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**Managing Projects in the
Organisation**

Assignment 1

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Abstract

In class we talked about how projects are managed, its importance in the modern workplace environment, tools used in the process and the sorts of skills that would be necessary to achieve success in this field. We covered all these topics with the aim of learning them well enough to be able to apply the theory from class to an actual workplace environment.

The objective of the following report is to produce a summary of all the theory on project management that we covered and provide an example of application in actual workplace.

For this purpose the report is broken into three main sections:

1st section will be a review of management methods used and the sort of skills a good manager should possess

2nd section will be an example from my work history where I was tasked with managerial work – I will discuss how to I applied project management skills during this period

3rd section will be a critical analysis of what matters I could had done better if I were given the chance to re-do that project. I will also discuss some of feedback I received on my work back then and the usefulness of feedback.

Benefits of using a structured approach to project management

What makes a good project manager

As with most tasks that require involvement with other people, communication is also a key skill that a project manager needs to master.

According to Cincmil et al (Cincmil, 2006) project managers in medium to large companies can spend up to 80% of their work hours communicating with their team and sometimes only as little as 20% of the working time actually planning what to do. The time they spend talking to other people is due to having to monitor other staff and advise them when they are going off project, it can also be time spent giving status updates to stakeholders such as senior management or the client who is paying for the project. From these communications the project manager can come across changes in circumstances that may require a re-think of the current project plan.

A key skills that a project manager also needs to have is being proactive, this is they need to spot issues that are likely to happen and communicate this with the relevant colleges before the problem becomes difficult to manage.

For example, an issue may arise with the supplier and in such situation the project manager would need to communicate with both the supplier to get an updated deadline from them and pass this information onto the production team.

But also as important is the ability to distinguish between important and trivial matters. If the communications exemplified in in the previous paragraph happen almost every hour, than the teams involved may start to ignore the barrage of updates. This would in turn make their communication efforts less efficient.

As with being an effective communicator, a good project managers needs to have a good overview of the technical side of the project they are assigned to in order to make the appropriate decisions, as exemplified previously.

Modes of communication

We mentioned that communication is very important, but also as important is the mode of communication and the perceived importance attached to it.

Research done by Niinimäki (Niinimäki, 2014) on a large number of office workers showed that they perceived communications that were face to face and coming from their senior managers as being of higher importance than when the same communication was done via a more casual written format (eg: email).

Their research also states that each type of communication has its merits. For example, communicating in text can allow for an easier time finding details on specific points communicated. But when something is needed to be done urgently, the successful project managers chose direct verbal communication.

Stakeholders - Key peoples in project management

There are usually a variety of people involved in a project ranging from the production team who are delivering / making the project, the management team, investors, sometimes regulators (eg: for public projects), etc. All of these people are stakeholders in the project – they are interested and are likely to be affected in some way by the project.

Vos et al (Vos, 2006) categorise the importance of these stakeholders can be subdivided into three sub-categories, these are:

- 1- Key stakeholders,
- 2- Primary stakeholders, and
- 3- Secondary stakeholders

The level and importance of stakeholders is determined by their participation and influence over the project.

People who are significantly influential to the completion of the project are classified as the key stakeholders.

People who are likely to be affected by the project and may have some minor influence over the project are classified as primary stakeholders.

People who may be affected by a project, but the effect will be very minor and generally have little to no influence over project are classified as secondary stakeholders.

Lets use an example of a building project where someone commissions an architect to design and build a house for them.

In this example the person who pays for the architect and the house is a key stakeholder and can be that he is also the main stakeholder. The architect is also a key stakeholder, but has less influence over the project than the client.

The people of the neighbourhood where the house is being built will be affected by the construction works. It may block the road from time to time, there will lots of loud noises during construction and the area may be littered while building works are ongoing. The neighbours, thus may ask the council to intervene and make the architect and the builders to plan their works in a way that mitigates some of their concerns. But the neighbours are unlikely to have a say on how the house looks like after the building process. This makes them the primary stakeholders, as they are affected and have some limited influence over the project.

Residents of nearby neighbourhoods may be affected during construction, if for example, closure of one road redirects more traffic towards nearby neighbourhoods. However, this inconvenience would be much smaller than being next door to construction works for a few months. They may still complain to the council, but it is unlikely the council would take any action to aid them. This makes the residents of nearby neighbourhoods secondary stakeholders as they are marginally affected and have little to no influence.

In this example it may be not feasible to get all the neighbours in a meeting to discuss details of project planning. But the architect and builders would find the works going smoothly if they checked with the council what could and could not cause of inconveniences for the neighbours.

Setting the aims and objectives of a project – the scope

In most commercial settings before a project is passed on the client (the bill payer) a document containing all the aims and objectives of a project is made. This is generally the legal document that will be used to discuss and rectify anything that may end up missing from the project. This document is usually called the project scope and also includes an estimate of the monetary cost of the project.

If the project involves around producing a single product, for example shipbuilding yard producing a boat then the document may be named as product scope.

In either situation, the objective of this document remains the same: to lay out a detailed specification, the costs attached and expected deadlines in a simple transparent format that can be used by the stakeholders to analyse the project and track its progress.

However, referring back from the last section when we discussed that sometimes projects need to be flexible with their targets due to unforeseen circumstances, this also applies to the project scope document. As discussed by Grilli (Grilli, 2015) using a real life example of project in the energy section, it may be at times required to make small amendments and additions to account for problems that arise along the project.

Benefits of having a transparent project scope

Generally the more comprehensive the project scope the better as it shows to stakeholders that attention has been given to every aspect of the project and the chances of unforeseen issues are small. But, according to Atkinson (Atkinson, 2016) too much detail may also slow down the process and may not be best suited for a long term project in a dynamic environment.

Having a good estimate of all the deadlines and milestones within a project can also help if other external projects are dependant on the first project – which is often the case in the real world. Therefore, this allows stakeholders to base the timeline for other projects more reliably.

According to Ghasemi (Ghasemi, 2016) project scopes also tend to have a “exclusion clause” which is a list of things that the project explicitly will not achieve. In commercial settings this is important because should there be any conflicts among stakeholders on a parts of the project not being completed to satisfaction, they can refer back the exclusion clause and settle their dispute.

After the project scope is agreed with the stakeholders and given go ahead by the client. The document can be a valuable asset for the project manager in monitoring the progress of the project. Due to the project scope also being a common document among all stakeholder it can be efficient tool to update everyone on milestones or delays.

Risk management and project management

Risk is an ever-present factor in any project, irrespective of time, location, size or cost. However, it sometimes happens that when the risk is deemed small enough or the project is on a short deadline manager try to push aside the risk management part of a project to meet the milestones and deadlines.

In more serious projects, where for example medical care is involved or legal matters are involved, the lapse in risk management is generally rarer due to the legislation that forces certain special care in those industries as discussed by Iuga (Iuga, 2014).

It is suggested by Ellegaard (Ellegaard, 2008), that irrespective of the project size it has been shown that project managers should have at least some form of contingency planning: either additional resources on standby, allow for some extra time to finish tasks, etc. Often the cost making such provisions is far less than the cost failure.

Methods for Risk Management

There are quite a few methods for project risk management, often innovative solutions will include cloud based software that can keep track of all the tasks that everyone is doing in real time and provide information on a live display board when someone falls behind schedule.

Regardless of what particular solution is used to manage risk during a project, the end goal is the same: to be able to anticipate, prepare for and mitigate the impact of problems that occur while the project is ongoing and researched by Schieg (Schieg, 2006) this ultimately helps ensure the completion on time.

A general risk management process has six stages as discussed by Chapman (Chapman, 1996), but depending on the flexibility need for the project some stages may give new insight requiring a new analysis. The main stages can be categorised as:

- 1- Risk management plan
- 2- Risk identification
- 3- Qualitative risk analysis
- 4- Quantitative risk analysis
- 5- Risk responses
- 6- Risk control

Stage 1 involves the management team getting together and making a decision on what the best approach to risk management would be for the project at hand. Should they invest a large amount of time preparing in anticipation of a high right or high frequency issue that may arise or should they treat risk management as a smaller component if there aren't major risks predicted.

Stage 2 is about looking a bit deeper into the project and try to identify where risks in the project could come from. This could possible issues in the project team, lapse in communications with external stakeholders, external factors outside of the management teams control, etc.

Stage 3 involves analysing the list of risks from stage 2 and prioritizing them based on the frequency with which they are likely to occur and the damage each risk may do to the project. This stage can be thought of as a rough approximation of what each risk could mean.

Stage 4 involves taking the categorized and prioritized risks found in stages 3 and 2 and performing a numerical analysis of the impact to the project caused by each risk. There are various methods for

performing such analysis, including probability tree diagrams, impact matrices, Monte Carlo simulations and many others.

In large business environments such as governmental levels, the rigor of the risk analysis can lead to requiring another project simply for the risk assessment of some other project. In those situations however, it is likely that the numerical methods involved would be much more complex and largely computer based as the number would get larger and more complicated.

Stage 5, once the risk with highest impact is calculated the management team takes appropriate action to attempt to find mitigations to those risks first and slowly work down the risk impact list.

Stage 6 generally happens while the project is ongoing and is where all the risks assessed in the previous stages are observed, this is, the management team tries to keep stay ahead by proactively seeking points where risk may occur.

During the stage 6, if the project is dynamic than some of the risks assessed previously may become less impactful as the project goes. In these situations, according to Tether (Tether, 2011) the management would have to update their estimations with new data to keep on top of risk management.

Risk visualization

One common way of visualizing risk is to use a Probability and Impact Matrix. As explained by Iacob (Iacob, 2013), a probability and impact matrix allows the managers to visualize in an organized and intuitive way the high frequency and high impact risks and allow to group them by colour bands (or other ranking metrics).

Most commonly the risk matrix is presented with rows that state the frequency of occurrence and columns that state the disruptive impact, as demonstrated in the following figure.

		IMPACT		
		Low (insignificant, just note)	Medium (reasonable impact, to be monitored)	High (will have a significant impact)
LIKELIHOOD	Low (unlikely to occur)	E	D	C
	Medium (may occur at a time)	D	C	B
	High (likely to occur)	C	B	A

Figure 1 – example of a probability and impact matrix – adapted (Iacob, 2013)

The probability and impact matrix can give a very clear overview of the situation in a project. However, stakeholders will often ask for a numerical analysis that can roughly translate the risk factor into monetary losses or gains – a project where investors are involved would very much demand such detailed study before granting funding.

To get such numerical interpretations of risk one has to recur to something more mathematical. In such situation a decision tree can be used to calculate an expected monetary return.

In a decision tree the risk is placed on each branch of the tree and the monetary risk or reward is multiplied by the probability of failure. According to Pynhcon (Pynchon, 2012) Often there will be branches coming off old branches as there may be scope for further risk if a particular path is followed – but a decision tree allows quantify the monetary risk or reward of such a chain of risks. Following is an example of a decision tree being used to estimate the cost of a legal case not being successful.

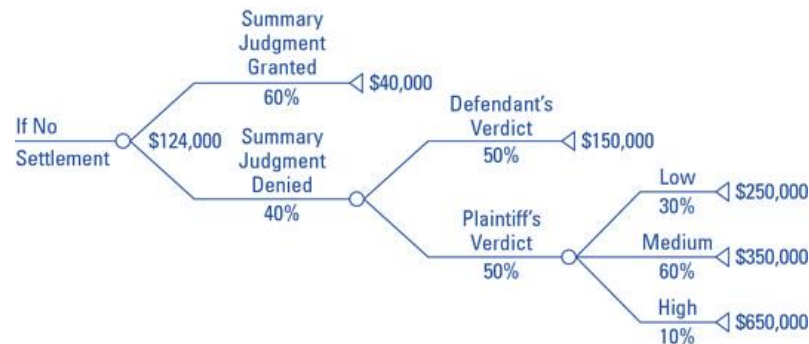


Figure 2 – example of decision tree being used to estimate the cost of legal project failing – adapted (Pynchon, 2012)

Project management in action – managing a building expansion

My personal experience

I was tasked with leasing and managing the builder and kitchen staff communications while the restaurant I worked for was undergoing refitting works for some kitchen appliances – it should be noted that this took place in a commercial kitchen where there are many regulations we must abide by and refitting of anything usually comes with a significant impact to the everyday workflow.

My first task was to sit down with the builders and understand the scope of their work and how and where that would affect our work in the kitchen. The objective of this was to identify risks to interruption to existing cooking facilities and find ways to mitigate them.

The overall understanding from the meeting was that we were to aim to get things done fast. The consensus was that the longer the builders would have to stay around the more it would cost the company. So it was decided minor risks such as small inconveniences like changing everyone's workstations would be tolerated for a few days while the work was ongoing. However, any health and safety regulations could not be avoided – things such as stray building material would have to be safely stored away and out of the way completely during busy kitchen hours, as it posed a major trip and electrical hazard.

Looking back at this initial meeting with my current knowledge of project management, this would have been the equivalent to stage 1 of a risk management process where we decided the greater picture.

After the meeting I went away and walked through the kitchen after closing down to do a detailed assessment where the buildings works were most likely to create congested areas. I made a mind map of where it was most likely to have tripping hazards as they pulled electrical wires and other equipment were to be placed.

Luckily I did not have to worry about the changes to gas piping or electrical circuits as they were part of the builders responsibility to make good – this was not an area I knew much about and would not have been able to do regardless.

The next day I told the builders about the places where they would have to be extra careful as they were areas where people would be passing by in a hurry. I also helped them set up markers on the ground help the kitchen staff stay clear of the building area.

Looking back at this with my current understand of project management, this would have been all of stages 2 to 5 of the risk management process. The mind mapping of risks may be called the qualitative risk analysis stage and setting up the ground markers be called risk response stage.

It evident that I did not carry out a proper quantitative risk analysis. As mentioned earlier in the report, a full risk analysis are often side-lined in smaller projects and I was guilty of this. However, as my boss had established in the beginning of the building works that the priority was to get it done quickly and that as long health and safety risks were taken care of, there was little else to worry about. Given these constraints a full numerical analysis may have taken longer than three days the refitting actually took and thus the risk analysis would have been a bigger risk to project completion.

During the building works, while performing my normal work duties I was also tasked with checking in on the builders and to make sure they were keeping everything within their assigned space. There were some small lengths of wires and cables that I had to bring to their attention, but no major action was needed to maintain a smooth work flow.

Looking back at this with my current view, this was stage 6 of risk management process in action – which I would say I did well.

Improvements for future

The part where I could have done better was the risk management aspect. If I had started to analyse the workspace before the builders I may have had the time to have a more complete assessment to make to our first meeting.

At the time I had little to no knowledge of written methods of risk management – as I said, I had a mind map of what could go wrong and was successful in communicating it with others. I fear though, that should I be tasked with a larger and complicated project this may be insufficient. It would however be a good opportunity to test my skills using the systematic qualitative and quantitative risk assessment methods I learned during this course, eg: probability and impact matrices and decision trees.

In my concluding remarks, I would like to believe that when I am tasked with managing a project in the future I could do better given the new knowledge I gained.

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