

Initiation of capital projects in industries having an operational focus: an Australian stevedoring case example

Project
initiation in
Australian
stevedoring

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Abstract

Purpose – The initiation phase of capital projects is critical as this is where the highest number of options exist for modifying the project with minimal expenditure. Government and large organisations frequently involved in major capital projects have extensive procedures for this phase, yet organisations having an operational focus (like major container terminal stevedores), that only occasionally undertake capital projects face the dilemma of the trade-off between project planning and the management of operations. This research reported in this paper investigated the impact of industry operational considerations on the initiation of capital projects.

Design/methodology/approach – In addition to an extensive literature review, a living research investigation of real projects initiated by a stevedoring company operating in Australia has been observed; the primary author of this paper spent six months as a participant/observer and witnessed the initiation of 12 capital projects. The collected data was qualitatively analysed using a four-step coding method.

Findings – The findings confirm that project initiation is a challenge for organisations who only spasmodically undertake capital projects and available project management frameworks do not necessarily consider the impact of such an organisation's culture. Issues identified that may have a negative impact on the initiation phase include lack of workplace trust, high individualism, ineffective interdepartmental communication, lack of resources and engineering and safety complexity.

Originality/value – The study investigated an underexplored industry within the context of project initiation, using the Australian stevedoring as a case study. This initial investigation suggests that a tailored project management framework is needed for the initiation phase of projects to reflect the unique nature of the stevedoring industry and by inference other industries that have a strong operational focus.

Keywords Project initiation, Project delivery culture, Thematic analysis, Project management framework, Qualitative observation, Case study

Paper type Research paper

1. Introduction

As an island nation, Australia's ports and associated infrastructure are essential gateways for importing and exporting goods (Infrastructure, 2011). Current forecasts over the next 20 years are that the demand for containerised trade will double thus requiring planning and investments in port development projects (BITRE, 2014)

Australian port owners are planning for projects and making strategic investments that improve stevedoring activities and their interface with distributional supply chains. Implementing these projects is proving difficult due to complicated approval processes,

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prolonged and frequently delayed project initiation, time and resources exhaustion and late and over-budget project delivery.

The initiation phase of a project can be considered as the best time to add value during the project life cycle, it is the phase where the highest number of options still exist, yet with least spending required (Verzuh, 2016, p. 83). It is also where industry-specific context and needs can be addressed. Despite the importance of the initiation phase, Mullaly (2015) identified a clear need to investigate the initiation phase further where there is a knowledge gap in how best to initiate projects, especially for companies who do not frequently undertake major capital infrastructure projects where their inclination is to focus on operational outcomes rather than projects.

It is observed that industry context plays a role in whether the project initiation exists or not, how important this phase is and what the expected deliverables out of this phase are. Despite the existence of general project management methodologies, industries having a strong operational focus sometimes consider these methods are not practical for their specific situations. Some researchers (Furlong *et al.*, 2010; Mullaly, 2015) have even suggested the existing body of knowledge has inadequacies and weaknesses when considering the initiation phase. This is particularly so for organisations (e.g. stevedores) that only occasionally undertake major capital projects. They face the dilemma of the trade-off between project planning and the conduct of their ongoing operations.

This paper reports an investigation that has studied the impact of industry operational considerations on capital project initiation. The study commences with a detailed literature review and then conducts a living research investigation of the projects initiated by a stevedoring company operating in Australia. The observed outcomes from 12 capital projects are analysed and reported. The study also seeks to develop a detailed framework that is specifically designed to fit the industries context.

2. Literature review

2.1 Project initiation

The initiation phase of a project is essential and must be sufficiently defined such that the project scope and delivery approach meet or exceed the expectations of the project owner and is transparent and traceable. Unfortunately, this importance is often downplayed (Besner and Hobbs, 2006, p. 47).

The Project Management Body of Knowledge (PMBOK) Guide defines project initiation as “*Launching a process that can result in the authorisation of a new project*” (PMI, 2013, p. 38) and considers project initiation as the first project phase in a project life cycle that generally has a start, end and control points (PMI, 2013, p. 554).

Bolles (2002), Westland (2006) and Radu and Nistor (2013) all agree that project initiation is an essential first and significant step in the project life cycle since the influential and riskier decisions are made during initiation. Decisions taken during project initiation are considered critical as they link the organisational strategy into live projects (Mullaly, 2015, p. 163), and they influence project success (Morris, 2010, p. 31; Mullaly, 2015, p. 163; Yemini *et al.*, 2018, p. 25). Careful planning during the initiation phase may result in adding value throughout the project life cycle (Ssegawa and Muzinda, 2018, p. 83). The initiation phase can be considered as the best time to add value during the project life cycle, it is the phase where the highest number of options still exist, yet with least expenditure (Verzuh, 2016, p. 83).

Unresolved issues during project commencement often end with a troubled project (Kendrick, 2012, p. 86). Multiple factors must be taken into consideration during this phase to optimise the chances of delivering a successful project. For instance, if the project’s objective, technology and strategy are not properly developed, this can jeopardise the success of the project. Project definition should be comprehensive at a very early stage and detail project

ownership, significance, cost, phasing and duration. In addition, the project's definition development is affected by external factors such as economic conditions, politics, community views and the availability of financing (Morris, 2010, p. 31). Yemini *et al.* (2018) also suggest that the project objective can be broadly defined at early stages of the initiation phase and as the time progresses more precise objectives emerge as questions of scope time and cost are resolved. A misdefined project may ultimately result in a poor project outcome or even disastrous project (Morris, 2010, p. 31).

This is not the case in practice as many projects pass the initiation phase too quickly which results in problems such as failing to define the cost and benefits associated with the project, assuming feasibility of the solution without testing and lack of sound baseline performance measures (Westland, 2006, p. 16).

Furlong *et al.* (2010) considered that the PMBOK methodology is built on a traditional manufacturing and industrial approach to managing projects. To increase the chances of project success they suggested some enhancements to PMBOK for e-government projects. Despite the importance of the initiation phase, Mullaly (2015) suggested there is a clear need to further investigate the initiation phase.

2.2 Project initiation in a specific industry context

The initiation phase in construction and information technology (IT) industries has been widely examined and studied in the project management literature. Unlike a construction project, in a digital technology project the initiation phase is moved into the planning phase turning the project life cycle into three phases of: planning, execution and maintenance. This means that the project manager prepares scope, schedule, cost, communication and risk planning during the planning phase (Shivakumar, 2018, p. 6). This approach is not universally agreed. Investigating information systems projects Alawneh and Aouf (2017) found out that the project scope, complexity and size must be assessed during project initiation by the project manager in order to create procedures for the project (Shivakumar, 2018). Bolles (2002) believes that the project manager is selected during the planning phase.

The construction industry considers the initiation phase complex and contains several discrete stages. It also emphasises the importance of having a precise, structured initiation phase (ACIF, 2010, p. 22; Bruna and Pulmanis, 2011, p. 50). The initiation phase in the building and construction industry gained its importance from the significance of the decisions made during this stage and the impacts those decisions may have on cost, time and quality (Cho and Gibson, 2001, p. 23; Conyers and; Zainal *et al.*, 2016, p. 2). Also, the uniqueness and the complexity of the construction industry increase the importance of having a correct start (ACIF, 2010, p. 22). Best and Valence (1999, p. 24) concluded that despite the different terminologies used to describe project initiation, a common outcome of this phase is to produce a clear project definition. Matu *et al.* (2020) found that the stakeholder's participation during the project initiation phase has a positive influence on the completion of infrastructure projects.

Clearly particular industries approach project initiation differently, further supporting the argument that generic methodologies can be improved by considering the specifics of a sector. Other sectors for example stevedoring may benefit from a detailed consideration on how capital projects are initiated.

For instance, Bunker (2017) reported that in Malaysia, a mega port project that invested in increasing port capacity, at the same time their customers were shifting their operations to Singapore. Pinto and Kharbanda (1996) suggested that ignoring the organisation's environment including external stakeholders can lead to project failure.

In a study conducted by Kuen *et al.* (2009) the factors that impact project success within the manufacturing industry in Malaysia were examined and they found out that project mission, management support and the project team were the top factors that may impact the

project success. They related the success factors to the dynamic business environment within the manufacturing industry.

In a quantitative study conducted by [Turner et al. \(2010\)](#) using a web-based questionnaire to examine project management in small to medium enterprises, it was reported that in the manufacturing industry the CEO is most likely to know nothing about project management; however, this claim is limited to the examined sample in the research and further investigation is needed to support this claim.

Even in a project-expert organisation, project failure can occur when the organisation becomes too outcome-driven, [Abbasi et al. \(2014\)](#) examined the British Petroleum failure in explosion in the deep-water horizon and found that despite having organisation experience in managing capital projects, factors like lack of management, unclear objectives, ineffective communication, scope creep and lack of visibility led to a major project disaster ([Abbasi et al., 2014](#), p. 34). In other examples, an operation-driven organisation that tries to manage projects in the same way it manages operations may lead to poor project management ([Prakash, 2018](#)).

Despite the various standards and methodologies available to guide the project's life cycle from initiation to completion, yet many projects are still initiated based on a good idea or an urgent need rather than using a proper methodology. The lack of standards makes it difficult to incorporate business development strategy into the initiation phase, as this is a longstanding observation, further investigation is needed to confirm the current practice in using standard methodologies in initiating a project.

Since project initiation has not been thoroughly investigated in industries other than construction and information technology, this indicates that further research is needed to investigate the project initiation phase in different engineering industrial contexts that are underrepresented or even not at all examined by the current project management literature such as the stevedoring industry.

2.3 Project initiation processes in the stevedoring industry

Project initiation the stevedoring industry can be driven by a diverse range of reasons such as increasing capacity, the need to innovate for competitiveness and achieving operational, commercial and strategical outcomes. These aspects of project initiation will be discussed below.

[Srour et al. \(2008\)](#) used international scanning of port community systems deployments in North America, Europe and Asia to document lesson learned within each stage in the project life cycle. For the initiation stage, they concluded two lessons: the first one was that the clarity and urgency of the problem(s) and goal(s) for all the project parties facilitate easier support from the project stakeholders. The second lesson was that project sponsorship is essential and not limited to financial, but it could be a regulatory role as well. Yet, further investigation is needed to confirm the findings due to the limitation of the quantitative methodology using information system data and the geographical selection of the examined ports.

[Acciario and Sys \(2020\)](#) examined the innovation process in the maritime industry by collecting data from 59 cases of innovation. They found significant misalignment between innovation success and organisational strategies. [Mullaly \(2015, p. 163\)](#) considered decisions taken during the project initiation phase are critical as they link the organisational strategy into live projects. Acciario and Sys suggested that improving strategic procedures may improve innovation in the maritime industry ([Acciario and Sys, 2020, p. 1](#)).

[Froyland et al. \(2003\)](#) explained the design planning for the Bougainville wharves rehabilitation project in Papua New Guinea and examined the social, cultural and political complexity of delivering this significant infrastructure project. They concluded that the detailed understanding of the user requirements and the engineering principles at the early stages of the project contributed to producing effective design and construction, alongside the use of the appropriate technology.

Abdul-Malak *et al.* (2001) examined different procurement delivery methods possible for achieving the best commercial outcome at the transshipment seaport of Sidon in Lebanon. They considered the various planning and development stages of the project to compare possible procurement strategies for construction financing and port operation. They recommended using a Modified Finance-Design-Build (FDB) model as the best mechanism to deliver the project.

The port planning and investment toolkit (DoT, 2017) developed by the United State Department of transportation, Maritime Administration and the American Association of Port Authorities provides guidance to help ports develop and plan capital projects. It presents a structured framework to follow throughout the project life cycle. The framework suggests that the initiation stage starts with a series of kick-off meetings with key project stakeholders and members. The outcome of the initiation stage is focused on initiatives that meet the project objectives. This is reached by incorporating the organisation vision and mission in the goal and objectives realisation process (DoT, 2017, p. 2). The method of developing the framework is not clearly explained in the toolkit, and it is designed to reflect the specific country context.

The reviewed example indicated a good work has been done on aspects of project initiation, but there remains a need for a comprehensive investigation into the project initiation phase in the stevedoring/ port industry, which considers the specific industry context.

2.4 Operational considerations of the stevedoring industry

Stevedoring plays a crucial role in the economic system as the volume of imported and exported goods is far higher in sea transportation compared to other transport forms. The performance of the stevedoring industry is measured by container throughput annually (Khafid and Syairudin, 2018). In Australia, container stevedoring productivity measures are related to operational and labour productivity, and stevedoring revenues are monitored in relation to container volume. Significant port investments are undertaken by stevedoring organisations in an aim to increase terminal operational capacity and often measurable by capacity growth (ACCC, 2020).

An example of investment by the stevedoring industry is the Port of Melbourne where it has been announced that \$125 million will be invested for a port rail transformation project. This project aims to increase the operational freight movement (PoM, 2020). The business objective of the stevedoring industry is to increase productivity and projects are one mechanism to achieve this aim. Investigating project initiation within the stevedoring industry needs to take into consideration the unique operational context of the business and examine its influence on how best to facilitate the initiation phase of projects.

3. Methodology

This research is using a single organisational case study approach for multiple projects as a qualitative research design. This enabled a holistic understanding of the industry to be captured along with abstract data such as the perceptions of internal actors and specific project details. The benefits of the qualitative research adopted enable a richer and more in-depth understanding of the phenomena by identifying emerging themes while gathering and analysing the data (Houghton *et al.*, 2013, p. 12; Miles and Huberman, 1994, p. 7).

It is acknowledged that the qualitative research is sometime criticised for being too general, particularly if it lacks a substantial sample size (Miller and Brewer, 2003, p. 127). Generalisation is defined as an act of being confident while drawing a broad interpretation from specific observation. To overcome this limitation, most qualitative studies tend to

provide in-depth contextualised understanding via intensively studying specific cases (Polit and Beck, 2010, p. 1451). Yin (2018) considers case study research as a comprehensive strategy provided it includes design logic, data collection methods and data analysis procedures.

3.1 Research purpose

This purpose of this research is to investigate the impact of the industry operational consideration on the project initiation phase. Using a qualitative research tool to examine an Australian stevedoring case example, this study considers the question: What critical considerations should be incorporated in the project initiation phase to reflect the industrial context of the stevedoring industry?

3.2 Case study design and selection

A comprehensive method to use for an in-depth investigation is the instrumental qualitative single-case research design (Yin, 2018, p. 90). In this study, the organisation selected has an extensive experience in logistics and shipping. The reasons for selecting this organisation are detailed below.

3.3 Australian stevedoring/container terminal operator as a case study

Australian capital city ports are now all leased in long-term contracts using asset-recycling model except Fremantle Port in Perth; therefore, the ownership structure has changed from government to private. The question is now who is responsible for planning projects and strategical decisions to meet the increasing demand and future growth of containerised trade? (Aldaghlis *et al.*, 2019).

The three key port stakeholders are state government, port management and terminal operators (stevedores). Other stakeholders include cargo owners, shipping lines, logistic providers, trade providers, and many others internal and external stakeholders. The responsibility of planning for future growth in the business cycle of the port rests with the long-term lease. The state government plays a regulatory role without involving in daily operational activities except for customs.

For example, in Victoria, the state government approached Infrastructure Victoria to provide an advice on the future capacity of the commercial ports, and whether a second containerised port is required. Infrastructure Victoria advised on a second port to be constructed by 2055 at Bay West and to optimise the capacity at the existing commercial ports (Infrastructure, 2017).

All the relevant key port stakeholders were approached to participate in this research. A stevedoring and supply chain operator agreed to facilitate the investigation and data collection. In response to the future growth and increasing demand, the case study organisation is proposing many development projects some are internal port projects, others are substantial external proposals to state governments for investments that can reshape the port supply chain. The proposed development confidential projects do not indicate only the case study organisation's willingness to invest millions of dollars in new facilities but also the direction of investment and the attempt to expand its business model. Management expressed the views that they experienced many challenges in initiating and managing projects.

3.4 Sources of data

This study is part of a broader PhD research that uses all of the six sources of evidence recommended by Yin (2018): archival records, interviews, direct observation, documents,

participant-observation and physical artefacts. For the purpose of identifying the critical considerations that should be incorporated in the project initiation phase, all sources of evidence were utilised except interviews. Archival records, direct observation, documents and physical artefacts were used primarily to provide a contextual background to the participant-observation.

3.5 Data collection

This research was conducted in accordance with the engineering human ethics advisory group guidelines at the University of Melbourne and had research ethics approval, Ethics ID 1749875. To facilitate the research, a detailed research agreement was also signed between the organisation and the university.

The researcher spent a total of six months at the organisation, averaging two days per week over this period. The researcher was treated as a member of the staff and given an e-mail address and was listed on the organisational chart.

The data for the research came from a number of proposed capital projects. Figure 1 illustrates the qualitative sources of evidence used in this research:

- (1) More than ten thousand words of written daily observations and field notes recorded during 50 working days.
- (2) Reviewing and observing nine project documents across all four terminals.
- (3) Working on three live projects as a co-project manager for two local projects, and as a change management lead for a national project. Refer Table 1 for details on the examined capital projects.
- (4) More than 20 meetings were attended and observed.

For items 1, 2 and 4 the participant–observer role for this research can be described as highly observational and less visible as participant according to Guest *et al.* (2013). For item 3, the role is highly participatory and less visible as a researcher according to Guest *et al.* (2013).

3.6 Participant-observations

In social research, participant-observation is defined as a method in which the researcher participates in events, activities, interactions and rituals within the group in the research environment (DeWalt and DeWalt, 2011, p. 1). Being a participant–observer eliminates the

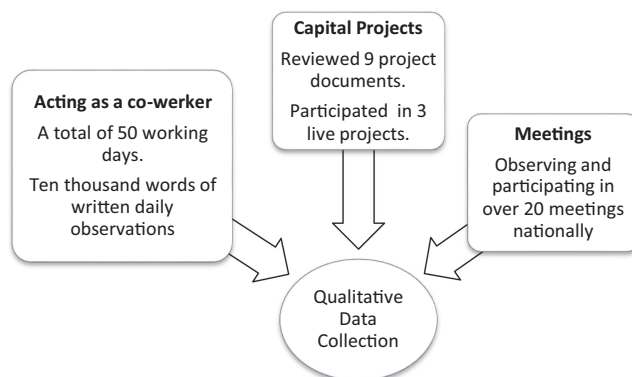


Figure 1.
The qualitative sources of evidence used in this research

Project number	Title of capital projects	Researcher involvement in projects
1	Gazetted road closure to increase container capacity	Project documents reviewed and some meetings were observed
2	Infrastructure-based development to expand client storage footprint	Project documents reviewed
3	Expansion of the freight rail connection	Project documents reviewed and some meetings were observed
4	Site amenities refurbishment	Co-project manager
5	Proposed new security service for clients	Co-project manager
6	Container handling automation project	Project documents reviewed
7	IT infrastructure upgrade for operations – business case	Change management lead
8	New logistics centre	Project documents reviewed
9	IT infrastructure upgrade	Project documents reviewed
10	Loading equipment replacement	Project documents reviewed
11	Supply chain optimisation	Project documents reviewed
12	Storage facility expansion	Project documents reviewed

Table 1.
Details on the examined capital projects and researcher involvement (2013–2018)

passivity of being just a pure observer; instead, the researcher undertakes a variety of roles within the fieldwork (DeWalt and DeWalt, 2011, p. 23). This technique is often used in anthropological research to study social or cultural context. It can also be used in different contexts, such as small informal groups, and to study large organisation (Yin, 2018, p. 168).

Participant-observation provides a first-hand opportunity to collect data for case study research by gaining access organisation that may not be easily accessible using other techniques, and it enables the researcher to observe reality from the perspective of an insider instead of an outsider (Yin, 2018, p. 168). Participant-observation presents some challenges including: the researcher's ability to work as an independent observer will decrease, the researcher may become a supporter of the organisation or the examined group and the researcher role as a participant may affect his/her primary role as an observer (Yin, 2018, p. 160).

Confirmability is the degree to which the results of the study could be validated and confirmed by others (Venkatesh *et al.*, 2013, p. 13), and that the research will not allow the personal biases to sway the research findings. A significant advantage of such an approach is that the nuances and cultural aspects of the organisation that drive many of the decisions can be better understood than other sampling techniques such as surveys, interviews and workshops. One way to achieve confirmability in qualitative research is to provide an audit trail of the decisions made by the researcher (Houghton *et al.*, 2013, p. 14). In this study, the researcher kept a personal journal that included reflections and documentation of the decisions and decision processes taken during the initiation of some 12 case study projects. In addition, critical research decisions were consulted with the academic research team. An interim findings report was sent back to the case study organisation to ensure its accuracy and to identify any additional issues.

3.7 Data analysis

Qualitative coding is a key tool to convert raw qualitative data into a meaningful story (Linneberg and Korsgaard, 2019). Saldaña (2013) developed a four-step qualitative coding system for application in participant-observation style research and this approach was adopted to analyse the collected data, the four main steps are: first cycle coding, sorting/categorising, second cycle coding, generating theory or explaining new phenomena.

The Saldaña tool offers a comprehensive and detailed coding method that enables the researchers to gain a deep insight into the data, ensuring transparency and validity and articulate the participants' voice (Linneberg and Korsgaard, 2019).

One of the strengths of Saldaña's coding guide is the various range of coding strategies; this enable the researchers to select the most useful coding strategy for a particular research project (Simula, 2018). In analysing qualitative data there is no single correct way (Saldana and Omasta, 2018). The choice of the data analysis method can be specified by the researcher based on the context of the research, the research question and the type of the collected data (Creswell and Poth, 2018; Saldana and Omasta, 2018). The flexibility and the diversity of the qualitative analysis methods enhance the research innovation (Miles *et al.*, 2014). The application of Saldana's four step process is as follows.

Step 1: First cycle coding

There is no one right method of coding. Selecting the most appropriate method to code the data depends on the goals and nature of the research; thus, the researcher may find one particular method is sufficient or may decide on using a mix of two or more coding methods to capture complex phenomena (Saldaña, 2013, p. 59).

In order to decide on the appropriate first cycle coding methods, two key aspects must be taken into consideration; the type of research question(s) and the functionality of each first cycle coding methods. Theming data was chosen as a first cycle coding. Theming data as a coding method is appropriate to use for ontological research questions that aim to capture the participants' realities. It captures the meaning of an aspect by using a sentence or a phrase to describe the meaning of the data (Saldaña, 2013). The method of extracting the first code is demonstrated in Table 2.

Step 2: Sorting/Categorising

After the first cycle coding, the codes are sorted into categories based on the code occurrences, the relationship between codes and the concealed meaning of the codes. Theming the data method used for the first cycle coding facilitates the transition from code to categories (Saldaña, 2013, p. 205).

Step 3: Second cycle coding

The third coding step is synthesising which is also known as the second cycle coding method; this step focuses on reorganising the data to clarify the direction of the research and to draw preliminary models while working with the data. Pattern coding (Saldaña, 2013, p. 187) was selected for the second cycle coding; pattern codes are defined as influential or explanatory codes; they identify the emerging main themes. Pattern coding transfers extensive data into a more meaningful unit of analysis (Miles and Huberman, 1994, p. 69). Pattern coding is often used for second cycle coding, developing major themes emerging from the data and for the development of theoretical construct (Saldaña, 2013, p. 210).

Step 4: Generating theory or explaining new phenomena

After developing the major themes emerging from analysing the data, these themes alongside with the research questions and the identified gaps in the literature are used to form a robust discussion.

3.8 Data examples

Having analysed the data using the four-step coding method developed by Saldaña (2013), Table 2 includes examples of quotes from the analysed data. From grouping of data under findings that have been used to extract first code. Table 3 shows an example of the analysed data that illustrates the thematic analysis.

Research findings	Examples of quotes related to each finding	First codes identified in grouping relevant to each finding
Finding 1: Troubled project initiation	<p>“No clear guidelines on how to initiate a project [<i>nominated as first code “unstructured”</i>], the idea was not discussed with the team [<i>“no consultation”</i>], the idea owner initiated the discussion and trying to get it done”</p> <p>“He emphasised on my observations and the struggled to initiate a project here, this what gets him working on his own branding rather than in a team. He somehow works alone”</p>	Ad hoc, unstructured, lacking, differently, silos, no consultation
Finding 2: Engineering complexity and safety	<p>“Well initially being the engineering manager, I will look at the project that needs to be done and then I look within to see what skill balances I have to deliver on that project and I try very hard to put round pegs in round holes and in saying that, those that have shown”</p> <p>“Main focus and targets I guess is operational needs and performance. But then I’m trying to sort of juggle the requirements of that national safety space as well, what their needs and requirements are as well”</p>	Change, frustration, engineering difficulty, safety issues, operations, productivity, coordinating, goal definition, lacking
Finding 3: Team culture and individualism	<p>“I do see silo. I still see silo. Everyone has the best intentions, but probably just for their area”</p> <p>“At people are worried that they are going to be attributed with the blame of the failure of that project when it comes to their side, even though they had no control over it at that part of that phase. It has all been agreed to as it’s going to happen, you have to make it work”</p>	Trust, sharing, silos, fears, insecurities, groups, team problems, openness, failure
Finding 4: Internal communication and document management	<p>“So again, no system, no process. So, some people just use G: drive and they create drive, you know, “I’ll just put it in this new folder;” and you can never find anything. It’s frustrating”</p> <p>“It’s very I guess, it’s on a solo department, departmental, like say for instance if maintenance are trying to roll out a project that has an impact on operations if they do not support that or understand the reasons and there’s probably a bit of challenge around communication around what the objectives of the project are”</p>	Frustration, inaccessible, everywhere, ineffective communication, no consultation, undocumented. departments do not talk

Table 2.

Examples of quotes from grouping of data under research findings that have been used to extract first code

Project initiation in Australian stevedoring

Research findings	Step 1: First cycle coding	Step 2: Sorting/ Categorising	Step 3: Second cycle coding	Step 4: Generating theory or explaining new phenomena
Finding 1: Troubled project initiation	Ad hoc, chaotic, terrible, inconsistent, unstructured, failure, lacking, differently	Initiation is ad hoc, initiation is terrible, no formal process, fail to use frameworks, project skills are lacking, initiation and project success	Initiation influences project success, initiation is troubled and unstructured	Troubled project initiation: project initiation at this organisation is chaotic and ad hoc, it is very important to have the right framework
Finding 2: Engineering complexity and safety	Change, frustration, engineering difficulty, safety issues, operations, productivity, coordinating, goal definition, unclear path	Management changes in engineering, safety frustration, lack of consultation with safety, throughput comes first	Different departments have different goals, projects are often operationally focused	Engineering complexity and safety impact on project initiation: frustration within safety department, engineering and operation misalignment
Finding 3: Team culture and individualism	Trust, sharing, silos, fears, insecurities, groups, team problems, openness, failure	Individualism, issues with trust, groups of individuals, fear of sharing information	Lack of workplace trust, restricted communication, personal goals	Team culture and individualism impact on project initiation: lack of trust drives individualism, high individualism hinders information sharing, teams are turned into groups
Finding 4: Internal communication and document management	Frustration, inaccessible, everywhere, ineffective communication, no consultation, I do not know, hallway chat, undocumented, departments do not talk	Loose communication, troubled communication, hard to find documents, documents are lost, feeling of frustration	Lack of communication between department, uninformed on the project statutes, communication depends on the project manager	Internal communication and document management impact on project initiation: inconsistent communication on projects, loose document control, lack of open communication

Table 3.
An example of the analysed data that illustrates the thematic analysis using the four-step method (Saldana, 2013)

4. Findings

The following major themes were emerged from the qualitatively analysed data:

4.1 *Troubled project initiation*

There is an apparent problem on how the organisation initiates projects; this problem includes an unclear definition of the initiation stage, the various expected outcome from the initiation document and the level of efforts and resources needed during the initiation stage. In addition to a sense of uncertainty due to the lack of clear procedures on how to initiate projects.

The organisation had an attempt from one of the teams to introduce a structured project management framework using the PMI guidelines. However, the team faced resistance from internal stakeholder, as they were unwilling to use the framework due to limited resources, the inadequacy of the framework as it does not fit the operationally focused nature of the industry and the lack of project management skills within the organisation.

A team member has indicated that he/she faced difficulty in changing people's mindset when adapting new procedures, and people would find him/her a troublemaker. There was a rejection for a change and claims that using project framework such as PMI did not reflect the way the organisation approaches projects. The reason for this is that the organisation often links financial performance with productivity indicators, and this is not well reflected in the PMI framework.

Regardless of the project size or complexity, projects can be stopped or cancelled at any time by the leadership team. The following is a sample from a project manager describing difficulties in not having guidelines during the development of a final business case for management approval:

The absence of guidelines creates problems not only during project initiation but also in the thinking and decision-making process. The staff are unclear how to initiate a project due to the lack of direction into the way to initiate or produce any tender document; it is unsophisticated and highly dependent on individual experience and the context of the project.

(The researcher memos M014_290818).

It is concluded, there may be good reasons why the organisation does not use standard guidelines, but it is considered they would benefit from a specific company guideline rather than not having guidelines at all.

4.2 Engineering complexity and safety

The case study organisation has a functional organisational structure, with seven main business units as follow: operations, engineering, safety, IT, finance, commercial and corporate development. Each business unit has clear responsibilities, tasks and reports through a clear line of authority independently.

This structure created sub-groups within the organisation; each unit tends to operate independently. However, the complex operational and engineering environment requires a high level of collaboration between the different units to enable smooth undistributed operation. An example of projects being undervalued within the organisation is as follows:

Because if you peel back moving containers, we are essentially an infrastructure company.

(A team member from operations)

The main challenges observed and experienced by the researcher during project initiation were:

- (1) The engineering and IT units claim to have more structured project teams than other units. However, the operation unit often spoke about the lack of engagement on new and current projects from both teams, as some project can impact the terminal operations and the team would need to plan for any yard use.
- (2) Attracting experienced engineering manager. By way of example, one of the terminals attempted without success to recruit a new engineering manager for over six months. The staff mentioned that qualified people within the industry would not consider applying for the role as they knew such positions are very problematic within the organisation. At another location, a new manager (eleven months into the

role) articulated feelings of frustration due to lack of communication within the operation and engineering team, and how projects were managed and initiated based on short-term financial planning.

- (3) Safety unit managers expressed their frustration at several occasions as they were not engaged in projects at early stages, despite safety being a major priority in the organisation due to the high safety risk nature of this business. One of the safety managers gave some examples of where safety was left out, including the procurement and delivery of new equipment. This act might be considered a high safety risk amplifying the need for early consideration of safety.

It is evident that the inability to obtain experienced staff in a timely manner is reflected in poor outcomes during project initiation, e.g. safety. The apparent lack of skills in handling complex projects can also be seen in the lack of collaboration between main operations and projects.

4.3 Team culture and individualism

Individualism is highly noticed and felt in the organisation, with some team members mentioning “*workplace silo*” either directly or indirectly during meetings and conversations. One of the team members spoke openly about silos and referred to it as “*personal branding*”, and he/she believed that silos are important for individual success and that individual success is more important than team success.

In the absence of strong policies and processes individual seeks to do the best they can from where they are based on their specific excellence. However, it is possible that the observed feelings of insecurity, lack of ownership, lack of direction during leadership changes and a bonus policy that does not fully reflect team efforts may promote individualism. Lack of trust was frequently observed. The definition of trust by [Mayer et al. \(1995\)](#) “willingness to be vulnerable” was adopted. Team members would limit the information they share with the team as they feel vulnerable. Some team members were concerned about the ability to freely share ideas and information within the team.

Despite the demonstrated artefacts and initiatives across the organisation about people being the first and most important pillar, it was observed that the staff are uncertain about their future and they feel the need to protect themselves. It is important to note that these workplace silos were not limited to staff level, it was also observed at the leadership team level. Silos in organisations do not only refer to the departmental structure at the organisation, but it is also an unconscious state of mind that may negatively impact individuals and teams with the organisation ([Cilliers and Greyvenstein, 2012](#), p. 1). Silo mentality can hinder the interdepartmental collaboration and the information exchange between teams and impacts the organisation’s achievements and performance. Silo mentality is a tangible problem that has to be recognised and dealt within the organisation to improve collaboration and teamwork ([Waal et al., 2019](#), p. 1).

It is noticeable that low-trust/ high-individualism culture negatively influences project initiation by turning teams into fiefdoms. The potential for non-transparency and the lack of knowledge flow hinders the process of following a structured framework as it usually needs a good performing team to contribute to a consistent procedure.

4.4 Internal communication and document management

Communication is crucial to maintain smooth operations across the different business units and to sustain project progress within the organisation. There was no observed formal process to update internal stakeholders on new and ongoing projects, and there was no observed change management or stakeholder management plans available at the

organisation. The apparent lack of interdepartmental communication between the different business units and the project team was noted and this impacted the ease of the project initiation. An example from an operations unit on the lack of project communication follows:

I would like transparency overall (sic for all) projects. Not to the detail of costs and financials, but I would at least like to have the transparency of how many projects are ongoing and what their area of delivery is—having that would then allow us to analyse what our resources are doing and what they are working on.

(A team member from operations)

The organisation appeared unaware of the need for a systematic way of storing and managing documents. People across the organisation used different methods to store documents such as personal hard drives, shared folders and cloud storage. Lack of proper documentation may result in losing important project data and making it hard for the relevant internal stakeholders to access project documents. The following is an example from the safety department:

From a project standpoint, oh, it is like breaking into a bank. You would have no idea where that idea is kept if it is kept in the G drive, and most probably some of it is even locked into people's personal drives. There is no document library for projects.

(A team member from safety)

It is evident that the lack of communication hinders the depth stakeholder engagement and their consistency in change management processes during project initiation. It is apparent that proper communication and supporting documentation are crucial during the project initiation phase to make sure that relevant stakeholders are well informed and aware of the project progress and to prevent resources exhaustion due to possible double handling.

5. Discussion

The findings indicated that the organisation often stumbles during project initiation, this was confirmed anecdotally by many staff at different managerial levels. The problem did not stop at initiation; it also extended at the organisation's inability to follow a structured project management framework. Despite the organisation's attempts to introduce a framework, it would always face internal resistance; staff would claim that the framework was not the right fit for their projects, or they were short on resources or time.

The organisation unsuccessfully attempted to use proven methodologies to initiate projects. This finding might support [Furlong *et al.* \(2010\)](#) claims who considered that the PMBOK methodology is built on a traditional manufacturing and industrial approach to managing projects and suggested some improvements during the initiation phase.

The findings of this research also indicated that:

- (1) The existing methodologies do not necessarily consider the business-specific needs and context. In addition, the suitability of the framework may be influenced by several factors including the engineering and safety complexity, the project size, the available resources and the project management expertise at the organisation.
- (2) The available project management frameworks do not adequately consider the stevedoring organisational culture and its impact on the project initiation process. This is because of the observed low-trust/high-individualism culture. This culture results in a lack of communication and sharing information. Trust within the project team plays an important role in project success ([Dorairaj *et al.*, 2012](#); [Mumns, 1995](#)).

- (3) The team spirit is often missing within the organisation, and the low-trust/ high-individualism culture turns a team into a group of people each works towards their individual goals.

It was evident that the industry considerations and context may have an impact on the project initiation process, the operationally driven environment plays a role in prioritising project, the reason the project is initiated and the decision-making process. [Abbasi et al. \(2014\)](#) argued that even in a project-expert organisation but outcome-driven, project failure can occur.

The lack of consultation with the internal stakeholders and the misalignment of goals across the organisation impact the initiation of the project. In an industry where safety must come first within a complex engineering environment, the lack of communication and silo departmental attitude may influence the degree to which safety is considered and engaged in the decision-making process. Identifying the potential stakeholders of a project at an early stage during the initiation phase is critical in order to obtain inputs and buy-in from key stakeholders as the project progresses ([Kendrick, 2011](#), p. 28; [Shivakumar, 2018](#), p. 273).

Stakeholder management is more complicated and significant during the initiation phase; it is more significant as the project direction and goals are defined in this phase, and more complicated because it has a larger number of possible project stakeholders ([Verzuh, 2016](#), p. 81). Engaging and listening to stakeholders at an early stage reveals their requirements and probable project constraints, which makes them more cost efficient during the project life cycle ([Verzuh, 2016](#), p. 81). [Chua \(2009\)](#) considers the inability to meet the expectations of the project stakeholder as an indication of project failure. Effective stakeholder management plays a crucial role in project success ([Wieggers, 2007](#), p. 5). One of the proper means to manage stakeholders is establishing a robust project communication process that facilitates effective communication to keep the stakeholders engaged ([Shivakumar, 2018](#), p. 253).

6. Implications for practice

Practical implications that can be drawn from this research include:

- (1) Justification of situations where projects are terminated or do not proceed. From the case studies this can sometimes be linked to troubled project initiation.
- (2) Improved efficiency in the project team can be achieved through reduction of frustration and exhaustion caused by delays in decisions and resulting double handling as projects are modified and revised for successive presentation to executive management for approval.
- (3) Improved knowledge sharing of lessons learnt on projects across the business units nationally.

The case study organisation had unsuccessful attempts to adopt to structured project management frameworks, despite upskilling a number of employees with formal project management certificates.

These observations and suggestions are supported by the research observations, refer section 4. A major suggested improvement is that organisations that have an operational focus require a tailored project management framework that reflects the industry context and business needs. This investigation can be used as a foundation for future work to build project management framework that addresses the unique industry practices.

7. Conclusions and future work

The findings from this qualitative research have identified that for at least one Australian stevedoring company, there are elements of troubled project initiation phase. The available

project management frameworks do not necessarily consider the organisation's culture and its impact on the project initiation. Elements of organisational culture such as; lack of workplace trust, high individualism, ineffective interdepartmental communication and the lack of resources can hinder any attempts to following a structured project management framework. This finding should be tempered, as some of the examined capital projects were still being conducted when these conclusions were drawn.

The results suggested that the industry operational considerations such as engineering and safety complexity and the productivity-driven environment may have an impact on the project initiation phase and the decision made during this phase. The specific solutions to the issues identified in this paper forms the focus for ongoing research of the lead author.

It is suspected that this finding may be applicable more widely in the stevedoring industry (and potentially organisation more widely that have a strong operational focus), however, the limitations of using a single organisation in the case study leave this extension of the finding as an open question. Further investigation using a diverse and robust source of evidence is needed to confirm the findings.

This initial investigation suggests that a tailored project management framework is needed to reflect the unique nature of the stevedoring industry. Such a framework would need to take into consideration the organisation culture, the availability of resources and the strategical factors that may impact the project progress.

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