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Project Management Plan (PMP)

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1.0 Introduction

This document will outline the Project Management Plan (PMP) for the management of the systems design of a Harley Davidson Road King (FLHR) motorcycle. Within the PMP the different technical management strategies used during the project will be defined. The PMP will elaborate on the technical processes that will be used to engineer the system to fulfill the project requirements and will outline several crucial elements of the project management process specific to this system, including but not limited to:

- Risk Management Plan
- Schedule Management Plan
- Cost Management Plan
- Quality Management Plan
- Stakeholder Management Plan

2.0 Risk Management Plan

This section will outline the procedure that will be followed when dealing with risks involved with this project. Risks associated with this project can include both financial and environmental, health and safety consequences, as so it is crucial that a plan is structured for dealing with these risks and navigating them effectively. The first part of the process will be identifying any potential risks that may occur during the project, these can be developed during or after the project assessment process. Risks will be defined as any item that has potential to have a negative impact on cost, performance or schedule of the project. Once these risks have been identified a risk profile will be developed for each of the possible risks. This profile will outline

the data collected on the risk in order to capture the likelihood of their occurrence, as well as the consequences and the severity of their effect on the project. Additionally, risk thresholds will be implemented to determine acceptability of each individual risk. Risk assessment will take place in the form of consequence vs likelihood diagrams to define the probability and impacts of risks to the project. Maintaining a risk profile on all active risks will allow for the analysis of likelihoods and outcomes for each risk. This will allow for effective countermeasures and mitigation tactics to be developed and deployed in order to combat risk during the project. After risks have been mitigated they will be documented along with their countermeasures in order to re-use the strategy in the future should the risk arise again. Once all of this data is collected then it can be implemented into a risk report, this document will outline all risks involved in the project along with their complementary plans of action to show how risk was dealt with during the project and will be kept for reference for the duration of the systems life cycle.

3.0 Configuration Management Plan

This item will outline the configuration management (CM) process, which is put in place in order to detail the layout of system elements within the project and how they will be managed. This plan will seek to establish baseline elements of the system including its initial architecture. Change of configuration will be discussed in this section as well. Additionally, an audit process for systems configuration is outlined here too. The CM process typically begins with some form of project change requests. These will be identified during the assessment of the project and will be compared against the baseline requirements set forth by the project. The process for configuration update will require that all changes be validated and verified through the use of Engineering Change Orders (ECO). These will establish the proper documentation for a change and ensure that it is able to keep the system's current state records archived should the need to

review it arise. The change process will have routine audits that will coincide with the project milestones, this will allow for review of change that has occurred between the baseline of the project and what would be the current state of the project at the audit. The audits will be performed by the projects Configuration Control Board (CCB), which will be a team of project engineers and other project stakeholders such as operations management and quality personnel. This project and team will strictly adhere to the ISO 10007 standard and enforce it through the systems life cycle.

4.0 Schedule Management Plan

This system will need to have a tentative scheduling plan throughout its lifecycle, which will be captured in this portion of the document. The first portion of this plan will be to gather subject matter experts (SME's) and stakeholders of the project to define critical activities that will take place during the systems life cycle. These activities will form the basis of the schedule and will be sequenced by their duration and complexity. The estimation of duration for each activity will be determined by the SMEs who have prior experience performing similar activities. These tasks will then be set into a schedule that mirrors the length of the system's life cycle. The schedule will be kept using Microsoft Projects software as it is versatile enough to be used by all stakeholders in the project. The project schedule will be tentative in state and is subject to review at every decision gate to determine that it is still on track.

5.0 Cost Management Plan

A Cost Management Plan is a blueprint that describes a project team's methodology, rules, processes, and tools for managing costs throughout the project's lifetime. The cost management

plan's primary goal is to guarantee that the project is finished within the agreed budget while still reaching its goals and objectives .

This strategy, which is part of a project or program management plan, specifies how expenses will be planned, managed, and controlled.

The following items are often included in a cost management plan:

- Cost estimating entails determining all of the project's expenditures, such as labor, materials, equipment, and other expenses.
- Budgeting for expenses is allocating expected expenditures to specific tasks or activities in the project plan.
- Cost control is tracking actual project expenditures and comparing them to the budget, making modifications as needed to keep the project on track.
- Change management include handling any changes to the project scope, schedule, or budget, as well as analyzing the impact on project expenses.
- Reporting includes conveying the cost performance of the project to stakeholders such as project sponsors, senior management, and team members.
- The cost management plan is an essential component of overall project planning since it ensures that the project stays on budget and adds value to the enterprise.

One of the most important advantages of creating a cost management strategy is that it reduces the chance of cost overruns and delays, which can lead to project failure. The project team can make educated judgments and take proactive efforts to keep the project on track if they have a clear grasp of the project expenses and a plan for controlling those costs (PMI, 2017).

Harley Davidson has implemented a restructuring plan to streamline operations and reduce costs, which involves workforce reduction and consolidation of manufacturing plants for improved efficiency and cost savings (Higgins, 2020). Additionally, the company has taken various cost-cutting measures, such as reducing marketing and executive compensation expenses, as well as implementing lean manufacturing and supply chain optimization, all aimed at improving the company's financial performance and profitability (Lienert, 2019).

6.0 Human Resource Management Plan

Harley-Davidson is a significant international corporation that develops, manufactures, and distributes motorbikes as well as associated items such as clothes and accessories. A Human Resource Management Plan for Harley-Davidson may comprise the following components:

- Workforce planning:- Defining the workforce requirements for the company's many operations, such as production, marketing, sales, and customer support.
- Recruitment and selection:- Identifying the process for recruiting and choosing team members, including how job descriptions will be generated, where job ads will be published, and how candidates will be screened and selected.
- Training and development:- Recognizing the training and development needs of the company's various functions and designing a strategy to meet those needs.
- Performance management:- Determining how team members' performance will be managed, including how performance will be monitored, feedback will be offered, and performance concerns will be addressed.
- Succession planning:- Identifying important jobs within the organization and developing a strategy to ensure that the firm has the required skills to fill such positions in the future.

A Human Resource Management Plan is an important part of overall project planning because it ensures that the organization has the talent and resources it needs to fulfill its objectives.

The organization can make educated judgments and take proactive efforts to ensure its success by having a clear grasp of its personnel needs and a plan for managing its human resources (PMI, 2017).

7.0 Quality Management Plan

A quality management plan is a document that specifies a project team's methodology, rules, procedures, and tools for managing quality throughout the project lifetime. The major goal of the quality management strategy is to assist guarantee that the project deliverables meet or exceed the specified quality standards.

The following aspects may be included in the quality management plan of Harley Davidson (and other companies):

- Establishing the project's quality objectives and the standards by which its performance will be judged falls under the heading of quality objectives.
- Quality standards entail determining the quality standards that must be fulfilled for each project delivery and implementing procedures to ensure that those criteria are satisfied.
- Quality control encompasses monitoring project deliverables throughout their lifespan and ensuring they fulfill the needed quality standards.
- Establishing a mechanism to monitor the project team's compliance with the quality management plan and the execution of the required quality control procedures is known as quality assurance.

Establishing a method for spotting possibilities to raise the project's quality as well as creating and carrying out strategies to do so are all parts of the quality improvement process.

The quality management plan is an important aspect of overall project planning since it helps guarantee that the project meets or exceeds the customer's demands and expectations. The project team may assist guarantee that the project is finished effectively, on schedule, and within budget by executing a quality management strategy (PMI, 2017).

8.0 Communication Management Plan

Based on the information needs and requirements of the stakeholders and the available organizational resources, a communication management plan is created. The primary goal of the communication management plan documents is to determine and record the best communication strategy for stakeholders (Darmaningrat et al.,2019).

A general overview of the components of the communication management approach such as stakeholder communication requirements, a stakeholder list, roles and responsibilities, communication and technology methods, a communication matrix, meeting holding instructions, and standardization of communication are all included in the documents for non-complex projects. Complex project documents typically include a glossary of terms, a process for communication escalation, content restrictions on communication, flowchart diagrams, and project sponsor approval (Darmaningrat et al.,2019).

Communication between project team members, across organizational boundaries, and within projects is still a challenge. Because there needs to be more project integration planning, the roles, responsibilities, and accountability between the project manager, the systems engineer, and

the resident organization are sources of contention. Separating processes from the enterprise, the life cycle, and SE is another PM staple (Oosthuizen et al.,2021).

The project manager establishes the roles and duties of the project team members. The success of a project depends on how well the teams communicate and specify their roles and responsibilities. On the other hand, the project manager and the chief engineer must be "joined at the hip," with neither one able to carry out their duties without the other. If the project manager and the systems engineering manager work well together and communicate openly and honestly, the project will be successful (Oosthuizen et al., 2021).

The strategic plan for Harley Davidson places a lot of emphasis on the value of effective communication, both within the organization and with its stakeholders. The business tries to communicate with a purpose, using a methodical strategy that is grounded in reality and motivates stakeholders to take action. By doing this, Harley-Davidson hopes to achieve these objectives and improve its relationships with customers (Harley-Davidson - Our Strategy, n.d.).

9.0 Procurement Management Plan

Due to intense competition, outsourcing has emerged as a successful business strategy. In this context, excellence in the procurement process is crucial to achieving successful outcomes in any project. Choosing the right supplier for the job and keeping an eye on their performance while the contract is in effect are crucial for ensuring a successful outcome. Therefore, the supplier selection and supplier evaluation phases of the project procurement process should be closely monitored by managers (Creuza et al., 2017).

Procurement plays a major role in the supply chain management department.Both internal business actions and efforts from the larger network are necessary for supply chain resilience. Although supply disruptions can occur anywhere along the supply chain, it has been discovered

that those that occur earlier in the chain tend to be more serious. Procurement has evolved into a crucial business activity as a result of its status as a boundary-spanning function that makes sourcing decisions and acts as a bridge between internal and external businesses (Pereira et al., 2014).

In regards to Harley-Davidson, the Project Awards Plan serves as a roadmap for completing the project effectively. The discussion focused on the Enterprise Software Selection Procurement Plan. Recognizing the various contract types, the best procurement contract type was chosen. In order to guarantee that compliance is upheld at all sites, evaluations of federal and international regulations were also conducted. Each potential seller is thoroughly assessed to make sure the business's integrity is not compromised. Finally, in the field of procurement, the evaluation of procurement values and reflection on contracting decisions were demonstrated (UK Essays, 2018).

10.0 Stakeholder Management Plan

In order to comprehend a stakeholder management plan, it is essential to have a clear understanding of what a stakeholder is. A stakeholder refers to an entity or group that has a vested interest, claim, share, or entitlement in a system or its characteristics that satisfy their requirements and expectations (ISO/IEC/IEEE, 2015). Stakeholders could comprise regulatory bodies, end users, trainers, manufacturers, maintainers, customers, operators, purchasers, supporters, supplier organizations, developers, end user organizations, and disposers (ISO/IEC/IEEE, 2010).

To create a successful strategy for handling stakeholders, it is crucial to accurately recognize and evaluate them. This can be done through a stakeholder analysis, which involves gathering and

documenting information such as interdependencies, potential effects on project outcomes, interests, involvement, and influence, in order to identify potential stakeholders.

The Harley Davidson Company has identified their stakeholders as the people involved such as society, investors, employees, customers, suppliers, and dealers, along with the planet and profit, as stated by the company (Harley-Davidson - Our Strategy, n.d.).

The development of an effective Stakeholder Management Plan involves creating strategies that engage stakeholders throughout the entire project, considering their needs, interests, and potential impact on the success of the project. By analyzing these factors, a clear plan can be created to interact with stakeholders and support the interests of the project. The main advantage of this process is that it provides a clear and actionable plan for effectively managing project stakeholders (Rose, 2013). Based upon this information the Project Manager will have the duty to involve and interact with stakeholders throughout the entire duration of the project.

11.0 Integration Management Plan

Project Integration Management involves a set of procedures and actions that aim to unite, specify, recognize, synchronize, and integrate the different processes and undertakings in project management across the Project Management Process Groups (Rose, 2013).

Project integration management encompasses several procedures, such as drafting a project charter, devising a project management plan, supervising and directing project work, overseeing and managing project work, carrying out coordinated change management, and ultimately closing a project or phase (Rose 2013).

Harley Davidson employs project integration management in its operation management to guarantee that the company sustains effective and efficient business operations that promote productivity and business resilience and competitiveness. The company continually enhances its operation management techniques to align with changing business requirements and maximize the productivity of its facilities (Meyer, 2007).

It is the duty of the Operations Management group to handle and make decisions concerning ten distinct areas, which include Quality Management, Job Design and Human Resources, Inventory Management, Process and Capacity Design, Supply Chain Management, Design of Goods and Services, Scheduling and Maintenance, Location Strategy, and Layout Design and Strategy (Meyer, 2007).

12.0 Technical Management Plan (SEMP)

The Technical Management Plan or Systems Engineering Management Plan (SEMP) is implemented during the initial phase of a project to determine the technical components of the engineering work. It is regularly revised during the project's life cycle. The SEMP outlines the technical tasks and specifies the procedures, activities, and resources required to complete them. It also describes the organizational structure, decision-making process, and communication flow within the organization (Watson et al., 2020).

The SEMP acts as a means of communication between the project management and engineering teams, as well as enabling efficient communication within the discipline teams. It establishes a framework for producing appropriate work products that meet the required criteria for each phase of the project lifecycle, allowing management to assess technical progress based on the information provided (Watson et al., 2020).

If the planning of SE (Systems Engineering) is insufficient, it can negatively affect other engineering activities in a significant way. Even though someone might feel tempted to cut corners and save time by hurrying through the planning process, doing so can end up causing more expenses and disrupt the schedule due to missed details, lack of integration of different efforts, unfeasible costs and schedules, and other issues (Leibrandt, 2002). So, for a brand like Harley Davidson, that makes custom motorcycle parts, it is very important to have a good Technical Management Plan as one mistake can cause the creation of a faulty part which may lead anywhere from huge losses to even harm to human life.

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