Critical evaluation of project-based performance management
Change intervention integration

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Abstract
Purpose – The purpose of this paper is to evaluate project-based management in the context of interventions to initiate improved organisation performance.
Design/methodology/approach – The work draws on literature from project management, change management (CM) and performance management.
Findings – Results identify the interrelated aspects of project management, CM, and performance management. Conclusions indicate that improved organizational performance and increased productivity would be achieved by adopting an integrative approach to project-based interventions.
Research limitations/implications – Further research into specific integrated techniques and tools for delivering change would be valuable with particular focus on technical contributions to CM. Moreover, the PM field could gain from utilising CM processes in implementation of projects.
Practical implications – Whilst a number of theories of CM are widely accepted, literature suggests they are falling short of their endeavours as a result of the theories lacking a useful framework to successfully plan, implement and manage change.
Social implications – The rapidly changing business environment has required organisations to seek out effective processes, tools and techniques to implement successful change. Whilst there is a significant body of literature surrounding CM, the high failure rate of change interventions suggests improvements could be made to its management, monitoring and control. The analytical focus of this research was in how the common and most utilised CM models could be improved with PM processes, in order to appropriately deliver successful change.
Originality/value – This article critically argues the value of project-based management in the CM process, with particular focus on the Project Management Book of Knowledge (PMBOK). As such, change interventions to bring about improved organizational performance can be considered a project; as such, a new approach to project-based change interventions is proposed.
Keywords Project-based management, Change management, Organizational change, Performance management, Integration
Paper type Conceptual paper

1. Introduction
The successful management of change is crucial for any organisation. Projects by their application produce change. Project-based management, used to initiate
an organisational change, is a temporary undertaking to achieve a specified outcome that requires commitment of varied skills and resources (Stuckenbruck, 1981). To achieve successful outcomes in an organisational setting, a project must build capability to achieve an improved outcome. This process requires an organisation to change from one state of working to another. Change management is a planned process of transitioning from one state to another through a sequence of steps with a focus on generating the acceptance and commitment of individuals undergoing the change (Argyris, 1993; Jones, 1995; Melbourne, 2003). The similarity between project-based management and change management is apparent when each purpose is contrasted; project-based management focuses extensively on tasks and outputs; change management emphasises people and outcomes.

The boundary objective and conceptual framework adopted as the development of this research, was drawn from appropriate literatures to answer the following high-level question: Would the integration of project-based management techniques and change management concepts benefit interventions to improve organisation performance?

Drawing upon the literature, the paper addresses the benefits and issues associated with integrating both methodologies: project management and change management. We first review the concepts of project-based management and change management. Next, the phases of project management are compared and contrasted with several change management models to understand the similarities and to provide a discussion of the merits, or otherwise, of integration. We conclude by providing recommendations for further research.

2. A closer look at project management

The use of project-based management as a discipline and as a generic skill has been widely espoused (Partington, 1996); and has certainly been adopted by the consultancy industry to initiate change programmes (McElroy, 1996). It is, however, not a solution to every change intervention facing organisations. Only when used under appropriate circumstances can this approach be effective (Partington, 1996). One of the areas its effectiveness is challenged is in the implementation of organisational change to bring about improved productivity and performance (Winch et al., 2012). In the implementation of organisational change, it is arguable whether project-based management provides the most effective tools and techniques. An appropriate proposition for testing is therefore:

*P1.* Project-based management’s inherent incremental progression to achieve its outcome is well suited to change interventions.

Continuous improvement and organisational change might be considered inseparable axioms; and which have neither a beginning nor end (Winch et al., 2012). Projects, however, have pre-defined beginnings and outcomes, are temporary, and teams will invariably be dismantled upon its completion (Parker and Craig, 2008). While project-based management ensures that initiatives are coordinated, assists management in providing control, provides for risk identification and resource planning and controls, it is not necessarily effective at dealing with “soft issues” (McElroy, 1996). When there is change associated with capital intensive outcomes, for instance with implementing a new information technology (IT) system, there is greater evidence of success; and arguably greater benefit in the integration of
change management- and project-based management (Partington, 1996). This leads to the opportunity to test the proposition:

\[ P2. \text{ Project-based management is better suited to interventions that are capital-intensive initiatives.} \]

Project-based management is best described in the context of the knowledge, vocabulary, processes tools and techniques of the Project Management Book of Knowledge (PMBoK) (PMI, 2008). The adoption of PMBoK is based on the use of five process groups that incorporate nine knowledge areas that support the successful implementation or production of a service, product or outcome. The process groups for each stage of the project life cycle include initiating, planning, executing, monitoring and controlling and closing (Ganon, 1994). The knowledge areas that they incorporate include integration, scope, time, cost, quality, human resource management, communications, risk management and procurement. Of these, four of the knowledge areas (scope, schedule, cost and procurement) lend themselves easily to delivering outputs that are specific and measurable, otherwise known as hard elements. The remaining elements (risk, quality, integration, communications and human resources) are directly related to people within an organisation or project environment. It is these soft elements which closely align with change management; and where project management and change management overlap. Consequently, a proposition requiring further testing is:

\[ P3. \text{ Soft knowledge elements in project-based management are well suited to interventions that involve change for people.} \]

3. Change management
Organisational change is described as those activities that interact within a competitive environment to achieve organisational goals and strategic objectives (Brown and Eisenhardt, 1998); and can include changes to organisational structure (Child, 1997) and culture (Schein, 1985). These activities impact on people in the organisation, their job roles and work-related behaviours (Porras and Silvers, 1991). Inevitably, the process that includes the creation and execution of this plan is often referred to as change management. There is an extensive body of knowledge in change management; but little research has been carried out on the use of project-based management to plan, initiate and deliver the change intervention. A thorough literature search in high-quality research-based journals that focused on change management (published in the last five years) has identified no research on change initiatives using project-based management models. Conversely, there are several applicable research papers published in the project management literature (and discussed below).

For the purposes of this research we will define change management as a process used by project-based teams to manage the people (stakeholders) associated with the process, any capital investment, structural and other organisational changes (Prosci, 2008). Change management also requires a number of competencies that enable managers to support people transition from one state to another – such as leadership and communication (Stewart and Kringsas, 2003; Prosci, 2008). Since project-based management has been described as transforming the organisation from one state to another, it seems the two fields share the same goal. However, they have different approaches to achieving this.

It is proffered that this goal can be achieved more effectively when project-based management and change management are integrated. Prosci’s (2008) Project change
model depicts the interrelation between project management, change management and leadership, and describes each of these as essential elements that all need to exist to complement each other for successful transformation (Figure 1).

Prosci (2008) argues that the first step in managing any type of organisational change is accomplished by understanding how to manage change with a single individual. Prosci’s model of individual change is called the Prosci® ADKAR® model – an acronym for awareness, desire, knowledge, ability and reinforcement™.

In essence, to make a change successfully an individual needs:

- awareness of the need for change;
- desire to participate and support the change;
- knowledge on how to change;
- ability to implement required skills and behaviours; and
- reinforcement to sustain the change.

Whilst ADKAR® describes successful change at the individual level, when an organisation undertakes an initiative, that change only happens when the employees who have to do their jobs differently can say with confidence, “I have the Awareness, Desire, Knowledge, Ability and Reinforcement to make this change happen”.

Because it outlines goals or outcomes of successful change, ADKAR® is a tool for:

- planning change management activities;
- diagnosing gaps;
- developing corrective actions; and
- supporting managers and supervisors.

4. Demarcation between change management and project-based management

The interrelatedness of project-based management processes and change management is made here by comparing and contrasting how the process groups described in PMBoK (PMI, 2008) relate to the various steps of change management (e.g. Kotter, 2007). In this context the PMBoK (PMI, 2008) process groups are utilised as a methodology for showing the project life cycle.

An alternative comparison might be made between PRINCE2 (project in controlled environment) and change management methodology (as depicted in Figure 2).

The “project/change triggers” deliberately precede the project management processes to highlight that the factors leading to the initiation of most projects are the same factors that lead to organisational change. This is why we argue that projects by their application produce change.

The project/change triggers are based on McKinsey’s 7S model (Waterman et al., 1980) which is a framework that considers all aspects of an organisation in relation to each other. These aspects must all be considered to achieve effective organisational change.
The project management processes are derived from the PRINCE2 project management methodology (OGC, 2009). PRINCE2 is a process-based approach where each process comprises a set of structured activities that enable direction, management and delivery of projects. There are seven processes of which only six are depicted in Figure 2. The process that has been excluded is known as “starting up a project” and is a pre-project activity that does not overlap with the change management activities outlined in Figure 2.

The change management activities listed in Figure 2 are largely based on Kotter’s (1996) change management principles.

4.1 Project initiation
Project initiation refers to activities focused on ensuring realistic business needs will be achieved and identifies the stakeholders that will influence the success of the project (PMI, 2008). The PMBoK further states that it is beneficial to involve stakeholders from the very start as it improves the probability of shared ownership, acceptance and satisfaction which, in turn, enhances the success of the project. This greatly overlaps with popular change management principles that identify the need for establishing a sense of urgency (Kotter, 2007). This consists of examining the competitive and market forces prevalent for the industry within which the organisation is operating, similar to Pettigrew’s (1987) “context” stage of his organisational change model. Kotter (2007) also describes it as including the identification and discussion of crises, potential crises and/or major opportunities. Clearly there is a relational link between organisation strategy and projects by linking them through project-based programs, as described by McElroy (1996). Programs can act as a bridge between strategy and projects, providing a framework for structuring and managing organisational change and increasing the likelihood of successful implementation (McElroy, 1996). Forming a powerful guiding coalition is substantially stakeholders with enough influence to lead the change required (Kotter, 2007). Arguably, this is similar to the project management initiating stage (PMI, 2008) where a key output is to identify influential stakeholders.
From a process perspective, change management entails identifying stakeholders, their level of uncertainty and building appropriate activities in the project plan to mitigate risks at each phase of the project (Bryson, 2004). To assist with identifying and mapping stakeholders, a general approach is to define stakeholders based on their level of influence and impact on the project: the value vs impact matrix (Bryson, 2004).

Stakeholders can be identified into four groups (Bryson, 2004): first, those that collaborate and who have a significant interest and influence; second, those that should be kept informed and who have a low level of influence; but may be highly impacted by the change; third, others that should be monitored and be responded to and who have minimal influence and may be marginally impacted; and fourth, those needing to maintain confidence and who have significant influence but may be slightly impacted by the change. Each group describes a set of characteristics in relation to the types of risks, the level of management, engagement strategies and the level of information needed to influence outcomes. Ultimately, the role of stakeholder analysis is identifying any issues that each stakeholder group might pose in relation to the project.

Nutt (2002) conducted analysis of over 400 projects to determine the cause of projects failure, and concluded that half of the failed decisions in projects were due to a lack of engagement with stakeholders who had a vested interest in the outcome. Ward and Chapman (2008) confirmed that stakeholders represent a significant degree of uncertainty in projects due to their influence and actions. Stummer and Zuchi (2010) in the context of the public sector, identify the need to recognise that projects lead to change and it is important to allocate responsibilities and roles to lead the change.

Creating a vision (Kotter, 2007) is formation of the content of change and the strategies for achieving them – akin to Pettigrew’s (1987) content phase. Within project-based management, such information would be encompassed in the development of the Project Charter – the document that records the business requirements and the statement of work. Lehmann (2010) draws on completed projects to highlight the significance of changes caused to stakeholders. We seem to have learned from the failures of the past, it is argued.

4.2 Project planning
PMBOK (PMI, 2008) describes planning as those processes performed to establish the total scope of the project, define and refine the purpose, and develop the course of action required to meet the project objectives. The activities in the planning stage include developing the project plan, developing scope requirements, creating the work breakdown structure, developing the schedule and required activities, developing budgets and costs, planning for quality, the human resources plan, communications plans, risk management and procurement.

Kotter’s (2007) third step “creating a vision” might be considered as aligning with this stage of the project management life cycle. However, Kotter’s (2007) model is far less detailed in the steps and activities undertaken project management; as described in PMBOK (PMI, 2008). There is, however, a strong similarity with Pettigrew’s (1987) “process” phase which addresses the “how” of change in terms of both the overt managerial initiatives taken to push the content forward (see e.g. Winch et al., 2012). The planning phase described in PMBOK (PMI, 2008) has far greater detail of the processes and techniques in planning compared to both Pettigrew’s (1987) and Kotter’s (2007) change management models. These models do not describe the same level of rigour, structure and succinctness that this stage of the PMBoK life cycle is able to offer the project manager.

One of the benefits that many change management models provide project management during the planning stage is that they address emergent change issues.
Project management activities are one dimensional; following a consecutive linear pattern. Change management is multi-dimensional in terms of planned activities and, importantly, emergent activities (Aljaz, 2010).

Within the project management discipline, planned activities refer to discrete boundaries that encompass linear phases and discreet activities undertaken with each project phase. Emergent change describes the necessity of activities that occur ad hoc in order to manage uncertainty generated by stakeholders. For change to be accepted effectively, project management planning needs to account for greater numbers of emergent activities – and which may not fit within the timeframes of a project phase (Aljaz, 2010). Change management models have frameworks to manage internal project change that focus on the people and transitional change aspects (Aljaz, 2010). As much as a project looks to change a particular function or process of an organisation, the project itself is dynamic and the project team continually face internal change.

4.3 Executing a project
It is extensively argued that (see e.g. Smith, 1999), a project invariably fails or succeeds during the execution of the plan. From a PMBoK (PMI, 2008) perspective, executing a project is characterised by the implementation of activities and measurement of progress as identified in the planning phase in order to meet the strategic objectives and goals of the project. In change management literature this is referred to as the implementation phase and it describes the process whereby the majority of stakeholders are confronted with tangible changes.

There is an alignment between project management activities and, for example, Kotter’s (1996) description of change activities that involve communicating the vision (fourth step), empowering a select group of stakeholders to commence change (fifth step) and creating short-term positive changes (sixth step). In contrast, the project is reliant on change control activities to re-affirm the scope and objectives; while change management advocates, communicate these changes to the stakeholders and manage behavioural risks.

The benefit of acknowledging the strengths of change management is that it provides the ability to identify risks associated with stakeholder behavioural changes as a result of transitioning through the changes. It is within this phase that empowering others to execute the change is critical as stakeholder disengagement or resistance could impede the project’s success. It is at this stage that project-based leadership and change management principles are vital to increase the likelihood of the intervention’s success and reduce resistance. The term resistance refers to stakeholders’ opposing a change even when a range of benefits exist and it serves the best interests of all (Bartol et al., 2003). Resistance may be due to self-interest, misunderstanding, lack of trust, different assessments of the benefits arising from the change and fear of their ability to cope with change and adapt to new situations in the workplace (Kotter and Schlesinger, 1979). Methods to reduce resistance include education, communication, participation, facilitation and support (Kotter and Schlesinger, 1979).

4.4 Monitoring and controlling
In a project-based environment, monitoring and controlling consists of processes to track and review the project’s progress and performance when measured against initial planning specification (PMI, 2008). These processes enable project managers to measure
performance, identify areas that require changes (when compared with the original project plan) and initiate corrective action. Monitoring and controlling is a regular and consistent set of activities that review specific project-related knowledge areas and competencies.

In addition to monitoring the efficiency and effectiveness of project-based initiatives, evaluation of progress may further enhance opportunities for change improvements, as it may highlight potential risks and impediments to success. Moreover, it invokes the need for a sense of urgency (Partickson et al., 1995). Evaluation also facilitates organisational learning and can motivate people to participate in future initiatives (Doyle et al., 2000).

The importance of ongoing evaluation is also emphasised in the field of change management. Within Kotter’s (1996) principles of change, evaluation data may reveal successes, short-term wins and encourage celebration of these to provide further motivation to all stakeholders.

Monitoring and controlling has been defined in the field of change management as procedures that systematically collect information relating to planned change activities that alter organisational processes (Snyder et al., 1980). In contrast, within a project-based environment, recognition of resistance to change and similar emotive situations has not been duly recognised for their importance to outcomes (Parker and Craig, 2008; Easterby-Smith, 1994).

A lack of sufficient rigour and competency assessment in the project management discipline with regard to performance management issues, has led to researchers challenging aspects of this type of evaluation (Goodman and Rousseau, 2004). The Snyder model (Dick, 1997) aims to improve performance awareness using rigour achieved through a participative and systematic approach. In fact, this model may be an effective project management tool as it incorporates process and outcome evaluation thereby focusing on assessing the achievements of the project as well as the supporting change management processes.

4.5 Project closure
During the final stages of a project – closure – important activities include obtaining acceptance by the client or stakeholders, reviewing the handover of the project, recording project impacts and documenting lessons learned. The key objective of this cycle is to formally complete the project ensuring all process groups and project phases are complete (PMI, 2008). While project management focuses the efforts of the project manager on tasks, such as, documentation and contractual obligations at project closure, arguably there is little recognition of change management issues.

Bridges (1991) provides a three-stage process model that focuses specifically on the end of a project or change initiative. He terms this as “beginnings” rather than an ending. The reason for this is because by the end of a project, a change would have already been introduced into an organisation and so the organisation is at a new beginning for this particular change. The important aspect of this stage of change is that the new beginning reinforces new behaviours, celebrating the successes, and symbolising the change in the workplace. Other popular change theorists have also emphasised the importance of this stage and have aptly named this stage “maintenance” (Prochaska and DiClemente, 1984) and “reinforcement” (Prosci, 2008). All of these theories emphasise the key activities of reinforcing the new way of working, removing obstacles to the change, removing the old ways as much as possible and rewarding positive behaviours through formal and social means. Arguably, comparisons can be drawn between project
management and change management, in that they both consciously describe this end stage. However, the focus of the activities and targets at this stage are different between the two fields – with a combination of both of them seeming most effective.

5. Discussion

Review of literatures in project-based management and change management has surfaced several propositions for further development and empirical testing. The development of a conceptual framework will determine research parameters and objective boundaries for enquiry. Published work (in the project management literature) in the space similar to these authors’ research, includes Gareis (2010) and Crawford and Nahmias (2010). Changes of organisations by projects and the competencies for managing change, respectively (Crawford and Nahmias, 2010), were described. However, the concept of integrating change management models and project-based intervention models were not considered.

To summarise the key aspects of both change management and project management, Table I identifies fundamental integral features of each process. Within change management, eight important steps are recognised. In contrast, within project-based management, five steps are identified. Whilst similarities are clearly seen, arguably, the emphasis in application of both change management and project-based management differ slightly.

A clear gap in our knowledge is with stakeholder analysis. While project management and change management both identify this as a necessary activity, change management provides the more comprehensive strategy, tools and techniques to manage risks generated by stakeholders. Project-based management provides change initiatives with the structure to define the scope and potential outcomes. Nutt’s (2002) analysis indicates that failure to fully integrate project-based management and change management would almost certainly result in diminished effectiveness or failure to deliver on performance improvement initiatives.

6. Conclusion

As is evidenced from the analysis of PMBOK (PMI, 2008), Kotter’s (2007) change model and other change management models and techniques, it is argued that there is significant overlap between change management and project-based management; and therefore there is benefit in integrating the two disciplines. The tools and techniques are complimentary, and together can support performance initiatives to bring about operational improvement.

Project-based management can be a comprehensive method to provide structure to change; and change management can be used as a complimentary discipline to project managers to assist particularly with “soft” projects. There are limitations to each and difficulties in integrating both sets of techniques and tools. However, used as an integrated methodology there is a higher likelihood of intervention success. While there is extant literature examining the integration of project management and change management, there is still substantial scope for further research to identify benefits and challenges in integrating both disciplines – specifically in relation to the different types of change – cultural, structural and organisational – that impact on performance. There is an opportunity to undertake empirical research to develop the propositions identified in this work and develop an integrated model that combines project-based structural methods with change management underpinning philosophies. Conceptually this would be the building of a project-based change management model.
### Change management Considerations to gain acceptance

<table>
<thead>
<tr>
<th>Change management</th>
<th>Considerations to gain acceptance</th>
<th>Project-based management</th>
<th>Purpose of life cycle and stages</th>
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</thead>
<tbody>
<tr>
<td>1. Create a sense of urgency</td>
<td>Examine environment for potential problems and opportunities&lt;br&gt;Convince most that status quo is more dangerous than unknown</td>
<td>1. Project initiation</td>
<td>Examine the external and internal environment for potential problems and opportunities&lt;br&gt;Engage with stakeholders&lt;br&gt;Develop commercial case and key benefits analysis&lt;br&gt;Undertake early planning and fact finding</td>
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<td>2. Form a powerful guiding coalition</td>
<td>Build team with shared commitment and enough authority to lead change&lt;br&gt;Encourage team autonomy</td>
<td>2. Project planning</td>
<td>Define scope and purpose of project&lt;br&gt;Clearly define the extent and activities involved&lt;br&gt;Identifying resources&lt;br&gt;Establishing time lines&lt;br&gt;Agreeing what needs to be done</td>
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<td>3. Create a vision</td>
<td>Articulate clear direction&lt;br&gt;Develop strategies to succeed</td>
<td>3. Executing a project</td>
<td>Communicating with suppliers and stakeholders&lt;br&gt;Modifying plans as a result of changes&lt;br&gt;Team building&lt;br&gt;Ensuring stakeholders are satisfied</td>
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<td>4. Communicate the vision</td>
<td>Apply multiple channels to broadcast vision and strategies&lt;br&gt;Teaching new behaviours through the guiding coalition</td>
<td>4. Monitoring and Controlling</td>
<td>Measuring progress of project against time, quality and cost estimates&lt;br&gt;Ensuring stakeholders are still satisfied</td>
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<td>5. Empower others to embrace the vision</td>
<td>Modify processes and systems that do not support the vision&lt;br&gt;Encourage risk taking and unconventional ways of doing things</td>
<td>5. Project closure</td>
<td>Evaluate needs for final stages of handing over to client&lt;br&gt;Learning used to gain knowledge</td>
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<td>6. Progress with small wins</td>
<td>Promote success&lt;br&gt;Reward team wins</td>
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<td>7. Consolidate improvements and create more change</td>
<td>Build on success and springboard forward&lt;br&gt;Promote individuals that are successful&lt;br&gt;Reinvigorate the change process with new initiatives</td>
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<tr>
<td>8. Institutionalise new approaches</td>
<td>Highlight changes and corporate success&lt;br&gt;Create leadership development and succession plans</td>
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References


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