

Fiberglass Factory



Group No. 5164

Prepared By:

No.	Name	Academic No.
1	Enas Nassif	2021201187
2	Farah Alshoaibi	2021200724
3	Mahmoud Ashour	2021200008
4	Omar Aldokhi	2021200515
5	Waseem Tabbaa	2021200629
6	Mohanad Abdulkhaleq	2021203354
7	Husam Bashwieh	2021203363
8	Mohammad Aldelihan	2021200216
9	Mazin Mohamed	2021200330

Advisor: Dr. Waleed Qassim

Third Semester

1442 هـ - 2021 م



Table of Contents

Introduction	6
1. Strategy.....	7
1.1. OUR VISION:	7
1.2. OUR MISSION:	7
1.3. SMART Objectives:	7
1.4. Key Performance Indicators (KPIs)	8
1.5. Project Charter	10
2. Governance, Structures and Processes	11
2.1. Organizational Structure.....	11
2.2. The practical and scientific basis of OBS.....	11
2.3. Project Management Office (PMO)	12
3. Compliance, Standards and Regulations	15
3.1. Check Compliance Model	15
3.2. Check Lists Models	15
4. Power and Interest.....	15
4.1. Stakeholders Register & Power/Interest Grid Model (Point 11 & 12).....	15
4.2. Logical Diagram of Stakeholder Register [5]	15
5. Organizational Values and Culture	15
5.1. Culture of Organization	15
5.2. 5.15 Proposal of Organization's Values	16
6. Self-reflection and Self-management.....	16
6.1. "3" personal behaviors of the student that can influence on the project, their reasons and how to be eliminated (Point # 16 & 17).....	16
6.2. Self-Professional Assessment (SWOT Model)	16
7. Personal Integrity and Reliability.....	17
7.1. Moral integrity Behaviors.....	17
7.2. Reflect the Moral Integrity Behaviors on Financial, Social, and Technical Influence 17	
8. Personal Communications.....	17
8.1. Stakeholder Analysis (Stakeholder Register)	17

8.2. Personal communications and effective communication:	17
8.3. Shapes, Models, and Channels of the Personal Communication	18
9. Relationships and Engagement	19
9.1. Communication Matrix.....	19
9.2. “3” Wrong Scenarios of Communication.....	19
9.3. Stakeholder Assessment Matrix	21
10. Leadership	21
10.1. Leadership Models.....	21
10.2. Reasons of Choosing Dominant Leadership?	22
10.3. “5” proposals for the motivation methods that are compatible with the nature of the project	22
11. Teamwork.....	23
11.1. RACI Model.....	23
12. Conflict and Crisis.....	23
12.1. Identify Conflicts and Crisis	23
12.2. “3” expected scenarios of the conflict’s events in the project	24
12.3. The optimal strategies to deal Conflicts and Reasons	26
12.4. Root Causes Analysis	26
13. Resourcefulness.....	28
13.1. Distribute the Human Resources on the Functions.....	28
13.2. Crashing and Fast-tracking process Influence	29
14. Negotiation	29
14.1. Develop General Rules for the Negotiation Process.....	29
14.2. Development of “2” Negotiation Plans.....	31
Appendices	33
Appendix 1: Tables.....	34
Appendix 2: Figures	52
References	55

Table of Tables

Table 1: Difference between Mission & Vision.....	34
Table 2: Key Performance Indicators (KPIs).....	35
Table 3: Project Charter	37
Table 4: OBS Divisions & Roles	39
Table 5: Check Compliance Model.....	41
Table 6: Project Initiation Check List	41
Table 7: Project Planning Check List.....	42
Table 8: Project Execution Check List.....	42
Table 9: Monitoring & Closing Check List	42
Table 10: Stakeholders Register.....	43
Table 11: Personal Behaviors.....	44
Table 12: Moral Integrity Behaviors Influences	44
Table 13: Stakeholders Analysis (Stakeholders Register)	45
Table 14: Communication Process.....	47
Table 15: Communication Matrix	48
Table 16: Stakeholder Assessment Matrix (Current).....	49
Table 17: Stakeholders Assessment Matrix (Desired)	50
Table 18: RACI Model.....	51

Table of Figures

Figure 1: Organizational Structure	52
Figure 2: Logical Diagram of Stakeholders Register	53
Figure 3: SWOT External & Internal, Helpful & Harmful	54
Figure 4: Five Whys?	54
Figure 5: Crashing & Fast-Tracking Process	54

Introduction

The fiberglass industry is a recent industry in the Arab countries. About 350 thousand products are produced from fiberglass materials in various aspects of uses. The fiberglass industry relies on impregnating a fabric with special specifications made of fiberglass, which is impregnated with a treated polyester material to harden after a certain time to become a type of thermoset plastic armed with fiberglass to give a solid material or material with high mechanical properties close to the properties of steel 3. One of the most popular uses for fiberglass is the manufacture of fast yachts and yachts

Among the advantages of fiberglass products is the ease of repairing fractures and cracks from industrial products, the ease of treating cracks in the products and the ease of treating fractures.

When exposed to water, it does not absorb moisture and does not change chemically or physically. Its composition is not affected under any conditions.

The purpose of the research is to explain the Manufacture of fiberglass boats suitable and environmentally friendly for the purposes of fishing, sports or picnic and service job inside Ports and others. The sizes of these boats' variety according to the nature of their use, as their weights range from 150 kg. to 2000kg. As project manager the main goal of projects to complete the project with success within the budget on time and meets the scope. The cost and the period for the project completion and customer requirements depends of the size and type and scope of modification. The nature of this kind of project has some uncertainty of outcomes, as marine industry it is known that such this kind of project it has uncertainties it's hard to find it out during the process of maintaining the engine or installation the new one that can affect the plan of schedule delivery to the customers, which will cost over budget. A relatively large budget of boat manufacture project and come up with visible recommendations to increase the business value. Starting with Cost optimization which is a business-focused, continuous discipline to control spending and cost reduction, while maximizing business value. It includes Obtaining the best pricing and terms for all business purchases. Standardizing, simplifying and rationalizing platforms, applications, processes, and services. Cost control is a key factor in cost optimization that must be applied in any company to ensure driving a profitable business. The main benefit of putting cost control in place is lowering company's overall expenses to maintain and run a sustainable and profitable business. Finally, project budget calculation is one of the key activities during the process of the project. Methods and approaches would be the following:

- Planning for the organization budget, objectives and targets.

- Manpower planning for better utilization and control of labor costs.
- Using appropriate purchasing and outsourcing techniques to control cost as it sources out material or goods from different reliable sources with cost-effective price.
- Using an appropriate design methodology led to reduce the product costs and increase its values.
- Continuous improvement

1. Strategy

A Mission statement defines the company's business, objectives and approach to reach those objectives. A Vision statement describes the desired future position of the company.

Refer to Table 1 shows the difference between vision and mission [1]

1.1. OUR VISION:

To be a pioneer in the production of fiberglass boats in the Kingdom of Saudi Arabia, exceeding our customers' expectations in terms of quality, delivery and cost.

1.2. OUR MISSION:

To produce a fiberglass environmental- friendly, at minimum cost and high-quality by designing and manufacturing in most recent way of technology.

1.3. SMART Objectives:

It is a compound word of the following:

Specific, Measurable, Attainable, Relevant, Timely

- **Specific:** You have a clear visualization of the goal in all its aspects.
- **Measurable:** Measuring the goal itself, or measuring the degree of achievement, that is, your goal can be measured by a quantity
- **Attainable:** It should be a logical, achievable goal
- **Relevant:** The goals must be related to your main goal, otherwise they are not smart goals
- **Timely:** Set yourself a time to start working on the goal, and a time to finish working on it to achieve the goal [2]

Our SMART Objectives:

- **Specific:**
 - a. The goal is to produce environmentally friendly glass fibers, at the lowest cost and high quality by designing and manufacturing with the latest technology
 - b. It will be accomplished in the Kingdom of Saudi Arabia

- **Measurable:**
 - a. There is an available market opportunity, and the project aims to covers 30% of imports
- **Attainable**
 - a. Establishment of a factory with an area of 3000 square meters
 - b. Promoting and advertising the services provided to target customers
- **Realistic:**
 - a. Increased demand for the product, which increases customers
 - b. Replacing boats with eco-friendly boats
- **Time Bound**
 - a. The project will last for one year, from 1-December-2021 to 1-December-2022

1.4. Key Performance Indicators (KPIs)

KPI is a quantifiable measure of performance over time for a specific objective. KPIs provide milestones to gauge progress, targets for teams to shoot for, and insights that help people across the organization make better decisions.

Refer to Table 2 Key Performance Indicators (KPIs)

1. Project Scope Management

Project Scope management is essential for project success, as project scope defines the boundaries of the project. Most of the project fail nowadays as they don't have a clear scope statement defined where every requirement is categorized as in project scope or out of project scope (Abdilahi et al., 2020).

One of the key constraints of managing project is Project scope, in order to ensure that the project scope remains consistent throughout the project following KPIs should be followed.

Degree of change in project scope should not vary more than 5% of the overall project requirements.

All the requirements in the scope should be documented, agreed and signed by all the relevant stakeholders.

2. Project Schedule and Cost Management

Project Schedule and Project cost will be measured by the Earned Value Analysis.

Earned Value Management (EVM) is one of the most scientific method used to track the progress of the project. EVM helps the project manager to measure the overall performance of the project in terms of cost. Project Manager can analyze the impact on cost due to any delays in the project (Colin & Vanhoucke, 2015). EVM doesn't only help in determining the current

status of the project it also helps the project manager to forecast the project progress on the basis of current trend. In this scenario, it is important for the project manager to understand the EVM and foresee the possible risks that can delay the project in future.

The key terms that are used in EVM are as follows.

- **Planned value** – It is also termed as baseline cost of the work scheduled (BCWS). It denotes the cumulative baseline cost of the project up to the status date.
- **Earned value** – It is also termed as baseline cost of the work performed (BCWP). It denotes the cumulative value of the completed work multiplied by the baseline cost of the project up to the status date.
- **Actual cost** – It is also termed as actual cost of the work performed (ACWP). It denotes the actual cost of the completed work of the project up to the status date.
- **Schedule Variance** – It signifies the difference between the planned value and earned value in terms of cost up to the status date of the project. $SV = BCWP - BCWS$
- **Cost Variance** - It signifies the difference between how much it should have cost and how much it actually costs up to the status date of the project. $CV = BCWP - ACWP$
- **Schedule Performance Index** – It signifies the ratio of earned value to planned value. $SPI = (BCWP/BSWS)$. The ideal SPI value of the project should range between 0.9 to 1.10.
- **Cost Performance Index** - It signifies the ratio of earned value to actual cost. $CPI = (BCWP/ACWP)$. The ideal SPI value of the project should range between 0.9 to 1.10.
- **Expected at Completion (EAC)** – It signifies the expected cost at the time of completion for a task based on its performance up to the status date of the project.
- **Expected time at Completion (ETC)** - It signifies the expected time of completion for a task based on its performance up to the status date of the project.

3. Project Change Management

As Projects are dynamic in nature and some of the changes are bound to happen in the project, it is important for the project manager to establish an efficient project change management process that will help the project manager to cope up with the schedule and cost changes in the project (Parker et al., 2013).

The KPIs for Project Change Management are as follows.

- Any change in project schedule that is greater than 3 days must be approved by the Project Sponsor. Project schedule change should not increase more than 15 days for overall project.
- Any change in project cost that is greater than SAR 3,000 must be approved by the Project Sponsor. Project cost change should not increase more than SAR15,000 for overall project.
- All the change requests should be raised by the project manager and should be approved or rejected by the project sponsor.

4. Project Risk Management

The success of any project is highly dependent upon how the project manager manages the risks in the project. Project manager can use multiple methods like Delphi method, Probability Impact matrix etc. to manage risks in the project (Edwards & Bowen, 2013).

The KPIs for Project Risk Management are as follows.

- All the project risks should be updated in the risk register on monthly basis.
- All the obsolete risks should be removed from the risk register and new risks should be added to the risk register as per their priority in the project.
- Risk response strategies and countermeasure should be defined for each risk updated in the risk register.
- Contingency funds should be updated on monthly basis, the share of contingency funds should not increase more than 15% of overall project budget.

1.5. **Project Charter**

GCI, INC. addressed the project charter as *“The project charter is a stakeholder’s agreement, providing the written authorization to proceed with a project.”*

The project charter addresses the following:

- Roles, responsibilities, activities.
- Project management framework.
- Management commitments.
- Stakeholders and partners.
- Customer success criteria

The project charter provides a consolidated and summary-level overview of the project. It allows all stakeholders to agree on and document project scope, objectives, timeframe approach, and deliverables. The project charter is one of the first steps in the project planning process following completion of the project initiation phase. The project charter should not be

confused with the investment business case (IBC). The IBC should already be completed, and the investment decision to proceed with a project should be taken before a project charter. [3]
Refer to Table 3 Project Charter

2. Governance, Structures and Processes

2.1. Organizational Structure

Refer to Figure 1 Organizational Structure

2.2. The practical and scientific basis of OBS

Organizational structure is “*the framework of the relations on jobs, systems, operating process, people and groups making efforts to achieve the goals. Organizational structure is a set of methods dividing the task to determined duties and coordinates them*”. (Monavarian, Asgari, & Ashna, 2007). **Organizational structure** is “*a method by which organizational activities are divided, organized and coordinated. The organizations create the structures to coordinate the activities of work factors and control the members’ actions*” (Rezayian, 2005).

1. Strategy: the essentials of determining of processes for long term objectives, taking procedures and allocation of archived source of requirements. It refers to final’s achievements and tools
2. Size: it has four elements:
 - a. physical capacity of organization (the number of beds in hospital, number of production lines, number of university classes)
 - b. Organization’s Physical Capacity
 - c. Existing Employees in Firms: Most shared Criterion (Part time, type of industry)
 - d. Inputs and output of Organization (Customer’s number, students & sale)
 - e. Resource of Material & financial.

The organization’s size is effective on their structure.

3. Technology: It is a reference for the information, techniques, equipment & process to process the inputs to output
4. Environment: It is the effective forces on performance of organization which also has less control on or no control at all.
 - General environment: All effective conditions on organization but their dependency was not clear to organization (economic, cultural, political, social, legal conditions, etc.). All conditions that affect organization but their

dependencies were not clear to organizations (cultural, economic, social, political, legal conditions, ..etc.).

- **Specific environment:** It is a part of environment of organization as associated directly with organizations to achieve the goals. Specific environments of organizations are unique and are changed by changing the conditions (suppliers, customers, law making institutions, competitors, state, ...etc.) and the specific organization's environment are changed based on their selective domains.

Control power (strategic selection): with the best conditions of above four factors (strategy, size, technology, environment), only 50 - 60% of changes in structures are explained. Based on this view, the organization's structure is the organizational power owners' measurements results in selection of the structure by which their control is maximized. [\[4\]](#)

Refer to [Table 4](#) OBS Divisions and Roles.

2.3. Project Management Office (PMO)

PMO model type and specific scope:

A project management office (PMO) is an organizational structure that standardizes the project-related governance processes and facilitates the sharing of resources, methodologies, tools, and techniques.

PMO types:

- **Supportive:** Provide a consultative role to projects by supplying templates, best practices, training, access to information, and lessons learned from other projects. (Low control).
- **Controlling:** Provide support and require compliance (Moderate control).
- **Directive:** Take control of the projects by directly managing the projects. Project managers are assigned by and report to the PMO. (High control)

In our project will select the **Directive PMO** type in order to deliver and to be responsible on the following:

1. Establishment of Project Management Office (PMO).
 - a. PMO shall report to the Project Lead and Sponsor.
 - b. The key members of the PMO should not have any other responsibilities other than the delivery of the initiatives and should be a dedicated function.
 - c. The PMO shall has cross-functional influence and reach.
2. PMO is established and is operating with clear business value proposition defined and the execution of the initiatives in the project.

3. PMO shall take into consideration the strategy. All initiatives shall be considered and incorporated.
4. PMO shall be responsible for detailing the initiatives. Draft the scope of work and design requirements for the “to-be” state.
5. PMO shall create business value, vendor identification and finalization through RFX processes and PoC’s and awarding of contracts for all initiatives.
6. PMO shall ensure alignment with stakeholders on scope, requirements, and timelines of initiatives.
7. PMO shall facilitate stakeholder engagement in the execution of scope specific activities.
8. PMO shall effectively manage and integrate vendors and implementation partners.
9. PMO shall create metrics and KPIs for tracking progress, perform post-implementation reviews and manage business value realization. Define and implement metrics and KPIs for managing delivery quality. Conduct stage gate reviews for each stage post completion for all initiatives.
10. PMO shall maintain RAID logs, manage risks, issues, and opportunities. PMO shall effectively manage mitigation of identified risks.
11. Monitor and report budget utilization and control cost variance (budget planned vs actual expenditure).
12. PMO shall prepare detailed implementation plan. Orchestrate overall implementation of initiatives. Actively monitor and update plans based on Implementation status.
13. PMO shall establish team of Subject Matter Experts to help provide consulting services for initiatives that need support to progress forward.
14. PMO shall strategize and implement organizational change management (OCM) inclusive of conducting training/knowledge transfer sessions.
15. PMO shall manage program governance and provide management reporting on a periodical basis defined (technical and management reporting).
16. PMO shall serve as a focal point for all activities associated with initiatives. Manage cross-functional teams and track resource utilization.
17. PMO shall conduct functional and technical training sessions, set-up repository with training materials and system/process/data documentations. Perform assessment of the effectiveness of training, communication, and end-user engagement.

Key Elements of Delivery Excellence from the PMO

1. Clear Business Value Proposition.

2. Clear Scope & Deliverables.
3. Engaged Stakeholders
4. Governance-enabling decision making
5. Focused outcome management
6. Managed Risks and Opportunities
7. Smart Financing
8. Delivery Enabled Plans
9. Active Quality Management
10. Agile Change Control
11. Integrated Suppliers
12. High Performing Teams
13. Skilled SME's
14. Embedded Lifecycle assurance and learning
15. Adherence to Project Timelines.

Benefits of PMO:

There are numerous benefits of establishing a program management office but the key benefits are as follows:

- **Single Delivery Structure** – will have a single delivery structure and a single sponsor who will be responsible and accountable for achieving the PMO goals.
- **Interdependencies Management** – a PMO helps to effectively identify and manage interdependencies, conflicts of interest and resources between initiatives. Steering committee, program manager and project managers can make decisions that are in the best interest of the program instead of personal interests.
- **Resource Management** – Program Manager can effectively re-allocate resources for initiatives to improve effectiveness and efficiency of the initiatives.
- **Visibility & Transparency** – Overall financial and progress visibility and transparency on the initiatives being executed within the program for the management and steering committee.
- Help to reduce Costs on Assets
- Optimization of Assets associated Risks and
- Create Value on effective management and disposal of assets.

3. Compliance, Standards and Regulations

3.1. Check Compliance Model

Refer to [Table 5](#) Check Compliance Model

3.2. Check Lists Models

Refer to:

- [Table 6](#) Initiating Check List
- [Table 7](#) Project Planning Check List
- [Table 8](#) Project Execution Check List
- [Table 9](#) Monitoring & Closing Check list

4. Power and Interest

4.1. Stakeholders Register & Power/Interest Grid Model (Point 11 & 12)

A stakeholder's Register is a document (Part of Stakeholder's Analysis Procedures) that show the information and how the stakeholder influence in the project and what are expected from them. The stakeholder's Register can be classified in many ways, here in our project will identify the stakeholder's register as [Table 10](#).

4.2. Logical Diagram of Stakeholder Register [5]

Refer to [Figure 2](#) Logical Diagram of Stakeholders Register

5. Organizational Values and Culture

5.1. Culture of Organization

Organization's culture defines as group of standards support employees and departments to achieve high targets, create helpful ideas and work together in our organization.

Our organization has 5 cultures try to spread which are:

- 1- Goal
- 2- Passion
- 3- Cooperation
- 4- Creativity
- 5- Success

Which short it by GPCCS.

5.2. 5.15 Proposal of Organization's Values

We will help our employee to set goal for their self and for the company. E.g., we be happy if the one of our employees has goal for himself just like graduate from university. Also, we support the employees to set goal for his job as get high marketing score. Then, we spread the employees to have passion in their life and work. Happy person who loves his job that's the tall we believe in. made more channels between all employees and departments which help them to cooperate. All employees and departments have free to creativity in their jobs as they can reach their targets in efficiency and effectiveness. Finally, we will celebrate with all success happened for individual or groups.

6. Self-reflection and Self-management

6.1. "3" personal behaviors of the student that can influence on the project, their reasons and how to be eliminated (Point # 16 & 17)

Refer to [Table 11](#) Personal Behaviors

6.2. Self-Professional Assessment (SWOT Model)

On 1960s, SWOT Strategy (SWOT Matrix) was credited by Albert Humphery, even that it was still accepted universally. So, the SWOT Analysis is abbreviation for **Strengths, Weakness, Opportunities and Threats**. it is *"a business strategy tool to assess how an organization compares to its competition"* [6].

As shown in the Figure 3, it can be divided as External and Internal & Helpful and Harmful.

Our SWOT:

Strengths – we will evaluate departments by the ability to reach the targets e.g. we evaluate marketing department by their ability in using social media, promotions offer and advertising to bring more customer to us

Weakness – we will evaluate departments by evaluate staff delay, unplanned leave, miscommunication and etc. and how are they effect the department's KPI and targets.

Opportunities – we will evaluate departments by how departments can use general event or general situation e.g. Ministry of housing work during the past four years for housing distribution for citizens and more people have a new house and it is good time to buy fiber class industries (pools, vase, thermal insulator, roof and more)

Threats – Covid-19 is one of threats because it damages purchasing power

7. Personal Integrity and Reliability

7.1. Moral integrity Behaviors

- Close-mindedness which is against openness. When the staff reject changes and not open for new ideas
- Uncooperative when each department is working for its own without open channels with other departments.
- Not explicit when staff and departments are not honest and keep their own agenda to their own which will reflect on the others and in the company

7.2. Reflect the Moral Integrity Behaviors on Financial, Social, and Technical Influence

Refer to [Table 12](#) Moral Integrity Behaviors Influences

8. Personal Communications

8.1. Stakeholder Analysis (Stakeholder Register)

Refer to [Table 13](#) Stakeholder Analysis (Stakeholder Register)

8.2. Personal communications and effective communication:

Communication can be defined as the exchange of information between the concerned parties through a common communication system, which may be in the form of images, sound, words, pictorial material or symbols.

Effective communication is one of the most important elements and requirements for the success of any project, regardless of its objectives or the field in which it operates. Effective communication methods and tools will enhance cooperation between team members and thus facilitate the delivery of information and save time and effort in correcting errors resulting from misunderstanding or lack of information properly and required.

The effective communication process is affected by many surrounding factors and influences. The reception and understanding of information are based on the personality of the recipient and the extent of his comprehension or ability to process the information. It also depends on the ability of the sender and the tools used. Therefore, your task as a project manager is to make sure to prepare an effective communication plan that works to communicate the information to the person. The target is in the appropriate manner and time. Through the communication plan, the person responsible for the communications and the tools to be used are identified, and it specifies in detail how and what type of information will be shared, which will reduce the possibility of spreading rumors, misconceptions and misinformation that would contribute to the failure of achieving project objectives.[\[7\]](#)

8.3. Shapes, Models, and Channels of the Personal Communication

There is no doubt that the process of communication between team members is one of the most important factors for the completion of the project within the plan, the specified time and the estimated cost, and the process of communication between team members is in a simple sense the process of exchanging information directly or indirectly, which takes several forms, including written or Orally pronounced, whether formal or informal.

The process of good communication between team members begins with a good plan for the communication process after looking at the project document and the project plan, the most important of which is the stakeholder engagement plan to know the strategies used for the participation of each member, and the project documents, the most important of which is the stakeholder register to know the members of the project And develop the appropriate strategy to communicate with each member of the communication plan among the project members, after using a number of tools to plan the communication process, for example (communication form / communication method / communication technique / analysis of communication requirements ... etc., this will result in a communication plan between Team members, which will be included in the project plan to be followed in the future in the process of communicating with all project members.

As for managing the process of communication between project members and as a project manager, to abide by what was stated in the communication plan between project members, which is an integral part of the entire project plan, using technology and the ideal model for communication between members and managing communication between everyone using communication skills and capturing responses from members. A number of changes or differences in the desire of the stakeholders involved after the start of the project that I must record in the log of events, lessons learned, or even the log of risks.

As for controlling the communication process, after reviewing and reviewing the project plan / communication plan / resource plan, and comparing and analyzing the initial data on the project performance, which was taken from the client of the communication department, information about the project's performance will be issued from it. Updating the plans affected by this change and making everyone aware of them so that the process of communication between the members is an integrated and updated service that serves all parties related to the project.

Refer to [Table 14](#) Communication Process

9. Relationships and Engagement

9.1. Communication Matrix

Communication Matrix is a method to keep all relevant stakeholder in loop and it show the details of everything of the project

there are benefits of this method:

- Improved communication across departments.
- More efficient use of resources.
- Faster decision-making.

The best method is to category the information such as:

- Communication
- Purpose
- Medium
- Frequency
- Audience
- Owner
- Deliverable

Refer to [Table 15](#) Communication Matrix

9.2. “3” Wrong Scenarios of Communication

There are no businesses that can be running with perfection but how people can be communicating and working through the problems may be a sign of the overall well-being of the organization (Abbas, Norris & Parry, 2018). Healthy communication is extremely important in an organization that is thinking about driving the results that they need and also for the creation of a work environment that is positive which is being emphasized by this study as 3 situations of wrong communication are examine.

There are many cases when there is passive-aggressive communication which is one of the poorest of practices that can be having a negative effect that is very direct on the ways in which people are feeling about their own selves along with others within a place off work. One of the foremost examples of the same is the leaders and employees of the fiberglass organization refusing to speak to one another directly but speaking against one another to the project manager (Venkatesan, Naqvi & Patel, 2021). Refusal to be speaking to the coworker directly is regarded as behavior that is passive-aggressive and it is one of the issues that is very difficult since the negative and minimizing things that are being said or being done are very subtle and do not seem overly aggressive, confrontational or offensive but lead the person this being directed

against to be feeling like they are being treated poorly and are being neglected to the point that relationships are damaged. There are times when people use memos and emails for communication without not speaking face to face within an office can be the form of a problem (Schmid et al., 2020). Passive-aggressive behavior can be in the form of avoiding someone to work with others on specific projects without giving a valid reason is called a kind of behavior that is passive-aggressive.

There may also be cases where one can feel intimidated at work due to the force of intimidation tactics which is one other form of negative communication which is quickly able to create a toxic and also fear-filled environment at work. There are bosses who bully their employees on the regular so as to get things done and are most likely to be experiencing a high rate of turnover due to the same (Tøndel et al., 2020). The intimation is also something that occurs between people who work together and are rivals for the same title or promotion. This kind of behaviour is extremely unnerving and may often manifest itself in the ways of people's languages at work or it may also show itself in the form of actions that are threatening to people physically. Examples of such intimidation include speech that is loud and the act of taking off the workspace physically or standing too close to someone to cause them discomfort.

There are many other versions of bad or poor communication but the worst of them all is the playing of the blame game. There are some major examples of communication that are poor and are linked very closely to responsibility and ethics (Saunderson & Nejat, 2019). The failure of people to not own up to the mistakes that they make or to be able to accept responsibility for missing the deadline shows that they are not capable of handling responsibilities. Blaming people is extremely counterproductive and is not going to work towards a positive outcome that is for the betterment of everyone involved. The part where people are learning to be accepting responsibilities and also moving forward is one of the positive solutions. However, the ones who continue to be blaming others for the sake of their own mistakes shall be damaging the working relationship and will be finding themselves to be in a position where they are ostracised or shunned. There are however many other scenarios where people are unable to be comprehending what the other person is saying and may react in a belligerent way without meaning to. There are also other times when people are unable to actively listen to what another person has to say and work in a siloed environment which is the opposite of being productive.

Healthy communication is something that drives a place of work most of the time as one can see or tell and is also crucial for driving the required results while making sure that the work environment is positive. Bad communication is something that festers and threatens to

cripple a company no matter what kind it is so the problems need to be addressed before things spin out of control.[\[8,9,10,11 &12\]](#)

9.3. Stakeholder Assessment Matrix

Managing stakeholder involvement is one the most task which the project manager is challenging. However, the tools and techniques which is the stakeholder engagement matrix, facilitate and improve a project's stakeholder management significantly.

“The Stakeholder Engagement Assessment Matrix is a simple yet powerful project management technique to document desired and monitor actual engagement levels of stakeholders. It helps identify potential gaps in the involvement of stakeholders.”
<https://project-management.info>

As Project Management Institute (PMI) classified the stakeholder assessment matrix in their book The Project Management Body of Knowledge (PMBOK®), 6th ed., ch.13.2.2.5) as:

- Unaware,
- Resistant,
- Neutral,
- Supportive,
- Leading.

As the PMI's taxonomy, the current level of engagement is labeled as “C”. The desired level engagement is labeled as “D”.

A “C” may be any one in columns. but, a “D” might not applicable for the “unaware” or “resistant” columns for obvious reasons (because no one wants stakeholder in project to be a resistant or unaware).[\[13\]](#)

Refer to [Table 16](#) Stakeholder Assessment Matrix (Current)

When monitoring the actual stakeholder engagement, the project manager may update the observed current level (“C”) of engagement for each stakeholder

Refer to [Table 17](#) Stakeholder Assessment Matrix (Desired)

10. Leadership

10.1. Leadership Models.

As a team we consider that each other's has a different style which is very valuable and helpful to think out of the box.

From the leadership styles, we explored and gained a very valuable information such as:

How we know ourselves:

We started by raising our awareness of our dominant leadership style. We can do this by asking trusted colleagues to describe the strengths of our leadership style. We can also take a leadership style assessment.

Understand the different styles:

The differences between us were influentially positive, and it made some decisions for us that had a strong impact on our teamwork. We got familiar with the repertoire of leadership styles that can work best for a given situation.

Practice explores a leader:

From doing practices with our real characters, we see that moving from a dominant leadership style to a different one may be challenging but to be real leaders sometimes we need to accept these challenges and reflect that into our working life.

10.2. Reasons of Choosing Dominant Leadership?

- Integrity
- Clear goals
- Good example
- Vision
- Clear communication
- Expects the best
- Support
- Encouragement
- Recognition
- Stimulating work
- Focus on team interests and needs
- Inspiration

10.3. “5” proposals for the motivation methods that are compatible with the nature of the project

1. Show gratitude to employees:

- Appreciating employees and not underestimating their achievements
- Granting employees job security and providing them with services and amenities

2. Helping employees to advance career

- Providing courses for employees that fit their career field to develop them in their career responsibilities

3. Offer Rewards

- Offer a reward to employees when completing work ahead of time or when presenting a new idea that benefits the project, which motivates the employee to work more

4. Flexibility in working times

- Making work times more flexible and paying attention to achievement

5. Create a family atmosphere in the workplace

- A friendly atmosphere, accompanying social facilities and activities, and a tour program, making the workplace an environment friendly to the family atmosphere.

11. Teamwork

11.1. RACI Model

What does RACI stand for?

RACI stands for **R**esponsible, **A**ccountable, **C**onsulted, and **I**nformed. Where each word represents the role of the person.

The **Responsible** is the person who must finish a given project, process, or element of a project.

The **Accountable** is the person who must be accountable for the completion of the task. This person serves as all stakeholders' point of contact throughout the project.

The **Consulted** is the person who must provide information to stakeholders. If stakeholders have suggestions about changes that need to be made, or if they encounter issues, they report to the Consulted.

The **Informed** person is the person who must be kept informed of progress. His role is not necessary to provide feedback or suggest changes. However, we should keep him apprised of any changes, roadblocks, problems, or milestones.

Refer to Table 18 RACI Model.

12. Conflict and Crisis

12.1. Identify Conflicts and Crisis

Conflict in this particular scenario focuses on the clash of interests. The base of competition focuses on the part of the community through which the conflict may be personal, racial, political, and interracial. In this particular scenario, conflict in different types of courses or groups is followed through interaction through is a disruption in initial conflict or caused by disagreements, differentiation of orientation and opinions, and a scarcity of different types of resources in different scenarios (Otegi-Olaso et al., 2019). The conflict in poor project

management and this particular scenario focusing on split into percolation and also the conflict escalation focuses on the mediation and resolution of the conflict through which for this specific scenario different types of factors related with the industry has been seen.

For identifying and looking forward to the conflict and crisis in this scenario convincing that the fiberglass industry in the recent industries of Arab countries is developing different types of products and services through various aspects of usage, but certain types of specific specialization has to be done for beating the polyester material until the factor of project management the relevant environmental factors in purposes of service shops and purpose of fishing different types of budgets in manufacturing project are going through the increasing of business value and uncertainties are also coming through which the misperceiving of conflict and crisis in the project management business has been seen (Mundy, 2020). Struggle in this specific situation centers around the conflict of interest just as the foundation of contention centers around the piece of the local area through which the contention might be close to home racial political and interracial.

In this specific situation, struggle in various kinds of courses or gatherings are finished cooperation through is an interruption in beginning clash or causes by conflicts separation of direction and suppositions just as shortage of various sorts of assets in multiple situations (Mundy, 2020). The contention in the helpless venture the board and this specific situation is zeroing in on split into permeation and the contention acceleration centers around the intercession and goal of the contention through which at this particular situation various kinds of components related with the business has been seen (Mundy, 2020).

For recognizing and anticipating the contention and emergency in this situation persuading that the fiberglass business in the new ventures of Arab nations is creating various kinds of items and administrations through different parts of use, however, particular sorts of explicit specialization must be accomplished for beating the polyester material until the factor of task the executives the appropriate natural components in reasons for administration shops and motivation behind fishing various sorts of financial plans in assembling project are going through the expanding of business worth and vulnerabilities are additionally coming through which the misperceiving of contention and emergency in the undertaking the board business has been seen.

12.2. “3” expected scenarios of the conflict’s events in the project

Scenario 1- The first scenario of conflict is related to motivational and industrial practice. Practice related to this scenario is also focusing on different types of conflicts and

crises that have been occurred because the connection of conflict in this particular factor is disagreeing with varying types of businesses and also manufacturing aspects for dealing with a certain issue, and this potential is also stimulated to discuss and increase different types of the motivation behind the industrial performance. One of the most critical factors in spell planning the objectives and targets of the organization and in this scenario, the target of the organization is all the people who are using fiberglass in the manufacturing aspects and also the businesses or people who are related with boat yachts and also different types of business material (Nassereddine et al., 2021).

Scenario 2- The second scenario of conflict and crisis is related to power utilization and costs of labor and organizational budget. After that, it can also be seen the demand power utilization in this particular scenario controls different types of cost of the labor, and also appropriate purchasing and outsourcing of the technologies and techniques for using the source materials for reliable sources with courts effective price is essential. The design methodology in this scenario will focus on the primary data. Continuous improvement can be gathered if the process is an application of the optimization is caused can be seen to control the spending with cost reduction and maximizing different sets of values of the industry and the business (Nassereddine et al., 2021). Practice identified with this situation is additionally zeroing in on various sorts of contentions and emergencies that have been happened because the association of contention in this specific factor is contradicting various kinds of organizations and fabricating viewpoints for managing a specific issue and this potential is likewise animated to talk about and increment various kinds of inspiration driving the modern exhibition.

Scenario 3- The third scenario is related to organizational objectives and aims. One of the main elements in spell arranging the destinations and focuses of the association and in this situation, the objective of the association is every one individual who is utilizing fiberglass in the assembling angles and the organizations or individuals who are connected with boat yachts and various kinds of business material (Nassereddine et al., 2021). After that it can likewise be seen the interest power used in this specific situation controls various kinds of cost of the work and proper buying and re-appropriating of the advances and strategies for utilizing the source materials for dependable sources with courts successful cost is very important and the plan procedure in this situation will zero in on the essential information and consistent improvement can be assembled if the interaction is a utilization of the enhancement is caused can be believed to control the going through with cost decrease and furthermore expanding various arrangements of upsides of the business and the business.[14,15,16,17 & 18]

12.3. The optimal strategies to deal Conflicts and Reasons

1. Avoiding

Someone who uses a strategy of "avoiding" mostly tries to ignore or sidestep the conflict, hoping it will resolve itself or dissipate.

2. Accommodating

Using the strategy of "accommodating" to resolve conflict essentially involves taking steps to satisfy the other party's concerns or demands at the expense of your own needs or desires.

3. Compromising

The strategy of "compromising" involves finding an acceptable resolution that will partly, but not entirely, satisfy the concerns of all parties involved.

4. Competing

Someone who uses the conflict resolution strategy of "competing" tries to satisfy their own desires at the expense of the other parties involved.

5. Collaborating

Using "collaborating" involves finding a solution that entirely satisfies the concerns of all involved parties. [19]

In Scenario one we will use collaborating strategy by giving the works incentive depends on their KPIs e.g. bonus, overtime, extra day off.

In scenario two we will use compromising strategies because we have a more than one conflict in one e.g. budget, commitments, bills, salaries. So, we have to give as much as less and take as much as match we can.

In scenario three we will use competing strategies as there are other competitors who tries to buy more and earn more customers meanwhile, they still have conflict like we have.

12.4. Root Causes Analysis

Root Cause Analysis, RCA.

This article provides a framework for analyzing the performance of three popular root cause analysis tools: the cause-and-effect diagram, the interrelationship diagram, and the current reality tree. The literature confirmed that these tools have the capacity to find root causes with varying degrees of accuracy and quality. The literature, however, lacks a means for selecting the appropriate root cause analysis tool based upon objective performance criteria. Some of the important performance characteristics of root cause analysis tools include the ability to find root causes, causal interdependencies, factor relationships, and cause categories. Root cause analysis tools must also promote focus, stimulate discussion, be readable when

complete, and have mechanisms for evaluating the integrity of group findings. This analysis found that each tool has advantages and disadvantages, with varying levels of causal yield and selected causal factor integrity. This framework provides decision makers with the knowledge of root cause analysis performance characteristics so they can better understand the underlying assumptions of a recommended solution

The five Whys Technique.

When eager to unravel a drag, it helps to start at the tip result, replicate what caused that, and question the answer five times. This elementary and generally effective approach to problem-solving promotes deep thinking through questioning and could be tailor-made quickly and applied to most problems. Most clearly and directly, the Five Whys technique relates to the principle of systematic problem-solving: whereas not the intent of the principle, the technique can exclusively be a shell of the strategy. Hence, there are unit three key components to effective use of the Five Whys technique, correct and complete statements of problems, complete honesty in responsive the queries, the determination to induce to an all-time low of problems and resolve them. The technique was developed by Saki chi Toyoda for the Toyota Industries Corporation Process.

The 5-Why exercise is immensely improved once applied by a team and their area unit five basic steps to conducting it:

- Gather a team and develop the matter stated in agreement. once this can be done, decide whether or not or not further people area unit required to resolve the matter.
- Ask the primary “why” of the team: why is that this or that downside taking place? there’ll most likely be 3 or four wise answers: record all of them on a chart or whiteboard, or use index cards taped to a wall.
- Ask four additional serial “whys,” continuing the method for each statement on the chart, whiteboard, or index cards. Post every answer close to its “parent”. Follow informed all plausible answers. you may have known the basis cause once asking “why” yields no more helpful info. (If necessary, still raise queries on the far side of the arbitrary 5 layers to urge to the basis cause.)
- Among the dozen close to answers to the last asked “why” seek for general causes of the matter. Discuss these and choose the foremost possible general cause. Follow the team session with a report and show the merchandise to others to verify that they see logic within the analysis.

- After selecting the foremost probable root reason for the matter and getting confirmation of the logic behind the analysis, develop acceptable corrective actions to get rid of the basis cause from the system. The actions will (as the case demands) be undertaken by others however designing and implementation can be like team inputs.
- Five maybe a smart rule of thumb. By asking “why” 5 times, one will sometimes peel away the layers of symptoms that hide the reason for a drag. however, one can also realize one has to raise “why” fewer times, or conversely additional.
- Root cause analysis is that the generic name of problem-solving techniques. the essential components of root causes are materials, equipment, artificial or natural surroundings, data, mensuration, ways and procedures, people, management, and management systems. alternative tools are often used if the 5 Whys technique doesn't intuitively direct attention to 1 of those. They embody barrier analysis, amendment analysis, determining factor tree analysis, and also the Ishikawa (or fishbone) diagram. By repetition “why” 5 times, the character of the matter also as its answer becomes clear. [\[20\]](#)

Refer to [Figure 4](#) Five Whys?

13. Resourcefulness

13.1. Distribute the Human Resources on the Functions

The process of assigning tasks to human resources may seem very simple while the project manager needs to allocate tasks according to the skills, abilities, workload and duties of the employees. In fact, realizing this idea may become somewhat of a challenge because the project manager needs to know the real skills of the employees, clearly understand their capabilities, estimate the workload and consider current duties in order to appropriately allocate and assign tasks.

This process can be managed using task management software that helps create graphs, prepare complete task presentations, and make important selections.

The process of distribution consists of the following phases:

Selection – The task selection phase results in creation of tasks, to-do lists and job lists.

Presentation – The purpose of the presentation phase is to show and explain employees what they are expected to do, what tasks and jobs are selected, and within what timeframes the work is planned being accomplished. The task presentation phase is very important for team building,

and you as a project manager will pass through this phase when running the project keep-off meeting.

Dispatching – This phase is critical to defining internal/external duties of employees and delegating tasks. After tasks and jobs have been presented to employees involved in your project, you need to dispatch descriptions of the project work to project resources. During the task dispatching phase, you take care of timely sending and delivering of tasks and jobs, and task management software will be helpful as it supports collaboration between users, immediate information exchange, and secure project data sharing.

Play Demo (authorization) – Once all assigned resources have received descriptions of the project work and tasks have been dispatched, your next step is to authorize tasks. The task authorization phase means local managers and team leaders make sure that all tasks and jobs are assigned to appropriate resources.

13.2. Crashing and Fast-tracking process Influence

The project manager may need to shorten the duration of the project without changing the scope of the project. For example, when a project falls behind schedule and needs to catch up with the project or finish it sooner than originally planned, there are two methods that can be used in this case: Crashing or Fast-tracking.

The differences between fast tracking & crashing are:

Crashing is the technique used when there is not enough time in the project schedule. To apply this technology, we add resources to the project.

Fast tracking is a technique where activities that would have been performed sequentially using the original schedule are performed in parallel. In other words, fast tracking a project means the activities are worked on simultaneously instead of waiting for each piece to be completed separately. But fast tracking can only be applied if the activities in question can actually be overlapped.

In **fast tracking**, there is increased risk, whereas in **crashing** there is increased cost.

Refer to Figure 5 Crashing & Fast-Tracking Process

14. Negotiation

14.1. Develop General Rules for the Negotiation Process.

Negotiation is defined as the process in which two or more people or parties are getting involved so that better outcomes can be developed. In this case, the negotiation process is identified and evaluated for the manufacturing of fiberglass boats which is suitable for environmentally friendly fishing, boating, and arranging picnics as well as the service job inside

the ports and the others (Kang et al. 2020). The general rules of the process to the negotiation are given below

Process 1 Preparation

This is the first process where the manufacturer who is Fibre Glass Factor making all the preparation for the manufacturing of fiberglass boats for the different purposes such as fishing, sports or picnic and for the service job inside the ports and others (Kang et al. 2020). The manufacturer has been researching the requirements of making the fiberglass boats regarding the materials, how to develop, labor, equipment, etc. are to be done (Kang et al. 2020). The manufacturer should be preparing to be planning of all the requirements for the manufacturing process to be beginning, planning to consult with the different suppliers and the other vendors who will be supplying the raw materials for the manufacturing of the fiberglass boats (Kang et al. 2020). There would be negotiations with the distributors who will be distributing the fiberglass boats to the end-users who are the customers. There would be a negotiation to be done with the marketing managers who will be doing the promotions both offline so that the proper marketing of the products can be done (Kang et al. 2020).

Process 2 Exchange Information

This is one of the general rules of negotiations when both sides such as the manufacturers and the other stakeholders of the fiberglass Factory would be exchanging important information such as the developing the budgets as well the manufacturing requirements of fiberglass boats (Robinson 2019). They should be agreeing and disagreeing on certain terms and at last, they should be both agreeing with them to complete the negotiations.

Process 3 Clarification

In this process of clarification, both the parties which are the fiberglass Factory who is the manufacturer of fiberglass boats, and the other stakeholders should be continuing the discussion which they have started when exchanging information by doing the justification and bolstering of their claim. It is seen that if one side says that they have disagreed with any claim then the other should be discussing that disagreement at ease so that they can reach a proper point of understanding.

Process 4 Bargaining and Problem Solving

This is one of the most vital rules of the negotiation process during which both parties should be either giving or taking the ones. It is seen that after the first offer given by the manufacturer each of the negotiation parties such as the suppliers, distributors, and the laborers of employees should be rising different views for the issue which is done by managing and making their concessions. In this process, a win-win situation is to be developed (Tomić 2021).

Process 5 Conclude and Implement

This is the last general rule for negotiation. In this last step, once the solution is agreed by both parties the negotiations have become successful by the development of successful negotiations (Tomić 2021). In this process, the written contract is developed and a follow-up is made for confirming it smoothly for Fiberglass Factory.

14.2. Development of “2” Negotiation Plans

Two negotiation plans in detail are to be evaluated for the manufacturing of fiberglass boats for fishing or sporting and doing service jobs inside ports or others have been explained below

Negotiation Plan 1

Step 1 Development of project budget

It is seen that for the negotiation to be done the first plan is to develop and plan for the total budget required for the manufacturing of fiberglass boats by Fibre Glass Factory. The manufacturer must be allocating the costs of each of the materials which are required for the development of fiberglass boats along with the additional purchasing costs and the other expenses required (Robinson 2019).

Step 2 Planning for purchasing

It is the responsibility of the purchasing department of this Fibre Glass Factory to be analyzing the purchasing cost of the materials from the suppliers, the purchasing of the other things as well the purchasing of the outsourced parts effective for the manufacturing of fibre glass boats (Robinson 2019).

Step 3 Planning for the designing and finishing of products

It is seen that the fiberglass boats should be made with innovative and attractive designs so that it should be delivered it to the customers across the Arab counties in this world. The manufacturer should be consulting with the designer who will be making the designs of the fiberglass boats and plan the finishing of the products (Robinson 2019).

Negotiation Plan 2

Stage 1 Planning for the organization budget, objectives, and targets

During the negotiation process, there is the planning for the organization budget, the objectives, and the targets are to be identified and evaluated so that the manufacturer can make this research project to be successful for the manufacturer of fiberglass boats (Robinson 2019).

Stage 2 Manpower Planning

The manpower is important for any project to be completed within the time and dealing. In this case, the manpower planning is required so that the labor costs can be reduced and controlled

by the manufacturer (Перевозчикова and Катекина 2020). The manufacturer should be developing the manpower planning so that they can understand the amount of labor required for the manufacturing of fiberglass boats.

Stage 3 Outsourcing and purchasing of materials

It is seen that there has been planning for how to outsource the process, selection of the outsourcing organizations so that the manufacturer can develop the boats (Перевозчикова and Катекина 2020). The selection of the purchasing of the materials is required to be done by the manufacturer.

Stage 4 Developments of Quotations

In this stage, the manufacturer has been developing the quotations where the quotation in the purchasing has been given to the suppliers and the distributors as well the outsourcing organizations (Tomić 2021). They have been observing the quotation and provide their quotes and if all goes well the tender will get by others.

Stage 5 Continuous Improvement of quality

In this stage, the process will be monitored so that the manufacturer can be able to negotiate with the others and the project will become successful (Tomić 2021). [21,22,23. & 24]

Appendices

Appendix 1: Tables

Table 1: Difference between Mission & Vision

Item	Vision	Mission
About	It is a brief to How to want to be. Purpose of the organization and their Objectives related to customer needs are clearly expressed	It shows a summary WHERE the organization want to be. It must explain the values and purposes of their business
Answer	It responds to the question "What does the Organization do? What Make the organization different from the other?	It responds to the question "Where does the organization aim to be?
Time	It talks the current heading to the Future	It talks about the Future
Function	Goals for the Organization's establishment are Outlined. The principal functions are internal, that express measures of the organization success. The leadership, team and stockholder are the principal audience	It should outline Where the organization show themselves after some years. It motivates the organization to work hard for the best. It explains the purpose of the organization being existing
Change	It could changeable, however, it must meet the core values, vision of the organization and customer needs	It also changeable, but the changes should be as minimum as could be
Developing	What the organization is doing now? For whom? And the what are the benefits? And why does the organization do that?	that is to ask Where the organization are going to? And when will achieve that? How it will do it
Feature of an Effective Statement	Reasons and Ethics of the organization: Who are the stakeholders "Client? And what are their duties?	It should be very clear, focus and far away from ambiguous. Describes the future in aspiration way and how values and culture should be altered.

Table 2: Key Performance Indicators (KPIs)

NO	KPI #	KPI Category	Strategic Objectives	Lead Measure	Lag Measure	Monitoring Method	Target Value
1	EOK-1	Operational KPIS	Capacity Utilization	Develop Product Output	Maximizing Capacity Utilization	Random Inspection	90%
2	EOK-2	Operational KPIS	Overall Equipment Effectiveness	Optimizing Equipment Planning Activities	Maximize Workforce Productivity	Random Inspection	85%
3	EOK-3	Operational KPIS	Machine Downtime	Reduced Machine Downtime	Maintain Accurately and Updated Machine Downtime Reports	Random Inspection	90%
4	EOK-4	Operational KPIS	Unscheduled Down Time	Machine Utilization	Maintain Accurately and Updated Machine Downtime Reports with Drill-Down Capability	Random Inspection	90%
5	ESK-5	Satisfaction KPIS	Customer Expectations	Scope Out Competitors	Successfully Maintaining a Customer Satisfaction Survey	Customer Satisfaction Surveys	95%
6	ESK-6	Satisfaction KPIS	Customer Satisfaction with The Buying Process	Develop A Customer-Centric Culture	Successfully Maintaining a Customer Satisfaction Rating Of 95% For Buying Process	Customer Satisfaction Surveys	95%
7	EEK-7	Employment KPIs	Services Staff	Employee Loyalty	No Key Position vacant for more than 45 days (pass or fail)	Random Inspection	80%

NO	KPI #	KPI Category	Strategic Objectives	Lead Measure	Lag Measure	Monitoring Method	Target Value
8	EEK-8	Employment KPIs	Personnel Training and Development Plan	Employee Efficiency	Timely implementation of the Personnel Training and Development Plan.	Random Inspection	85%
9	ECK-9	Cost KPIs	Unit Costs	Optimize To Decrease Unit Costs Over Time	Maintain Accurate and Updated Unit Costs Over Time Report	Random Inspection	90%
10	ECK-10	Cost KPIs	Maintenance Costs	Optimize Maintenance Costs Over Time and Adjust Your Target Accordingly	Maintain Accurate Reports for Evaluate Equipment Costs In The Long Run	Random Inspection	90%

Table 3: Project Charter

Project Charter					
Project Title		Fiberglass Factory		Project Manager	Enas Nassif
Start Date	1-Dec-21	End Date	1-Dec-22	Project Sponsor	ESU
Business Need				Deliverables	
The shortage of Fiberglass produced in Saudi Arabia led the organizations to import the demands of fiberglass outside Saudi Arabi, especially for manufacturing the boats. Generally, the import of fiberglass boats is around 1500, so by building national fiberglass plant, it could build 300 boats annually. This business also will establish hundreds of jobs for Saudis.				-Issue the Feasibility Case	
				- Design the plant	
				- Project Kick Off	
				- Quarterly Review (1, 2, 3 & 4)	
				- Completed the Plant project	
				- Hire the Operation Staff	
				- Import the Machines and Tools needed	
				- Hire the Operation Labors	
				- Initiate Plant	
Risk & Issues					
Type	Description				
Health	Respiratory congestion, infection from epidemics and their spread, public health risks, chronic diseases, and food poisoning.				
General Safety	1-Chemical: Chemical spillage, fire resulting from the ignition of chemical substances, throwing chemical waste into sewage basins, compressed gases, mixing incompatible chemicals during transportation, handling, storage and final disposal.				
	2-Fire: A fire resulting from the storage of flammable materials/liquids, a fire resulting from the storage of dangerous materials, a fire resulting from the absence of safety requirements.				
	3-Natural: Storms and dust, rain and torrential rain				
Information	Hacking, Viruses, Access Unauthorized, Use of non-genuine copies of software, Hardware or major system failures.				
Legal	Filing cases against the factory, the risk of concluding contracts and agreements without the approval of the relevant departments, the risk of losing document especially confidential ones.				
Human resources	Abstaining from work and disrupting work, risk of neglect, random and unplanned recruitment.				

Financial	Risk of low stakeholder support, low financial resources, financial and administrative operational risks.
Reputation	Risks related to administrative reputation, risks related to factory reputation and production quality, marketing risks.
Buildings and facilities	Risks related to power outages, risks related to water, risks related to electric elevators, risks related to electric shock, risks related to air conditioning failures.

Assumptions/Dependencies

- Project Cost within 4 million SAR include all expenses.
- Complete the project within 12 months.
- Using 100% local material.
- Planning of manpower: effective recruitment, and selection, proper methods of
- Performance management (KPI's), optimum productivity, reduction in labor cost.
- Product Design: Design is the first stage of a product, once a product is designed and
- Produced there is a little possibility to change it.
- Innovation & Technology: technology can improve the manufacturing facility to produce
- Finished good or a product, automation and CNC's machines can be used to
- Manufacture a product with less cost, time and reduce/optimize the labor cost.
- Action plan: A clear action plan & strategy needs to consider all challenges and issues
- Related to the business to ensure to maintain the value.
- FRP boats should comply with national safety legislation.
- Personal and environmental safety when working with FRP.

Project Objectives	Project Outputs
1- The goal is to produce environmentally friendly glass fibers, at the lowest cost and high quality by designing and manufacturing with the latest technology 2- To cover most of the demands of Fiberglass in the Saudi Arabia.	1- Project Plans 2- Project Deliverables 3- Customer Satisfaction 4- Establishment of a factory with an area of 3000 square meters

Milestone

Milestone	Target Date	Actual Date
Issue the Feasibility Case	1-1-2022	

Design the plant	1-2-2022	
Project Kick Off	10-2-2022	
Quarterly Review (1, 2, 3 & 4)	30-2-2022	
Completed the Plant project	30-3-2022	
Hire the Operation Staff	1-8-2022	
Import the Machines and Tools needed	1-7-2022	
Hire the Operation Labors	1-9-2022	
Initiate the Plant	1-12-2022	
Project Team		
Project Manager	Enas Nassif	
Team Member	Mahmoud Alashour Farah Alshoaibi Omar Aldokhi Waseem Tabbaa Mohanad Abdulkhaleq Husam Bashwieh Mohammad Aldelihan Mazin Mohamed	

Table 4: OBS Divisions & Roles

Project manager	the responsible person of the fiber glass Project
Factory manager	the head management of the factory building and operation process
Maintenance & Operation	the vice management of operation of the fiberglass
Mechanical Department	the dedicated team works on mechanic phase of operation
Electrical Department	the dedicated team works on electric phase of operation
General Maintenance	the dedicated team maintains all machines.
Production Management	the vice management of items which we produced
Production Workers	the team responses of operation process from input items in to items out
workers assembly	the team responses of items which we produced before we ship
Equipment Operator	operates the machine
Production Line Monitor	responsible of quantity of production

Monitor Quality	responsible of quality of production
Warehouses	the department who responsible of items before use or products before shipment
Warehouse Supervisor	shifts team who response of items and products inside the warehouse
Shipping and receiving	response of shipping product and receiving items
Loading workers	workers team who loading in or up trucks
Financial Management	vice management of financial department
Finance Manager	vice manager of financial department
Senior Accountant	account team who response of any financial structure in the project
Cashier	the responsible of giving or taking pair money
HR department	This department's duties include hiring, training, and assisting with specific performance issues, as well as setting employee salaries, and ensuring compliance with labor law.
Director of Human Resources	senior of HR department Forming a link between company management, employees, employee performance evaluation, developing and directing strategies and administrative services
Personnel Affairs	Responsible for strengthening relationships between employer and employees
Employment Department	Responsible for announcing vacancies, selecting from among applicants, and conducting preliminary interviews with them
Training Department	Provides comprehensive training to help them understand new work and be able to develop performance and skills.
Government Relations Officer Department	responsible for legal transactions and insurances
Marketing Department	Determines the areas and markets that fit the nature of the product and where the company should focus its marketing strategy
Sales Manager	the person responsible for following up and evaluating sales, as well as supervising the sales representatives in the company and directing them to carry out their tasks
Sales Officer The sales employee	the person concerned with implementing the sales goals within the company and receiving all directions from the supervisor or his direct manager and working to implement them accurately

Director of Marketing	Responsible for preparing and setting marketing and sales plans, organizing sales activity, and monitoring and evaluating sales and marketing activities.
Marketing Officer	Planning advertising and promotional campaigns for products and services on a variety of digital and print media.

Table 5: Check Compliance Model

Project Title		Data Prepared by				
ID	Requirement	Verification Method	Validation Method	Acceptance Criteria	Status	Sign-off

Table 6: Project Initiation Check List

No	Description	Status	Assigned to	Start Date	End Date	Comments
1	Project Charter					
	- Business Needs					
	- Deliverables					
	- Risk & Issues					
	- Assumptions & Constraints					
	- High Level Scope					
	- Deliverables, Milestone					
	- Project Team					
2	Stakeholder Analysis					
3	PMO					
4	OBS					
5	Kick off Meeting					

Table 7: Project Planning Check List

No	Description	Status	Assigned to	Start Date	End Date	Comments
1	Scope of work					
2	WBS					
3	Project Schedule					
4	Project Budget					
5	Risks Management					
6	Quality Management					
7	KPIs					
8	Human Resource Management					
9	Procurement Management					
10	Communication Management					

Table 8: Project Execution Check List

No	Description	Status	Assigned to	Start Date	End Date	Comments
1	Execution Checklists					
2	Project Planning Documents					
	- Project templates					
	- Change updates					
	- Status and Tracking of Project progress					

Table 9: Monitoring & Closing Check List

No	Description	Status	Assigned to	Start Date	End Date	Comments
1	Change Management Documents					
2	Project Management Software					
3	Validation Scope & Acceptance Form					
4	Project Performance					
5	Cost Tracking					
6	Customer Satisfaction Response					

Table 10: Stakeholders Register

S/N	Stakeholders	Impact	Interest
1	Ministry of Commerce (MOC)	High	Low
2	Chamber of Commerce	High	Low
3	Ministry of Labor (MOL)	High	Low
4	General Organization for Social Insurance (GOSI)	High	Low
5	General Authority of Zakat & Tax	High	Low
6	Civil Defense	High	Low
7	Ministry of Municipal & Rural Affairs (MOMRA)	High	Low
8	Competitors	High	Moderate
9	Suppliers	High	High
10	Customers	High	High
11	Neighbors	Low	Low
12	Shareholders	High	High
S/N	Stakeholders	Power	Interest
1	Project Owner	High	High
2	Sponsor	High	High
3	Project manager	High	High
4	PMO	High	High
5	Functional Mangers	Low	High
6	Department Staff	Low	High

Table 11: Personal Behaviors

No	Behavior Description	Causes	How to be eliminated
1	Failure to attend work hours; Frequent absences and delays in coming to the workplace	Being late for work due to non-compliance or lack of transportation	• Non-compliance: giving a warning to the worker and in case the act is repeated, a deduction from the salary • Delays from work: by providing transportation for workers, which helps reduce delays
2	Laziness and not getting work done; Late production and completion of work on time	Low level of satisfaction of employees in the organization	Motivating employees and offering bonuses and rewards
3	Disputes and conflicts between employees Disagreements between colleagues, or problems that occur between the worker and the manager at work	Differences in cultures and environment among employees, different work experience, and struggles to obtain a position	• Attempting to resolve disputes by satisfying the parties or transferring one of the parties to other departments • Ignore minor conflicts that do not affect the workflow

Table 12: Moral Integrity Behaviors Influences

Moral Integrity	Finance	Social	Technical
Close-Mindedness	Rejection new request to decrease cost or increase income will let the company go no where	Rejection new staff in the group or rejection new position make hole between the employees which damage the communication and goals	Rejection new tools or machine can cost the company saving money and effort

Uncooperative	Not cooperate and update the statements with finance department reflect badly the finance statement monthly and annual	The staff will work only from Horizontal requests which damage processes	e.g., if maintenance department isn't cooperative with operation department will delay the orders and get customers dissatisfaction
Not Explicit	Not be honest with finance department regarding all cost and bills will affect the finance strategy and view of cost	e.g., if the one staff is not honest about his ability to work that will affect the operation and procedure	The trainer should be honest, and his training content should be full of required information otherwise the trainees will use the machine less efficient and effective

Table 13: Stakeholders Analysis (Stakeholders Register)

S/N	Stakeholders	Impact	Interest	Expectations
1	Ministry of Commerce (MOC)	High	Low	Organization activities are central to the success of the economy (providing jobs and paying taxes)
2	Chamber of Commerce	High	Low	Register the company, and follow their rules and regulations
3	Ministry of Labor (MOL)	High	Low	Legislation such as safety rules, must be met by the company
4	General Organization for Social Insurance (GOSI)	High	Low	Register the employees, assure them in their system, pay the fees monthly.

S/N	Stakeholders	Impact	Interest	Expectations
5	General Authority of Zakat & Tax	High	Low	Paying Zakat and Taxes annually
6	Civil Defense	High	Low	Follow the safety rules
7	Ministry of Municipal & Rural Affairs (MOMRA)	High	Low	Follow regulations of street, buildings and fees payments.
8	Competitors	High	Moderate	Ethical behavior, fair competitions, zero ethical faults
9	Suppliers	High	High	Ease Payment Prompt
10	Customers	High	High	Satisfaction, Quality Applied, Cost Saving, Good performance.
11	Neighbors	Low	Low	Respect the working, and the shared facilities
12	Shareholders	High	High	Steady Flow of income, possible capital growth and Continuation of the business
1	Project Owner	High	High	High Level of Milestones, Deliverables, Stratified, Meet Expectations
2	Sponsor	High	High	Details of everything must be provided to him, Validate Scope Approval
3	Project manager	High	High	Functional Mangers report to him, Approval of Project Documents, Monitor the progress of the project

S/N	Stakeholders	Impact	Interest	Expectations
4	PMO	High	High	Direct the project
5	Functional Mangers	Low	High	Monitor the area work, department staff report to them, approval of work done
6	Department Staff	Low	High	Keep them updated of what are required, progress report sending periodically to their managers, Job Security, Rewards and Recognitions.

Table 14: Communication Process

Input	Tools and techniques	Output
- Communications management plan - Work performance reports - Environmental factors of the organization - Origins of the organizational process	- Communication Technology - Communication Forms - Communication methods - Communication management systems - Performance reports	- Project communication - Project management plan updates - Project documentation updates - Origins of the organizational process

Table 15: Communication Matrix

COMMUNICATION	PURPOSE	MEDIUM	FREQUENCY	AUDIENCE	OWNER	DELIVERABLE
Kickoff Meeting	Introduce project. Review objectives and goals.	In person / Face-to-face	Once	Project team Project sponsor Stakeholders	Project manager	Agenda
Project Team Meetings	Review status of project	Face-to-face or Conference call	Weekly	Project team	Project manager	Agenda Project schedule
Technical & Creative Design Meetings	Discuss, review technical & design problems and solutions.	In person / Face-to-face	As needed	Technical team Creative team	Technical lead Creative lead	Agenda
Monthly Project Status Meetings	Update leadership on project status.	Face-to-face or Conference call	Monthly	Project manager Stakeholders	Project manager	Slide presentation Project schedule
Project Status Reports	Detailed report on project status including progress, costs, and problems.	Email	Monthly	Project manager Stakeholders	Project manager	Project status report Project schedule

Table 16: Stakeholder Assessment Matrix (Current)

S/N	Stakeholders	Unaware	Resistant	Neutral	Supportive	Leading
1	Ministry of Commerce (MOC)			C		
2	Chamber of Commerce			C		
3	Ministry of Labor (MOL)			C		
4	General Organization for Social Insurance (GOSI)			C		
5	General Authority of Zakat & Tax			C		
6	Civil Defense			C		
7	Ministry of Municipal & Rural Affairs (MOMRA)			C		
8	Competitors		C			
9	Suppliers				C	
10	Customers				C	
11	Neighbors			C		
12	Shareholders				C	
1	Project Owner					C
2	Sponsor				C	
3	Project manager				C	
4	PMO					C
5	Functional Mangers				C	

S/N	Stakeholders	Unaware	Resistant	Neutral	Supportive	Leading
6	Department Staff				C	

Table 17: Stakeholders Assessment Matrix (Desired)

S/N	Stakeholders	Unaware	Resistant	Neutral	Supportive	Leading
1	Ministry of Commerce (MOC)			C		
2	Chamber of Commerce			C		
3	Ministry of Labor (MOL)			C		
4	General Organization for Social Insurance (GOSI)			C		
5	General Authority of Zakat & Tax			C		
6	Civil Defense			C		
7	Ministry of Municipal & Rural Affairs (MOMRA)			C		
8	Competitors		C			
9	Suppliers				C	
10	Customers				C	
11	Neighbors			C		
12	Shareholders				C	
1	Project Owner					CD
2	Sponsor				C	D

S/N	Stakeholders	Unaware	Resistant	Neutral	Supportive	Leading
3	Project manager				C	D
4	PMO					CD
5	Functional Mangers				C	
6	Department Staff				C	

Table 18: RACI Model

Tasks	Sponsor	Project Manager	Team Members
Create Project Charter	C	R/A	C
Create Status Report	I	R/A	
Perform Change Management	C	R	

Appendix 2: Figures

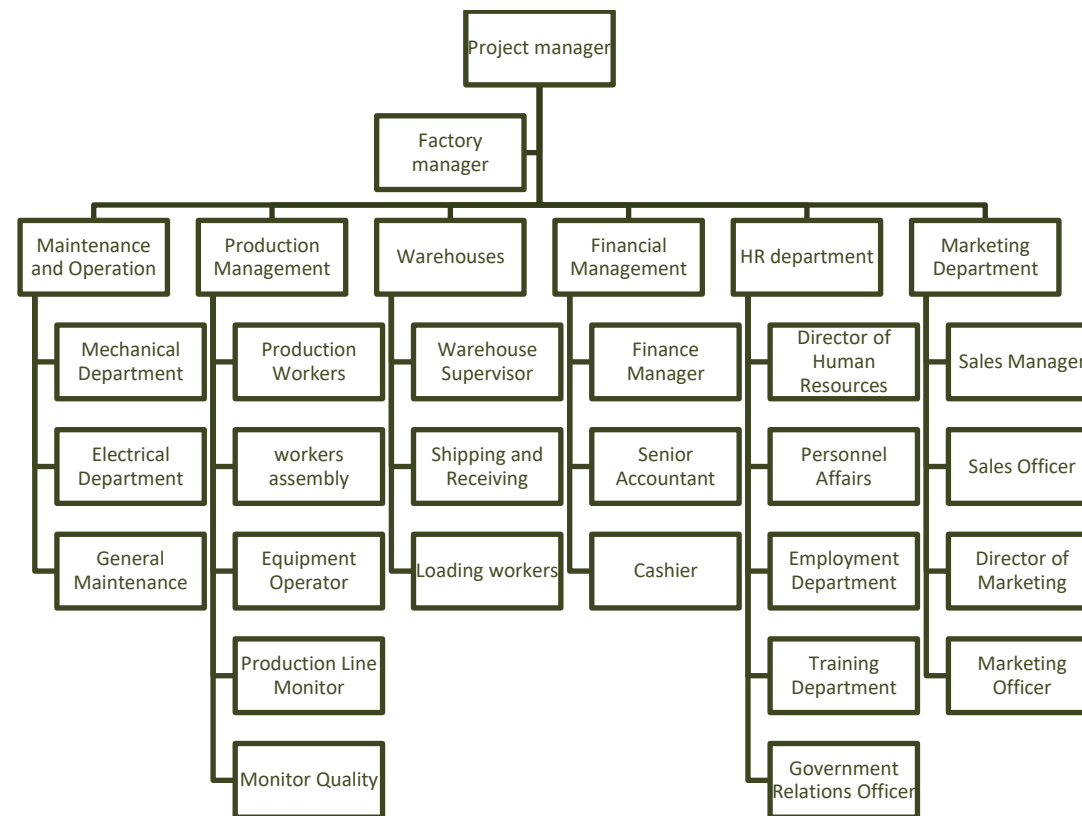


Figure 1: Organizational Structure

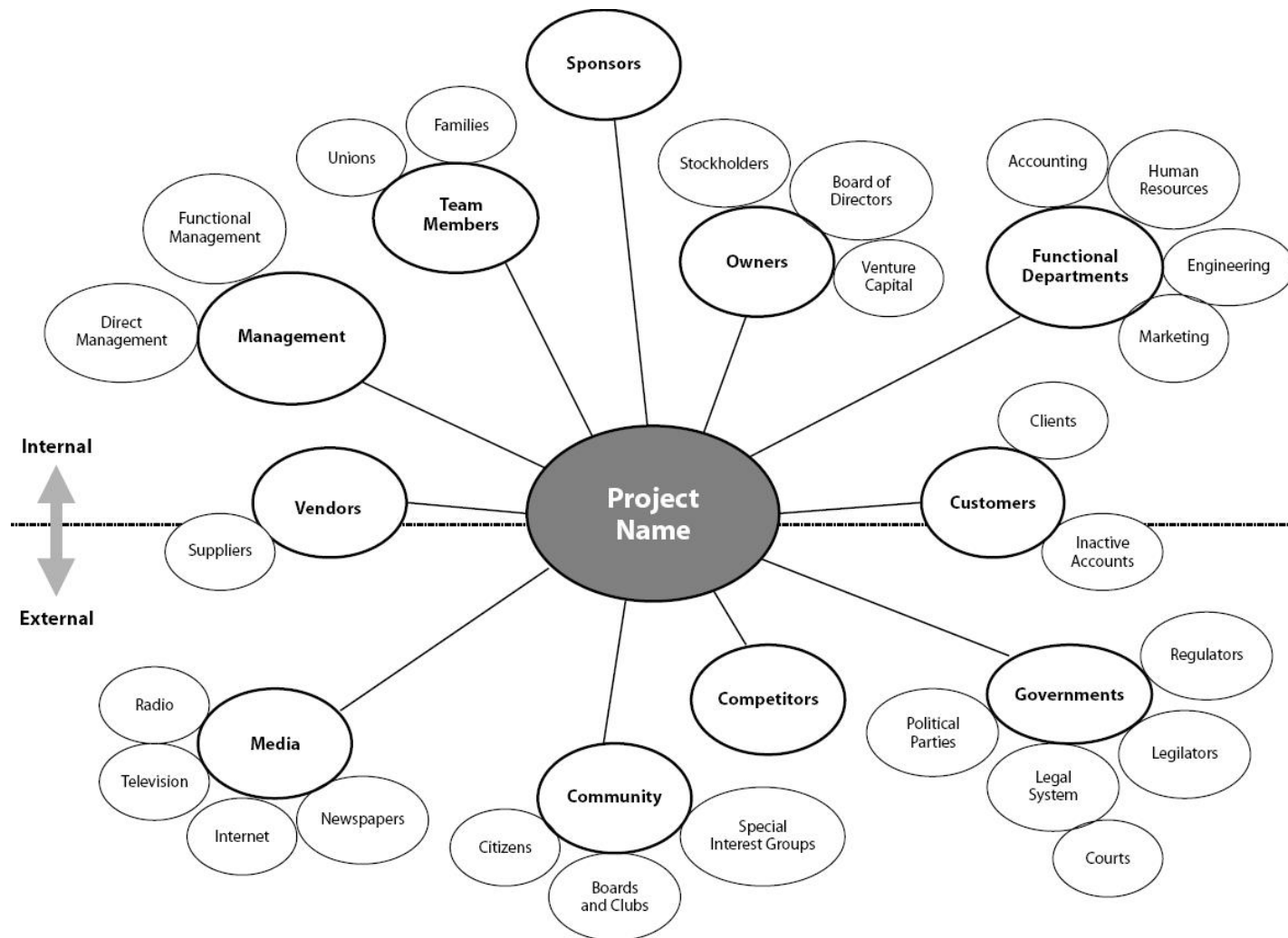


Figure 2: Logical Diagram of Stakeholders Register

	Helpful	Harmful
Internal Origin	Strengths	Weakness
External Origin	Opportunities	Threats

Figure 3: SWOT External & Internal, Helpful & Harmful

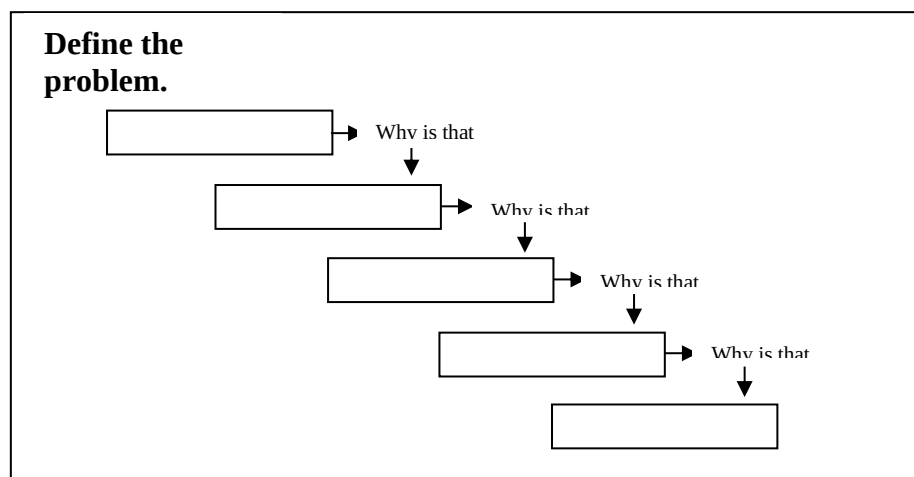


Figure 4: Five Whys?

Crashing vs Fast Tracking

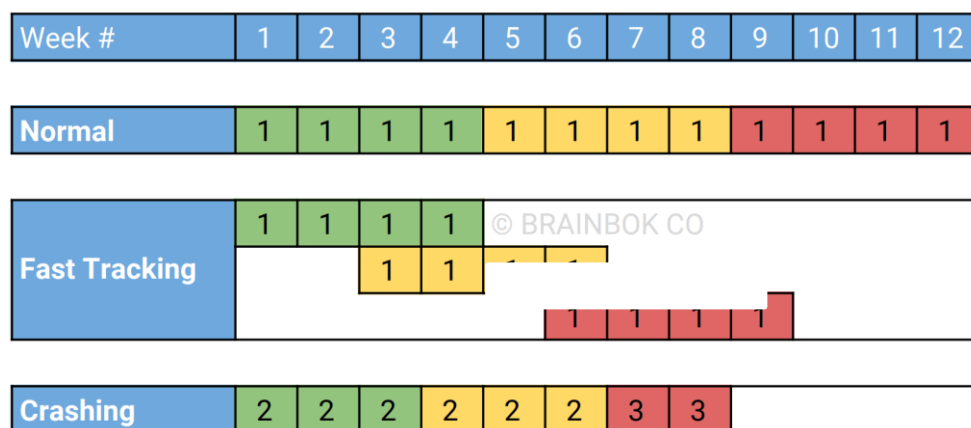


Figure 5: Crashing & Fast-Tracking Process

References

1. THE INTERNATIONAL JOURNAL OF BUSINESS & MANAGEMENT. (2016). Vision and Mission in Organization: Myth or Heuristic Device?, *Mission Statement Vs Vision Statement*, 4(3), 128–129.
2. *What Are SMART Goals (and How to Use Them to Be Successful)*. (2021). Lifehack. <https://www.lifehack.org/759949/how-to-use-smart-goal>
3. General Communication Inc., & McKeever, C. (2006). The Project Charter – Blueprint for Success. *CROSSTALK The Journal of Defense Software Engineering*, 6–9.
4. Ali Ahmadya, G., Mehrpourb, M., & Nikooraveshb, A. (2016). Organizational Structure. *Procedia - Social and Behavioral Sciences* 230 (2016), 455–462. <https://www.sciencedirect.com>
5. Smith, L. W. (2000). *Stakeholder analysis: a pivotal practice of successful projects. Paper presented at Project Management Institute Annual Seminars & Symposium, Houston, TX. Newtown Square, PA: Project Management Institute.*
6. StatPearls Publishing LLC. (2019). *SWOT Analysis* (No. 30725987).
7. (Definition of connection), collins, Retrieved 4/9/2021. Etited
8. Abbas, R., Norris, T., & Parry, D. (2018). Pinpointing what is wrong with cross-agency collaboration in disaster healthcare. *Journal of the International Society for Telemedicine and eHealth*, 6, e3-1.
9. Saunderson, S., & Nejat, G. (2019). How robots influence humans: A survey of nonverbal communication in social human–robot interaction. *International Journal of Social Robotics*, 11(4), 575-608.
10. Schmid, D., Fraser, T. C., Kunjwal, R., Sainz, A. B., Wolfe, E., & Spekkens, R. W. (2020). Why standard entanglement theory is inappropriate for the study of Bell scenarios. *arXiv preprint arXiv:2004.09194*.
11. Tøndel, I. A., Borgaonkar, R., Jaatun, M. G., & Frøystad, C. (2020, June). What Could Possibly Go Wrong? Smart Grid Misuse Case Scenarios. In *2020 International Conference on Cyber Security and Protection of Digital Services (Cyber Security)* (pp. 1-8). IEEE.

12. Venkatesan, T., Naqvi, D., & Patel, B. (2021). Deconstructing language barriers in healthcare: where are we going wrong?
13. *Stakeholder Engagement Assessment Matrix: Uses & Example*. (2019). Project-Management. <https://project-management.info/stakeholder-engagement-matrix/>
14. Gorostiaga, X., & Marchetti, P. (2019). The Central American economy: conflict and crisis. In *CRISIS in Central America* (pp. 119-135). Routledge. <https://www.taylorfrancis.com/chapters/edit/10.4324/9780429044083-7/central-american-economy-conflict-crisis-xabier-gorostiaga-peter-marchetti>
15. Mundy, J. (2020). CONCLUSION. Conflict Science, Conflict Management, Crisis. In *Imaginative Geographies of Algerian Violence* (pp. 163-170). Stanford University Press. <https://www.degruyter.com/document/doi/10.1515/9780804795838-010/html>
16. Nassereddine, M., Ellakkis, M. A., Azar, A., & Nayeri, M. D. (2021). Developing a Multi-methodology for Conflict Resolution: Case of Yemen's Humanitarian Crisis. *Group Decision and Negotiation*, 30(2), 301-320. <https://link.springer.com/article/10.1007/s10726-020-09695-x>
17. Nicholas, J. M., & Steyn, H. (2020). *Project management for engineering, business and technology*. Routledge. <https://www.taylorfrancis.com/books/mono/10.4324/9780429297588/project-management-engineering-business-technology-john-nicholas-herman-steyn>
18. Otegi-Olaso, J. R., López-Robles, J. R., & Gamboa-Rosales, N. K. (2019). Responsible Project Management to face urgent world crises and regional conflicts. *Birzeit University-Project Management, Birzeit, Palestine*. https://www.birzeit.edu/sites/default/files/responsible_project_management_to_face_urgent_world_crisis_and_regional_conflicts-jose_ramon.pdf
19. CLIMB Professional Development and Training. (2020). *What Are the Five Conflict Resolution Strategies?* Portland Community College. <https://climb.pcc.edu/blog/what-are-the-five-conflict-resolution-strategies>.
20. Doggett, A. Mark. "Root cause analysis: a framework for tool selection." *Quality Management Journal* 12.4 (2005): 34-45.
21. Перевозчикова, К.А. and Катекина, А.А., 2020. INterNatIoNal NegotIatIoNS IN the era oF gloBaLIzAtIoN. In *Общество, государство, личность: молодежное предпринимательство в поведенческой экономике* (pp. 130-134).

22. Robinson, R.M., 2019. Fair Negotiations. In *Imperfect Duties of Management* (pp. 173-204). Palgrave Macmillan, Cham.
23. Tomić, L., 2021. Negotiations and contract for the international sale of goods. *Revija Kopaoničke škole prirodnog prava*, 3(1), pp.33-47.
24. Kang, P., Anand, K.S., Feldman, P. and Schweitzer, M.E., 2020. Insincere negotiation: Using the negotiation process to pursue non-agreement motives. *Journal of Experimental Social Psychology*, 89, p.103981.