1 The Sustainable Project Management Model

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Learning outcomes

By completing this chapter, the reader will be able to:

- Compare the listed project management methodologies
- Understand the concept of sustainable development
- Appreciate the need to develop sustainable project management practice
- Discuss the literature review on sustainable project management
- Discuss the Strategic Project Management Model SPMM

Introduction

In the era of digital transformation, following the emergence of disruptive technologies that guided and facilitated the shift towards sharing economy, change is imperative. Imagine the very nice-looking carriages that you see in the royal weddings and compare them to the latest generation of Tesla cars. Or compare the set of skills required to fly Yakovlev Air-5 model 1931 vis-a-vis the Dassault Rafale or the F16 Fighting Falcon (Top 10 fighters, 2017). Before embarking on driving/flying the latter, regardless how competent with the former, the driver/pilot needs to acquire relevant knowledge and master a new set of skills and techniques, and learn different methods in order to be able to deal with the state-of-the-art technology.

The vibrant business environment that has become even turbulent amid the digital transformation is analogous to the rough sea with unfavourable conditions. Those who are not ahead of the game, vigilant, and aware of what they need to do in order to sail safe will have an unpleasant ending, regardless of how successful they are at present. The Titanic is just one example.

However, from a risk exploitation perspective, these conditions can be turned into competitive advantage, with the appropriate strategy, plans and actions. Scholars across the board have already started exploring how to utilize this unprecedented development in technology in reviewing and developing the current practices in almost every field. Management scholars are no different and indeed project management should top the list of areas that should be reviewed. Change is imperative.

Historically, project management methodologies have been selected as the most suitable for managing change. Construction projects introduce change to the building site as does upgrading an assembly line in a manufacturing plant. Projects can take different forms such as new product development (NPD) and new service development (NSD); developing new software, business restructuring and reengineering, mergers and acquisition, event management, etc.

Over the past decades, the traditional project management methodologies have been reviewed, criticized and challenged by professionals from sectors where these methodologies were not the best fit, such as the software development sector. New methodologies such as Agile project management emerged, mostly driven by the practice rather than academia, in response to the needs of the sector. Academic research then followed and this is now a well-researched area. It was quite unusual, given the hypothetical view within the academic world, to be leading the practice by providing knowledge and guidance. Yet necessity is the mother of inventions. So, when there is a need that is not fulfilled by academia, practitioners will act – and they did.

Interestingly, this seems to be reoccurring at present.

Sustainability is perhaps the most popular term in almost every aspect of the business environment, directly or indirectly, on daily basis. Direct examples include: sustainable development, sustainable products, sustainable construction; indirect examples include: smart cities, green logistics, renewable energy.

It imperative that this change towards sustainable practices across various sectors should be guided by project management methodologies. And it should be logical to realize that the requirements for managing this change will need a different approach, based on a different perspective and a different set of skills; someone who can fly the F16 Fighting Falcon!

In this chapter, and indeed throughout the rest of this book, a new model for sustainable project management is introduced and discussed to address this need. However, this does not mean scrapping the past, but rather building on it and developing it. Needless to say that the current project management metholodology recognized by professional bodies such as Project Management Institute (PMI) and known as the traditional methodology, has been popular for decades; delivering projects successfully. When the Agile methodology emerged as a better fit for managing software development projects, some key building blocks were imported from the traditional methodology, despite the claims otherwise.

Certainly, the Agile approach embraced a different mindset and introduced significant changes that yielded better results, in the context of software development projects in particular, as well as with other appropriate types of project. Hence, like driving a car, whilst the driver must keep an eye on the central and side mirrors to consider what is behind, the main focus should be on looking forward.

The suggested model presented in this chapter, while considering the appropriate building blocks of existing methodologies, introduces a different approach to managing projects that embraces the sustainability dimensions and the advances in technology. Consequently, changes in the key areas of knowledge included in the existing methodologies will be imperative due to the inclusion of these new dimensions. In addition, the inclusion of advanced technology in a sustainability context will require a change in mindset and different skills when managing projects; geared towards eco-innovation and sustainable change management.

Chapter structure

At the start, a critical review of the relevant literature supports the call for this change and justifies the claim of an existing gap that the model aims to address. Then a brief review of the exiting methodologies will be presented from a comparative perspective. The model will be introduced, explained and discussed. The chapter will wrap up with a section about the structure of the book and how the following chapters link to and reflect on the model. There are set of case studies online that can be a useful learning tool in context. These are available at:
www.goodfellowpublishers.com/sustprojman.

Development of the project management methodologies

Traditional project management

The traditional project management methodology, also known as the waterfall model, has been prevalent for decades and forms the basis of the PMBoK (PMI body of knowledge). The PMBoK offers guidance on how to effectively manage any project a set of processes required by the project manager to follow. The PMBoK method comprises 10 knowledge areas and 5 process groups; Planning, Initiation, Execution, Monitoring and Control, and Closing. These also refer to the project life cycle phases. The 10 knowledge areas include: Integration, Scope, Time, Quality, Cost, Human Resources, Communications, Procurement, Risk, Stakeholders. In the process groups, the process outputs become inputs to the subsequent process. Such activities overlap and take place at divergent degrees of intensity all through the project. The list of 10 knowledge areas, process groups and the subsequent processes are shown in Table 1.1. Clearly, there is an interaction between the different life cycle phases and the associated process as shown in Figure 1.1