An Inquiry into the Nature of Projects and their Management [1]

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ABSTRACT

Half a century of experience is reflected on in this observation of the project's phenomenon as it ocurs in nature. The work of the project and the management of the project are not evident in theory. A fundamental premise is that the person performing the work must be fully competent in order for the management to succeed. Attention is drawn to the role of project reporting and its effect on project success in the current information crisis.

1 INTRODUCTION

Scientific method and systems theory present a thought, when studying a phenomenon as it occurs in nature, that a sequence exists when describing it. Projects having a start and finish, follow the stages of a plant lifecycle to achieve a beneficial outcome. Information available on project management is not specific on the daily schedule of a project manager, but contains an abundance of tools and techniques while neglecting the significance of management theory used in managing a team. A major part of the day is spent in dealing with information provided to many parties, some of whom are not involved in the project. The project team educates parties who formulate opinion on the project's progress, apart from the technicalities that produce the product of the project. Literature was found to have minimal descriptions on the work of the project and what it is that the project manager actually does. Whether a project succeeds or fails hinges on the information distributed about it – more so than on the delivery of technical excellence.

2 BACKGROUND

I started working in 1968 as an apprentice site electrician and gained experience in many different facets of construction work, without being aware of the existence of projects. It was only in 1981, when employed as a project programme scheduler, that I became aware of the existence of projects. As a scheduler, I developed a modular approach for Duva electrical power station, saving hundreds of labour man hours. These modules could be inserted or extracted from ongoing work without having to re-run the entire schedule – which consumed seven days of exclusive use of computer time to do the

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printout. The result was that a printout could now be made of current work only. It was the practice in those days that every activity on the schedule had to be walked on site to verify progress for the month-end meeting. These modules could also be moved between projects, hence the saving of labour man hours.

I was then asked to do the same for Koeberg Nuclear Power Station, after which I requested to be transferred to the construction site, where I was involved in commissioning Unit One. It was then that I realised that the 27 000 activities on the commissioning schedule consumed a massive number of manhours, and was unwieldy and impractical for management meetings. I applied strategic operational and tactical-level work breakdown structures to make the schedule more manageable.

In 1990 I was asked to set up a project management office. I developed a master project database, a procedure manual, a multi-project prioritising method, and a management system. Each of these had an in-house training programme to train a team of 270 people working on 2000 simultaneously occurring projects on the main transmission system. A set of standards was also produced for prioritising projects, and was accepted by the Electrical Supply Commission of South Africa.

3 LITERATURE

In 2020, a search on the Internet listed over ninety million books on project management. The majority seem to refer to First World industrial development projects. Many referred to tools and techniques. Some covered the management of projects. Few described what the project manager actually does.

It seems clear now, but back in 1990 I was not sure what I was doing. I turned to literature, reading as many books, journals, proceedings and magazines as were available. I undertook a masters degree, as I studied my work. My attention turned more to management – planning, organising, leading, controlling – where, from control and instrumentation experience, a systems approach was recognised. Project literature was found to neither adequately explain the task-technical nature of the work of the project, nor the social-emotional aspect of the management of the project.

Process consultation describes a sequential procedural approach to management. Published literature lacked a description of the phenomenon as found in nature, while over-emphasising the way things should be done. What was needed was a logical, sequential procedure – a repeatable, re-usable, systematic approach to managing a large number of simultaneously occurring projects. The philosophy and law of projects are yet to be described.

4 PRACTICE

The person responsible for tightening the foundation bolts on a 900-megawatt generator may be unaware that he is working on a project. The project manager who may be unaware of the material used in a bolt's design, relies on a commissioning report which indicates that the system is functioning. An error in either of these activities could lead to a catastrophic failure of the project. In practice, the manager responsible for the work is a contractor to the project, who provides a designated schedule of activities for his portion of the work. The project manager collects these schedules for the entire project, and monitors the contractors, to produce the product of the whole project. The schedule of work is managed in conjunction with contract methodology and payment. The project manager cannot be a technical expert, a legal expert and a financial expert. He relies on a team of many skills that result in earned value for the project.

Consider the project as a cross-country vintage car rally. The work of the project is to drive the car and service it to reach its intended destination. The work of the project manager is to report the progress of the car to the shareholders. To this end, the project manager has a team of people who individually stand at the side of the road, watch the car go by, and report on its progress. The project manager reports to the shareholders on the time, effort and money spent to get the car to its present position, and on what is required to finish the race. Based on information provided, the shareholders can adjust expectations to achieve their goal. A critical failure creeps in when the project manager and his team are expert drivers and motor mechanics. Their comments and reporting on the work of the project may inhibit the efficiency of the work of the project, especially when one considers the expertise of the project management team interfering with the work of the team performing the project. The completion of the project is now jeopardised by the required information on which to base decisions, not reaching the shareholders.

Managing the work of the project is not the same as the work of the project manager. A senior project manager once told me that a good project manager does nothing, but is aware of current events and who is responsible. A poor project manager tries to do everything. The project manager therefore should manage the people who manage the work.

Synchronising CAPEX requirements to expenditure, and the tax implications of a current assets register, combined with the law of contract, might not be in the toolbox of the average project manager. Currently, managing the demands of stakeholders (those affected by the project, but not involved) and shareholders, the project manager has become a dispenser of information across many parties. Project success or failure is now dependent on media opinion – more so than on the delivery of technical excellence. This becomes a critical factor when dealing with social development, where the failure of a

project can be regarded as success by the community. Information and multimedia have now become important, and the project manager who is not able to control social media and the way in which information is disseminated about the project, will find the future difficult.

5 APPLICATION OF LITERATURE TO PRACTICE

Projects are now in music, in politics, in the judicial system, in healthcare, in the military and on Mars. They are no longer the sole domain of engineering. There are now universities dedicated to the topic. Societies have dramatically changed. Before, it was expected that one did the right thing in the right way at the right time. Today, people tend to do what they want, when they want, in the way they feel like doing it. It is essential that the person performing the task is imminently competent to perform it. If the project manager is the sole source of competence, the project will experience difficulties.

The project manager who is not able to give a review of the project status within ten minutes, or able to present a project audit report within one hour, may find his services in low demand. The ability to calm a group of angry investors is paramount. Dealing with the media, as well as expert presentation skills, are demanded from even an average project manager today.

6 PURPOSE AND RELEVANCE

In days gone by, the project manager would arrive on site well-groomed, well-dressed and well-spoken. He would walk across the site, followed by people with notepads and pens. They would stop and discuss progress; people would come running from all over. As the group moved across the site, tasks would become neat, tidy and up to date. Problems would have been solved. Later, when attending the progress meeting, there would be a report containing pictures, graphs, tables, explanations of what needed to be done, information on progress, and expenditure to date, as well as for the remainder of the project. The report was like a work of art. One would show it to people as if it were a prized possession.

Where projects failed, the project manager would be found sitting in his office, hands in his hair, papers everywhere, angry. No one would know what was going on. At the progress meeting, the report would resemble old newspapers that had been used to housetrain a puppy. No one would want to touch it.

When reading about project management and studying it, I looked for descriptions of competencies required of project managers of old. Nothing was found – neither in literature, nor in education. I pondered on how the projects would succeed without the

ability to communicate convincingly, the ability to think solutions, and the ability to perform information. If tasks were left up to people who did what they wanted when they felt like it, how would the project develop? Consider the project manager using distance education and multimedia to inform, encourage, solve problems and draw attention to relevant issues, forcing the project to succeed.

7 CONCLUSION

A contrast was made between managing the work of the project and the management of the project. An over-emphasis on technical skills in the project manager is disappointing, while the need to present project information across media is not sufficiently exploited. Technical excellence does not guarantee project success, as public opinion might deem it a failure. Project success or failure is now dependent on the distribution of information about it. Managing societal opinion of a project might be a new idea to some. In future, the project and its management must deliver solutions in a very different world.

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About the Author

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