ISBN No. 9786297566153 | 2024

Learning from Mistakes: The Role of PMBOK in IT Project Failure and Recovery
1st Edition

BLANK PAGE

Learning from Mistakes: The Role of PMBOK in IT Project Failure and Recovery

EDITOR:
MAZIDAH MAT REJAB

Penerbit UTHM
2024

Editor: Aliff Hisyam A Razak & Intan Nur-Zahraa Arba'in

Published & Printed by:
Penerbit UTHM
Universiti Tun Hussein Onn Malaysia
86400 Parit Raja,Batu Pahat, Johor
.Tel: 07-453 7051
Fax: 07-453 6145

Website: http://penerbit.uthm.edu.my
E-mail: pemasaran.uthm@gmail.com
http://e-bookstore.uthm.edu.my

Penerbit UTHM is a member of
Majlis Penerbitan Ilmiah Malaysia(MAPIM)

Cataloguing-in-Publication Data

Perpustakaan Negara Malaysia

A catalogue record for this book is available from the National Library of Malaysia

ISBN 978-629-7566-15-3

CONTENTS

ISBN No. 9786297566153 | 2024

PREFACE

In today's rapidly evolving technological landscape, Information Technology (IT) projects have become the backbone of countless organizations. These projects drive innovation, streamline operations, and maintain competitiveness in a global market. However, the complexity of IT projects often leads to significant challenges, and the unfortunate reality is that many of these projects do not succeed. The consequences of failure can be far-reaching, impacting not just the organization's bottom line but also its reputation and future opportunities.

The Project Management Body of Knowledge (PMBOK), developed by the Project Management Institute (PMI), serves as a comprehensive guide that provides standardized practices, methodologies, and frameworks for project management. While PMBOK is widely recognized and adopted across various industries, its application in the realm of IT projects requires careful consideration and adaptation to address the unique challenges posed by technology-driven initiatives.

This book chapter, "Learning from Mistakes: The Role of PMBOK in IT Project Failure and Recovery," aims to delve into the critical intersection between PMBOK practices and IT project outcomes. Through an in-depth case study, we explore real-world scenarios where IT projects have faltered and examine how the application—or lack thereof—of PMBOK principles influenced these outcomes. More importantly, we investigate the recovery strategies employed and how they aligned with PMBOK's structured approach to project management.

The purpose of this chapter is not merely to highlight failures but to extract valuable lessons that can inform future project managers, teams, and organizations. By understanding where projects went wrong and how they could have been steered back on track, we hope to contribute to the broader discourse

on improving IT project success rates. The insights presented here are drawn from both the successes and failures of past projects, offering a balanced perspective on the practical application of PMBOK in the dynamic and often unpredictable world of IT.

This chapter is intended for project managers, IT professionals, students, and anyone interested in the intricate dance between structured project management methodologies and the realities of managing technology projects. Whether you are a seasoned professional or a newcomer to the field, the lessons shared within these pages will serve as a valuable resource for navigating the complexities of IT projects and leveraging PMBOK to enhance the likelihood of success.

As we explore the role of PMBOK in IT project failure and recovery, we invite you to reflect on your own experiences, challenges, and successes. It is our hope that this chapter will not only provide you with practical insights but also inspire a commitment to continuous learning and improvement in the art and science of project management.

Ts Dr Mazidah Mat Rejab

BLANK PAGE (IF PREFACE END AT THE RIGHT SIDE OR PAGE)

FOR NEW CHAPTER NEED TO START AT THE RIGHT SIDE OR PAGE

ISBN No. 9786297566153 | 2024

CHAPTER 1

Relation Between PMBOK and IT Project Failure: A Case Study of The Trophy Project

Mohamad Arif Azinuddin Bin Zaidi[1], Mohamad Irfan Bin Abdul Muthalif[1], Muhammad Aiman Bin Mohd Latiff[1], Abdul Alif Bin Abdul Ghafoor[1], Zaliff Bin Usri[1], Ahmad Syukri Bin Sahartang[1], Muhammad Amir Daniel Bin Suhaimi[1], Abdul Azim Bin Muhammad Abdillah[1], Mazidah Mat Rejab[1]*

[1]Fakulti Sains Komputer dan Teknologi Maklumat, Universiti Tun Hussein Onn Malaysia, Parit Raja, Batu Pahat, 86400, MALAYSIA
*Corresponding Email: mazidah@uthm.edu.my

1.1 INTRODUCTION

The article “The Trophy Project” [1] addresses the tumultuous journey of a project plagued by mismanagement, delays, and significant cost overruns. It sheds light on the challenges faced by project manager Reichart and the various systemic issues that hindered the project's progress, illustrating the complexities inherent in large-scale project management.
This article claims that due to their lack of proper planning, inadequate resource allocation, and ineffective leadership, the Trophy Project encountered numerous setbacks right from its inception. Despite warnings and attempts at

intervention, the project continued to spiral out of control, leading to mounting frustrations and ultimately, its failure to meet deadlines and budgetary constraints, underscoring the critical importance of meticulous planning and diligent oversight in project execution[2].

The initial background of this article mentioned the ambitious yet ill-fated nature of the Trophy Project. As it was accepted by the company, hopes were high for its success, but soon, it became apparent that fundamental flaws in planning and execution were setting the project on a collision course with failure, highlighting the dangers of embarking on projects without thorough analysis and consideration of potential challenges.

It is clear from the introduction of the article that reforms were started to address the project's issues, yet these efforts were often reactive rather than proactive. As the narrative unfolds, it becomes evident that fundamental changes in approach and management were necessary to salvage the project, highlighting the importance of strategic planning and effective leadership in project management endeavors, emphasizing the need for a proactive and adaptive approach to project management to navigate complex and unpredictable circumstances.

The authors state in their article that the development of “The Trophy Project” serves as a cautionary tale within the realm of project management, highlighting the dire consequences of systemic failures and inadequate leadership[3]. In particular, the challenges outlined in their article underscore the critical importance of proper planning, resource allocation, and effective communication in project execution. They delve into the intricacies of the project's downfall, shedding light on the various missteps and shortcomings that led to its ultimate failure. The situation happened in the article include:

- Inadequate resource allocation such as functional managers charged direct labor time to the project while focusing on their own projects, leading to a lack of manpower for the Trophy Project's success.
- Lack of senior management support such as senior management's initial lack of intervention allowed issues to escalate, exacerbating the project's difficulties.

- Reactive rather than proactive approach to problem-solving such as reforms to address project issues were initiated only after significant delays and cost overruns had already occurred, indicating a failure to address problems preemptively.
- Ineffective communication with stakeholders such as despite attempts to explain the project's challenges to the customer, there was a breakdown in communication and understanding, resulting in dissatisfaction and increased pressure.
- Technological setbacks such as the attempt to implement a complex computer program to track project progress failed due to technical limitations and additional expenses, further delaying progress.

Based on the results of this research study, the authors have determined that the major problem happened in Trophy Project according to PMBOK:

- Poor Communication and Coordination
- Lack of Accountability and Responsibility
- Ineffective Risk Management
- Inadequate Scope Management
- Poor Stakeholder Management
- Inadequate Change Management
- Human Resource Management

Identifying the primary problem aids project managers in recalibrating their projects and enhancing outcomes, thereby delivering value to clients. This section primarily explores the backdrop, challenges, and methodology employed in the case study article. In the subsequent section, the identification of issues, or what is commonly referred to as the major problem in the Trophy Project, is scrutinized and linked to the Project Management Body of Knowledge areas to elucidate how project managers address these challenges.

1.2 MAJOR PROBLEMS OF TROPHY PROJECT

Poor Communication and Coordination

The Trophy Project was significantly impacted by poor communication and coordination, which manifested as a pervasive issue affecting various aspects of the project's

execution. From the onset, the project manager, Reichart, encountered difficulties in effectively conveying the project's needs and priorities to the functional managers, who were more focused on their own projects. This lack of effective communication channels led to a breakdown in information flow, resulting in misunderstandings and misalignments in project goals and objectives. The misalignment of objectives further compounded the issue, as functional managers prioritized their own projects over the Trophy Project, leading to a lack of collaboration and support. The absence of clear communication channels and aligned objectives created a disjointed team environment, where team members were not working cohesively towards the same goals[4]. This lack of cohesion and clarity in communication led to delays in project timelines, excessive expenditures, and ultimately, a failure to meet the project's objectives. The project was forecasted to be one complete year behind schedule, with an estimated cost overrun of at least 20 percent, highlighting the severe consequences of poor communication and coordination on the project's success.

Inadequate Communication Channels

The Trophy Project experienced significant issues due to the lack of effective communication channels between the project manager, functional managers, and the customer. This resulted in a breakdown of information flow, leading to misunderstandings and misalignments in project goals and objectives. Effective communication is vital in project management to ensure that all stakeholders are informed and aligned. The absence of clear communication channels in the Trophy Project led to a disjointed team and a lack of cohesion in project execution. Techniques such as regular status meetings, clear documentation, and open channels for feedback can improve communication [6].

Misaligned Objectives and Priorities

The functional managers' focus on their own projects over the

Trophy Project highlights a significant issue in project coordination. The misalignment of objectives and priorities among the project team members led to a lack of collaboration and support for the Trophy Project. According to PMBOK, aligning the team's goals and ensuring that everyone is working towards the same objectives is crucial for project success [1]. In the Trophy Project, the failure to align the team's priorities resulted in delays, inefficiencies, and a lack of accountability.

Lack of Accountability and Responsibility

One of the significant challenges faced by the Trophy Project was the lack of accountability and responsibility among its team members and leadership. This issue manifested in various ways and had a profound impact on the project's overall success.

In a well-managed project, each team member is aware of their roles and responsibilities, and there is a clear understanding of who is accountable for different aspects of the project. However, in the Trophy Project, there was a notable absence of clearly defined roles and responsibilities. This ambiguity led to confusion among team members, as they were unsure of their specific duties and the expectations placed upon them. As a result, tasks were often overlooked or poorly executed, contributing to the project's delays and inefficiencies.

Moreover, the project suffered from ineffective leadership, which further exacerbated the problem of accountability and responsibility. The project manager, Reichart, faced challenges in asserting his authority and ensuring that team members were held accountable for their work. Additionally, the corporate staff's decision-making processes were flawed, as evidenced by the decision to invest in a complex computer program without proper assessment. These leadership shortcomings resulted in a lack of direction and support for the project team, making it difficult to maintain accountability and drive the project towards its objectives.

The lack of accountability and responsibility in the Trophy Project highlights the importance of clear role definitions, effective leadership, and a strong accountability framework in project management [1]. Without these elements, projects are likely to face challenges in execution, leading to delays, cost

overruns, and ultimately, failure to achieve the desired outcomes [5].

Ineffective Risk Management

Another major problem faced by the Trophy Project was ineffective risk management. Risk management is ineffective risk management. Risk management is a crucial aspect of project management, aimed at identifying, analyzing and mitigating potential risks that could impact project objectives [1]. However, in the case of the Trophy Project, there were significant shortcomings in this area. One of the key issues was the failure to anticipate and address risks associated with resource allocation and project dependencies. Reichart encountered challenges with functional managers charging direct labour time to the project while working on their own pet projects. This lack of oversight and control allowed for resource misallocation, leading to delays and inefficiencies in project execution.

Additionally, there was a failure to adequately assess the risks associated with technological solutions, such as the decision to invest in a complex computer program to track project progress. The program ultimately proved to be ineffective and required additional investment, resulting in wasted time and resources. According to the Trophy Project, the decision to invest approximately $50,000 in a computer program to track project problems resulted in wasted resources when it was discovered that the program could not handle the project objectives [3].

Moreover, the project faced external risks related to vendor performance and customer expectations. Vendors running behind schedule and customer impatience added further complexity to the project, exacerbating existing challenges.

Effective risk management involves proactive identification of potential risks, development of mitigation strategies, and ongoing monitoring and reassessment throughout the project lifecycle. However, in the case of the Trophy Project, there was a lack of emphasis on these aspects, leading to increased project vulnerabilities and ultimately contributing to its failure to meet objectives[6].

Inadequate Scope Management

The Trophy Project suffered from inadequate scope management, which is a fundamental aspect of project management outlined in the PMBOK. Scope management includes the processes required to ensure that the project includes all the work required, and only the work required, to complete the project successfully [1].

In the case of the Trophy Project, there were several indications of scope management issues. Firstly, there was a lack of clear definition and agreement on project objectives and deliverables from the outset. This ambiguity in scope led to misunderstandings and conflicting priorities among stakeholders, contributing to delays and inefficiencies in project execution[3].

Additionally, the project experienced scope creep, which refers to the gradual expansion of project scope beyond its original boundaries without proper authorization. The decision to invest in a complex computer program to track project progress, without thorough assessment and approval, exemplifies scope creep in the Trophy Project. This unplanned expansion of scope resulted in wasted time and resources, diverting focus from core project objectives[5].

Moreover, the project faced challenges in managing changes to scope throughout the project lifecycle. Customer demands for changes and the involvement of a customer representative in daily project activities further complicated scope management efforts. Without proper mechanisms in place to assess and approve changes to scope, the project struggled to maintain focus and deliver within defined parameters. According to the account provided, the project's failure to meet the customer's timeline, resulting in a delay of six to eight months, indicates inadequate scope management and dissatisfaction from the customer [4].

ffective scope management involves defining clear project objectives, establishing a baseline scope, and implementing robust change control processes to manage scope changes. However, in the Trophy Project, these principles were not adequately applied, leading to scope-related challenges that

significantly impacted project outcomes.

Poor Stakeholder Management

Effective stakeholder management is essential for project success, as it ensures that all individuals or groups with an interest in the project are appropriately engaged and informed throughout its lifecycle. However, the Trophy Project suffered from poor stakeholder management practices, as evidenced by the lack of communication and involvement of key stakeholders in critical decisions. For instance, when Reichart was suddenly introduced to Mr. "Red" Baron, without prior consultation or explanation, highlighted a breakdown in stakeholder communication and engagement [3].

This lack of transparency and involvement could have led to confusion, mistrust, and disengagement among key stakeholders, ultimately impacting the project's progress and outcomes. Had there been effective stakeholder management processes in place, such as regular communication channels and stakeholder engagement strategies, issues like leadership changes could have been managed more smoothly, fostering a more collaborative and supportive project environment[7].

Inadequate Change Management

Change is inevitable in any project, and effective change management processes are crucial for ensuring that changes are properly evaluated, controlled, and integrated into the project to minimize disruptions and maintain alignment with project objectives. However, the Trophy Project suffered from inadequate change management practices, as evidenced by the lack of structured processes for managing changes in project direction or scope. For example, when Reichart was only requested to report progress to corporate and division staff after approximately six months into the project, it highlighted a reactive rather than proactive approach to change management [3].

This lack of formal change management processes may have contributed to delays, scope creep, and inefficiencies in project execution. With proper change management practices in place,

such as formal change control procedures, regular project reviews, and stakeholder consultations, the project team could have identified and addressed issues more effectively, ensuring better alignment with project objectives and stakeholder expectations.

Human Resource Management

In the context of the Trophy Project, Human Resource Management emerged as a critical area plagued by various challenges, significantly impacting project performance and outcomes. The project faced significant issues related to HRM, including a lack of clear roles and responsibilities, ineffective leadership, and accountability deficiencies among team members.

Firstly, the absence of clearly defined roles and responsibilities contributed to confusion and inefficiencies within the project team. Team members lacked a clear understanding of their specific duties and how they aligned with project objectives, leading to overlaps in responsibilities or tasks left unaddressed. This ambiguity hindered collaboration and coordination, impeding progress towards project milestones and goals[8].

Addressing human resource management challenges within the Trophy Project necessitates a multifaceted approach. Clear role definition and delineation of responsibilities are imperative to ensure alignment with project objectives and foster collaboration. Effective leadership is crucial to providing direction, motivation, and support to the project team, promoting a culture of accountability and ownership. By addressing these human resource management challenges, project managers can better leverage human resources to achieve project objectives efficiently and effectively[9].

1.3 CONCLUSION AND RECOMMENDATION

Firstly, to avoid encountering challenges similar to those faced in the Trophy Project, it is imperative to implement a set of strategic recommendations which is establishing clear roles and responsibilities right from the project's inception is paramount. This ensures that project managers possess the authority to

allocate resources and make decisions without undue interference. Transparent communication among all stakeholders is equally essential, fostering an environment where project status, challenges, and resource needs are openly discussed, enabling timely intervention and support. Additionally, empowering project managers with adequate resources, including staffing and budgetary control, is crucial for effective project leadership. Regular monitoring and review mechanisms, such as weekly progress meetings, facilitate early issue identification and corrective action.

Furthermore, fostering strong customers which is one of the stakeholder engagement is pivotal. PMI defines the term project stakeholder which is “An individual, group or organisation who may affect, be affected by, or perceive itself to be affected by a decision, activity, or outcome of a project.” [3]. Regular communication and involvement with customers ensure alignment with expectations and minimise surprises by incorporating customer feedback into project planning and execution. A comprehensive risk management plan should be developed to anticipate and mitigate potential challenges, including schedule delays, budget overruns, and technical setbacks. Prior to investing in complex technological solutions, thorough evaluations should be conducted to ensure compatibility with project objectives and capabilities, considering factors like scalability, reliability, and cost-effectiveness.

Lastly, transition into a new leadership role can be extremely challenging to navigate and is one where leadership transition coaching may benefit both the individual and the organisation [10]. So, leadership transition is essential for maintaining project continuity. Documenting project knowledge and ensuring smooth handovers between project managers can minimise disruptions and sustain momentum. By incorporating these recommendations into project management practices, organisations can enhance project outcomes, mitigate risks, and improve stakeholder satisfaction, drawing valuable lessons from past experiences like those documented in the Trophy Project.

In conclusion, “The Trophy Project” underscores the critical importance of meticulous planning, effective communication, and strong leadership in project management endeavours. The project's failure, attributed to poor resource allocation, inadequate

communication channels, and a lack of accountability, serves as a cautionary tale for future projects. To mitigate similar challenges, organizations must prioritise establishing clear roles and responsibilities, fostering transparent communication among stakeholders, and empowering project managers with necessary resources. Additionally, engaging customers actively, implementing comprehensive risk management plans, and facilitating smooth leadership transitions are essential for project success. By heeding these lessons and incorporating strategic recommendations, organisations can enhance project outcomes, mitigate risks, and improve stakeholder satisfaction, thus drawing valuable insights from past experiences to inform future endeavours[10].

BIBLIOGRAPHY

[1] Project Management Institute. (2017). A Guide to the Project Management Body of Knowledge (PMBOK® Guide). Project Management Institute.
[2] T. Williams. (2005). Assessing and moving on from the dominant project management discourse in the light of project overruns. IEEE transactions on engineering management.
[3] PMI. (2013). A Guide to the Project Management Body of Knowledge. 5th edition, PMI, Newton Square.
[4] Gaurav Patil. (2016). Project Management Challenges.
[5] A. S. Bond and N. Naughton. (2011). The role of coaching in managing leadership transitions. International Coaching Psychology Review, vol. 6, no. 2, pp. 165-171.
[6] Heagney, J. (2016). Fundamentals of Project Management. AMACOM.
[7] Kerzner, H. (2017). Project Management: A Systems Approach to Planning, Scheduling, and Controlling. John Wiley & Sons.
[8] D. Hodgson. (2002). Disciplining the Professional: The Case of Project Management. Journal of Management Studies.
[9] Sylvain Lenfle, C. Loch. (2010). Lost Roots: How Project Management Came to Emphasize Control over Flexibility and Novelty. California Management Review.
[10] S. Gupta et al. (2019). Systematic literature review of project failures: Current trends and scope for future research.

ISBN No. 9786297566153 | 2024

CHAPTER 2

Navigating Project Rescue: A Case Study Of Mannix Corporation's Endeavors At Prylon Corporation

Muhammad Bin Sh Salleh[1], Ahmad Fakhrul Hadi Bin Azrie[1], Hendry Firmansah Bin Zulkifly Ngin[1], Muhammad Hafiy Aiman Bin Husain[1] , Ivan A/L Raju[1] , Tiviyarsiri A/P Gunasekaran[1] , Muhammad Zul Ifwat Bin Zulkefli[1], Owoola Goodness Igbagboyemi[1], Mazidah Mat Rejab[1]*

[1]Fakulti Sains Komputer dan Teknologi Maklumat, Universiti Tun Hussein Onn Malaysia, Parit Raja, Batu Pahat, 86400, MALAYSIA
*Corresponding Email: mazidah@uthm.edu.my

1.1 INTRODUCTION

In the realm of project management, the ability to navigate and rescue failing projects is a testament to a manager's expertise and strategic judgement. Despite decades of research, IT (Information Technology) projects continue to have an unacceptably high rate of failure or abandonment before completion [1] [2] [3]. This is concerning because researchers have identified and proposed solutions for many of the underlying problems. Like The Mannix Corporation's experience with rescuing a faltering project at Prylon Corporation exemplifies the importance of comprehensive project management principles in overcoming complex challenges. Mannix Corporation, faced with the task of integrating disparate modules into Prylon's enterprise resource planning (ERP) system, Mannix Corporation project manager,

found himself at the forefront of a formidable undertaking. There are several possible reasons for Prylon's failing project; weak management support, inadequate user involvement, insufficient project management skills, identifying the wrong problem, and the problem itself being difficult to address [4][5]. While project management literature often delves into theoretical frameworks and best practices, there remains a gap in understanding the practical application of these principles within real-world scenarios [6}.

This study focuses specifically on the challenges encountered during the Mannix-Prylon ERP integration project, with a keen emphasis on the role of the project manager in navigating these challenges. The primary objective of this paper is to dissect Mannix Corporation's strategic maneuvers and decision-making processes throughout the project lifecycle. By delving into the intricacies of project management within a complex organisational setting, the paper aims to uncover the key factors that contributed to the project's distress and explore the strategies employed to mitigate risks and drive successful outcomes.

By analysing the experiences of project managers and stakeholders involved in the Mannix-Prylon ERP integration project, this study seeks to bring forth actionable insights and best practices for enhancing IT project management effectiveness. Ultimately, the expected result is to contribute to the body of knowledge surrounding IT project management, thereby empowering organisations to navigate the complexities of IT projects with confidence and foresight.

In the subsequent sections, this study embarks on a comprehensive exploration of the Mannix-Prylon ERP integration project, unravelling its challenges, potential solutions, and lessons learned along the way.

1.2 PROJECT INTEGRATION MANAGEMENT

Project Integration Management is responsible for the integration of all other knowledge areas, being the only one that has processes related to every process group. The processes in this area are: Develop Project Charter, Develop Project

Management Plan, Direct and Manage Project Work, Manage Project Knowledge, Monitor and Control Project Work, Perform Integrated Change Control, Close Project of Phase [7]. The primary responsibility of the project manager is to recognize, clarify, and integrate the different procedures and tasks involved in the project. Guarantee that all project components are cooperating towards the same objective, this may entail developing a thorough project plan, outlining roles and duties, and setting up effective communication channels. Project managers can increase the project's chances of success and better manage its complexities by efficiently integrating project management processes.

1.1.1 Project Plan Development

As the project manager, the initial step involved creating a thorough project plan outlining the measures needed for the ERP project by gathering all necessary documentation, including reports, memos, and letters [8]. The objectives, assumptions, history, and expected benefits of the project were examined. An evaluation of the enterprise's environmental aspects was also conducted, and stakeholders were engaged to understand the project's needs and concerns. This understanding of steps was essential for creating a recovery plan that met Prylon Corporation’s requirements. In addition, strategies for resource management, risk mitigation, and efficient stakeholder communication should be included in the project plan. By creating a thorough project plan, the project manager may ensure that every element of the recovery plan is coordinated and in line with the project’s overall goals.

1.1.2 Project Plan Execution

After the project plan is developed, the project manager must supervise the project plan’s implementation after it has been developed to make sure the recovery activities continue as intended. This includes implementing the strategies and activities outlined in the project plan, assigning tasks to team members, monitoring progress, and addressing any problems or obstacles that arise midway through the project. The project

manager needs to stay in constant contact with the stakeholders and project team to update them on the developments and make any necessary changes or adjustments to the plan as needed. By executing the project plan, the project manager and the project team can ensure that the recovery activities are carried out efficiently and effectively, which will lead to the successful completion of the ERP project.

1.1.3 Integrated Change Control

Integrated change control was evident throughout the approach to the project recovery process. The project team participated in a root-cause analysis that revealed both surface and hidden failure points following an intensive assessment of performance [8]. The inclusive process ensured that all stakeholders involved were aware of the causes of the project's challenges and could contribute to providing solutions. To prioritize important outputs and make well-informed decisions about resource allocation and schedule adjustments, trade-off discussions were facilitated. In the end, discussions with Prylon Corporation led to approval and buy-in to move forward with the suggested modifications while realistically controlling expectations.

1.2 PROJECT SCOPE MANAGEMENT

Scope Management is vital in defining, controlling, and managing the work required to deliver a project successfully. In the ERP project case, scope management emerged as a critical factor contributing to project challenges and subsequent recovery efforts. A distinct scope helps all parties involved in a project to stay on the same page throughout the lifecycle of the project [9].

Initially, Prylon's attempt to integrate various modules into a single ERP system lacked a well-defined scope, leading to project failures and dissatisfaction. Normally, organisations initiate projects with the purpose of success. However, the complexity of the project activities, and the challenges related to the management of project restrictions or limitations of budget, quality, and time are unique and ever-changing [9].

1.2.1 Initiation

Initiation marks the beginning of the project scope management process. During this phase, project stakeholders identify the need for the project and its objectives. In the case of the ERP project undertaken by Mannix Corporation for Prylon Company, initiation involved Prylon recognizing the need for an integrated ERP system to streamline its business operations. Mannix Corporation, as the service provider, responded to Prylon's request for proposal (RFP) and subsequently won the contract to develop and install the ERP system.

1.2.2 Scope Planning

Scope planning involves developing a detailed plan that outlines how the project scope will be defined, verified, controlled, and managed throughout the project lifecycle. In the ERP project, scope planning would have entailed Mannix Corporation outlining its approach to integrating Prylon's existing modules into a cohesive ERP system. This plan would have addressed key aspects such as identifying project deliverables, establishing project boundaries, and defining the process for managing scope changes.

1.2.3 Scope Definition

Scope definition is the process of further elaborating and detailing the project scope identified during the initiation phase. It involves developing a comprehensive scope statement that clearly delineates what is included and excluded from the project. In the ERP project, scope definition would have entailed Mannix Corporation working closely with Prylon to specify the functionalities and features of the desired ERP system. This would have involved conducting requirements-gathering sessions, documenting user needs, and defining the project's deliverables.

1.2.4 Scope Verification

Scope verification is the process of formalising acceptance of the completed project deliverables. It involves reviewing the deliverables against the project scope statement and obtaining

approval from stakeholders that the deliverables meet their requirements. In the ERP project, scope verification would have involved Mannix Corporation demonstrating to Prylon that the integrated ERP system meets the agreed-upon specifications and functionalities outlined in the scope statement. Prylon would have reviewed the system and provided feedback or approval based on their satisfaction with the deliverables. However, in this scenario, scope verification appears to have been mishandled. The project commenced with an incomplete requirements package, leading to ambiguity and uncertainty about the project's scope from the start. Additionally, the initial project plan was overly optimistic, indicating a lack of realistic assessment. Stakeholders, particularly Prylon, seemed inadequately engaged in the verification process, which is essential for ensuring that deliverables meet their requirements. Moreover, previous project managers accommodated numerous changes without proper evaluation, resulting in increased workloads and potential scope creep. To address these issues, comprehensive requirements analysis, realistic planning, stakeholder engagement, and robust change management are essential. By improving in these areas, project teams can enhance their approach to scope verification, ensuring successful project outcomes.section headings should also be in the same style as the headings, numbered 1.1, 1.2, etc, and left justified, with second and subsequent lines indented.

1.2.5 Scope Control

Scope control is the process of monitoring and controlling changes to the project scope throughout the project lifecycle. It involves assessing proposed changes, determining their impact on project objectives, and managing them accordingly. In the ERP project, scope control would have entailed Mannix Corporation evaluating any change requests from Prylon, analysing their implications on project scope, schedule, and budget, and implementing approved changes in a controlled manner to ensure alignment with project objectives. For this case study, the previous project manager had created unnecessary additional work, causing the team to work excessive hours on overtime. This placed increased stress and

pressure on the team. Thus, Mannix Corporation has made changes to the scope to make sure the project is aligned with agreed-upon objectives and requirements. Mannix Corporation's project team would carefully review each change request to understand its nature, rationale, and potential impact on project objectives.

Approved changes are managed through a structured Change Management Process, ensuring controlled implementation. This involves documenting changes, updating project documentation, communicating them to stakeholders, and incorporating them into the project plan. Scope control also involves ongoing Monitoring and Tracking of project scope to identify and address deviations from the agreed-upon scope and prevent scope creep. Comprehensive Documentation and Reporting of scope changes and decisions maintain transparency and accountability. Effective scope control requires clear communication and collaboration with stakeholders, ensuring that changes align with stakeholder expectations and project requirements. By implementing robust scope control practices, Mannix Corporation can effectively manage changes, minimise risks, and ensure successful project delivery meeting Prylon's needs.

1.3 Project Cost Management

Project cost management is the process of estimating, budgeting, and controlling project costs. It begins during the planning phase and continues throughout the duration of the project as managers continuously review, monitor, and adjust expenditures to ensure the project doesn't go over the approved budget[10].

Due to the change of project managers twice, there must have been a lag in the project cost management which could be partly responsible for some of the failures incurred in the project. Project cost management is vital in the development of any project. Headings should be left justified, bold, with the first letter capitalized and numbered consecutively, starting with the Introduction.

1.3.1 Resource Planning

Resource planning is the first step in any cost management. It is when the project manager reviews the project's scope and specification to figure out what resources the project will require [11]. A common problem in resource planning is the misallocation of resources, which can lead to project delays, increased costs, and reduced quality of work. This can occur due to a lack of visibility into resource availability, skill mismatches, or poor communication among team members. To solve this, project managers can implement a centralised resource management system that provides real-time visibility into resource availability and skill sets. By using project management software, they can create a detailed resource schedule, match tasks with the appropriate resources, and adjust allocations dynamically as project requirements change.

1.3.2 Cost Estimation

Cost Estimating is the process of forecasting the financial resources required to complete a project successfully [12]. It involves analysing many factors such as labour, materials, equipment, and other expenses associated with the project to come up with an estimate of the total cost. A common problem in cost estimating is the lack of accurate data, which can lead to underestimation or overestimation of project costs. This discrepancy can cause budget overruns, resource allocation issues, and project delays. To solve this, a project manager can implement a detailed work breakdown structure (WBS) to itemise all tasks and associated costs. Utilising historical data, expert judgement, and software tools for precision can also enhance the accuracy of cost estimates.

1.3.3 Cost Budgeting

Cost calculation is a crucial aspect of project management. It involves estimating the cost of individual activities or work packages and the resources required to complete the project. Whilst it may seem intuitive to estimate costs after the budget has been approved, it is advisable to do so beforehand. In the case of the ERP project, effective cost planning would have required Mannix Corporation to prepare a comprehensive cost

estimate, work breakdown structure (WBS), project schedule, and risk management plan, all of which would have to be approved by Prylon Corporation. However, it appears that only the project schedule was prepared without the associated work breakdown structure, cost estimate, or risk management plan, which these reasons can be associated with the reasons for the past failures of the previous project managers. As a result, the new project manager, Jerry, is faced with the challenge of aligning the project activities with the established budget without knowing exactly how appropriate it is.

Therefore, Jerry must prioritise obtaining a detailed cost estimate that includes labour, materials, resources, equipment, and potential risks within the constraints of the fixed budget. Creating a work breakdown structure is essential to identify the project elements to which costs should be allocated, while the project schedule helps to allocate costs to specific time periods. In addition, the integration of a risk management plan, which includes contingency measures, is essential to mitigate unforeseen circumstances that may affect costs over time.

Cost budgeting facilitates the creation of a cost baseline, a time-phased budget that is used to monitor the cost development of the project. Depending on the size and complexity of the project, several cost plans may be required.

1.3.4 Cost Control

Cost control plays a central role in project cost management by monitoring the changes requested for the project, influencing the factors that affect the cost baseline, and ensuring the acceptance and documentation of the changes. Considering that a significant number of large projects exceed their budgets due to extended completion times [13], effective cost control is critical to project success.

Certain elements are essential for effective cost control, including the initial cost baseline, performance reports and updates, change requests, and the cost management plan. In the case of the ERP project, the failure of the second project manager can be attributed in part to unrealistic demands on

Prylon for additional support, indicating a lack of adequate cost control measures.

As the new project manager, Jerry took proactive steps to introduce cost control mechanisms. He emphasised communication with stakeholders to negotiate changes and updates to the project - an important aspect of cost control. Jerry also meticulously reviewed previous reports and supplemented them with updated performance reports to stay on track and maintain transparency.

Effective cost control enables various outcomes, including revised cost estimates, budget updates, and the implementation of corrective actions to bring project performance in line with expectations. In particular, it facilitates the determination of the Estimate at Completion (EAC), which provides an estimate of the most likely total project cost based on performance and risk quantification.

In summary, Jerry's proactive approach to cost control emphasises its critical role in project management, particularly in avoiding budget overruns and ensuring project success. By prioritising communication, staying on track, and taking corrective action, Jerry sets a precedent for effective cost control practices in ERP project management.

1.4 Conclusion and Recommendations

The Mannix Corporation's intervention in Prylon Corporation's failing ERP system integration project serves as a valuable case study for navigating troubled IT projects and gaining meaningful insight to facilitate the extrication future project. The analysis highlights the importance of comprehensive project management processes, particularly in project integration, scope management, and cost management. By strategically addressing shortcomings in these areas, Mannix Corporation was able to identify the root causes of project failure, implement corrective actions, and ultimately achieve a successful outcome despite unfavorable issues along the process.

Based on the Mannix-Pryon case study, there are several recommendations that can be given. One of those is to develop a thorough project plan. A well-defined project plan incorporating clear objective, roles, responsibilities,

communication channels, and risk mitigation strategies is crucial for project success. Next, implement robust change control. A structured change control process ensures that all modifications are evaluated for their impact and implemented in a controlled manner to avoid scope deviation. Other than that, stakeholder engagement can also be prioritized by initiating active participation from stakeholders throughout the project lifecycle, particularly during requirement gathering, scope verification, and change management, which is essential for project alignment and successful delivery. We also need to ensure accurate cost estimation and budgeting as precise cost estimates based on a detailed work breakdown structure and historical data are necessary for creating realistic budgets and effective cost control measures. All and all, by adhering to these recommendations and employing effective project management practices, organizations can increase their chances of successfully navigating complex IT projects significantly.

1.5 Conclusion and Recommendations

The Mannix Corporation's intervention in Prylon Corporation's failing ERP system integration project serves as a valuable case study for navigating troubled IT projects and gaining meaningful insight to facilitate the extrication future project. The analysis highlights the importance of comprehensive project management processes, particularly in project integration, scope management, and cost management. By strategically addressing shortcomings in these areas, Mannix Corporation was able to identify the root causes of project failure, implement corrective actions, and ultimately achieve a successful outcome despite unfavorable issues along the process.

Based on the Mannix-Pryon case study, there are several recommendations that can be given. One of those is to develop a thorough project plan. A well-defined project plan incorporating clear objective, roles, responsibilities, communication channels, and risk mitigation strategies is crucial for project success. Next, implement robust change control. A structured change control process ensures that all modifications are evaluated for their impact and implemented in a controlled manner to avoid scope deviation. Other than that, stakeholder engagement can also be prioritized by initiating active participation from stakeholders throughout the project lifecycle, particularly during requirement gathering, scope verification, and change management, which is essential for project alignment and successful delivery. We also need to ensure accurate cost estimation and budgeting as precise cost estimates based on a detailed work breakdown structure and historical data are necessary for creating realistic budgets and effective cost control measures. All and all, by adhering to these recommendations and employing effective project management practices, organizations can increase their chances of successfully navigating complex IT projects significantly.

BIBLIOGRAPHY

[1] Project Management Institute. (2017). A Guide to the Project Management Body of Knowledge (PMBOK® Guide). Project Management Institute.

[2] T Kweku Ewusi-Mensah, “Critical Issues in Abandoned Information Systems Development Projects,” 1997, doi: 10.1145/260750.260775.

[3] E. Oz and J. J. Sosik, “Why Information Systems Projects are Abandoned: A Leadership and Communication Theory and Exploratory Study,” Journal of Computer Information Systems, vol. 41, no. 1, pp. 66–78, 2000, doi: 10.1080/08874417.2000.11646978.

[4] R. Montealegre and M. Keil, “De-Escalating Information Technology Projects: Lessons from the Denver International,” 2000.

[5] N. Mcbride, “The rise and fall of an executive information system: a case study.”

[6] G. Whyte and A. Bytheway, “Factors affecting information systems’ success,” International Journal of Service Industry Management, vol. 7, no. 1, pp. 74–93, 1996, doi: 10.1108/09564239610109429.

[7] L. Bourne and D. H. T. Walker, “Visualising and mapping stakeholder influence,” Management Decision, vol. 43, no. 5, pp. 649–660, Jun. 2005, doi: 10.1108/00251740510597680.

[8] Takagi, Nilton and Varajão, João, "Success Management and the Project Management Body of Knowledge (PMBOK): An Integrated Perspective" (2020). International Research Workshop on IT Project Management 2020. 6.

[9] Kerzner, H. (2017). Project Management Case Studies (5th ed.). Hoboken, NJ: John Wiley & Sons, Incorporated.

[10] Fashina, A. A., Abdilahi, S. M., & Fakunle, F. F. (2020). Examining the challenges associated with the implementation of project scope management in telecommunication projects in Somaliland. PM World Journal, IX(III), 1–16.

[11] J . Martins, “Project cost management: Definition, steps, and benefits,” Asana Resources, Feb. 1, 2024.

[12] O. Gupta, “What is Resource Planning, and Why is it Important in Project Management?” Saviom, Sep. 2023.

[13] “Estimating Cost of a Project: Techniques and Examples,” Project-Management.info, 2023. 2 K. Eby, “Ultimate Guide to Project Cost Estimating,” Smartsheet, 2022. 3 “Cost Estimation in Project Management,” nTask, 2022. 4 “Project Cost Management: How to Estimate Project Costs,” MyHours, 2022.

[14] R. Jayaraman, “Project cost control: a new method to plan and control costs in large projects,” Business Process Management Journal, vol. 22, no. 6, pp. 1247–1268, Nov. 2016, doi: 10.1108/bpmj-10-2014-0102.

CHAPTER 3

Navigating IT Project Challenges: A PMBOK Perspective on the Singapore Software Group (A) Strategic Response

Sutanth Kunsuraman[1], Nanthini Rajagobal[1], Goh Jing Ming[1], Liew Yi Hong[1], Ian Chee Wee Soong[1], Gaajendren Viveganantha[1], Muhammad Haziq Bin Sumagi[1], Md Rashedujjaman Reza[1], Mazidah Mat Rejab[1]*

[1]Fakulti Sains Komputer dan Teknologi Maklumat, Universiti Tun Hussein Onn Malaysia, Parit Raja, Batu Pahat, 86400, MALAYSIA
*Corresponding Email: mazidah@uthm.edu.my

1.1 INTRODUCTION

The landscape of Information Technology projects is frequently characterized by the volatile nature of requirements and the rapid pace of technological change. Project management consists of tools and strategies used by individuals to organize and oversee project activity [1]. Nowadays, program complexity is increasing, and the program manager must have specific skills and expertise since he is responsible for ensuring that all projects and program components are moving forward as planned [2]. The Singapore Software Group (A) case presents a compelling narrative that encapsulates these challenges within the IT industry. This journal article aims to shed light on the confluence of issues that SSG grappled with while managing a critical software project for Taiwan Technologies

(TT). These issues include the arduous task of defining and controlling the project scope in the face of incomplete client specifications, managing project costs under the constraints of a firm-fixed-price contract, and the overarching need to ensure quality and timely delivery in a competitive market. Employing the Project Management Body of Knowledge (PMBOK) as a guiding framework, this article delves into SSG's strategic response to these challenges, exploring the robustness and adaptability of PMBOK principles in practice.

Through the SSG case study, this article examines broader project management dilemmas, such as the integration of risk management strategies to mitigate the inherent uncertainties of IT projects, the critical role of communication in aligning stakeholder expectations, and the importance of procurement management in establishing and maintaining beneficial contractual relationships. Each facet of the case underscores the necessity for a comprehensive and flexible project management approach, as endorsed by PMBOK, in steering complex IT projects to success.

1.2 DISCUSSION OF PROJECT MANAGEMENT BODY OF KNOWLEDGE

Project integration management is one of the important aspects in PMBOK, where the integration integrates various aspects of the project, such as workforce training, skill development, and innovation initiatives, to ensure alignment with overall objectives and strategic goals [3]. Based on the case study SSG, when the senior management gives the green light for a project, it is important to the CEO and top executives saying, “Let’s make this happen”, this is very important decision sets the project’s course, providing the crucial initial momentum for its execution. Without this directive, the project might never get off the ground, emphasizing the significance of senior management’s role in project initiation.

In addition, assigning a project manager as the captain of a ship, responsible for navigating through the project's challenges and uncertainties. They are like the conductor of an orchestra, to ensure that every member plays their part. The appointment of a project manager is important, as they become the central figure, coordinating efforts, making decisions, and focusing on the project towards its objectives. The project manager's leadership and organizational skills are essential for driving the project forward successfully. They oversee the project's progress, manage resources effectively, and adapt to changing circumstances to keep the project on track [4].

In the case study also have mention about Proposal Kickoff meeting. During the meeting, stakeholders gather to focus on the project with enthusiasm and purpose. The meeting may be discussed on the strategies session, it is where plans are laid out, roles are assigned, and everyone rallies behind unified version. This meeting also will help to kickstart collaboration and align the team towards achieving project success [5].

In addition, in terms of good growth, SSG began training its workforce coordinating different departments. Just like players on a sport team, which department has a unique role to play in the project's success. In the case study itself have mention that Human Resources, Manufacturing, or computer Technologies must synergize their efforts seamlessly. In short, coordinating among these multiple teams ensures that resources are leveraged efficiently, all the tasks are executed effectively, and the obstacles are overcome collectively.

To conclude, the example from SSG Group A case study highlights the critical role of senior management in decision making, the appointment of a project manager, the kickoff meeting, and departmental coordination within project integration management. By aligning organization resources, fostering collaboration, and establishing clear leadership, SSG positioned itself to pursue project opportunities with clarity and purpose.

1.5.1 Project Cost Management

Project cost management was one of the most important aspects needed to consider on the Project Management Body of Knowledge (PMBOK). It encompasses various elements crucial for effective project planning, execution, and control [6]. Cost management ensure that the project's budget can be established and finished in accordance with approved plans [8]. It involves estimating, budgeting, and managing costs throughout the project lifecycle to ensure successful delivery within the predefined constraints.

In the context of cost management, the case study involving Singapore Software Group (SSG) bidding on a contract with Taiwan Technologies (TT) by having a firm-fixed-price contract which make the contract poses significant risk to SSG because any cost overruns cannot be claim. Recognizing the inherent risks associated with a firm-fixed-price contract, SSG's Chief Financial Officer, Paul Creighton, advocated for including a 15% profit margin in the contract to mitigate potential financial risks. Kathryn James discusses the impact of human resources and points out the salary adjustment and average leave entitlements for employees. These factors contribute to calculating the labor cost which is needed in the project budgeting.

Additionally, Eric Tong the VP of Manufacturing plan to assign a manufacturing engineer to avoid problem with the smartphone casing and covers. Request for Proposal (RFR) requires experimentation with various sizes of touch screen to determine if software performance is affected by screen dimensions. He estimates the material cost at around $6,000 which helped on the cost material budgeting segment [3].

Bruce Clay, the Proposal Manager, provides a previous proposal as a reference for pricing methodology. He includes a listing of all cost assumptions made in the estimates to create a final project pricing summary which will make it easy to

finalize the cost of this project and avoid the risk of increasing the cost in the future (See table 1).

In summary, cost estimates are a crucial part in the Project Management Body of Knowledge (PMBOK) because without a proper estimation can cause sudden increase in the cost and make lot of lost. For example, the SSG's management carefully estimates various cost factors, including labor and material to prepare for bidding on the project which makes them create a final pricing summary with accurate cost.

1.5.2 Project Human Resources Management

Project Human Resources Management includes the processes of making efficient use of people involved in this project, for example Frank Ling, the Business Analyst, Kathryn James, the VP of Human Resources, Paul Creighton, the Chief Financial Officer, etc. The three major processes are Organizational Planning, Staff Acquisition, and Team Development [3].

Organizational Planning in the context of the article involves SSG's senior management determining the project structure, roles, and responsibilities for the bid on the Taiwan Technologies (TT) contract. This includes appointing Jim Kirby as the project manager and assigning full-time roles to representatives from various groups within SSG, ensuring clarity in reporting relationships and project governance [7].

Staff Acquisition is evident as SSG prepares to bid on the TT contract by allocating appropriate resources with the necessary skill levels. This includes training existing staff and hiring new talent to build expertise in touch-screen software development, aligning human resources with project requirements to ensure the project's success.

Team Development is illustrated through SSG's proactive approach to enhancing the capabilities of its project team. This involves investing in training and development opportunities for

existing staff in touch-screen software development, as well as hiring highly talented individuals with the expertise needed to compete in this market. Additionally, the commitment to assign dedicated resources full time to the project ensures team cohesion and collaboration throughout the project duration.

These processes collectively contribute to SSG's strategic approach to addressing the challenges and opportunities presented by the TT contract, ensuring that the project team is well-equipped and prepared to deliver high-quality results within the specified timeline and budget constraints.

1.6 CONCLUSION

The conclusion of this study encapsulates the pivotal findings derived from the comprehensive analysis conducted, offering a summary of the key insights garnered from the data [9]. By meticulously examining trends and patterns, the study has underscored the importance of effective project management in ensuring favorable project outcomes [10].

The findings emphasize the critical role of project integration management, elucidating the significance of senior management's decision-making, the appointment of adept project managers, and the pivotal role of kickoff meetings in delineating project direction and fostering cohesive collaboration among team members. Moreover, the imperative of departmental coordination for optimizing resource utilization and surmounting collective obstacles has been underscored.

Within the realm of project cost management, the study accentuates the indispensability of accurate estimation and budgeting in mitigating financial risks and safeguarding project successes. The case study elucidates the pragmatic application of profit margin incorporation to preempt potential overruns alongside the meticulous estimation of labor and material costs.

Furthermore, the study delves into project human resources management, elucidating its pivotal role in ensuring the efficient deployment of project resources. Processes such as organizational planning, staff acquisition, and team development have been highlighted as instrumental in aligning human resources with project requisites and augmenting team proficiencies.

In summary, the study emphasizes the importance of following PMBOK principles and practices as fundamental guidelines for managing the intricacies of IT projects. It underscores the necessity of continued research in exploring additional strategies for effective project management, thereby contributing to the ongoing evolution and enhancement of project management practices

BIBLIOGRAPHY

[1] K. Heldman, PMP: Project Management Professional Exam Study Guide. John Wiley & Sons, 2018.
[2] K. Schwalbe, Information Technology Project Management. Cengage Learning, 2015.
[3] Project Management Institute, "A guide to the project management body of knowledge (PMBOK Guide)," Project Management Institute, 2000.
[4] Aston, Ben. "Why Is Project Management Important?" The Digital Project Manager, 29 Mar, 2024. thedigitalprojectmanager.com/personal/new-pm/why-is-project-management-important/.
[5] R. Buma, "How to Write a Project Kickoff Meeting," ProjectManager.com, Dec. 2, 2021. [Online]. Available: https://www.projectmanager.com/blog/write-project-kickoff-meeting
[6] R. K. Wysocki, Effective Project Management: Traditional, Agile, Extreme. John Wiley & Sons, 2014.
[7] H. R. Kerzner, Project Management Case Studies (Fifth Edition). Hoboken, NJ: John Wiley & Sons, 2017.
[8] J. T. Marchewka, Information Technology Project Management: Providing Measurable Organizational Value. John Wiley & Sons, 2014.
[9] J. Chika, “Exploring the Dynamics of Corporate Governance Change: A Multi-Level Study of Processes and Mechanisms in Corporate Governance Reforms in Nigeria,” 2023. Accessed:
[10] Apr. 05, 2024. [Online]. Available: https://core.ac.uk/download/590688324.pdf
[11] Jui-Sheng Chou and Jung-Ghun Yang, “Project Management Knowledge and Effects on Construction Project Outcomes: An Empirical Study” 2012. Accessed: Apr. 05, 2024. [Online]. Available: https://journals.sagepub.com/doi/abs/10.1002/pmj.21293

ISBN No. 9786297566153 | 2024

CHAPTER 4

PMBOK Knowledge Areas: Case Study of Greyson Corporation

Amirul Aiman Nor Azman[1], Auni Zahirah Mohamad Zahir[1], Lokman Hakim Zainal[1], Mohammad Hariz Mohammad Nizam[1], Muhammad Thariq Yatiman[1], Nur Adilah Adha Ahmad Nawir[1], Nur Hidayah Afri[1], Saranya A/P V.B. Sundramorthy[1], Mazidah Mat Rejab[1]*

[1]Fakulti Sains Komputer dan Teknologi Maklumat, Universiti Tun Hussein Onn Malaysia, Parit Raja, Batu Pahat, 86400, MALAYSIA
*Corresponding Email: mazidah@uthm.edu.my

1.1 INTRODUCTION

Greyson Corporation, a military weaponry research and production company, had undergone significant organizational changes and encountered complex challenges. This report investigates the critical issues faced by Greyson Corporation through the perspective of five of the nine areas of the Project Management Body of Knowledge (PMBOK),i.e. Project Integration Management, Project Human Resource Management, Project Risk Management, Project Cost Management, and Project Procurement Management. The objectives are to identify these critical issues and propose effective resolution for each issue. By using the case study of Greyson Corporation and multiple academic texts on PMBOK principles, this report aims to provide insights for managing project complexities and achieving project success. Through

the examination of each area's impact on Greyson Corporation's operations and project performance, this report aims to understand the effective project management practices in the context of an evolving organization and changing market demands. In the ever-evolving landscape of project management, navigating complexities uncertainties, and issues is important for organizations to achieve their objectives. This report delves into the discussion of Project Management Body of Knowledge (PMBOK), focusing on five out of nine key areas, which are Project Integration Management, Project Human Resource Management, Project Risk Management, Project Cost Management, and Project Procurement Management. Through the lens of the Greyson Corporation (a military weaponry research and production company) case study, how these project management principles could have been applied to enhance organizational resilience, adaptability, and success in their related industry is explored. The objectives of this report are to analyze and address these critical issues faced by Greyson Corporation and propose viable strategies for its resolutions.

The first challenge which is related to Project Integration Management revolves around the evolution of Greyson Corporation's organizational structure and operations, thus disrupting effective project management and resource allocation.

The next challenge is related to the Project Human Resource Management, i.e. the integration of former Cameron Corporation employees, coupled with layoffs and potential strikes, impacts employee morale and productivity within the organization.

Next, shifting from solely R&D to focusing on production, integration challenges following a merger, and financial overreliance on a single project undermine project success and company survival, thus robust Project Risk Management isl desperately needed.

Furthermore, in the lens of Project Cost Management, the loss of major contracts, including the Neptune Program and Hercules missile buys, poses significant threats to Greyson's financial and workforce stability.

Finally in relation to Project Procurement Management, despite winning their contract, cost constraints and scheduling issues plagued the project, leading to cost overruns and delays. The management's decision-making process regarding budget allocation and resource management directly impacted the program's performance and overall success.

In summary, this report seeks to discuss the Greyson Corporation's challenges within the context of integration management, human resources management, risk management, cost management, and procurement management. By examining these critical issues and proposing effective solutions, this report aims to guide other companies towards achieving its objectives and sustaining its competitive position in their industries by learning from the history of Greyson Corporation and Project Management Body of Knowledge.

1.2 DISCUSSION OF PROJECT MANAGEMENT BODY OF KNOWLEDGE

1.6.1 Project Integration Management

Integration is described as the act of joining or adding pieces to form a cohesive whole [6]. The processes and activities to identify, define, combine, unify and coordinate the various processes and project management activities within the Project Management Process Groups is included in the Project Integration Management [10]. There are a total of five decisions that need to be chosen during the integration process based on the Project Management Body of Knowledge (PMBOK), which are resource allocation, balancing competing demands,

examining any alternative approaches, tailoring the processes to meet the project objectives and managing the interdependencies among the Project Management Knowledge Areas.

The Project Integration Management (PIM) processes are developing a project charter; developing a project management plan; directing and managing project work; managing project knowledge; monitoring and controlling project work; performing integrated change control; and finally, closing the project or phase [11]. As for the case study for The Greyson Corporation, we can relate a few examples according to the seven process aspects that are included.

By closely analyzing the case study, the issues can be related to the PIM processes. The first issue is related to developing a project charter. In the case of Greyson Corporation, the decision to transition from focusing solely on research and development (R&D) to also engaging in the production of military weapons could be seen as the start of a new project. The project charter would define the objectives, scope, and authority for this strategic initiative. Next is developing a project management plan. Greyson's transition involved a major organizational restructuring and strategic shift. Creating a comprehensive project management plan would have been critical for aligning many components of the shift, such as resource allocation, communication methods, risk management approaches, and change control processes.

After that, directing and managing project work can be related with the transition of the company, Greyson's project managers would have been responsible for directing and managing the execution of project activities, such as implementing the new matrix organizational structure, integrating R&D and production functions, and facilitating communication between departments. Regarding monitor and control project work, Greyson would need to monitor and control the progress of the transition project to ensure it stays on track. This involves

tracking key performance indicators, identifying deviations from the project plan, and taking corrective actions as necessary to address issues and risks that may arise during the transition.

Performing integrated change control is also part of the process. As Greyson underwent organizational restructuring and strategic changes, it would have encountered various changes and uncertainties. Integrated change control processes would be crucial for evaluating, approving, and managing changes to the project scope,schedule, and resources while minimizing disruptions to project progress. Finally, to close the project or phase it is important to verify the final process of integration. Once the transition project is complete, Greyson would need to formally close out the project or project phase. This involves obtaining acceptance from stakeholders, documenting lessons learned from the transition process, and ensuring a smooth transition to the new organizational structure and strategic direction.

By implementing these Project Integration Management processes throughout the project lifecycle, Greyson could have addressed the challenges faced in the Neptune program more effectively.

1.6.2 Project Human Resource Management

Some view project management as a key factor for successful enterprises in today's chaotic end-of-century climate, allowing for a relaxation of traditional organizational models [13]. Human resource management is one of the key part in project management. Project human resource management includes the processes that organize, manage, and lead the project team as the project team’s number can change during the development process. There are seven roles of human resource in project management based on the Project Management Body of Knowledge (PMBOK), including staffing management plan, team acquisition, team development, team management, resource optimization, performance

management and stakeholder engagement. The Greyson Corporation case study shows a few relation of where the project human resource management could have been improved. Organizations must adapt to a rapidly changing environment with strict survival requirements. Their success stems from their ability to modify their structures and form viable relationships with their environment [14]. By using effective human resource management, the team can rely on each of them contributing to successful project completion.

The most important steps to achieve an effective team is human resource planning. Human resource planning involves balancing human availability and needs, and planning operations to ensure a company has the necessary number and capabilities at the right time and location [13]. In PMBOK, this aligns with the processes of Resource Planning and Cost Management. Effective resource planning involves identifying, acquiring, and managing resources needed for the project. However, many obstacle can get in the way during planning that can leads to uncertainty which makes it difficult to define what way, how many human resources will be required and when they will be used. Greyson Corporation stated the Neptune Program is 35 percent behind schedule, leading to concerns about resource allocation and productivity. Additionally, there is a risk of cost overruns due to delays and higher overhead rates. This issues can be solved by implementing measures to expedite work completion, such as overtime or reallocating resources from non-critical activities, reviewing material specifications to optimize inventory and procurement costs like investing in additional tooling and equipment to meet schedule requirements.

Job analysis gathers information on specific jobs and methods, including documentary research, interviews, questionnaires, logbooks, critical indicators, and observation [13]. In light of market shifts, Greyson Corporation faces significant challenges, such as the Department of Defense's announcement of no further buys of the Hercules missile, which

threatens layoffs and increased overhead rates. Using the PMBOK's Environmental Factors method, studying the changing market situation and identify possible risks and opportunities are critical to anticipate challenges and capitalize on emerging opportunities effectively. Human resource management is critical in this adaptation process since it requires aligning the workforce with the new company goals and priorities. Organizational success depends on their ability to adjust their structures and build strong relationships with their environment [14]. Analyzing the talent acquisition and development strategy to guarantee that its team has the skills and knowledge needed to prosper in new markets or pursue other contracts. Furthermore, by incorporating human resource management concepts into its reaction to market changes, the resilience and capitalize on emerging possibilities while limiting risks can be strengthen.

1.6.3 Project Risk Management

Risk is defined as an unexpected event or condition that might have either positive or negative effects on the project objectives [1]. Any event that could or may disrupt the project from achieving its goal and objective can be referred to as risk. Based on the Project Management Body of Knowledge (PMBOK), risk management is the systematic process to identify, analyze, and respond to a project risk. Risk management consists of 6 major processes, which include risk management planning, risk identification, qualitative risk analysis, quantitative risk analysis, risk response planning, and risk monitoring and control. The Greyson Corporation case study shows several cases where project risk management could have been applied more effectively. The processes identified where the Greyson Corporation has issues are risk identification, risk response planning, and risk monitoring and control.

Identifying risk is pivotal to the risk planning exercise, and as such, the team should ensure that specific risks affecting project success are recognized [2]. The Greyson Corporation case study shows the critical lapses in risk management, particularly in identifying and mitigating risks associated with strategic decisions, integration challenges following a merger and financial overreliance on a single project. The failure to recognize the repercussions of shifting focus from R&D to production overlooked the importance of sustaining innovation and competitiveness, which could have been addressed by employing a balanced portfolio approach and fostering a culture of continuous innovation. Additionally, underestimating the integration challenges post- merger neglected the necessity for cultural and operational alignment, which could have been mitigated through stakeholder analysis, team building, and effective communication strategies. Moreover, the financial vulnerability due to the heavy dependence on the Neptune project's success highlighted the absence of a robust financial risk assessment and diversification strategy. The lack of regular risk management plan monitoring and adjustment failed to account for emerging risks and adapt mitigation strategies accordingly. This scenario underlines the significance of a proactive and holistic approach to risk management, aligning with PMBOK guidelines, to ensure resilience and project success amidst uncertainties.

Risk response planning is the process of developing options and determining risk responses that reduce threats to and increase opportunities for project and portfolio objectives [4]. In addressing the inadequacies in risk response planning within the Greyson Corporation case, a detailed integration strategy could have been developed to effectively manage the merging of Cameron's employees into Greyson's operations. This strategy should have included plans for addressing salary discrepancies, outlining clear promotion paths, and facilitating cultural and operational integration to prevent conflict and build

collaboration. Furthermore, establishing a robust communication strategy, as recommended by the PMBOK, would have been crucial. This strategy should have outlined the protocols for information sharing between the program office and department managers, thereby preventing misunderstandings and delays while promoting a culture of transparency and cooperation. Additionally, creating contingency plans for critical areas such as resource allocation and cost management in response to unexpected project developments would have given Greyson Corporation the flexibility needed to navigate challenges more effectively. These plans should have been based on thorough risk analysis and included budgetary adjustments and resource reallocation provisions to ensure project continuity and success.

Risk monitoring and control is to achieve a project's objectives, causing the least possible difficulty, and is based on observation, systematic measurement of performance, identifying variances, and adoption of corrective or preventive action as well as change management [5]. The case of Greyson Corporation underscores significant deficiencies in risk monitoring and control across budget, schedule, and inventory management, illustrating missed opportunities to apply principles from the PMBOK effectively. In budget management, Greyson’s failure to accurately forecast the impact of rising overhead rates on project costs, coupled with a lack of early cost control measures, led to budget overruns. The PMBOK stresses the importance of continuous monitoring and adjustment of the budget to changing conditions, suggesting that diligent application of these practices could have prevented Greyson’s financial difficulties. Regarding schedule management, the project’s deviation from its planned timeline necessitated costly catch-up efforts. PMBOK guidelines advocate for proactive schedule management, including contingency planning and maintaining open communication among stakeholders, which, if implemented by Greyson, might have significantly reduced the need for

expensive, corrective actions. Lastly, Greyson's inadequate risk mitigation for potential inventory obsolescence due to delays reveals a lack of foresight. As outlined in PMBOK, effective risk management involves identifying potential risks and developing strategies to mitigate their impact, such as periodic reviews of inventory specifications and exploring substitutions for critical components. These measures could have allowed Greyson to navigate unforeseen delays without incurring significant losses or project disruptions.

By incorporating these PMBOK strategies into its project management approach, Greyson Corporation could have significantly enhanced its capacity to manage project risks and achieve its objectives.

1.6.4 Project Cost Management

The process of cost management involves the identification, collection, measurement, classification, and reporting of data that helps managers make decisions and plan, control, and make ongoing changes in addition to figuring out how much goods, suppliers, customers, and other relevant objects cost [3]. Within Greyson Corporation, these practices play a pivotal role, particularly evident in their engagement with the Department of Defense and other military contracts. From their inception in military weaponry R&D to their later expansion into aerospace technology, Greyson's cost management strategies evolved in response to market dynamics and competitive pressures.

Initially focused on research and development contracts, Greyson's transition into production required a significant reorganization, necessitating a shift from a functional to a matrix organizational structure to accommodate both R&D and production activities. As Greyson expanded its aerospace business, effective cost management became increasingly critical for ensuring profitability and competitiveness.

An illustrative example of Greyson's adept cost management strategies can be seen in their 2005 initiative to capitalize on an opportunity arising from Cameron Corporation's uncertain position in the aerospace market. By leveraging their expertise and workforce, Greyson strengthened their bid for the Neptune missile program, ultimately securing the contract. This strategic decision not only bolstered Greyson's market position but also facilitated the acquisition of skilled personnel crucial for project success. By 2005, Greyson's aerospace business had flourished, with profits increasing by 30% and the employee count soaring from 200 to 1,800. The Hercules Program, initiated in 1994, continued to provide steady contracts, indicating a promising future. Meanwhile, Cameron Corporation faced difficulties, particularly with its Neptune Program, with no follow-on work projected until January 2006 and escalating overhead rates threatening profitability.

Effective project cost management became crucial as Greyson evaluated the Neptune missile production bid. The company needed to meticulously estimate costs to remain competitive while considering potential risks such as increased overhead rates and uncertain future contracts. Moreover, Greyson had to allocate resources efficiently to meet project deadlines and maintain profitability amidst market uncertainties.

Greyson's experience highlights the significance of effective project cost management in navigating market fluctuations, seizing opportunities, and maintaining competitiveness in the aerospace industry. By leveraging robust cost management practices, Greyson aimed to secure strategic contracts and achieve sustainable growth in a dynamic market environment.

Moreover, Greyson's decision to absorb 35 key employees from Cameron Corporation was a strategic move aimed at enhancing project capabilities without significantly inflating costs. By integrating skilled personnel from a competitor, Greyson minimized recruitment and training expenses while leveraging their expertise to drive project success.

Additionally, Greyson's strategic response to market dynamics, such as the announcement of no further buys for the Hercules missile, demonstrated the company's adaptability in reevaluating cost structures and realigning resources to sustain business operations. The decision to lay off noncritical employees and implement merit salary increases for key personnel underscored Greyson's focus on optimizing cost-effectiveness and retaining top talent amidst evolving market conditions.

In conclusion, Greyson Corporation's experience exemplifies the multidimensional nature of project cost management within a dynamic industry landscape. By integrating robust cost estimation, budget allocation, and proactive cost control practices, Greyson navigated market uncertainties, seized strategic opportunities, and positioned itself for sustainable growth. The company's strategic responses underscore the pivotal role of effective cost management in driving project success, fostering competitiveness, and ensuring long-term profitability in the aerospace sector.

1.6.5 Project Procurement Management

Project Procurement Management includes the processes required to acquire goods and services, to attain project scope, from outside the performing organization [12]. Project procurement management plays a crucial role in the operations of Greyson Corporation, particularly evident in their engagement with the Department of Defense and other military contracts. From their initial exploration into military weaponry R&D to their later expansion into aerospace technology, Greyson’s procurement strategies evolved in response to changing market demands and competitive landscapes. Initially focusing solely on research and development contracts, Greyson’s decision to enter production required a major reorganization, transitioning from a functional to a matrix structure to accommodate both R&D and production activities.

As Greyson expanded its aerospace business base, project procurement management became increasingly vital for securing contracts and managing resources effectively. For instance, in 2005 Greyson capitalized on an opportunity presented by Cameron Corporation's uncertain position in the aerospace market, leveraging their expertise and workforce to strengthen their own bid for the Neptune missile program. This strategic procurement decision not only helped Greyson win the contract but also facilitated the acquisition of skilled personnel critical for project success.

However, effective procurement management isn't without its challenges. As evidenced by Greyson's experience with the Neptune Program. Despite winning the contract, cost constraints and scheduling issues plagued the project, leading to cost overruns and delays. The management's decision-making process regarding budget allocation and resource management directly impacted the program's performance and overall success.

In response to mounting challenges, Greyson's leadership had to reassess their procurement strategies and consider various options to mitigate risks and ensure project success. This included evaluating overtime work, exploring material specification adjustments and making tough decisions such as laying off noncritical employees. These actions underscore the importance of proactive and adaptive procurement management in navigating complex projects and dynamic market conditions.

Greyson Corporations experience highlights the critical role of project procurement management in securing contracts, managing resources and overcoming challenges to deliver successful outcomes in the

defence and aerospace industries. Effective procurement strategies, coupled with strategic decision-making and proactive risk management are essential for organizations like Greyson to thrive in competitive markets and achieve their project objectives.

1.7 CONCLUSION AND RECOMMENDATION

Greyson Corporation's journey reflects the dynamic nature of the aerospace and defense industry, marked by periods of growth, innovation, challenges, and strategic pivots. From its origins as an R&D-focused entity to its expansion into production contracts, Greyson demonstrated resilience, adaptability, and strategic foresight [7]. The company's success in securing major contracts, developing a competent technical staff, and expanding its business base underscored its capabilities and competitiveness in a demanding market. However, Greyson also faced significant challenges, including the loss of key contracts, declining Department of Defense procurement, and escalating overhead costs. These challenges necessitated critical decisions regarding resource allocation, cost control, workforce management, and strategic investments. The company's response to these challenges was a mix of proactive measures, such as workforce optimization, cost-cutting initiatives, and strategic diversification, alongside reactive strategies to address immediate issues like schedule delays and potential layoffs. The acquisition of key employees from Cameron Corporation highlighted Greyson's ability to leverage talent and expertise strategically. Despite setbacks, Greyson's leadership recognized the importance of retaining critical skills and knowledge within the organization, albeit at the cost of restructuring and layoffs. The decision to invest in tooling, equipment, and technology demonstrated a commitment to enhancing operational efficiency and meeting contract requirements. Furthermore, Greyson's engagement with the Department of Defense and negotiation strategies showcased its agility in adapting to changing market conditions and customer requirements. The company's willingness to

collaborate, innovate, and make tough decisions underscored its determination to remain competitive and viable in a challenging industry landscape. In conclusion, Greyson Corporation's journey reflects a blend of strategic vision, operational challenges, and adaptive responses that are characteristic of the aerospace and defense sector [8]. By leveraging its strengths, addressing weaknesses, and capitalizing on opportunities, Greyson positioned itself for continued growth, resilience, and success in an ever- evolving market environment.

To ensure the success and sustainability of Greyson Corporation, it is crucial to implement a comprehensive strategy that encompasses several key areas. Firstly, optimizing resource allocation by focusing on critical programs and projects aligned with core competencies and market opportunities is essential. This involves prioritizing key employees, streamlining departments, and improving communication between program management and department managers to enhance coordination and efficiency. Additionally, implementing strict cost control measures to mitigate the impact of higher overhead rates, inventory costs, and procurement expenses is paramount. [9] This may entail renegotiating contracts, reviewing material specifications for cost- saving opportunities, and reducing non-critical expenditures. Investing in strategic capabilities such as tooling, equipment, and technology is also recommended to improve productivity, meet schedule requirements, and enhance competitiveness in securing future contracts. Furthermore, continuous evaluation of workforce needs and capabilities, along with providing training and development opportunities and addressing employee concerns, is crucial for maintaining a skilled and motivated workforce and preventing potential disruptions like strikes or unionization. Lastly, exploring diversification strategies to reduce reliance on specific

contracts or markets and spread risks, while ensuring long-term sustainability through initiatives like expanding into new industries, forging strategic partnerships, and investing in research and development for emerging technologies, is advisable. By addressing these areas comprehensively, Greyson Corporation can navigate challenges effectively and position itself for continued growth and success in the aerospace and defense industry.

BIBLIOGRAPHY

[1] Eldash, K. (2012). PROJECT RISK MANAGEMENT (COURSE NOTES). ResearchGate.
[2] https://www.researchgate.net/publication/271909639_PROJECT_RISK_MANAGEMENT_COURSE_NOTES
[3] George, C. (2020). The essence of risk identification in project risk management: An overview. International Journal of Science and Research (IJSR), 9(2), 1553-1557. https://www.researchgate.net/profile/Crispin-George/publication/339593332_The_Essence_of_Risk_Identification_in_Project_Risk_Management_An_Overview/links/5e5a6b72a6fdccbeba0c8195/The-Essence-of-Risk-Identification-in-Project-Risk-
[4] Management-An-Overview.pdf
[5] Hansen, D. R., Mowen, M. M., & Heitger, D. L. (1997). Cost management (pp. 300-351). South-Western College Publishing (5th ed.).
[6] Project Management Institute. (2014). The standard for portfolio management. Project Management Institute.
[7] Montes-Guerra, M. I., Gimena, F. N., Pérez-Ezcurdia, M. A., & Díez-Silva, H. M. (2014). The influence of monitoring and control on project management success. International Journal of Construction Project Management, 6(2), 163-184. http://mobile.samuellearning.org/ProMgt/PM%20Handout% 202%202016.pdf
[8] Stuckenbruck, L. C. (1988). Integration: The essential function of project management. Project management handbook, 2, 56-81. https://citeseerx.ist.psu.edu/documentrepid=rep1&type=pdf&doi=dd5cd090d848a48bc1192bb246278031abcc15c5
[9] Well Kenton. (2024). Research and Development (R&D) Definition, Types, and Importance. https://www.investopedia.com/terms/r/randd.asp
[10] Paolo Colombo. (2019). Factors That Define Aerospace and Defense Industry Trends and How to Account for Them. https://www.ansys.com/blog/5-factors-define-

aerospace-and-defense-industry-trends

[11] Shyam Gowtham. (2024). Cost Control: Definition, Techniques, Methods, Strategies & Examples. https://happay.com/blog/cost-control/

[12] Project Management Institute. (2017). A Guide to the project management body of knowledge (PMBOK® guide) (6th ed.).

[13] Tristancho, C. (2023, November 7). Project Integration Management – A Quick Guide. Project Manager. https://www.projectmanager.com/blog/project-integration-management-a-quick-guide

[14] Q. W. Fleming, Project Procurement Management: Contracting, Subcontracting, Teaming. Project Management Institute, 2019. Accessed: Apr. 05, 2024. [Online]. Available: https://books.google.com.my/books?hl=en&lr=&id=duGGDwAAQBAJ&oi=fnd&pg=PT7&dq=project+procurement+management&ots=bi33AGr8p9&sig=RZ9zV1pjlNdqdANojvQcp_7nNcA&redir_esc=y#v=onepage&q

[15] =project%20procurement%20management&f=false

[16] Fabi, B., & Pettersen, N. (1992). Human resource management practices in project management. International Journal of Project Management, 10(2), 81-88.

[17] Belout, A. (1998). Effects of human resource management on project effectiveness and success: toward a new conceptual framework. International journal of project management, 16(1), 21-26.

CHAPTER 5

Relation Between PMBOK and IT Project Failure: A Case Study of The Fall of Quibi

Nur Sabrina Binti Mohamad Raffi[1], Siti Fhidasyafiqah Binti Zakaria[1], Nur Syahila Binti Abdul Rahman[1], Siti Hawa Binti Ismail[1], Siti Rabi'atul Adawiyah Binti Ekhwan[1], Nur Muna Izzah Binti Mahat[1], Mazidah Mat Rejab[1]*

[1]Fakulti Sains Komputer dan Teknologi Maklumat, Universiti Tun Hussein Onn Malaysia, Parit Raja, Batu Pahat, 86400, MALAYSIA
*Corresponding Email: mazidah@uthm.edu.my

1.1 INTRODUCTION

The failure of Quibi, a short-form streaming service created during the COVID-19 epidemic, demonstrates major shortcomings in project management across multiple domains. The analysis reveals gaps in scope definition, stakeholder participation, risk reduction, integration management, quality assurance, resource allocation, communication strategies, and time and cost management. Quibi's failure highlights the significance of thorough market research, iterative development based on user feedback, and excellent stakeholder communication. A lack of adaptation, internal disagreements, and a failure to differentiate in a crowded industry all contributed to its death. To avoid similar errors in future software projects, recommendations include prioritizing detailed market study, adopting iterative development procedures, and encouraging integrative leadership and

stakeholder participation The COVID-19 pandemic coincided with the April 2020 launch of the Quibi mobile app. Despite a 90-day free trial, it only recorded 1.7 million downloads in the US during the first week, far less than the 7.4 million expected. Within a week of launch, the app dropped from the top 50 in Apple's App Store, indicating that the venture was not going as planned. Katzenberg has primarily attributed the failure to the pandemic, arguing that the main issue was that, since fewer people were traveling during the pandemic, their core audience was essentially nonexistent.

Quibi joins a long list of commercial failures in the short-form series space, which Katzenberg may have been leading from the beginning. Pop.com, a joint platform, was among the first notable failures. The venture involved notable investors such as DreamWorks CEO Jeffrey Katzenberg, Ron Howard's Imagine Entertainment, music industry heavyweight David Geffen, and others. After spending $7.2 million, the company closed in 2000. Katzenberg admitted that there was no market for it [1].

Quibi joined a crowded streaming market by charging more than AppleTV+ and Amazon Prime Video. Disney+ had also declared its November debut for that year. The monthly subscription cost for Quibi was US$4.99 with advertisements or US$7.99 for an ad-free experience.

1.2 THE ISSUES

1.7.1 Project Scope Management

Quibi's failure underscores the critical role of scope management in project success. The platform's downfall could be attributed, in part, to shortcomings in accurately defining its scope from the outset. Ambiguity surrounding Quibi's target audience, content strategy, and business model may have hindered its ability to effectively cater to market demands. Furthermore, the unchecked expansion of project scope, known as scope creep, likely exacerbated Quibi's challenges.

As the project scope expanded beyond initial parameters, additional costs accrued, timelines extended, and focus deviated from core objectives. These issues highlight the importance of thorough scope definition and control in ensuring projects remain aligned with strategic goals and stakeholder expectations.

Effective scope management is pivotal for maintaining project alignment with stakeholders' needs and objectives. Quibi's failure to accurately define its scope may have contributed to misunderstandings and conflicts among stakeholders, including investors, content creators, and users. Without clear delineation of project boundaries, it becomes challenging to manage stakeholder expectations and secure buy-in throughout the project lifecycle. By proactively engaging stakeholders in scope definition and managing changes transparently, organizations can foster a collaborative environment conducive to project success [2].

In summary, Quibi's failure emphasizes the importance of handling project scope carefully. By clearly defining what a project aims to achieve, keeping it under control, and addressing any changes effectively, organizations can avoid risks like unclear goals and scope expansion. This helps projects stay on track, meet deadlines, and stay within budget. Additionally, involving stakeholders early and communicating openly with them is crucial. This ensures everyone is on the same page about what the project entails and why it's important, which ultimately leads to better project outcomes.

1.7.2 Project Stakeholder Management

Quibi's failure could indeed be linked to difficulties in managing stakeholders effectively. Throughout its development and launch, Quibi faced challenges in understanding and satisfying the diverse needs. The platform may have struggled to understand the intricate preferences and priorities of these groups, leading to misalignment between Quibi's offerings and stakeholder expectations. For instance, investors might have

had specific financial goals and growth expectations that weren't met, while content creators may have desired greater creative freedom or better revenue-sharing arrangements. Similarly, users might have had distinct preferences regarding content formats, genres, or subscription models. These discrepancies in understanding and addressing stakeholder needs could have contributed to conflicts, misunderstandings, and ultimately Quibi's downfall.

Effective stakeholder management is essential for ensuring alignment between project goals and stakeholder interests. Quibi's failure to effectively engage and communicate with its stakeholders likely resulted in missed opportunities to address concerns and build consensus. Without clear and open dialogue throughout the project lifecycle, misunderstandings and conflicts can arise, hindering progress and jeopardizing project success. Moreover, failing to consider stakeholder perspectives can lead to decisions that are not aligned with the broader interests of the project, ultimately undermining its viability in the market.

In conclusion, Quibi's struggles with stakeholder management underscore the importance of proactive engagement and communication with stakeholders in project execution. By identifying, analyzing, and engaging stakeholders throughout the project lifecycle, organizations can ensure that their interests and expectations are understood and addressed. This fosters a collaborative environment where stakeholders feel valued and invested in the project's success, ultimately increasing the likelihood of achieving desired outcomes and avoiding project failure.

1.7.3 Project Risk Management

Quibi's downfall could indeed be attributed, at least in part, to shortcomings in risk management practices. Throughout its project lifecycle, Quibi may have failed to adequately identify, assess, and mitigate various risks that could impact its

success. For instance, the platform might not have effectively anticipated changes in market dynamics, including shifts in consumer preferences or emerging competition from other streaming services. Additionally, Quibi may have underestimated the potential impact of technology disruptions, such as changes in mobile viewing habits or advancements in streaming technology. These risks, if left unaddressed, could have significant implications for Quibi's ability to attract and retain users, ultimately leading to its failure.

Moreover, Quibi's failure to effectively manage risks could have resulted in project delays and budget overruns. Without proper risk mitigation strategies in place, the platform may have encountered unforeseen challenges and obstacles that impeded its progress. For example, if Quibi did not anticipate changes in consumer behavior or technological advancements, it might have had to allocate additional resources or modify its content strategy mid-project, leading to increased costs and timeline extensions. Such delays and budget overruns could have further strained Quibi's resources and undermined its ability to achieve its project objectives [3].

In conclusion, Quibi's demise underscores the critical importance of effective risk management in project execution. By identifying potential threats and opportunities early on, organizations can proactively respond to changes in the external environment and minimize their impact on project outcomes. Failure to adequately manage risks can result in project failure, as evidenced by Quibi's experience. Therefore, integrating robust risk management practices into project planning and execution is essential for enhancing project resilience and increasing the likelihood of success.

1.7.4 Project Integration Management

The collapse of the short-form streaming service Quibi highlights how crucially important project integration management is. Quibi's original strategy was to provide high-quality short-form content specifically for mobile viewing. But

this strategy appeared to ignore important elements including evolving consumer interests, strong rivalry from well-known streaming services, and the disruptive effects of the COVID-19 epidemic. These mistakes show that the project strategy has not properly taken into account the features of the external market.

Moreover, Quibi encountered significant challenges in carrying out its project plan with efficiency. In spite of large investments and collaborations, Quibi was unable to draw in a sizable user base and generate sustainable revenue. This implies a lack of coherence in the way marketing, user acquisition, and content creation are carried out. To obtain the intended results, project management ought to have made sure that these activities were properly coordinated.

Furthermore, Quibi probably experienced a number of changes over the course of its existence, such as modifications in consumer behavior, modifications in the market, and developments in technology. But it was difficult to adjust to these changes since change control procedures weren't integrated well. In order to handle changes during a project and ensure that they align with its objectives, integrated change control is crucial. Organizational development (OD) includes change management, which is the process of continuously adjusting an organization's capabilities, direction, and structure to satisfy changing demands from internal and external stakeholders [4]. Strong change management procedures must have been put in place by project managers in order to evaluate, order, and incorporate changes into the project schedule with the least amount of disruption and ensuring project alignment.

In summary, the Quibi incident highlights important problems with project integration management, such as failure to consider market dynamics, difficulties with execution, poor change management, and a lack of flexibility. In a market where subscription revenue is highly competitive, Quibi's

unwillingness to become successful quickly contributed significantly to its inability to draw viewers [5]. This highlights how important it is for project managers to take a comprehensive strategy, incorporating components and meeting stakeholder expectations all the way through the project lifecycle.

1.7.5 Project Quality Management

The Quibi incident is an awakening reminder of how crucially efficient project quality management is. The success of a project depends on a number of factors that quality management addresses, such as careful attention to content generation, a strong technological foundation, and a smooth user experience. Quibi's downfall was largely caused by its incapacity to appropriately handle these core issues. Ultimately, Quibi's inability to properly prioritize and manage these crucial elements contributed to its downfall in the very competitive streaming business, despite its early promise and significant investment.

Quibi found it difficult to keep up a consistent level of content quality. Certain shows were praised for their creative storytelling and high production values, while others did not live up to the hype. Due to this discrepancy, users were less likely to join Quibi and stay on the platform as they looked for superior entertainment. Quibi's major weakness in this area may have resulted from ignorance of the correct use of quality control. One of the research concerns that was found was that management was not committed to the concept of "quality" [6]. This inability of Quibi to properly meet user expectations was probably caused by the management's lack of knowledge and dedication, which also made content quality inconsistent.

Quibi faced significant criticism for its user experience design, characterized by an unintuitive interface and limited content discovery features. Quibi's failure was made worse by the poor user experience design, which eventually reduced customer engagement and loyalty. Essentially, any company's main goal

should be to satisfy the demands and expectations of its clients, not just to fulfill them. Organizations may enhance revenue streams and create customer loyalty by understanding and meeting the needs of their existing and future customers [7].

In conclusion, the Quibi incident highlights the importance of effective project quality management. Organizations can increase their capacity to provide high-quality goods and services and achieve long-term success by addressing concerns with content quality, technology infrastructure, user experience, service delivery, and continuous improvement.

1.7.6 Project Resource Management

As shown by the Quibi case, project resource management is essential to the successful completion of projects. Reaching project goals and providing value to stakeholders depend on the effective distribution and application of resources. A major factor in Quibi's collapse was its incapacity to handle its resources well. Quibi failed to maximize its resources, including financial capital, human capital, and technology capabilities, despite large investments and partnerships. Project execution as a whole, marketing campaigns, and content creation were all inefficient as a result of this mishandling.

Additionally, Quibi had trouble allocating resources in a way that matched project priorities and strategic objectives. Missed opportunities and lost resources were the outcome of improper resource planning and coordination. For example, Quibi's major investments on short-form video technology and celebrity-driven content did not connect with its intended audience, suggesting an imbalance between project goals and resource allocation. In order to optimize resource usage and project success, this emphasizes the significance of strategic resource planning and alignment with project goals. Including sustainable business practices in the value chain of an

organization may provide several significant advantages, including a boost in creativity and productivity [8]. Planning and allocating resources with sustainability in mind can boost productivity, cut down on waste, and support long-term company success.

Resource planning, allocation, optimization, and performance monitoring are just a few of the procedures that are included in a complete approach to project resource management. When it came to Quibi, the lack of strong resource management procedures made it more difficult for the company to make the most use of its resources and adjust when project needs changed. Enhancing resource management could have made it possible for Quibi to invest in high-impact projects, distribute resources more wisely, and react to changes in the market. To sum up, the downfall of Quibi offers an invaluable lesson for project managers, emphasizing the significance of strong resource management procedures in guaranteeing project triumph.

1.7.7 Project Communication Management

Quibi's failure highlights the critical role of effective communication management in project success. Throughout its development and launch, Quibi struggled with communicating its value proposition, content offerings, and business model to stakeholders, including investors, content creators, and potential users. The lack of clear and consistent communication likely contributed to misunderstandings, conflicts, and ultimately, the failure of the platform. Effective communication management involves not only conveying information but also ensuring that messages are understood, feedback is received, and concerns are addressed promptly. By establishing transparent communication channels and fostering open dialogue, organizations can mitigate misunderstandings, build trust, and align stakeholders towards common project goals.

Furthermore, Quibi's downfall underscores the importance of adapting communication strategies to different stakeholder groups. Each stakeholder category, whether investors, content creators, or users, has unique needs, preferences, and communication styles. Quibi's failure to tailor its communication efforts to these diverse audiences may have led to misinterpretations and disengagement. Successful communication management involves understanding the motivations and concerns of each stakeholder group and crafting messages that resonate with their interests and objectives. By customizing communication strategies accordingly, organizations can enhance stakeholder engagement, mitigate resistance to change, and foster a supportive project environment conducive to success.

In conclusion, effective communication management is essential for project success, as evidenced by Quibi's failure. By prioritizing clear, transparent, and tailored communication throughout the project lifecycle, organizations can minimize misunderstandings, build trust, and foster collaboration among stakeholders. Moreover, proactive communication management enables organizations to address challenges promptly, adapt to changing circumstances, and ultimately increase the likelihood of achieving project objectives within scope, time, and budget constraints.

1.7.8 Project Time Management

Quibi's demise underscores the critical importance of efficient time management in project execution. The platform's failure to launch and gain traction within the market may be attributed, in part, to delays in project delivery and missed opportunities. Throughout its development, Quibi may have faced challenges in accurately estimating task durations, prioritizing activities, and adhering to project timelines. These delays not only hindered Quibi's ability to capitalize on market opportunities but also eroded stakeholder confidence and increased financial pressure. Effective time management involves developing

realistic schedules, monitoring progress diligently, and implementing strategies to mitigate schedule overruns.

Moreover, Quibi's experience highlights the impact of time management on project competitiveness and market relevance. In today's fast-paced digital landscape, timely delivery is paramount for capturing audience attention, responding to market trends, and outperforming competitors. Quibi's failure to launch promptly may have allowed competitors to gain a foothold in the market, making it challenging for Quibi to differentiate itself and attract users. Therefore, organizations must prioritize time management practices that enable them to deliver projects efficiently, seize market opportunities, and maintain a competitive edge [9].

In conclusion, Quibi's failure underscores the importance of effective time management in project execution. By prioritizing realistic scheduling, diligent progress monitoring, and proactive risk mitigation, organizations can minimize delays, enhance project competitiveness, and increase the likelihood of achieving desired outcomes within predetermined timeframes. Additionally, embracing agile methodologies and leveraging project management tools can help organizations adapt to changing circumstances, optimize resource allocation, and deliver value to stakeholders in a timely manner.

1.7.9 Project Cost Management

Quibi's downfall highlights the critical role of effective cost management in project success. The platform's failure to achieve profitability may be attributed, in part, to budget overruns, inefficient resource allocation, and unforeseen expenses. Throughout its development and launch, Quibi may have encountered challenges in accurately estimating project costs, controlling expenditures, and optimizing resource utilization. These cost management shortcomings not only strained Quibi's financial resources but also undermined its ability to achieve sustainable growth and profitability [1]. Effective cost management involves developing

comprehensive budget plans, monitoring expenses rigorously, and implementing strategies to mitigate cost overruns.

Furthermore, Quibi's experience underscores the importance of aligning cost management practices with strategic objectives and stakeholder expectations. While it's essential to control costs and maximize returns, organizations must also prioritize investments that drive long-term value creation and competitive advantage. Quibi's failure to strike a balance between cost containment and value creation may have led to missed opportunities for innovation, content differentiation, and user acquisition. Therefore, organizations must adopt a holistic approach to cost management that considers both short-term financial constraints and long-term strategic goals.

In conclusion, Quibi's failure emphasizes the significance of effective cost management in project execution. By prioritizing budget transparency, expense tracking, and value-driven decision-making, organizations can minimize financial risks, optimize resource utilization, and enhance project sustainability. Additionally, fostering a culture of cost consciousness and accountability throughout the organization can empower teams to make informed choices that align with overarching business objectives, ultimately increasing the likelihood of project success and long-term viability.

1.8 CONCLUSION AND RECOMMENDATION

In conclusion, while Quibi's demise can be attributed to various factors, it ultimately serves as a cautionary tale for software project management. From prioritizing user feedback and fostering iterative development to ensuring effective communication and managing risks proactively, Quibi's missteps highlight the importance of a holistic approach that considers all aspects of the project lifecycle. By embracing these core principles, organizations can increase their chances of success and avoid the pitfalls that led to Quibi's downfall.

A fundamental flaw in Quibi's approach was a misunderstanding of stakeholder needs. PMBOK emphasizes the importance of Project Integration Management and Project Scope Management. Thorough market research is crucial for defining project scope and identifying potential risks. In Quibi's case, market research appears to have been inadequate. The focus on short-form, high-quality video content for smartphones was overshadowed by existing giants like YouTube and TikTok offering similar functionalities, often for free. A more comprehensive understanding of user preferences and competitor offerings could have revealed this redundancy. With a clearer picture of the market landscape, Quibi could have pivoted towards a more differentiated value proposition, potentially focusing on specific content genres, interactive features, or exclusive partnerships with creators.

Next, being a mobile-only view, Quibi had painted itself into a corner in the marketplace. While it aimed for a specific user niche, it restricted accessibility for a wider audience. This limitation, coupled with the lack of social sharing features, hindered the platform's ability to gain virality. Furthermore, their marketing strategy fell flat, leaving many consumers entirely unaware of Quibi's existence. This situation highlights the importance of embracing iteration and feedback throughout the development process. By continuously gathering user insights, Quibi could have identified these issues early on. Imagine if they had tested different viewing options and incorporated social sharing functionalities based on user feedback. Additionally, gathering feedback on marketing efforts could have helped them refine their message and target audience more effectively. Hannola et al founded that agile methods provide several improvements regarding to organizational practices, transfer of knowledge and know-how and understanding of customer needs that could be applied to the innovation process [10]. A more iterative approach, informed by user feedback, could have steered Quibi away from these

critical oversights and potentially secured a stronger foothold in the market.

Finally, Effective stakeholder engagement is a cornerstone of a successful project of Knowledge (PMBOK) through Project Integration Management and Project Communications Management). However, reports suggest Quibi may have fallen short in this crucial area. According to The Wall Street Journal, tensions arose between co-founders Jeffrey Katzenberg and Meg Whitman, with Whitman reportedly frustrated by Katzenberg's dictatorial management style and perceived lack of understanding of the mobile entertainment landscape [11]. This internal conflict could have hampered effective communication and collaboration within the leadership team, potentially hindering their ability to engage with other key stakeholders. Without a unified vision and clear communication from the top, Quibi may have struggled to gain buy-in from investors, content creators, and ultimately, users.

BIBLIOGRAPHY

[1] Ellingsen, S., Turnbull, S. E., Bassaget, J., Ryan, M., Evans, N., Burkholder, M., ... & Healy, G. (2020). Quibi disaster: How to lose $1.75 b on something you don't understand. Screen Hub.

[2] Larson, E., & Gray, C. (2014). Project Management: The Managerial Process 6e. McGraw Hill.

[3] Project Management Institute (PMI). (2021). Guide to the Project Management Body of Knowledge (PMBOK Guide). Seventh Edition. Project Management Institute.

[4] Moran, J. W., & Brightman, B. K. (2001). Leading organizational change. Career development international, 6(2), 111-119.

[5] Iannucci R (2020) Quibi streaming service to shut down. TVLine. https://tvline.com/news/quibi-shutting-down-streaming-service-folding-series-cancelled-1234586915/ Accessed 3 April 2024

[6] Seetharaman, A., Sreenivasan, J., & Boon, L. P. (2006). Critical success factors of total quality management. Quality and quantity, 40(5), 675-695.

[7] Chauhan, J., Subedi, S., Thakulla, A., & Khanal, S. R. (2023). Project Quality Management. In Conference: Survey Project Management (Vol. 2, No. 5).

[8] Chofreh, A. G., Goni, F. A., Klemeš, J. J., Malik, M. N., & Khan, H. H. (2020). Development of guidelines for the implementation of sustainable enterprise resource planning systems. Journal of Cleaner Production, 244, 118655.

[9] Sanchez, O. P., & Terlizzi, M. A. (2017). Cost and time project management success factors for information systems development projects. International Journal of Project Management, 35(8), 1608-1626.

[10] Hannola, L., Friman, J., & Niemimuukko, J. (2013). Application of agile methods in the innovation process. International Journal of Business Innovation and Research, 7(1), 84-98.

[11] Wall Street Journal. (2020, October 28). Quibi was supposed to revolutionize Hollywood. Here's why it

failed.https://www.wsj.com/articles/quibi-was-supposed-to-revolutionize-
[12] Hollywood-heres-why-it-failed-11604343850 Accessed 2 April 2024

ISBN No. 9786297566153 | 2024

CHAPTER 6

PMBOK Knowledge Areas: Case Study of The Acquisition Problem of Bella Manufacturing

Putri Khaireen Jasmin Ahmad Khairi[1], Siti Ainul Basyeera Yazid[1], Mohamad Iman Muhaimin Husin[1], Muhammad Danial Haq Rose Man[1], Wan Nurin Rusydina Wan Rosman[1], Muhammad Danish Mat Faudzei[1], Muhammad Eilman Hasbollah[1], Shahrul Syazwan Ahmad Zamre[1], Mazidah Mat Rejab[1]*

[1]Fakulti Sains Komputer dan Teknologi Maklumat, Universiti Tun Hussein Onn Malaysia, Parit Raja, Batu Pahat, 86400, MALAYSIA
*Corresponding Email: mazidah@uthm.edu.my

1.1 INTRODUCTION

The Project Management Body of Knowledge (PMBOK) is a fundamental guide for organizations looking to effectively initiate, plan, execute, monitor, and control projects. It provides essential insights into navigating the complexities of post-acquisition integration, particularly in the context of mergers and acquisitions (M&A). This analysis focuses on a detailed case study involving Lenore Industries' acquisition of Belle Manufacturing, aiming to shed light on the multifaceted challenges encountered during the post-acquisition integration phase. Belle Manufacturing stands as a formidable competitor in the automotive industry, boasting a significant market share second only to Lenore Industries. With a history deeply rooted

in supplying parts to the automobile sector, Belle Manufacturing has established itself as a key player in the industry landscape. However, despite its position of strength, the company finds itself as the target of an acquisition by Lenore Industries amidst a backdrop of economic uncertainty and strategic repositioning within the automobile market. As the acquisition unfolds, the integration of Belle Manufacturing's operations into Lenore's fold reveals a myriad of challenges, particularly in aligning project management methodologies, cultural integration, and addressing wage and salary disparities, all critical aspects essential for a successful post-acquisition integration phase.

Mergers and acquisitions are strategic initiatives undertaken by organizations to achieve various objectives, such as expanding market presence, gaining access to new technologies or markets, or achieving operational efficiencies. However, the success of such endeavors depends not only on pre-acquisition decision-making but also on the seamless integration of organizational structures, cultures, and project management methodologies [2]. Pre-acquisition decision-making plays a critical role in shaping the course of post-acquisition integration. The strategic objectives outlined during the pre-acquisition phase set the tone for subsequent integration efforts. In the case of Lenore Industries' acquisition of Belle Manufacturing, strategic objectives such as economies of scale, expanded market presence, and enhanced product offerings informed the decision to pursue the acquisition. However, the failure to adequately consider the compatibility of project management methodologies, cultural differences, and leadership challenges during the pre-acquisition phase laid the groundwork for the challenges encountered during post-acquisition integration [2].

The project management methodologies between Lenore and Belle, along with cultural differences and leadership shortcomings, these challenges relate to several key knowledge areas in the PMBOK, specifically in risk

management, human resource management, time management, scope management, and integration management. For example, the differences in project management methodologies could disrupt processes related to defining project scope, scheduling tasks, and allocating resources. In the realm of project integration management, challenges arise both before and after an acquisition. Pre-acquisition, defining and aligning the scope with strategic objectives is paramount, while post-acquisition integration demands meticulous scope control and effective change management. Human resource management presents hurdles such as cultural clashes, wage disparities, and leadership failures, underscoring the need for proactive measures and strong leadership. Additionally, risk management ensures the identification, assessment, and mitigation of potential risks, while time management guarantees timely project completion, both of which are critical components of successful integration. These issues, crucial in achieving successful integration, are explored in the subsequent discussion.

To overcome these challenges and facilitate successful integration, strategic solutions are informed by PMBOK's best practices. This necessitates a systematic approach that emphasizes stakeholder engagement, effective communication strategies, comprehensive risk assessment methodologies, and adept change management techniques; by leveraging the principles outlined in the PMBOK, organizations can enhance their ability to perform seamless transactions and capitalize on the full potential of M&A opportunities. The PMBOK serves as a guiding framework for organizations navigating the complexities of post-acquisition integration. Through a thorough analysis of challenges and strategic solutions informed by PMBOK principles, organizations can optimize their M&A endeavors and realize the value creation.

1.2 THE ISSUES

1.2.1 Integration Management

The procedures needed to guarantee that the project's many elements are appropriately coordinated are known as project integration management procedures. Project integration management involves coordinating all elements of a project, including tasks, resources, stakeholders, and deliverables [3]. To satisfy or surpass stakeholder needs and expectations, trade-offs between conflicting objectives and alternatives must be made. There are some issues that are related to these processes. The processes in Project Integration Management are [1]:

1. Develop Project Charter
2. Develop Project Management Plan
3. Direct and Manage Project Work
4. Manage Project Knowledge
5. Monitor and Control Project Work
6. Perform Integrated Change Control
7. Close Project or Phase

In the post-acquisition integration of the case study, the integration concluded that any of the problem areas, either individually or in combination, could cause the project management value chain to have problem areas such as poor deliverables, inability to maintain schedules, lack of faith in the chain, poor morale, trial by fire for all new personnel, high employee turnover, and no transfer of project management intellectual property. These problems have highlighted the need for a comprehensive plan to address integration issues in developing the project management plan. Other than that, the company viewed project management as an asset that had a very positive effect on the corporate bottom line. This focuses

on measuring the success of the integration activities using project controls in the company [4].

The case study stated that people may resist any changes to their work habits or comfort zones even though they recognize that the company will benefit from the changes. This highlights how project controls may be used to gauge how well integration efforts are working and how monitoring change resistance is a project control activity. Lastly, some methodologies may be so complex that a great amount of time is needed for integration to occur, especially if each organization has a different set of clients and different types of projects is under the sixth process which is the Perform Integrated Change Control. This recommends determining the risk associated with integrating complex methodologies and creating a change control procedure [4].

In essence, successful integration requires careful planning, monitoring progress, and managing change effectively. The likelihood of a successful merger or acquisition can be raised by project managers by attending to these elements of project integration management [4].

1.2.2 Scope Management

Scope management is the process whereby the outputs, outcomes and benefits are identified, defined and controlled [5]. In the context of the acquisition problem outlined in the case study, project managers encounter significant obstacles related to scope management, both during the pre-acquisition decision-making phase and the post-acquisition integration phase. During the pre-acquisition phase, project managers are tasked with precisely defining the scope of the acquisition, as emphasized in the Preacquisition Decision Making section where senior management at Lenore delineates strategic objectives for the acquisition

This process involves developing a comprehensive scope management plan to address challenges associated with integrating project management methodologies, cultures, and capabilities. Additionally, articulating a clear scope statement that aligns with identified strategic and financial objectives is essential. Although not explicitly mentioned, due diligence and verification processes play a crucial role in ensuring alignment between the proposed acquisition and the defined scope before finalizing the deal.

In the subsequent post-acquisition integration phase, effective scope control becomes paramount before proceeding with subsequent phases of a project [6] as highlighted in the Post Acquisition Integration section where Lenore's integration team identifies serious integration challenges. These include disparities in project management methodologies, cultures, and wage and salary structures. To address these challenges effectively, project managers should focus on continuous verification of the alignment of integrated project management value chains with defined scope and objectives. This involves regularly assessing whether project activities, milestones, and deliverables remain consistent with the agreed-upon scope throughout the acquisition process. Project managers should establish a robust change control process that includes clear protocols for documenting and evaluating proposed changes, assessing their impact on project objectives, and obtaining appropriate approvals before implementation. Specific strategies should be developed to manage disparities in wage and salary administration and address leadership failures, such as conducting salary benchmarking exercises and providing leadership training and support. By implementing these measures, Lenore's project managers can proactively address scope-related challenges in acquisitions and ensure the successful integration of project management processes and operations, thereby demonstrating adherence to scope management principles outlined in PMBOK.

1.2.3 Time Management

Referring to PMBOK, time management is concerned with ensuring a timely completion of project that involves the necessary processes required for planning, executing, and monitoring the project's schedule [7]. This knowledge area is critical to the success of any project, as it ensures the project is completed within the timeframe and meets the requirements and expectations of the stakeholders [8].

By relating to the case study, the acquisition of Belle Manufacturing by Lenore Industries highlights the importance of strategic timing and pre-acquisition decision-making in project time management. Lenore made strategic acquisition on the grounds that the financial problems of the U.S automobile industry will end in the middle of the next 10 years, and strategic opportunities for growth were at hand. The strategic timing was critical to the success of the acquisition as Lenore Industries were able to purchase its largest competitor at a point when the stock values of almost all automotive suppliers were drastically low and Lenore's stock price was near a 10-year low.

Next, the preacquisition decision-making process includes identifying the reasons for the acquisition and the potential impact on the company's operations, including project management. The senior management at Lenore identified reasons for acquisition and somehow the strategic objectives took a longer time than the financial objectives. This requires careful analysis of the project management of both companies and the potential impact of the acquisition.

Additionally, in the post-acquisition process, the integration process requires the combination of project management methodologies and cultures of both companies. This can be complex and time-consuming process as different methodologies and cultures may not be compatible. The integration team identified several common issues that lead to failure of integration, including different methodologies, cultures, inconsistent salary, and overestimation in project

management capability. These issues can impact the project management of both company that lead to poor deliverables and inability to maintain schedules.

As a result, an efficient time management for projects is essential to the accomplishment of any acquisition as it ensures that the project can be completed with the schedule, fulfilling the expectations from the stakeholders and satisfy the project's objectives. The case study has emphasized importance of strategic timing and pre-acquisition decision making in project time management.

2.4 Human Resource Management

According to PMBOK, project human resource management involves processes to effectively utilize people in the project. In the context of the acquisition problem faced by Lenore Industries after purchasing Belle Manufacturing, human resource management emerged as a critical factor in the post-acquisition integration phase.

One of the primary challenges encountered during post-acquisition integration was the clash of organizational cultures between Lenore Industries and Belle Manufacturing. Differing work cultures, attitudes towards project management, and resistance to change can impede the effective integration of project management methodologies. Successful cultural integration requires proactive measures such as fostering open communication, promoting team collaboration, and facilitating cultural sensitivity training. By acknowledging and respecting cultural differences, organizations can create a conducive environment for aligning values, norms, and practices across the merged entity.

Next, wage and salary disparities between Lenore Industries and Belle Manufacturing presented another significant obstacle in post-acquisition integration. Discrepancies in compensation structures, responsibilities, and career path opportunities can lead to employee resentment and

resistance. To mitigate this issue, the acquiring company needs to establish transparent communication channels, address concerns regarding job security, and ensure equitable treatment of employees from both organizations. This may involve aligning compensation structures, clarifying career advancement opportunities, and providing reassurance regarding job roles and responsibilities [9].

Leadership is crucial in driving organizational change and navigating the complexities of post-acquisition integration. The case study highlights instances of leadership failure, including ineffective change management, lack of direction in combining methodologies, and micromanagement practices. To overcome these challenges, organizations should prioritize investing in solid leadership capable of inspiring confidence, fostering innovation, and championing cultural transformation. Effective change management strategies, clear communication, and visible leadership support are essential for guiding employees through the transition process and maintaining morale and productivity.

In conclusion, human resource management is integral to the success of post-acquisition integration efforts. The project managers can overcome the challenges associated with merging disparate project management methodologies and cultures by addressing wage and salary differentials, promoting cultural integration, and fostering effective leadership and change management practices. Ultimately, prioritizing the well-being and engagement of employees is essential for achieving synergy, maximizing productivity, and realizing the strategic objectives of the acquisition.

1.2.4 Risk Management

Risk management in PMBOK is a facilitating knowledge area that is needed to achieve the project objectives and it is usually done during the planning process before starting the project. Project risk management is the process of identifying,

analysing, and responding to any risk that arises over the life cycle of a project to help the project remain on track and meet its goal [10].

Risk management is integral to the success of post-acquisition integration processes. Based on the case study in, Lenore has taken initial action to analyse and identify the risks in post-acquisition integration. The problems that pose a significant risk to the smooth integration of processes and operations have been highlighted as follows:

1. Lenore Industries and Belle Manufacturing have different project management methodologies.

2. Lenore Industries and Belle Manufacturing have different cultures and integration is complex.

3. There are wage and salary disparities.

4. Lenore Industries overestimated the project management capability of Belle's personnel.

5. There are significant differences in functional and project management leadership.

Following risk identification, the risks should be assessed regarding their likelihood and potential impact on the company's objectives. After defining each risk, it is important to log it somewhere using a risk tracking template [11]. This allows for the prioritization of risks based on their level of significance and potential impact. Prioritization of risks based on significance and potential disruption is essential for effective risk management. Mitigation strategies should then be developed to address the identified risks and minimize their impact on integration efforts. Despite the absence of explicit mention in the case study of a risk management framework,

some actions taken by Lenore Industries can be interpreted as attempts to address certain risks. For example, Lenore's establishment of an integration team to identify critical issues hindering successful integration suggests a recognition of challenges and a desire to address them. In response to the identified risks, Lenore Industries management should implement tailored contingency plans aimed at managing cultural differences and fostering integration.

This may involve conducting cross-cultural training sessions for employees, establishing joint task forces comprised of members from both organizations to promote collaboration, and appointing cultural liaisons to facilitate communication and understanding between teams. Additionally, clear communication channels should be established through regular town hall meetings, feedback sessions, and dedicated online platforms to address disparities transparently and ensure alignment of objectives. Thorough due diligence processes should be conducted to validate the capabilities of personnel from both organizations, identifying areas of expertise and potential skill gaps. This includes conducting skills assessments, competency evaluations, and performance reviews to manage expectations accurately and allocate resources effectively.

Furthermore, risk management involves continuous monitoring and control throughout the integration process. Regular review and reassessment of risks enable companies to identify emerging threats and adapt mitigation strategies accordingly. Implementing control mechanisms, such as tracking progress against predefined key performance indicators (KPIs) and fostering open communication, facilitates effective risk management. Leadership training and support are also crucial for managing change and aligning integration efforts effectively.

In conclusion, effective risk management is imperative for companies undergoing post-acquisition integration to achieve

their objectives successfully. By identifying, assessing, mitigating, and monitoring risks systematically, the project managers can navigate challenges and uncertainties associated with integration processes, maximizing the value of acquisitions, and ensuring long-term success.

1.3 CONCLUSION AND RECOMMENDATION

The comprehensive analysis of Lenore Industries' acquisition of Belle Manufacturing sheds light on the intricate challenges encountered during post-acquisition integration, emphasizing the critical importance of strategic planning and effective management across various knowledge areas outlined in the PMBOK. Successful integration hinges on meticulous attention to detail, proactive measures, and robust leadership to navigate the complexities inherent in mergers and acquisitions.

The integration management processes highlighted the necessity of developing a comprehensive plan to address the diverse challenges arising from cultural differences, leadership shortcomings, and disparities in project management methodologies. It underscores the significance of continuous monitoring, change management, and stakeholder engagement to ensure seamless integration and mitigate risks associated with poor deliverables, schedule disruptions, and workforce turnover. Moreover, scope management emerged as a pivotal aspect requiring precise definition and alignment with strategic objectives both pre- and post-acquisition. Effective scope control, coupled with rigorous change management protocols, enables project managers to uphold project integrity and ensure alignment with organizational goals.

Time management plays a crucial role in strategic decision-making and execution, emphasizing the importance of strategic timing and pre-acquisition planning to capitalize on market opportunities effectively. Integrating project management methodologies and cultures demands meticulous planning and proactive measures to mitigate complexities and ensure timely project completion. Human resource management presents

formidable challenges stemming from cultural clashes, wage disparities, and leadership failures. Addressing these challenges requires fostering open communication, promoting cultural sensitivity, and providing leadership training and support to foster a collaborative and inclusive work environment.

Lastly, effective risk management emerges as a linchpin in successful integration efforts, necessitating the identification, assessment, and mitigation of potential risks throughout the integration process. Implementing tailored contingency plans, establishing clear communication channels, and fostering leadership support are essential for managing change and aligning integration efforts effectively.

In conclusion, project managers in organizations embarking on post-acquisition integration journeys must heed the lessons gleaned from Lenore Industries' experience and adopt a holistic approach informed by PMBOK's best practices. By prioritizing strategic planning, proactive risk management, and effective stakeholder engagement, organizations can optimize M&A endeavours, maximize value creation, and ensure long-term success in today's dynamic business landscape.

BIBLIOGRAPHY

[1] Aziz, E. E. (2013, October 29). Post-merger/post-acquisition integration woes? Paper presented at PMI® Global Congress 2013—North America, New Orleans, LA. Newtown Square, PA: Project Management Institute. https://www.pmi.org/learning/library/project-program-portfolio-management-guidance-5861

[2] Team Asana (2024, January 1). Guide to project integration management (7 step process) asana. https://asana.com/resources/project-integration-management

[3] Project Planning. (n.d.). ProjectManager. https://www.projectmanager.com/guides/project-planning#:~:text=The%20purpose%20of%20a%20project%20management%20plan%20is%20to%20serve

[4] Webster, R. M., & Dalcher, D. (2019). APM Body of Knowledge (7th ed.). Association of Project Management (APM).

[5] Cockfield, R. W. (1987). Scope Management. PM Network, 1(3) 12-15.

[6] Beck, J. R. (1987). Time Management. PM Network, 1(3), 19–22, 27–28

[7] Landau, P. (2023c, April 27). The 10 Project Management Knowledge Areas. ProjectManager. https://www.projectmanager.com/blog/10-project-management-knowledge-areas

[8] Huselid, M. A. (1995). The impact of human resource management practices on turnover, productivity, and corporate financial performance. Academy of Management Journal, 38(3), 635–672. https://doi.org/10.5465/256741

[9] Schwartz, B. (2021, February 26). The risk management process in project management. ProjectManager. https://www.projectmanager.com/blog/risk-management-process-steps

[10] Coursera. (2023, June 15). How to Manage Project Risk: a 5-Step Guide. Coursera.

BIOGRAPHY

Ts. Dr. Mazidah Binti Mat Rejab is a distinguished senior lecturer at the Faculty of Computer Science and Information Technology, Universiti Tun Hussein Onn Malaysia (UTHM). She has made significant contributions to the field of software engineering, drawing on her extensive academic background and professional experience.

Dr. Mazidah holds a PhD in Software Engineering from the Razak Faculty of Technology and Informatics, Universiti Teknologi Malaysia (UTM), where she also earned both her MSc and BSc degrees in Software Engineering. Additionally, she completed a Diploma in Computer Engineering at the Japan Malaysia Technical Institute in Seberang Prai, Penang.

With over 12 years of industry experience in software engineering, Dr. Mazidah has developed a strong foundation in areas such as software specification, requirements engineering, software testing, and software project management. Her research interests lie primarily in these domains, where she continues to contribute through various projects and publications.Dr. Mazidah is an active member of several professional societies, including the Malaysia Board of Technologists (MBOT) as a Professional Technologist and the International Association of Engineers (IAENG). Her commitment to advancing the field is further evidenced by her role as a principal researcher at the Center of Intelligent and

Autonomous Systems (CIAS) at UTHM, where she leads and participates in innovative research projects.

Throughout her academic career, Dr. Mazidah has been involved in teaching various courses at UTHM, ranging from Software Engineering Principles to Project Management and Research Methodology. Her dedication to education is complemented by her numerous publications, including books and articles that address both practical and theoretical aspects of software engineering.

Dr. Mazidah's expertise and leadership have made her a respected figure in the academic and professional communities, where she continues to inspire the next generation of software engineers and contribute to the advancement of technology.

Tel: 012-5232340
Email: mazidah@uthm.edu.my

INDEX

BLURD

Learning from Mistakes: The Role of PMBOK in IT Project Failure and Recovery is a comprehensive exploration of the critical role that PMBOK principles play in navigating the complexities of IT project management. Through in-depth case studies and real-world scenarios, this book chapter delves into the common pitfalls and challenges that lead to IT project failures and examines how the structured approach provided by the Project Management Body of Knowledge (PMBOK) can be leveraged to avoid these mistakes and drive project success.

In an era where technology-driven projects are the cornerstone of organizational growth and competitiveness, understanding the factors that contribute to project failure is more important than ever. This chapter offers valuable insights into the application of PMBOK methodologies, highlighting both successful recoveries and lessons learned from past project shortcomings.

Whether you are a seasoned project manager or new to the field of IT project management, this chapter serves as an essential resource for understanding how to apply best practices, mitigate risks, and steer projects back on course when things go awry. With practical advice, detailed analysis, and actionable recommendations, Learning from Mistakes provides the tools you need to enhance your project management capabilities and ensure the success of your IT initiatives.