the market to gain and maintain competitive advantage over its competitors (Varadarajan & Clark, 1994; Meskendahn, 2010).

2.1.1 Role of projects in achieving organizational strategy

The research around the role projects have in accomplishment of organizational strategy is not the topic in strategy that has had the greatest focus so far. But some researchers have recognized that it can be sensible for organizations to acknowledge the possibilities that lie in this topic.

According to Dinsmore and Cooke- Davis (2006) the topic of projects and project success should be a focus of top management since “ *projects are the means by which the organizations accomplish their strategic intent through business change, as well as means by which some organizations deliver profits to their stakeholders*” (p. 27). They further state that through projects organizations can accomplish beneficial change and corporate success. All successful projects contribute to beneficial change as a mean of implementing corporate strategy, and to generate more corporate value. Many organizations tend to focus a lot on improving new

products, services, or infrastructure. But to manage an organization in turbulent periods, it is also important to focus on bringing some kind of change.

In a lot of organizations it is common to conduct too many projects without any clear link with the strategy or goals of the organization. This can lead to irritations, confusions and a sense of pointlessness amongst the project managers when the selection of projects almost seems random. When the project managers can see a clear link between the selections of projects according to the strategic path, it can help them to understand and recognizes the purpose of the project and thereby can help create an environment for project success (Englund & Graham, 1999).

Dinsmore and Cooke-Davis (2006, p. 28) says “Perhaps project people should talk less about the qualities of project management and start focusing on “strategic delivery capabilities”. Even though the project management systems and the project planning are solid, it is always a possibility that the projects can drift away from the corporate strategy. Dinsmore and Cooke-Davis (2006, p. 153) present three approaches that can help ensure that the projects are aligned with corporate strategy.

The first one is called “stage gates”, and is a technique to check the status of the project at every “stage gate” of the project, see Figure 2, to see if the project is feasible and aligned with the business strategy. When to evaluate, and how many gates, can vary from different projects and organizations. The possible outcomes of this evaluation: (1) the project moves to the nest stage since everything is according to the plan, (2) the project is put on hold to resolve current issues, and (3) the project is terminated since the situation has changed too much for the project to deliver value to the company.

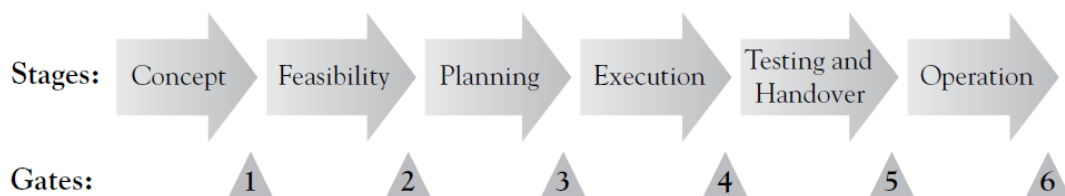


Figure 2: Stages and Gates (Dinsmore & Cooke-Davies, 2006, p. 154)

The second approach is called “heartbeat reviews”. This technique can be used to ensure that the portfolio of projects is aligned with the corporate strategy. Instead of reviewing each project, as in the “stage gate” method, it gives the opportunity to review the overall project portfolio periodically and compare it to the business strategy. The frequency of these reviews depends on the organization and project portfolio. Figure 3 illustrates how this method can help upper management to balance the project portfolio according to the different strategies of the organization. Key questions, about the sum of the projects and if they cover the most important aspects of corporate strategy, are asked to guide the business management.

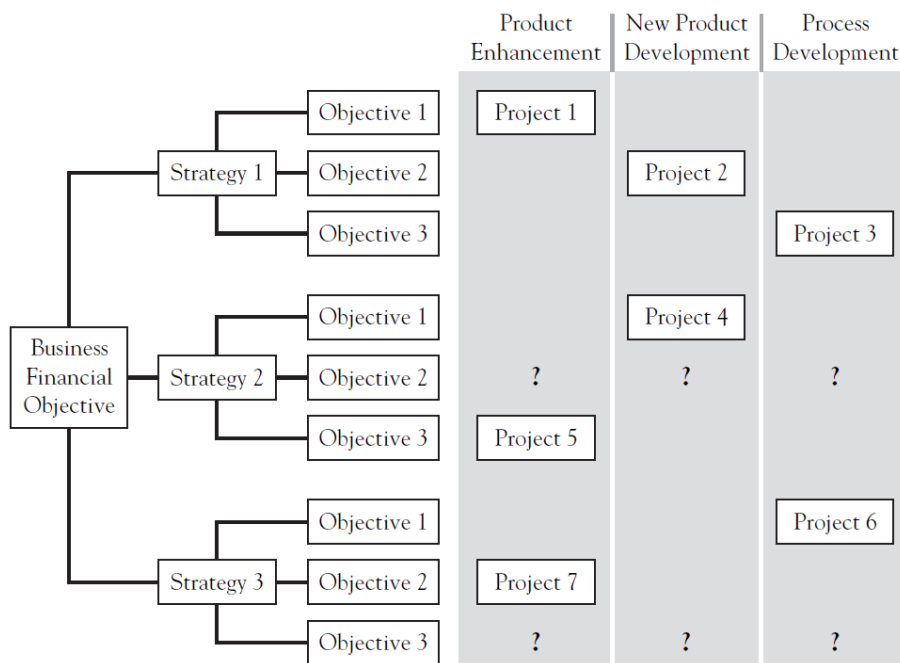


Figure 3: Heartbeat Review of the Project Portfolio (Dinsmore & Cooke-Davies, 2006, p. 158)

The third approach is program management. This technique is used to direct related projects aimed at definite strategic goals. For more information about program management, see chapter 2.2.6 Program and Portfolio Management.

2.2 Potential factors that can affect the link between organizational strategy and projects

In this sub chapter we introduce the potential factors that can influence the link between organizational strategy and projects. We identified 15 factors in total through theory research and interviews with six representatives from different companies. We will present 13 of the factors that are relevant further in our thesis.

2.2.1 Communication

According to Project management body of knowledge communication is a multi-dimensional activity. These dimensions are internal and external, formal and informal, horizontal and vertical, official and unofficial, oral and written, verbal and non-verbal. And communication requires skills like active listening, questioning and better understanding, educating, negotiation, summarizing, persuading and many other skills. By developing organizational skills in all dimensions, the communication can be more effective and efficient (PMI, 2008).

The efficiency of the communication is related to the value accomplishment. In organizations and the projects there are a lot of shared targets a smooth communication is required to accomplish the targets. Projects managers consider that communication is a tool of creating trust and openness between the stakeholders. The speed of the project deliveries is also related to the speed of information flow. Organizations, stakeholders and the project teams are normally dispersed on the basis of their location. Therefore in the virtual settings communication is one of the most critical success factors in order to get things done (Verburg, et al., 2013).

There is a great variation in the mind set and the responsibilities of the key players in an organization, therefore communication become challenging. Different cultures and values can also cause miscommunication between the stakeholders. Communication is also a tool for knowledge sharing. In business change projects, no communication of the vision, poor external communication, and early declaration of success are some of the reasons of the projects failure. In projects, communication management is done by making a detailed communication plan. The means and dimensions are defined, and to be successful in a project, the communication management needs to be done effectively (Dinsmore & Cooke-Davies, 2006).

According to theory, we can say that communication is one of the key factors to link the organizational strategy with the projects.

2.2.2 Involvement of external customer

The intensity of the customer integration determines the contribution of the customer in the organization and the projects. This relationship falls between the unilateral information flows and the bilateral active participation by the customer. Normally the market situation determines the kind of cooperation requirement between the customer and the supplier. If a customer initiates the cooperation then it is unsolicited and if the supplier initiates it then it is solicited. When it is unsolicited then customer provides feedback in the form of complaints about the products and services. These complaints are input for the quality control for the supplier. In case of solicited cooperation can be directed or undirected by the customer (Sandmeier, 2008).

Another kind of customer involvement is based on needs and wants. Needs are normally the general requirements whereas wants are more specific requirements. Due to internal requirements, needs may be originated and are more important than the wants. Wants can be some ideas for some product improvements or product developments. There are many benefits of the customer integration like a better product development and the quality of the products is also better if the customer provides the right information at the right time. If the level of integration is higher than there is more creativity in the products and services. There are also some risks involved in the customer integration. Some of them are high pressure the supplier's end. There can be cultural difference between the customer and the suppliers and that can result in a conflict. A strong focus on the external customer can affect the core competencies of the organization. There is always a danger of losing the valuable information or knowledge in partnering process (Sandmeier, 2008).

The person to person interaction can be negative for a business relation. Therefore in case of projects it is really necessary that the project team members understand the organizational business relations when they are dealing with the customers. Some projects have a large scale buying across the globe and the deliveries at a large scale as well. There are usually huge differences between the goals of the different organizations. To bridge these gaps the project team member must build the

personal relations with all of the stakeholders. Customer relationship should be managed according to parent organization's business objectives (Mainela & Ulkuniemi, 2013).

2.2.3 Involvement of internal customer

To improve the customer focus and the market value many firms use the internal customer approach to evaluate internal projects and the suppliers. There are some reasons behind having an internal customer. A reason can be that an internal supplier has a conflict with the organizational objectives. For example one research and development department goes in to another focus of research instead of satisfying the organizational needs. Another reason to have an internal customer is to evaluate the internal supplier's performances. It is not easy to implement the internal customer evaluation system. It is a planning and cost control function. The reward system in case of internal customer is always complex (Hauser, et al., 1996).

There is a demand of a lot of internal services in the firm for example consultancy, maintenance, development and operations. Therefore there are a lot of projects being run to meet the internal demand of the organization and the internal customer plays its role to run these projects smoothly. When a large scale organizations expand their business and do a lot of partnerships, then the organizational internal environment might get weaker and it could not deliver the same value to internally than externally. Therefore the internal customers are important for the organizational internal relationships. For example an organization is going to do a series of projects with different customers, while they do not have enough support facilities and systems. The organization runs some internal projects to build its systems and competencies to cope with the external demand. The internal customers at this time make sure that all the internal projects are run properly and are given proper support, planning and control so that the organization is ready to meet the external challenges (Addey, 1999).

2.2.4 Organizational Culture

A set of values, norms and behaviors that are shared by people of an organization is known as organizational culture and this culture defines the rules and meaning of their social behaviors. It is very important aspect of an organizational success as it enriches the cooperation and support culture within the organization. It is also an

important tool for organizational learning and knowledge sharing. In order to have a high quality performance, organizational culture is also a great support in implementation of quality management systems. In order to achieve a high quality performance, organizational culture provides a great support to the organization. The individual or team performance can be directly linked to the organizational culture. A strong organizational culture can help the organization to react to the external changes as well. For example if an organization have market based organizational culture then the people in organization will adapt the changes happening due to the market changes. Organizational culture also has its effects on the projects. As projects are growing globally, the sense of attachment to an organization is important to meet the organizational goals (Yazici, 2011).

Due to the globalization many organizations have the project managers that have different cultural backgrounds and there is a large scale interaction between the people from different cultural backgrounds. The relationship between national and organizational culture and their impact on the organizational performance has been discussed a lot. One of the focus points has been the relationship between the organizational culture and the performance (Jaeger & Adair, 2013).

Another study has shown that if the organizational project culture is weaker it can also cause a failure in the projects. If the top management does not have the right organizational project management attitude then most of the projects fail. The rewarding system improves the motivation of the project team members but it does not guarantee the project performance. However it has a great effect if it is combined by the organizational project management culture. The study put a light on the issue that the attitude of the line manager's towards projects is also dependent on the attitude of the top management towards the projects (Stare, 2012).

The above literature shows that organizational culture is linking the organizational strategy with the projects.

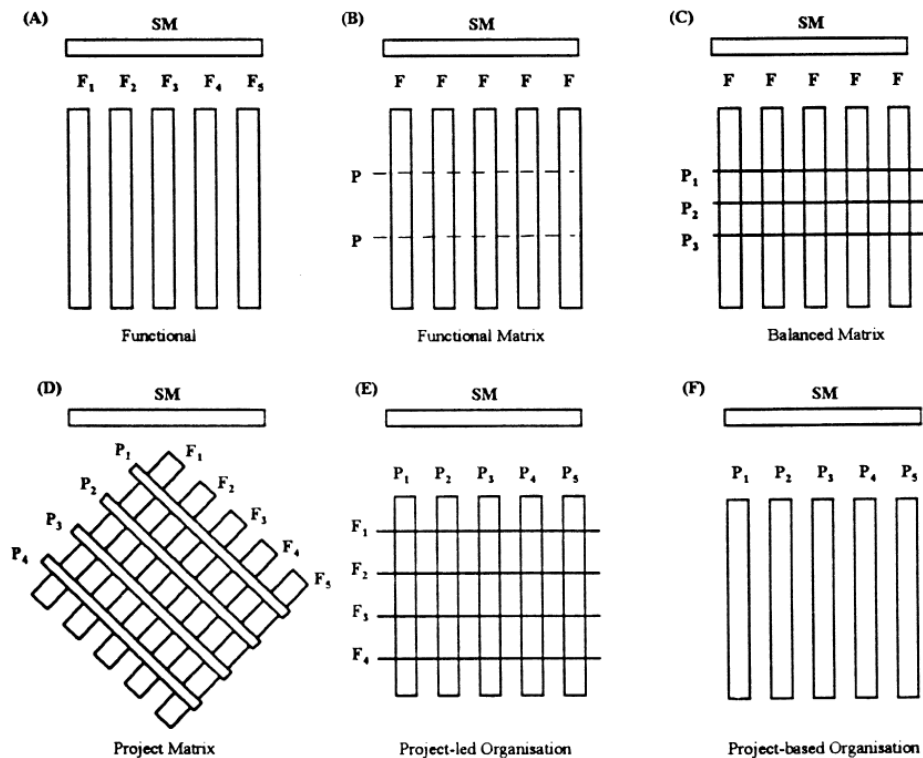
2.2.5 Organizational Structure

The management structures in the business are changing a lot with the time. From traditional perceived bureaucratic systems, organizations are now intended to make temporary organizations such as projects. Project management is being used for almost all kind of small to huge activities, tasks, issues or services. Therefore

organizations are using a combination of functional departments and cross functional project structures to operate efficiently. The number of project managers is increasing with time and the project managers are getting more recognition and power in the organizational structures. Functional managers are losing their power as project managers gain it. Both functional managers and project managers are responsible for execution of the organizational strategy. Functional managers normally have long term goals, while project managers have short term goals. Project managers are working across the functions while functional managers work across different projects. Functional managers are normally holding the organization together with its strategy when the projects are taking it away from the core objectives of the organization. Therefore the coordination between the functional managers and the projects managers should be really good in order to meet the organizational short to long term goals (Engwall & Soderholm, 2004).

Organizational structure is dependent on the organizational strategy as well. The project based organizational structure supports innovation and effective project leadership across the functions, because all the resources and decision making is allocated to the project manager therefore the team can focus on smooth communication with the customers and suppliers for that particular project. Therefore this structure is more beneficial for production of complex high value products, systems, capital goods, networks and constructs (Hobday, 2000).

In the following Figure 4 there are six different types of organizations ranging from pure functional organization to pure project based organization. In all these organizational structures the authorities and decision making process is based on the type of business organization is dealing in (Hobday, 2000).



Key:

- * F₁ . F₅ = various functional departments of the organisation (eg Marketing, Finance, Human Resources, Engineering, Manufacturing, R&D)
- * P₁ . P₅ = major projects within the organisation (eg CoPS projects)
- * SM = senior management

Note:

- * The number of functions and projects will vary according to the organisation in question. Various permutations are used here for illustration.

Figure 4 Positioning of the project based organization (Hobday, 2000, p. 877)

We can conclude that the role of all players in the organization is defined by the organizational structure and that is why it has a link when it comes to execution of organizational strategy with the projects.

2.2.6 Program and Portfolio Management

In an organization there are not enough resources to run all the proposed projects simultaneously. The selection of project portfolio is therefore a process of selection a group of projects to meet the organizational strategy. These projects normally share resources. In order to get the maximum value out of these projects the portfolio must be aligned and managed according to the organizational business strategy. This concept is being used by a lot of industries. The project portfolio

management performs well if there are not too many projects in the pipeline; otherwise there are a lot of conflicts that emerge on the basis of scheduling, resources and the quality. Project portfolio selection and management facilitate the benchmarking and then it helps to assess the organizational strategy towards the projects. The major challenge in the project portfolio management is risk and outsourcing (Archer & Ghasemzadeh, 2004).

The vision of an organization is the base for preparing an organizational strategy, and then the project portfolio selection is done on the basis of this strategy. In Figure 5 there is a clear description of the link between organization strategy and the project portfolio management (Maylor, 2010).



Figure 5: Organizational strategy process (Maylor, 2010, p. 51)

To ensure the high level of benefits the similar kind of projects are grouped together in the form of program. It provides a platform for coordination between the projects. A major portfolio can have a group of portfolios, program or projects. And this structure of the portfolio is normally determined on the nature of organizational business. Therefore it is obvious from the theories that the objective of program and portfolio management is to connect the organizational strategy with the projects.

2.2.7 Project Management Office

In organizational project management knowledge, Project management offices (PMOs) are prominent but the logics behind their implementation and change is still not well understood. The managers in PMO have a lot of options in organizational structure and authorities can be given, when it comes to the establishment of PMO. But the project managers question the value of the PMO, because they cannot express their value in terms of the financial numbers. A lot of project management consultants and researchers are trying to clearly define the role of PMO. Normally they are not stable structures and they are not expected to stay for a long period of time. However there have been a lot of benefits that has been identified due to the PMO (Aubry, et al., 2010).

A PMO is normally a component of the host organization instead of independent organization. Due to high variety of the structure and roles, a lot of organizations do not agree that PMO add value to the parent organization. Therefore the role of PMO can be perceived as negative when it comes to the implement of organizational strategy. The restructuring of the PMO and the closure is also done frequently. The staff size of the PMO is normally small and the decision making authority varies a lot. A lot of project management professionals consider PMO as an office to implement standard project management methodologies. Some roles of the PMO include the involvement in strategic management, measurement of the benefits, facilitation of the networking and providing top management advice for strategic planning. One of the most important roles of the PMO in the organization is to facilitate the knowledge management (Hobbs, 2007-2009).

Hill (2004) presented a model that defined a series of PMO capabilities based on the different stages in the organizations. He named these stages as Project office, Basic Project management office, Standard project management office, advanced project management and the last stage is defined as the center of excellence. According to him PMO is a business integration activity. So it depends what an organizational expect from a PMO. They can use PMO to a certain level as well (Hill, 2004).

According to different authors PMO can perform a lot of roles, but weather it is contributing in delivering the value is a question. Its role is quite diversified

therefore it can either be a strong link between the organizational strategy and the projects or vice versa.

2.2.8 Project Management Process Maturity

The use of standardized project management unconditionally has been criticized by some authors and it is considered as one of the reasons of the failures of the projects. Many authors argue that the context of the projects is an important factor; therefore we cannot use the standard management procedures for every project. Some authors suggest that the project management systems should be based on the organizational strategy, to create the maximum value from the project. According to these authors, the project might not be totally dependent on the organizational strategy but it has its influence on the strategy as well. So the projects and the organizational strategy have some kind of link (Cooke-Davis, et al., 2008).

Another perspective regarding the nature of projects is that it has been institutionalized. Due to this institutionalization, the projects now have a lot of standard procedures like work break down structures, Pert, Gantt Charts and many other tools and techniques for the project managers. On the organizational level there has been introduced more standard procedures as well. Most of the organizations are spending a lot of time and energy in building and maintaining these standards and try to control all of the project activities. That is affecting the natural building of the project management knowledge and practices. This standardization done by strong organizations like Project management institute can be considered as a threat to the naturalization of the projects. One threat can be political and another can be ethical. Political implications of the global standardization can be that it will become more and more difficult to challenge the standards and the frameworks of the project management process worldwide. The ethical threat is that people can blindly start believing in these standards. So the natural process of learning will be affected deeply (Hodgson & Cicmil, 2006).

A study by Eskerod and Riis (2009) suggests that the organizations should not choose different approaches when it comes to the selection of project management tools, behaviors or methods. The authors have suggested a common frame of reference for the organization in case of projects to get the maximum value from the

projects. About the implementation of the common frame of reference they have described four major activities. “

- 1- A common project management model
- 2- Common project management training
- 3- Common project management examination/ certification
- 4- Activities for knowledge sharing, values created, especially when the application for elements was mandatory, were better communication, better customer satisfaction and easier knowledge sharing ” (Eskerod & Riis, 2009, p. 12).

Based on different theories it is obvious that the organizational strategy and the project management processes have some link. But there is still a question if the project management processes should be standardized or they should be based on the organizational strategy or if there is a ratio of standardization / customization.

2.2.9 Resources

Project schedules are normally made without taking the available resources into the consideration and they lead to a project plan that can be misleading or not possible to achieve. When the decision making is done on the basis of these schedules, the projects normally fail to cope up with the constraints. Resource management is one of the biggest challenges in managing of the projects. Sometimes the resources are shared between different projects, sometimes they are available at the different geographical locations, and sometimes the subcontractors have them. It is just not enough to have the right resources, it is also important to have them at the right place at the right time. There are many activities in the projects that have interdependencies, for example one project process cannot be started until the previous process is not completed. Sometime all of the resources for a project are available but some kind of written approvals are required to start the project. Therefore the organizational decisions should be based on the availability of the resources (Just, et al., 1994).

Resource constraints are normally divided into two categories, one is called deterministic and the other is called non-deterministic scheduling models. Now a day deterministic approach is more popular to handle resource constraints. The tools and techniques that are normally used in this approach are mathematical models;

linear programming or dynamic programming is used. These analytical skills help the organizations to set the priority of the resources in order to get the maximum value from the projects by resource allocation (Kanit, et al., 2009).

Therefore it can be concluded that there are always limited resources available for the organizations and the projects more likely be successful if the organizational strategy is based on the availability of the resources.

2.2.10 Stakeholders

According to the Project management body of knowledge (PMBOK) “stakeholders are the persons or the organizations (e.g. customers, sponsors, performing organization, or the public) who have actively involved in the project or whose interest may be positively or negatively affected by the performance or completion of the project. Stakeholders may also exert influence over the project, its deliverables, and the project team members. The project team member should identify both internal and external stakeholders in order to determine the project requirements and the expectations of all parties involved. Furthermore the project manager must manage the influence of the various stakeholders in relation to the project, project team and the other common stakeholders.” (PMI, 2008, p. 23)

For many years the management thought has been changing. They are thinking about the organizational life. This change has led to a shift of focus from stockholders to the stakeholders. Consideration of the stockholders reaction is a duty for the management and they take actions to make sure that all the processes are in the favor of the corporation and the stockholders. The stakeholder’s concept says that the organization has the responsibility of the people other than the stockholders as well and these are the individuals or the groups that have stake in the actions of the organization. Therefore the stakeholders are being considered during the strategy formation. The processes are called stakeholder strategy process and stakeholder audit process (Freeman & Reed, 1982).

According to the above literature it is obvious that stakeholders have an important role in the projects as well as organizational strategy. But the stakeholders for an organization can be different for its different projects or they can be same individuals or groups. Therefore they can have a variation of influence the link between the organizational strategy and the projects.

2.2.11 Skilled and capable people

Organizations all over the world are going through a lot internal changes and these changes are affecting the traditional careers. Due to these changes authors about career management advice people to define and design their own career paths by becoming more versatile, having broader knowledge and being flexible to take challenges. Now the perception about the organizations is that they are free from managing the careers and skills of the human resource. For a better change process, organizations and the individuals are both in need of stability. Organizations have to think in multi-dimensions in career management and integrate different types of career success measures. By doing so, organizations will be able to deal with the diversified needs of the employees (Brousseau, et al., 1996).

“Methodologies and processes do not deliver projects, people do” (Dinsmore & Cooke-Davies, 2006, p. 68).

Traditionally organizational strategies are made by top management and project managers are responsible for the projects that transform those strategic dreams into a reality. Therefore the general quality of a project manager is to achieve the goals and targets given to him /her. As an affect project managers have a limited vision and they are considered as successful if they are good in delivering the projects, whatever it is. To deliver enhanced value it is important that the organization is aligned at every level. To achieve the long term success it is important that the alignment of the people is done in strategy formulation. If that is done, it is easier to gain the confidence of all level in aligning the project portfolio with the organizational strategy. Then it will be possible to align projects with the portfolio. If there are right people with the right skills with the right mindset at each level, the projects will be successful and the organizations with progress (Dinsmore & Cooke-Davies, 2006).

From the above discussions it is obvious that to link the organizational strategy with the projects, people and their skills matters.

We can conclude that the role of all players in the organization is defined by the organizational structure and that is why it has a link when it comes to execution of organizational strategy with the projects.

2.2.12 Strategic drift

It is really important for an organization to be able to change according to the future demand and projects are a mean for the change. If the organization fails to position itself according to the strategy then it is due to the strategic drift. There is always an impact of the historic activities and the organizational culture on the way organization performs. It is normally good for the organization to have an incremental change, where everything changes simultaneously like people, culture, beliefs etc. Transformational change is required when the organization is in crises. If the organization does not have the ability for a transformational change, then it is too late. Some forces are responsible for pushing the organization towards a state where it does not follow its strategic positioning, this state is called flux. Therefore it is important to understand these forces to avoid any strategic drift (Johnson, et al., 2005).

Figure 6 shows the change process in the organization.

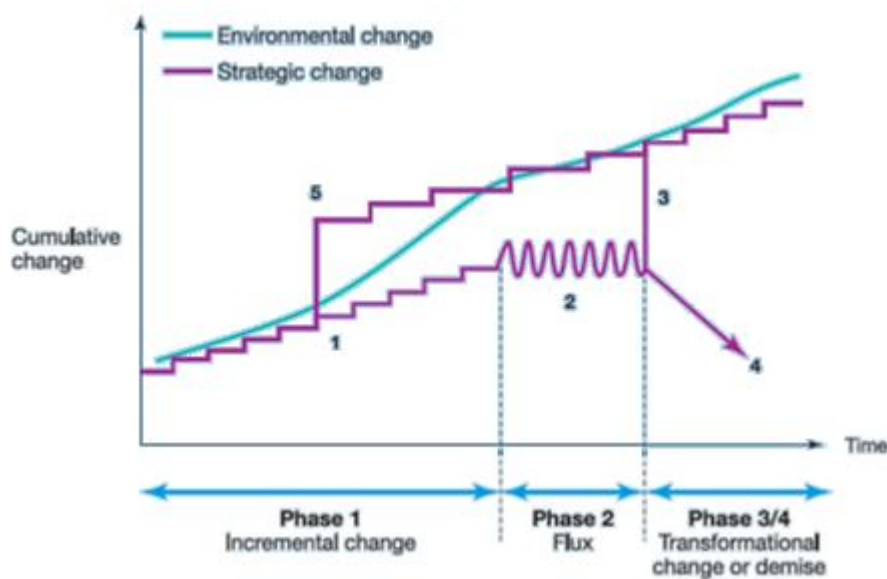


Figure 6 The risk of strategic drift (Johnson, et al., 2005, p. 28)

Due to the strategic drift the organizations totally slow down or does not react to the environmental changes. The level of innovation reduces and the ability to stand on a long term basis stop functioning. Therefore organizations should be prepared enough to react according to the environmental changes (Johnson, et al., 2005)

2.2.13 Supplier/ Customer relations

In project based business, the industrial settings are based on complex, unique and discontinuous deliveries of the projects. Since the relationship between the suppliers and customers is discontinuous, it is different than the traditional organizational relations with the customers and suppliers. In normal industrial sectors the organizations must continuously manage their relations to meet customer demand and build long term business relations. Whereas in projects there are constraints of time, cost and quality and the business transaction have to deliver the value under these constraints (Cova & Hoskins, 1997).

Cova and Hoskins (1997) proposed an offer strategy for dealing with the customer/ supplier relations in the projects. Figure 7 shows the strategy:

		Weak	Strong
Network position	Strong	influence strategy	Creative offer strategy
	Weak	aggressive pricing strategy	'risk' strategy

Figure 7 Offer strategies (Cova & Hoskins, 1997, p. 555)

According to the above figure, before entrance in a dialogue it is important to have a strategy that can lead to a constructive discussions or business deal in case of projects (Cova & Hoskins, 1997).

One of the primary levels in the project based business is the customer relationship management and the other is project and portfolio management. Organizational relations are built on the basis of the relations of the people inside the organization with the external organizations and stakeholders. In project environment the customer/ supplier's relation is also affected by the interaction of the individuals involved in the projects. Therefore it is important to have the personals in the organization that understand the business strategy of the organization and deal with the suppliers and customers according to business strategy (Mainela & Ulkuniemi, 2013).

3 Methodology

3.1 Research approach

There are two typical approaches to research; deductive and inductive. The approach to deductive research is to create empirical data from theory. First they create a hypothesis based on experience and current theory, and then test it in the real world to confirm or disconfirm the view. The critique of this approach is that the researchers are looking for something specific, and therefore it is a risk that important information can be missed or overlooked. In inductive approach, on the other hand, researchers start to gather empirical data from the real world, and then create a theory based on those findings. The point of this approach is to have an open mind, and let the reality create the foundation of the theory (Jacobsen, 2000).

The aim of this thesis is to identify factors that can influence the link between strategy and projects. Because this is a topic that has not been researched to a great extent previously, we used a mix of deductive and inductive approach, to combine empirical findings with theory; abductive approach. According to Dubois & Gadde (2002), abductive approach is beneficial when researchers want to discover new things. To acquire information about this subject, it was conducted several interviews with different companies to gather empirical data and gain new understanding. This information together with information from current theory, created the basis of potential factors that can influence the link between organizational strategy and projects. These potential factors were sent to the interviewees in a small survey, and the interviewees graded them according to the influence on the link.

3.2 Research Method

The conventional way of doing studies is to either choose qualitative or quantitative approach, but now it is more and more common to do a mixed method of these two in the same study (Yin, 2014). To approach our research question the best way possible, we have used both qualitative and quantitative research. A combination of these two approaches is ideal. The two methods are not competing methods, they rather complement each other (Jacobsen, 2000).

We have started with a qualitative approach to investigate our research questions. Our research questions is mainly concerned with aspects that are not that well researched. In additions, we did not have a clear hypothesis of what factors could influence the link in advance. A quantitative investigation would therefore not fit our purpose. An open-ended approach would fit our cause much better.

Our secondary research method was a small survey sent to our company contacts at a later point. After we had identified factors that could influence the link, through the data from the interviews and with the help of theory, we wanted concrete data of their views on these identified factors.

3.2.1 The interviews

We conducted six semi-structured interviews with people working with project management in different companies. The reason we chose semi-structured interview, was because we wanted the interviewees to elaborate, and share additional information which could be relevant. A disadvantage of this structure is that it's hard to keep track of what questions is answered and not. We assigned roles during the interviews; one led the interviews while the other kept track of what questions were answered and not. Another disadvantage is that we got a lot of information that we had to process at a later point, which took a lot of time and resources.

Five of the interviews were conducted with virtual devices as telephone and Skype. The last one was a face-to-face interview. As Tracy (2013) state, face-to-face interviews have a clear advantage since you get more input and can analyze more than just words, you can get valuable information in non-verbal communication. We also noticed that the conversation was more engaging, and it created a more open and honest conversation compared with the virtual interviews. But due to geographical distance, virtual devices were crucial to be able to carry out the

interviews. Another advantage with mediated interviews is that it is easier to plan and coordinate the interviews, it is also less time consuming.

3.2.2 The survey

After the interviews we created a small survey so the interviewees could give their opinion about the potential factors that can influence the link between organizational strategy and projects. They graded the factors according to the influence they see today, and how they think it should be.

Jacobsen (2000) states that a disadvantage of this approach can be the distance between the respondents make the possibility for misunderstandings greater. Even though we had already established a relationship with these respondents through interviews, the link between the interview and survey may have been less obvious than we acknowledged when we sent the survey on email. After getting questions about certain aspect of the survey from a respondent, we saw how insufficient articulated the text to explain the survey actually was. We experienced the pitfall of assuming that the respondents are as well invested in this topic as we are. It is easy to get “blinded” when working so close with the same subject over a long period of time. As soon as we noticed this error, we sent an additional email to all the respondents explaining the purpose and goal, and what we were actually asking in the survey. And also, once more, encouraged the respondents to contact us if some they felt some aspects still were unclear.

3.2.3 Quality of research

External validation is easier to achieve with quantitative research, that in qualitative research (Jacobsen, 2000). In our case, our data is based on the answers from few respondents and theory, and therefore it is reasonable to question the external validity. So what value can this thesis provide externally? Suggestions and topics for further research. In the case of internal validity, all recordings from the mediated interviews are kept and semi-transcribed. In addition we gathered all the answers we thought were relevant in one sheet.

Since we did not know what we were exactly looking for when we conducted the interviews, it strengthens the credibility of this thesis in the sense that it was easier to be objective in conversations with the interviewees. And therefore easier for the interviewees to respond in an honest way about their thoughts and believes, instead

of adapting the answers according to what they thought we wanted to hear. The factors on the survey were arranged in an alphabetical order, to minimize the effect of influence on the respondents towards the importance of the factors.

In addition we gave the respondents of the survey the opportunity to name other factors they considered as an influencer on the link. None of the respondents named other factors. This does not necessarily mean that there are no other factors, and it is unlikely that there are no other factors. But even though, it validates the factors, since we gave the opportunity of giving additional factors we had not found.

3.2.4 Summary

In this thesis we used a mixed method consisting of both in depth interviews with six representatives from six different companies and a small survey that four of these representatives participated in. The survey was made on the basis of the information gathered in the interview and from theory research.

4 Empirical Data

For the research purpose for this thesis report, a lot of organizations across Norway and Sweden were contacted through calls, e-mails, discussion with LinkedIn connections, by asking questions in LinkedIn groups and talking to the organization's representatives at different job fairs. In the end six persons from different organizations agreed for taking part in the study, and four participated in the survey. These four companies which participated in both the interview and survey will be presented in this chapter. Since there were some contacts who wanted to keep the organization's and contact information confidential, the case companies and the contact person's details are anonymous in this study.

In the survey the respondents ranged 15 potential factors, which can influence the link between organizational strategy and projects, from 0-10. If a factor is ranged 0 there is no influence at all, and 10 equal a major influence.

The survey was organized in two different categories, effect and importance. Effect is the influence the factors have on the link today seen be the respondent, and importance is how the respondent thinks it should be.

In this chapter we present each case company, and data connected to these companies. To gain context of the data, every sub chapter starts with a small introduction of all of the participating firms and the contact person. We then present a selection of the factors for each company. The selection of the factors is based on with factor(s) got the highest and the lowest rating, and the information from the interviews.

4.1 Case Company A

Company A is a small independent software development firm located in Norway. The organization is young as it was founded in 2005 and has around 11 employees. The business is based on selling their own developed products and also develops software for the customers. On the average the organization is running 3 to 4 projects. For a normal project the time duration is between 1-2 months, however some project take over a year. The project team members differ from project to project, and the project budget is normally half to one million Norwegian kroner.

The contact person has been associated to the IT business since 1999. He has worked in project management area for over 5 years and holds the certification of Project Management by PMI. At the moment he is responsible for project and portfolio management at the Company A.

4.1.1 Effect and Importance in Company A

An illustration of the ratings of all the factors is presented in Figure 8. In Table 1 a selection of factors is presented. We will draw out relevant information from the interviews regarding these factors.

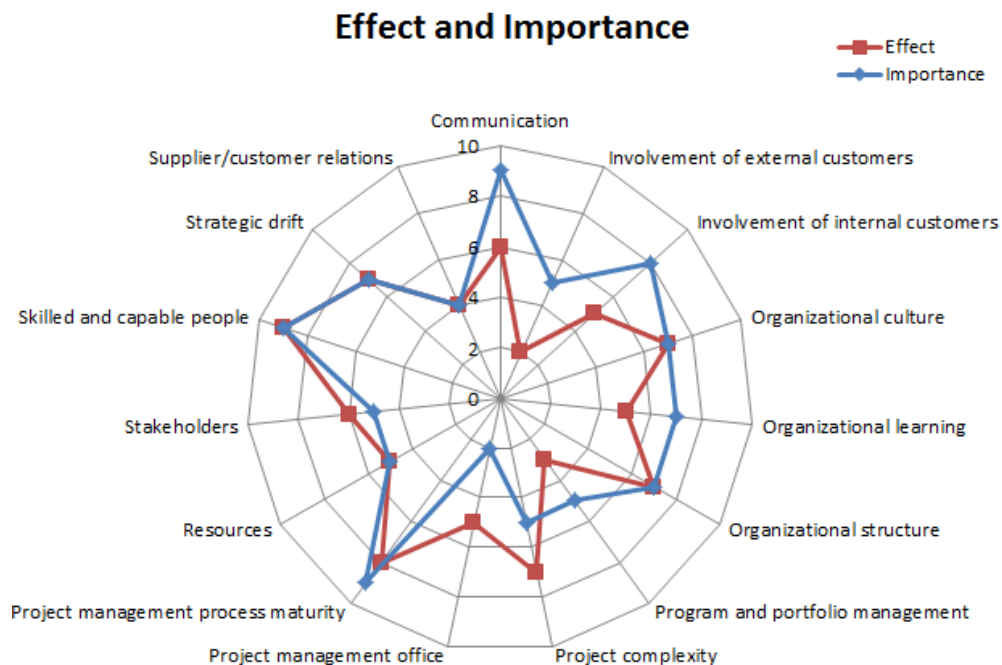


Figure 8: Effect and Importance, Company A

Factor	Effect	Importance
Skilled and capable people	9	9
Project management process maturity	8	9
Communication	6	9
Program and portfolio management	3	5
Involvement of external customers	2	5

Table 1: Selection of factors, Company A

Company A ranged **skilled and capable** people at 9 in effect and importance. The employees are expected to be self-motivated and to do their work without any incentives. When they hire employees, they chose people with similar mind-set. To manage the market demand, they hire consultants in addition. Responsibilities in the organization are clearly defined, and they have assigned one person who is in charge of sharing best practices and new knowledge. Company A has a formal process for training employees and development of competencies in the organization.

Project management process maturity was ranged at 8 in the effect and at 9 in importance by company A. They continuously improve any project management processes if they see the need, and the processes are well defined. Company A constantly test what they develop, and both internal and external customers can evaluate the product. The customers have total access of what they are delivering to them, and how much money and hours are spent on the project.

Program and portfolio management was ranged at 3 in effect and 5 in importance. Portfolio manager is only responsible for the execution of the project, and has no saying in what projects should be chosen for the company. They use a Kanban board to prioritize the projects and tasks according to the delivery. All projects are given a priority based on the dependency of the project. Low priority will have no defined deadline. With standard priority projects they follow the service-level agreement, and therefore it can be a fixed deadline. When they notice that it is a possibility of not making the delivery of a project, they use people from low priority projects.

Involvement of external customer was ranged as a 2 in effect and 5 in importance. Previously, due to economics, they took all kinds of projects. But now company A is in a phase that they can be more selective. Before taking a project, they consider if the project will be beneficial for the business or not. Their basic business idea is to

develop systems that they can own or have some kind of partnership in, to achieve long term value in their business.

“We try to be value driven and not a company that sells house and to not care about the quality of the work. So it is important for us to do the right projects.” Contract person, Company A

Communication was ranged with 6 at effect and 9 at importance. Every month they have a meeting to share information, and they have arranged the working space so the location of developers is in the same place. During the interview it was not a lot of information about this topic. No prominent communication routines were discussed.

4.2 Case Company B

Case company B is an American based global firm in oilfield products and services. The organization is over 100 years old and has around 65000 employees. It has over 800 production and service facilities globally and has revenue of over 22 billion US dollars yearly. It has a large number of products and services offered globally.

A department within the case company B was studied for this report. It comprises of 20-50 employees. It has around 11-20 people for one project with an average budget of 6-15 million Norwegian kroner. The department runs around 11-50 projects at the same time and the duration of a project is normally 10-18 months.

The contact person is responsible for the project and portfolio management at the department in company B. He has over 5 years of experience in the project management and also has professional certification for project management.

4.2.1 Effect and Importance in Company B

An illustration of the ratings of all the factors is presented in Figure 9. In Table 2 a selection of factors is presented. We will draw out relevant information from the interviews regarding these factors.

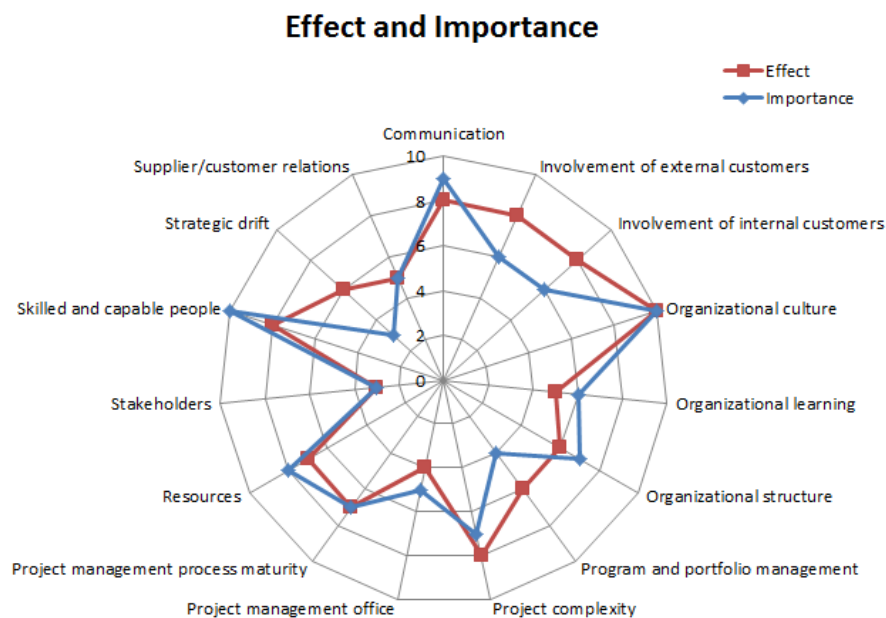


Figure 9: Effect and Importance, Company B

Factors	Effect	Importance
Organizational culture	10	10
Skilled and capable people	8	10
Communication	8	9
Strategic drift	5	3
Stakeholders	3	3

Table 2: Selection of factors, Company B

Organizational culture was rated at 10 both in effect and importance by company B. They work on a base of honesty and integrity. There is not a lot of control if everything is working according to the plan in projects. It is encouraged and easy to ask for help, and questioned if someone does not.

Skilled and capable people are rated at 8 in effect and 10 in importance. New employees get learning packages that they need to go through, and if there are any gaps in project management maturity learning packages are created. Projects are done in a way to enhance knowledge sharing between people.

Communication was rated at 8 in effect and 9 in importance. Every week company B has coordination sessions for project managers. Status report from the project is also weekly, while cost reports are done on a monthly basis.

Strategic drift was rated at 5 in effect and 3 in importance. They align their strategy according to the market and customer demand, and align their product development based on what the customers want.

Company B ranged **stakeholders** at 3 in both effect and importance. When developing new products, the completion of the product is based on the return of investment. If the return is not satisfying, they stop the project. This is not customer driven.

4.3 Case Company C

The case company C is a Swedish based global organization in tool manufacturing and services. The organization is over 100 years old and with around 8000 employees. It is located in around 130 countries worldwide. The revenue of the organization is around 97 billion Swedish kroner.

The contact department at the organization has around 13 employees. The project team members range between 2-5 for small projects, 5-15 for medium size projects and more than that for large size projects. Small projects have a budget between 300K- 600K Swedish kroner, while medium size projects have a budget around over a million Swedish kroner to 3 million Swedish kroner and for huge projects it is more than that.

The contact person is a project engineer in the department and has worked as a project manager and project team member for many projects at company C. He has Master's Degree in Project management and has been working in projects for more than 5 years.

4.3.1 Effect and Importance in Company C

An illustration of the ratings of all the factors is presented in Figure 10. In Table 3 a selection of factors is presented. We will draw out relevant information from the interviews regarding these factors.

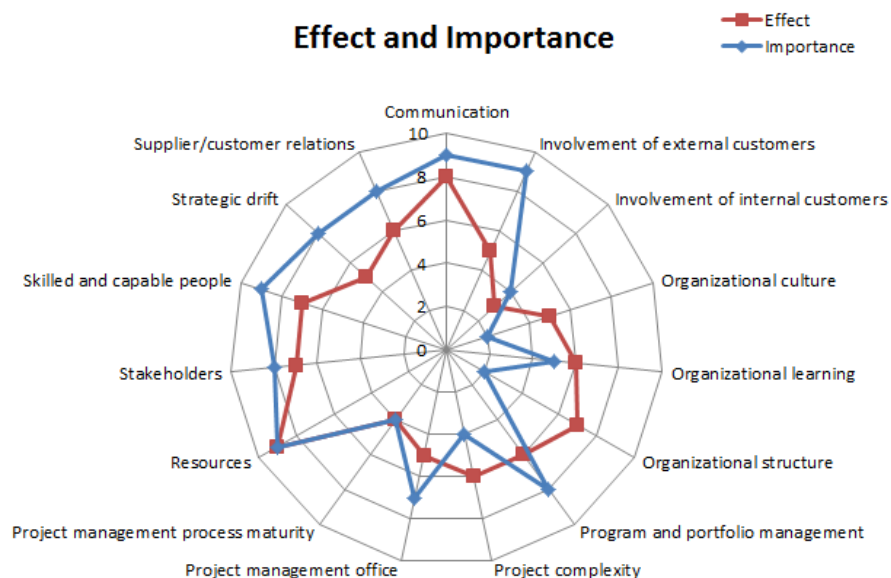


Figure 10: Effect and Importance, Company C

Factors	Effect	Importance
Resources	9	9
Communication	8	9
Involvement of internal customers	3	4
Involvement of external customers	5	9
Organizational structure	7	2

Table 3: Selection of factors, Company C

Resources were scored 9 in both in effect and importance. In company C it is a problem that they often do not have enough human resources during projects. The allocation of human resources is mainly during the projects, and the human resource department does not know what kind of resources needed in different phases of the project. If they have to little resources, they try to find the best solution together with the human resource department, especially when there are organizational changes. Organizational changes happen a lot due to market flexibility. To balance financial resources they have a steering group, with allocate and supervise the budget and balance.

Communication was rated at 8 in effect and 9 at importance. At the current moment they do not have a project manager’s network, but they are trying to share knowledge in between managers. They have a flat structure and it is easy to ask questions, also to people at a higher level.

Involvement of internal customers was ranged at 3 in effect and 4 in importance, and **involvement of external customers** was ranged at 5 in effect and 9 in external customers. The organization is market driven. The focus of the organization is decided at organizational level, based on what market it is beneficial to pursue.

Organizational structure was ranged at 7 in effect and 2 at importance. Company C has a cross functional structure, and several departments are involved with the same projects. They launch products twice a year, and they align their activities across departments according to the deadlines of the products. The organization is mainly based on projects.

4.4 Case Company D

Case company D is an American based global leader in technology solutions for the energy sector. The company is over 100 years old and has over 19000 employees in 17 countries. The revenue of the company D is around 7 billion US dollars.

The contact department at the organization runs around 40 projects and has an average budget of around 1-3 billion Norwegian kroner. The duration of a project is normally between 2-3 years, and the number of project team members are normally around 30.

The contact person has over 20 years of experience in the business and he has over 5 years of experience in dealing with projects.

4.4.1 Effect an Importance in Company D

An illustration of the ratings of all the factors is presented in Figure 11. In Table 4 a selection of factors is presented. We will draw out relevant information from the interviews regarding these factors.

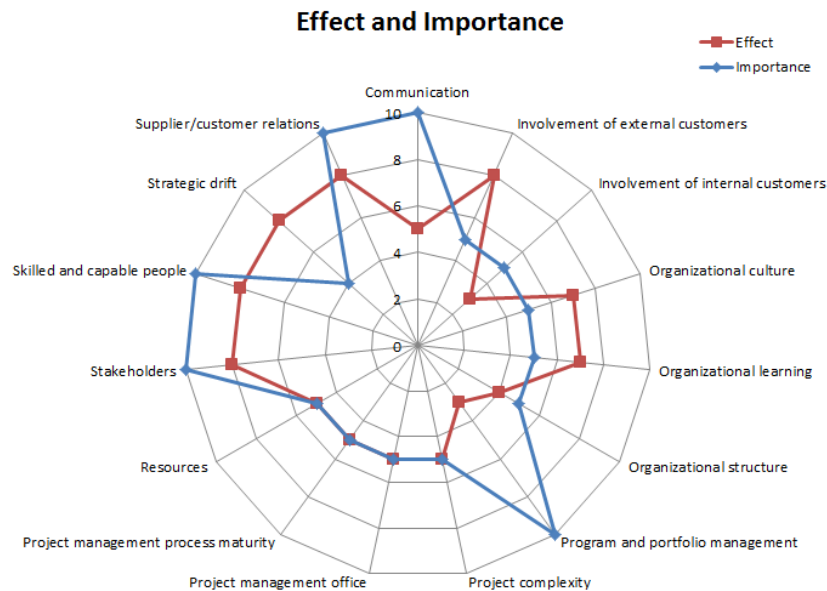


Figure 11: Effect and Importance, Company D

Factor	Effect	Importance
Skilled and capable people	8	10
Supplier/customer relations	8	10
Communication	5	10
Program and portfolio management	3	10

Table 4: Selection of factors, Company D

Skilled and capable people are ranged at 8 in effect and 10 in importance. The employees of company D is genuine interested in high tech solutions, and is driven by innovative and challenging projects. The company usually trains people inside the company for higher positions, and career paths are driven by interests. They have different programs to take the employees careers further. The American way of career paths is influencing company D. Traditionally employees stayed in the same position for about five years, but the American style is to stay in one position about one and a half year. The interviewee states: *“it is a disadvantage since we will lose a lot of skills”*.

Supplier/customer relations were graded at 8 in effect and 10 at importance. Company D choose to work with the powerful customers in their market, and has strong contact and communication with their customers. The customer comes with challenges, and company D develops and shapes the project in cooperation with the customers. Their customers are very powerful and if they need to prioritize between two similar projects, the project with the most important customer will be prioritized. One of the measures of project performance is customer relation. Together with the customer they have regular meetings with feedback.

Communication was graded 5 in effect and 10 in importance. The communication between portfolios is not that common, but within the portfolio it is wide communication. After completion of projects they have seminars to share lessons learnt, and after important events they give feedback to the portfolio manager. The communication with the customers is explained in the previous paragraph.

Program and portfolio management is rated as 3 in effect at 10 in importance. Company D has typically four different portfolios which have their own projects. The decision power varies a lot from portfolio to portfolio, depending on the portfolio manager. Project managers have a higher degree of power then the portfolio managers. Portfolio management has their main responsibilities associated

with risk assessment, customer relationship, and resource allocation. The control over resources is now changing, and the project manager is getting more power over resources. In decision making processes the portfolio management is responsible for all operational decisions, while project management have high authority financially; *“they can basically do anything”* Contact person, company D.

5 Analysis

In this chapter we will analyze the four case companies that were presented in the empirical data chapter together with relevant information from the theory chapter.

5.1 Case Company A

According to the results, skilled and capable people and the project management process maturity are the factors that have the major effect on linking the organizational strategy with the projects, see Figure 12. On the other hand involvement of external customers and the program and portfolio management have the minimum effect on linking the organizational strategy with the projects.

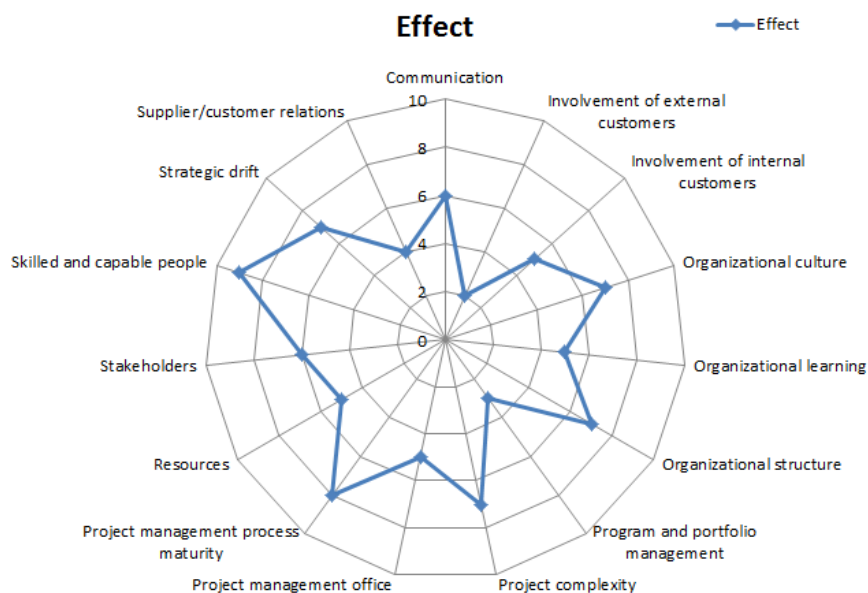


Figure 12: Effect, Company A

The results from case company A clearly support the idea of Dinsmore & Cooke-Davies (2006, p. 245):

“Methodologies and processes do not deliver projects, people do”.

The case company A has a successful business strategy and they already have pre-booked capacity. According to the representative of the organization, they hire people that have the right mind set. Their business is not incentive driven and most of the people that work at the organization are self-driven and have the right mindset for deliveries of the organizational goals. The effect can be seen in a way that at the moment the organization has hired consultants and, other than the permanent

employees, they have also hire some developers when they are in need of them. Therefore the projects are directly affected by the skills of the people working on them. It is obvious that in such a business the human resource is the main asset for the organization. The case company A is also involved in the personal development and they have a formal training program for the people working at the organization.

As there are two schools of thoughts about the project management process maturity, the first one is that standardization is not good for the projects (Hodgson & Cicmil, 2006) and the other one says that it is important to have a common frame of reference when It comes to the selection and delivery of projects (Eskerod & Riis, 2009). The case company A is leaning more towards the 2nd school of thought. The project management processes are well defined at the organization and the monitoring is continuously done, even the customer has also been given the access to the check the number of hours spent on each project. Therefore the project management process maturity is providing a support in linking the organizational strategy with projects.

On the other hand the case company A does not have much effect of external customers on its strategy and the projects. Since Sandmeier (2008) argued that the quality of the products is associated by the involvement of the customers in the projects. However at the company A the business strategy is to develop products and sell it to the customers. In start the organization took all kind of the projects, and now they are in a position that they can afford to do selective work. That is why the external customer is not that important in this business case. The organizational key to the success is continuous improvement internally.

The case company A is not much effected by portfolio management. As described in the empirical data chapter the organization is prioritizing the projects according to risk of delivery date and a kanban board is used for prioritizing the projects. The projects are divided by the work breakdown structure and many developers work at their own to deliver their part of the work. Since the organization develop its own products and the projects are normally familiar to the organization, therefore the complexity of the projects seems not to be that big that they need a proper program and portfolio management support. So the effect of program and portfolio

management on linking the organizational strategy with the projects is not that visible.

When it comes to the importance of the factors that link the organizational strategy with projects the representative from case company A has considered the skilled and capable people, project management process maturity and the communication as very important and project management office and supplier customer relations as least important factors, see Figure 13.

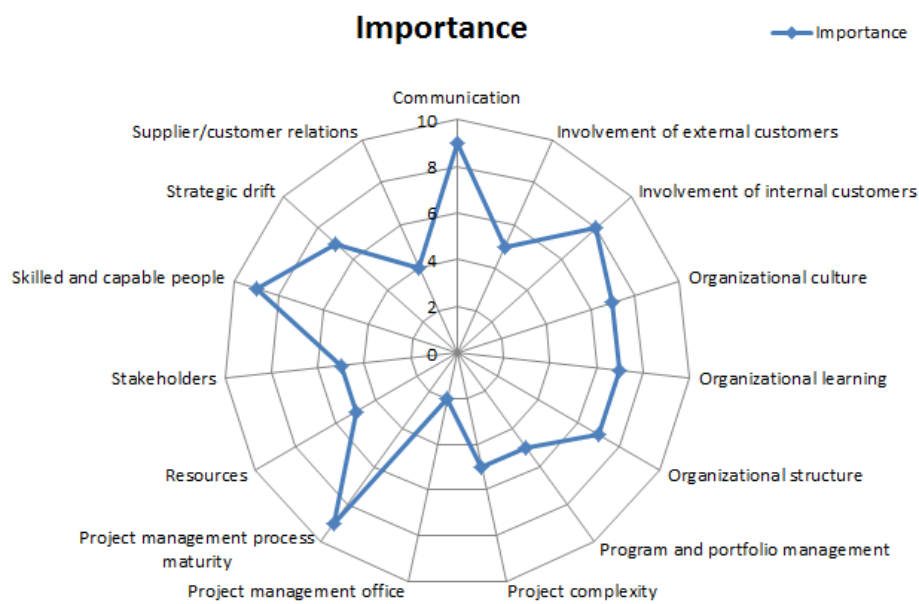


Figure 13: Importance, Company A

As discussed above that the case company A is doing good in the business and their strategy is working well in the projects therefore two of the factors that are considered important by the organization have their effect as well. However communication is a area where there is still a big margin of improvement. According to Project management body of knowledge (2008) it is a multi-dimensional activity and the company A can do some efforts to make it effective and also provide proper communication skill development, environment and systems to make it more smooth and effective. Since a lot of work is done on individual basis at the organization, therefore it can be challenging as well. As discussed by (Verburg, et al., 2013) the communication is needed when the people share the targets and the speed of the project deliveries increase by the speed of information flow. As

discussed above that organization is not dependent on any external suppliers or customers therefore they are not important for linking the organizational strategy with the projects.

5.2 Case Company B

According to the results organizational culture has a high effect on linking organizational strategy with the projects at the case company B. There are some other dominant factors like communication and skilled and capable people. On the other hand the stakeholders and the strategic drift do not have much impact in linking the organizational strategy with the projects, see Figure 14.

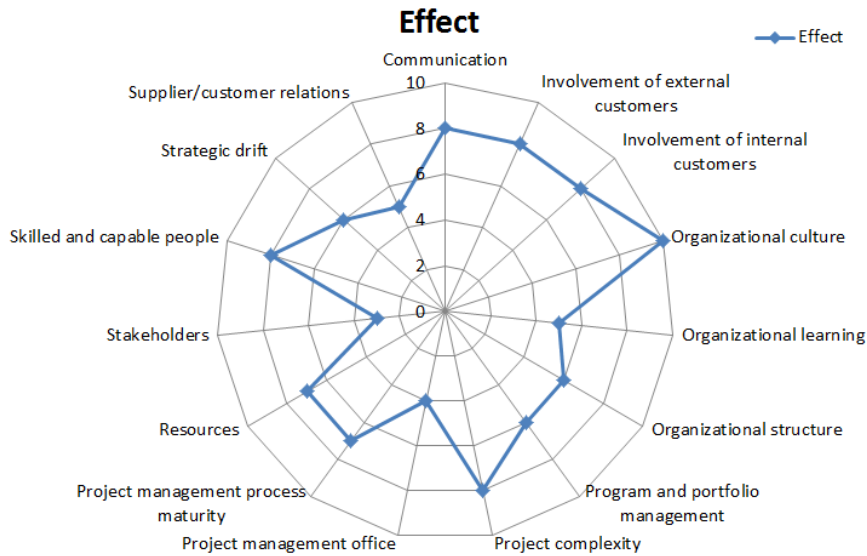


Figure 14: Effect, Company B

As discussed by Yazici (2011) that in order to produce high performance, organizational culture provides a great support: as it enhances the cooperation in the organization. The teams in the case company B are also stable; therefore it is easier to keep up the organizational values and behaviors. The case company B has an organizational culture of honesty and integrity. The employees are not being controlled by the management. As long as everything is working well, there is not much interruption. So that makes its obvious that the organization is driven by the culture not by the bureaucracy. This organizational culture is therefore having the strong effect in connecting the organizational strategy with the projects.

Skilled and capable people are backbone of an organization and as discussed in the theory by (Brousseau, et al., 1996) it is the responsibility of both organization and people to have the flexibility to develop the skills according to the environmental

changes. In order to achieve that the case company B do regular assessment of project management maturity assessment and if they see any shortcomings then they offer the learning package to the employees. It is then the responsibility of the employees to go through it. Since it is the new product development processes and the skills of the people have an impact on the result of product development therefore it has a strong connection when it comes to connect the organizational strategy with the projects.

Communication has a direct link with the organizational culture and the skilled and capable people. It supports both of them. As defined by PMI (2008) communication requires a lot of skills like listening carefully, questioning to make things understandable, negotiating and many other similar skills. People at the organization should have good communication skills in order to link the strategy with the projects. It is a multi-dimension activity. Therefore its effect is visible at the case company B. The organization does weekly meeting for status discussions and monthly meetings on cost. If the communication during these meetings is not right then it will cost the organization a lot in the form of poor decisions.

On the other hand the strategic drift has an average effect on linking the organizational strategy with projects. As discussed by (Johnson, et al., 2005) the organizations should be able to position themselves when the environment around them changes. The organizations ought to be flexible enough to respond to the changes around them to reduce the effect of strategic drift. Since Case company B's contact department is involved in the new product development, therefore they are already driving themselves according to the customer demand. And therefore the strategic drift at the company B has a loose connection between organizational strategy and the projects.

Freeman and Reed (1982) identified that there are individuals and the groups other than stockholders which should be in focus of the organization. These people or groups have the ability to boost or spoil the results of the projects. In the case company B, stakeholders do not have much effect in linking the organizational strategy with projects. There are a lot of benefits of identifying and managing stakeholders.

When it is a matter of importance of these factors, the case company B feels that organizational culture, communication and the skilled and capable people are of more importance and the strategic drift and the stakeholders are of minimum importance, see Figure 15.



Figure 15: Importance, Company B

Case company B is already doing great by having a strong organizational culture. However there is a small room of improvement in the communication and the skilled and capable people. As PMBOK (2008) discuss that it is a multidimensional activity and it requires a lot of skills. Therefore for better communication, the skilled and capable people are important and they can improve the working environment and the competencies of the company B. Since it is a product development department therefore the stakeholders and strategic drift are not as important as other factors for linking the organizational strategy with the projects.

5.3 Case Company C

According to the results of company C, resources and communication have the major effect on linking strategy with the projects. On the other hand Involvement of the internal customers and project management process maturity has the minimum effect on linking the organizational strategy with the projects, see Figure 16

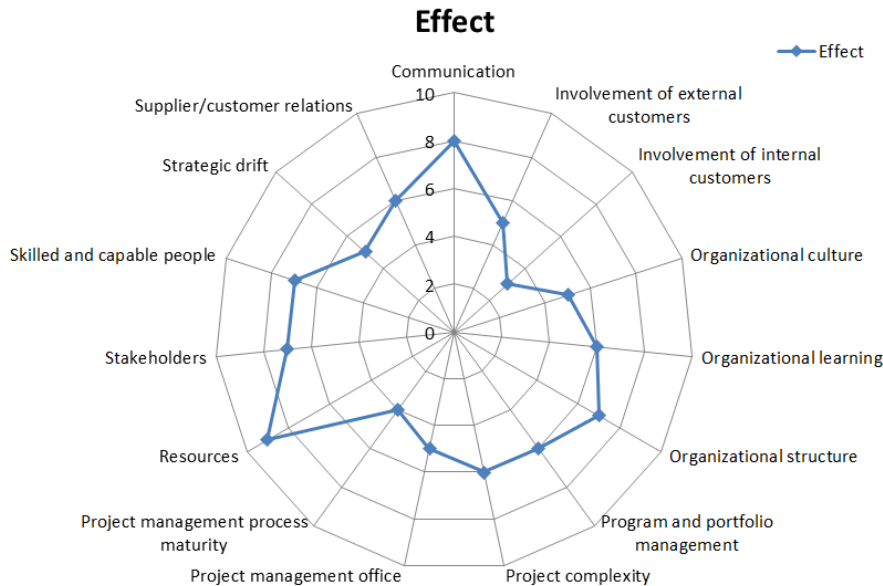


Figure 16: Effect, Company C

The contact department of the company C is entirely based on projects therefore it is really important for the department to have the available resources in time to deliver the projects. As mentioned by (Just, et al., 1994) if the project schedules are made on the basis of available resources, the decision making in the organization is smooth. Otherwise the project planning is based on the thinking that the resources are unlimited. As described by the contact person that the organization normally delivers projects twice a year. The focus business area is also defined and the top management allocates resources according to that. There is a project steering group that provides necessary support for balancing the resources in the organization. Time is the biggest constraint in the project delivers at company C. Only the research projects are not time bound. The project manager and the project team member try their best to provide as good results as they can in the available time. Therefore it can be concluded that resources are really important in this scenario to deliver the projects in time. To meet the desired results in time the resources allocation is very

necessary. Therefore the organizational resources have the major effect in linking the organizational strategy with the projects.

The second factor that effect the relation of the projects with the organizational strategy is communication. As elaborated by (Verburg, et al., 2013), the efficiency in value creation in an organization is achieved through communication. Therefore for the company C, communication has deep roots in the success of execution of business strategy. Since company C is a global organization and it has its customers and suppliers all over the world therefore it is quite challenging to do efficient communication. Since the company C is knowledge based organization and it has a lot of stakeholders globally, therefore communication systems at the organization and communication skills of the people at project have a great effect on the history, present and future of the organization.

According to the information collected through the interview, Company C does not have any internal customers and most of the projects they deal in are normally new. Therefore these two factors (Internal customers and project management process maturity) do not have a remarkable effect in linking organizational strategy with projects. As discussed by Hodgson & Cicmil (2006) that too much standardization in a projects stops the organizations from being innovative. These standard procedures use a lot of resources and the organizational learning suffers. Since business of the company C is mostly innovative and knowledge based therefore it validates the arguments done by Hodgson & Cicmil (2006).

After understanding the current scenario it is also important that how the organization is looking at the future in order to link the organizational strategy to the projects and get benefits from it. According to survey the communication, resources, skilled and capable people and involvement of external customers have been identified as important factors that can connect the organizational strategy with the projects. While organizational culture and organizational structure have not been given much importance for the future, see Figure 17.

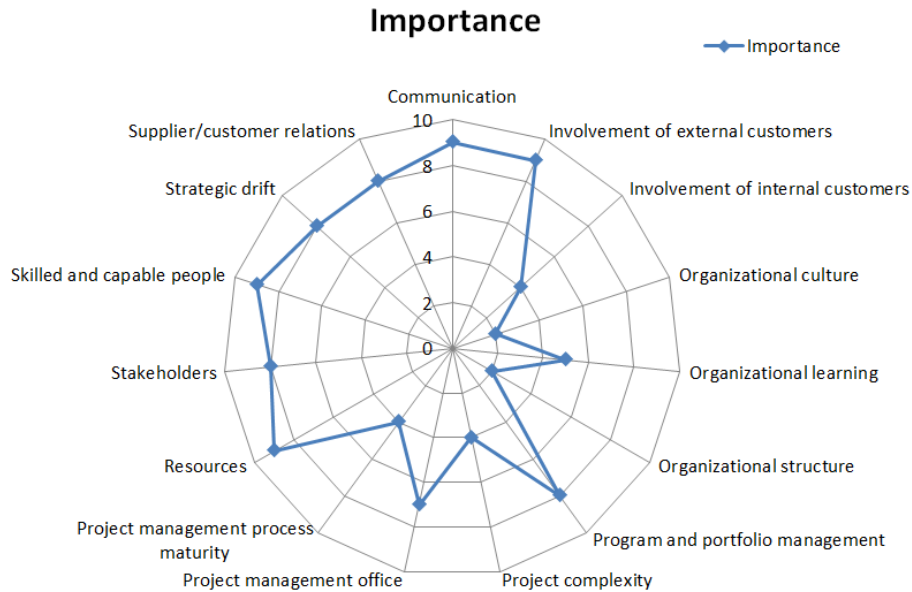


Figure 17: Importance, Company C

In company C the communication and organizational resources are already having a strong effect but the organization can develop itself in the areas of human resource and involvement of external customer. As emphasized by the Dinsmore & Cooke-davies (2006) pp 245 that “*Methodologies and processes do not deliver projects, people do*”. The business of the company C is also based on innovation therefore skilled people are an asset for the company C.

Since Sandmeier (2008) related the project quality and product development with the involvement of the customer, at the moment it has an average effect on the projects being done at Company C. The organization can explore the opportunities related to the customer integration. As the organizational strategy is customer focused, therefore if the customer is involved in the projects the product and service quality can be improved at company C. However more customer integration can also build pressure on the project team members and there are also chances that organization can lose some of its competencies and knowledge to an external customer. Ofcourse the involvement of external customer is very important but level of involvement can affect directly the link between projects and the organizational strategy.

There is a big difference in theory and practice when we compare the results of the importance of the organizational culture and the organizational structure. Many authors suggested that when an organization is operating in a global environment

then there should be some common values, beliefs and way of working inside that organization that create a sense of unification across the organization. If we see the effect of organizational culture at company C it is average but the organizational structure have an above average impact. However they are not considered as important as the other factors when it comes to link the organizational strategy with the projects.

5.4 Case Company D

According to the results the Skilled and capable people, stakeholders, strategic drift and supplier/ customer relations have kind of similar effect in linking the organizational strategy with projects. While communication has an average and program and portfolio management has small effect on linking the organizational strategy with projects, see Figure 18.



Figure 18 Effect, Company D

When the discussion about skilled and capable people start it is obvious to quote Dinsmore & Cooke-Davies (2006, p. 245):

“Methodologies and processes do not deliver projects, people do”

Since case company D provides high tech solutions to the energy sector therefore the skilled and capable people effect the execution of organizational strategy. As discussed by the representative of the company, the organization is interested to take projects that involve a lot of tailoring and leading edge technology. It was also mentioned that if there is a technically complicated problem at the company D then it is very easy to get the help. Therefore it is obvious that skilled and capable people at the company D have a big effect in linking the organizational strategy with projects.

Mainela & Ulkuniemi (2013) has elaborated the importance of the relationship at the individual level with the suppliers and customers in projects. Since the projects are unique and temporary therefore there is a discontinuity in the keeping the relation.

However the company D tries its best to involve the customer as much as possible during each stage of the project. Therefore the supplier/ customer relations have a visible impact on linking the organizational strategy with the projects, see Figure 19.

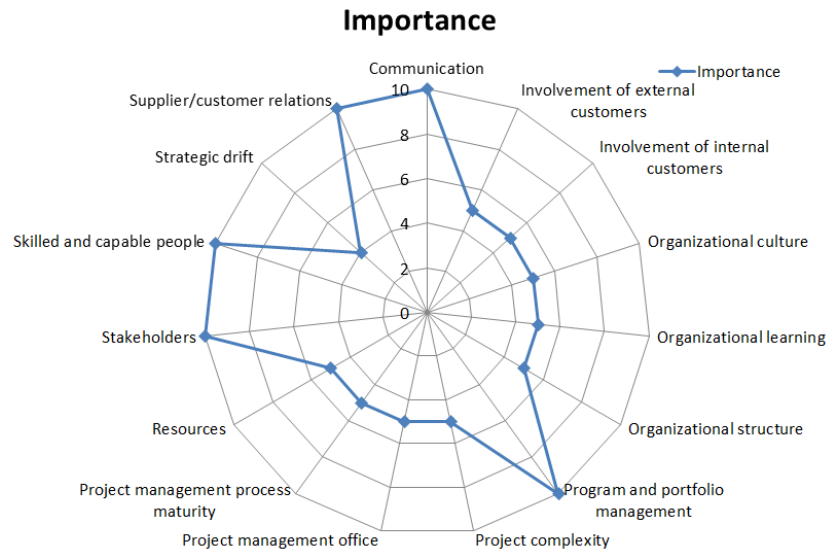


Figure 19 Importance, Company D

The importance of communication has been discussed a lot before in above sections. Since Project management body of knowledge (2008) has discussed it a multi-dimensional activity that requires a lot of skills. It is a general opinion of the public that technical people are not skilled in communication. They are already overwhelmed by a lot of technical information and data. At the company D the project complexity is really high and a small mistake can cost millions. The effect of communication at the organization is surprisingly low. The reason can be task oriented project works than building relations across the project.

Archer & Ghasemzadeh (2004) discussed that Program and portfolio management is a source of getting the maximum value from all of the projects. In order to achieve that, the projects should be aligned and managed according to organizational strategy. At the company C the portfolios are managed according to the customers. The projects are normally complex and huge and therefore the project managers have more responsibilities than program and portfolio managers. The portfolio managers are responsible for maintenance of the customer relations. Therefore the effect of the portfolio management on linking the organizational strategy is quite small.

If we see at the results of importance for the organization then there are very interesting results. The company D wants to achieve better communication, better program and portfolio management and reduce the strategic drift to link the organizational strategy with the projects. As discussed in the earlier paragraphs that communication can be made better by development of a multi-dimension communication systems and also the skills of the personals at the company D can be enhanced by different trainings related to efficient and effective communication. There are plenty of opportunities that are associated to program and portfolio management. The company D can invest some resources to explore the opportunities and make their projects better in delivering the value. In order to become more innovative and reactive to change the company D has to establish the organizational culture that is flexible so that organization can position itself to the changes happening in the market. Since it is a multi-national organization, therefore the chances of strategic drift are higher and the change process is slower as compared to a small regional organization. But by being prepared and being reactive, the company D can lead the innovation in technology for a lot of years in future.

6 Discussion and conclusion

The uniqueness of mankind is an amazing thing. We can all learn different things from same event, literature, observations or analysis. Similarly project management knowledge is also affected by a lot of researchers, practitioner and uncountable learning practices and experiences of millions of people that are spending their lives in creating a foundation for tomorrow. There are some frameworks or standard methods that are being used for knowledge management, but the results also have an unlimited implications and understandings by the writers and the readers. This is a unique study that will answer some questions in the future of theory and practice in project management and also raise some questions for further learning. The findings from literature research and empirical data from the interviews have been tested on four different organizations. In each case the results are different but we can discuss the results in an organized way.

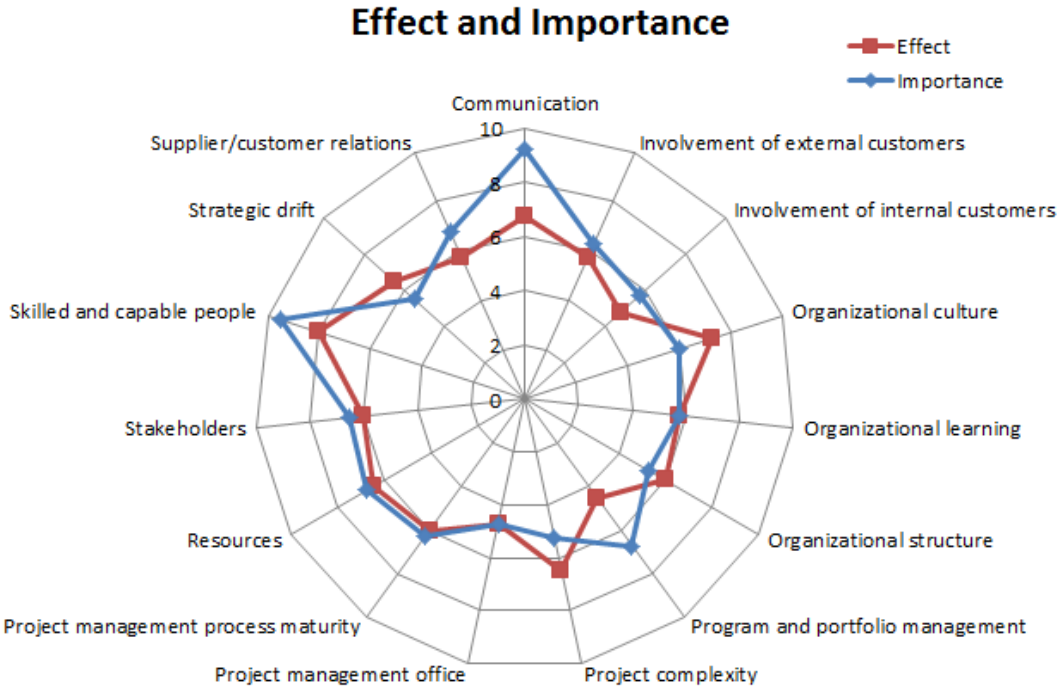


Figure 20 Average Effect and importance of the factors linking organizational strategy and projects

As Figure 20 shows, the average results clearly showed that majority of the organizations consider organizational culture and the communication, responsible for linking the organizational strategy with the projects. And they consider skilled

and capable people and communication as the most important factors that can link the organizational strategy with the projects.

Many arguments arise from just above statement. Most of the organizations think that it is important to have a good communication in order run the projects in the direction of the organizational strategy, but most of them do not have the desired communication systems, culture or skills at the moment. Similarly the organizations show the same trend in case of skilled and capable people.

On the other hand the effect of organizational culture is quite higher in connecting the organizational strategy through projects. But the desired effect of organizational culture is smaller.

According to the above two paragraphs: the organizations consider that they can connect the organizational strategy with the projects in a better way if they do better communication and have more skilled and capable people. According to the company contacts view, they need to reduce the impact of organizational culture on the connection between the organizational strategy and the projects.

The findings can also be discussed on the basis or variance. According to variance there is a big difference in effect and importance of the communication and program and portfolio management in linking organizational strategy with projects. That indicates that there is a huge potential in using communication as a tool to link the organizational strategy with the projects in a better way. And the organizations are not taking many benefits from the program and portfolio management as they should be. A big variance says that the organizations have the desire of seeking more benefits from program and project management, but at the moment they are not getting enough benefits in linking organizational strategy with the projects through program and portfolio management.

In short on the average communication and skilled and capable people are the factors that can affect the link between organizational strategy and projects and on the basis of variance program and portfolio have a lot of potential in linking the organizational strategy with the projects.

The benefits of doing this study are that in future the organizations or the people that are interested in smooth execution of the organizational strategy through projects can get the literature understanding from this report

As discussed in the problem identification that one of the major objective of the projects is to deliver the organizational strategy. One project can deliver one or more strategic objectives. (PMI, 2008). This research project has done a detailed assessment of how projects deliver the organizational strategy and what is it, that is effecting this objective. A combination of theory and practice has answered many questions about the connection of the organizational strategy with the projects. In the limited amount of time and industrial contacts, a quality document is produced that has laid the foundation of exploring the means of linking organizational strategy with the projects.

7 Further Research

This study within its limitation has answered some questions about how organizations link their strategy with projects. Since every research work opens so many ways to learn and explore more, it is important to discuss the future opportunities related to this study.

On the micro level, all of the above defined factors can be tested at each management level in the organization, and compare to the general results. The comparison can give feedback about the gaps in theory and practice and can provide sufficient information about improving the organizational strategy and strengthen the connection between organizational strategy and the projects. A future study option at micro level can be “to research about how communication can support the link between organizational strategy and projects”. Similarly the factors like organizational culture and skilled and capable people can also be studied so that the organizations can get benefits from them.

On the macro level a broader survey, both nationally and on a global level, can explore more about the importance of these factors in linking the organizational strategy with the projects. These global surveys can also give an idea about the way organizations are linking their strategies with the projects and it can be compared to the results received in Norway and Sweden.

Due to the time and contact limitation the authors have not got the time to collect the data based on observations. The results are based on the interviews and surveys. There is also an opportunity for the future researches on this subject to add observations at the case company to make the understanding better and refined that has been provided by the company's representatives.

8 Limitations:

In reality every research work has a lot of limitations. To understand every research work it is important to understand the scenario in which the report was written.

Time is itself the biggest limitation. The limitation is its availability and period. The research duration was limited to one semester and the professionals that participated in the study also have limited amount of time. This research work has been done during spring 2014 in Scandinavian environment. Due to limited amount of time, it was not possible to do the follow up interviews to refine the results.

Due to the limited time and contacts, only the companies in Norway and Sweden were contacted. A few of them showed responded and then in the end six of them participated in the interview process. Therefore the research findings are limited to the Scandinavian organizations. To get a better picture, the research can be expanded to European and global level and some interesting results can be discovered by comparing the data to the data collected by this research work.

The people that participated in the interviews were from diversified background, the medium of communication used was English, and therefore not the first language of either the researchers or the interviewees. This could lead to misunderstandings during the interview, as well as when interpreting the different questions and answers at a later point.

The educational and work background of the authors and the interviewees is also different and that should also be taken into consideration. There have been situations when the terms that are very academic, have different meanings in practice and were in need of some explanations from both sides.

The interviews were carried out in different environments. Some interviews were telephonic, some were on Skype and one interview was face to face. The face to face

interview was less challenging than telephonic and Skype interviews. The comfort level in face to face interviews has been found higher than in the other type of interviews.

Within all these limitation the authors have tried their best to answer the research questions.

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Appendix A: Interview guide

Organizational Project Management			
INTRODUCTION			
Introduction about who we are, and our thesis			
About the interview (Structure, our timeframe etc.)			
If it is OK to record (why we want to record, and our usage of the recording)			
EXPERIENCE			
How long have you worked with project managing (in total, including previous experience in other organizations)?			
TRAINING			
Do you have any formal training or project management qualifications (e.g. APM, CAPM, PMP)?			
LEVEL OF POINT CONTRACT			
What level of the company will you be describing in this assessment?			
INDUSTRIAL SECTOR			
What is your type of business?			
SIZE OF ORGANIZATION			
How many employees do you have (at the level of the company described by the interviewee)?			
COMPANY SIZE			
How many employees do your company have (not including other parts of the group)?			
INTERNATIONAL SPREAD OF THE COMPANY			
In how many countries do you operate (including sales offices)?			
STRUCTURE OF THE ORGANIZATION			
What best describes the structure of your organization (at the level of the company described by the interviewee)?			
COMPANY'S AGE			
How old is the company?			
PROJECTS			
PROJECT COMPLEXITY			
What best describes the type of projects undertaken by your organization?			
PROJECT BUDGET (AVERAGE)			
What is the average project budget (at the level of the company described by the interviewee)?			
PROJECT DURATION (AVERAGE)			
What is the average duration of a project?			
NUMBER OF ONGOING PROJECTS			
How many projects do you run at the same time (at the level of the company described by the interviewee)?			
NUMBER OF PROJECT MEMBERS (AVERAGE)			
How many members are included in the core project team of an average project (exclude the blue collar)?			

Overall questions

How is organizational performance seen by your organization?

What part of the project management play?

How do you relate the project management with the organizational strategy?

Alignment

What practices do apply for aligning all projects in the portfolio with the organization's strategies:

Identification of projects and their dependencies (potential, planned and ongoing)

Identification of project contribution to strategic goals

Evaluation (what is the impact on the other projects and resource availability if we run this project)

Selection of which projects to include in the organization's portfolio planning for the upcoming period

Balancing

What practices are you applying for portfolio balancing:

Prioritization of projects according to strategy

Balancing use of human resources (availability versus project demands, skills, internal - external, etc.)

Financial balancing of the portfolio (planned budget vs. Planned costs for total portfolio)

Risk minimization across the project portfolio

Value optimization (getting as much value as possible from the projects, given the resources available)

Project Portfolio Monitoring and Reporting

What practices are you applying for Project Portfolio Monitoring and Reporting:

Monitoring of strategic projects

Monitoring and reporting the project portfolio status (risk, total value, budget and resource usage)

Continuous assessment of portfolio alignment to strategic plans

Performance Evaluation

What method do you use to measure organizational performance

(Standard, own developed, benchmarking your methods, no defined method, etc.)

Why are you using that method

What are the main limitations of your methods

Are there any alternative methods

How often do you evaluate your organizational performance

How do you link your methods to your organizational strategy

Who is involved in the methodology selection process?

Who takes the final decision?

What are the challenges faced during methodology selection?

Organizational Learning

What practices are applied for learning from own and other organizations' project related experiences:

Benchmarking

Identification of best practices

Process and tools for knowledge management

PM network

Other (specify)

Project Management

Office

Do you have an office responsible for the following activities:

Project managers reporting PMO

PMO responsible for PM career paths

PMO responsible for PM knowledge sharing

PMO responsible for PM processes

PMO responsible for monitoring all projects

PMO responsible for project portfolio management

PM competence and

Career

What practices are applied for ensuring project management competence:

Project management career path

Training for project management

Project training for other categories (project member, line managers, sponsors, etc.)

Other (specify)

Roles and

Responsibilities

What roles are defined for project governance/project sponsorship:

Project sponsor or owner

Project steering group/committee

Project management (to coordinate projects contributing to same long-term objective)

Are roles and responsibilities stated in document (e.g. Project Charter, Org. Chart or Responsibility Matrix)

Benefits
management

**What practices do apply for project benefits
management:**

Before project: Securing the relevance of the business
case

During project: Continuously reviewing the
business case

After project: Measuring benefits
realization

Governance
practices

**What practices do you apply for project
governance:**

Project initiation process, including appointment of project manager and approving project
charter

Ranking importance of scope, schedule and budget for project
success

Stage gate decisions, including approval of project strategy, goal statement, plan
and budget

Project monitoring

Project termination (if no longer aligned with strategic
plans)

Appendix B: Data from survey

Company A

Effect of the following factors in linking organizational strategy with projects	Rank 1-10 (1 = Lowest 10 = Highest)
Communication	6
Involvement of external customers	2
Involvement of internal customers	5
Organizational culture	7
Organizational learning	5
Organizational structure	7
Program and portfolio management	3
Project complexity	7
Project management office	5
Project management process maturity	8
Resources	5
Stakeholders	6
Skilled and capable people	9
Strategic drift	7
Supplier/customer relations	4
Other (Specify)	

Importance of the following factors in linking organizational strategy with projects	Rank 1-10 (1 = Lowest 10 = Highest)
Communication	9
Involvement of external customers	5
Involvement of internal customers	8
Organizational culture	7
Organizational learning	7
Organizational structure	7
Program and portfolio management	5
Project complexity	5
Project management office	2
Project management process maturity	9
Resources	5
Stakeholders	5
Skilled and capable people	9
Strategic drift	7
Supplier/customer relations	4
Other (Specify)	

Company B

Effect of the following factors in linking organizational strategy with projects	Rank 1-10 (1 = Lowest 10 = Highest)
Communication	8
Involvement of external customers	8
Involvement of internal customers	8
Organizational culture	10
Organizational learning	5
Organizational structure	6
Program and portfolio management	6
Project complexity	8
Project management office	4
Project management process maturity	7
Resources	7
Stakeholders	3
Skilled and capable people	8
Strategic drift	6
Supplier/customer relations	5
Other (Specify)	

Importance of the following factors in linking organizational strategy with projects	Rank 1-10 (1 = Lowest 10 = Highest)
Communication	9
Involvement of external customers	6
Involvement of internal customers	6
Organizational culture	10
Organizational learning	6
Organizational structure	7
Program and portfolio management	4
Project complexity	7
Project management office	5
Project management process maturity	7
Resources	8
Stakeholders	3
Skilled and capable people	10
Strategic drift	3
Supplier/customer relations	5
Other (Specify)	

Company C

Effect of the following factors in linking organizational strategy with projects	Rank 1-10 (1 = Lowest 10 = Highest)
Communication	8
Involvement of external customers	5
Involvement of internal customers	3
Organizational culture	5
Organizational learning	6
Organizational structure	7
Program and portfolio management	6
Project complexity	6
Project management office	5
Project management process maturity	4
Resources	9
Stakeholders	7
Skilled and capable people	7
Strategic drift	5
Supplier/customer relations	6
Other (Specify)	

Importance of the following factors in linking organizational strategy with proje	Rank 1-10 (1 = Lowest 10 = Highest)
Communication	9
Involvement of external customers	9
Involvement of internal customers	4
Organizational culture	2
Organizational learning	5
Organizational structure	2
Program and portfolio management	8
Project complexity	4
Project management office	7
Project management process maturity	4
Resources	9
Stakeholders	8
Skilled and capable people	9
Strategic drift	8
Supplier/customer relations	8
Other (Specify)	

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Effect of the following factors in linking organizational strategy with projects	Rank 1-10 (1 = Lowest 10 = Highest)
Communication	5
Involvement of external customers	8
Involvement of internal customers	3
Organizational culture	7
Organizational learning	7
Organizational structure	4
Program and portfolio management	3
Project complexity	5
Project management office	5
Project management process maturity	5
Resources	5
Stakeholders	8
Skilled and capable people	8
Strategic drift	8
Supplier/customer relations	8
Other (Specify)	

Importance of the following factors in linking organizational strategy with projects	Rank 1-10 (1 = Lowest 10 = Highest)
Communication	10
Involvement of external customers	5
Involvement of internal customers	5
Organizational culture	5
Organizational learning	5
Organizational structure	5
Program and portfolio management	10
Project complexity	5
Project management office	5
Project management process maturity	5
Resources	5
Stakeholders	10
Skilled and capable people	10
Strategic drift	4
Supplier/customer relations	10
Other (Specify)	