

SUSTAINABILITY OF HISTORIC BUILDINGS IN SAUDI ARABIA



Group number: 5179

Prepared By	
Name	ID. no.
1. Fahad Ahmed Alanazi, (Team Leader)	2021201345
2. Mansur Dhaifallah Alhumidan	2021201992
3. Abdulaziz Saud Alanazi	2021202415
4. Khalid Khwaitim Almotairi	2021201484
5. Mohammed Fahad Alshamer	2021202432
6. Asma Abdulallah Alsalman	2021202169
7. Ali Abdulaziz Abdulaal	2021202067
8. Aseel Salih Alsalamah	2021200182
9. Hassan Ali Alsadeer	2021200464
10. Ahmed Ali Alzughaibi	2021202466

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PMG697: Final Project

Project Supervisor: Dr. Waleed Sulaiman

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1 Strategy

- 1.1 form the mission
- 1.2 form the vision
- 1.3 develop and identify the objectives in a SMART model
- 1.4 develop and identify the performance measurement indicators, Lead or Lag
- 1.5 develop and prepare the project charter model

1 **Strategy:** Our strategy was initiated as a compatible part of our nation vision 2023, we committed to contribute and envisioning our nation goals, and to be one of the most specialized worldwide companies in sustainability. (See *Appendix 1 Strategist Consultant Review*).

1.1 Mission: Our mission is to responsibly provide quality sustainability services through innovation, applying highest environmental standard and worldwide practicing in construction methods while sustaining maximum value for our partners.

1.2 Vision: Our vision is to be the preferred Saudi leader in Sustainability.

1.3 Project objectives: Our objectives are to rebuild, develop, rehabilitate 50% of total Saudi historical buildings, minimize operational waste by 40% and increase the revenue by 10% within ten years starting from 2022.

1.4 Project's Key Performance Indicators (KPI's):

1.4.1 Introduction:

The KPIs have been developed to prioritize improvements in support of the overall our vision and materialize our goals. The KPIs are summarized into two categories:

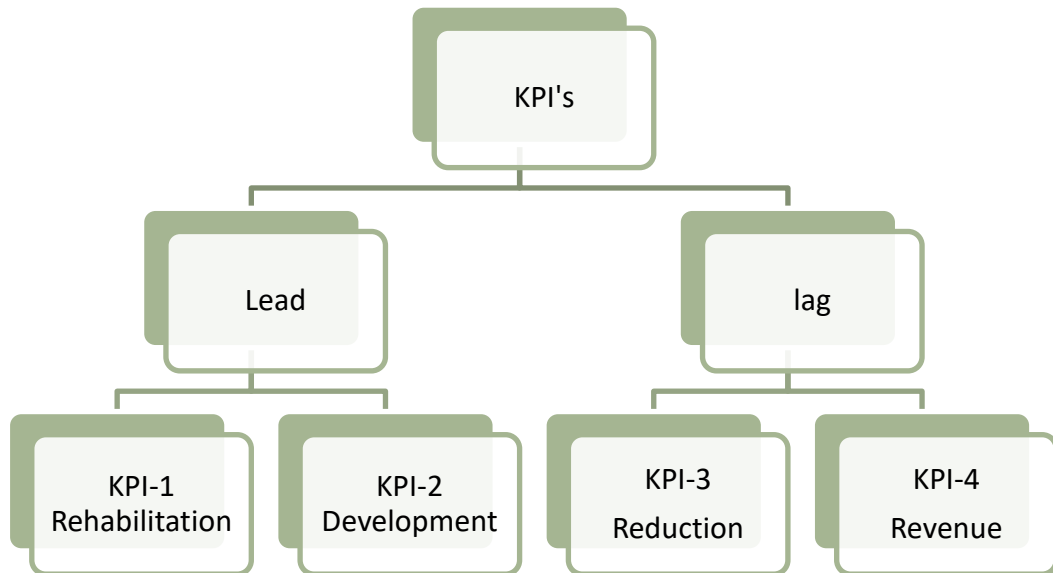


Figure 1.1: KPI's Categorization

- Lead KPI's:

Reference no.	KPI
KPI-1	Rehabilitate 70% of Saudi historical building during first 5 years from 2022.
KPI-2	Develop 50% of Saudi historical building during first 5 years from 2022

Table 1.1: Lead KPI's Summary Table

- Lag KPI's:

Reference no.	KPI
KPI-3	Gradually reduce operational waste by 5 % annually.
KPI-4	Increase visitor flow by 5 % annually.

Table 1.2: Lag KPI's Summary Table

1.4.2 Lead KPI's Definition and Measurement:

KPI Ref	KPI Title				
KPI-1	Rehabilitate 70% of Saudi historical building during first 5 years from 2022.				
Target performance against which the KPI performance will be assessed					
Bassline	Year 1	Year 2	Year 3	Year 4	Year 5
4,000	4,600	5,600	5,800	6,400	7,000
Description	The number of historical buildings that been rehabilitated and classified as safe and useful building from authorized governmental entity.				
Method of Calculation	Total Number of Classified Building as Safe & Useful utilities / Sum of Total Historical Buildings * Sum of Total Historical Buildings = 10,000				

Table 1.3: KPI-1 Definition and Measurement

KPI Ref	KPI Title				
KPI-2	Develop 50% of Saudi historical building during first 5 years from 2022.				
Target performance against which the KPI performance will be assessed					
Bassline	Year 1	Year 2	Year 3	Year 4	Year 5
1000	1,800	2,600	3,400	4,200	5,000
Description	The number of historical buildings that been developed and classified as investment opportunities building from authorized governmental entity.				
Method of Calculation	Total Number of Classified Building as investment opportunities building / Sum of Total Historical Buildings * Sum of Total Historical Buildings = 10,000				

Table 1.4: KPI-2 Definition and Measurement

1.4.3 Lag KPI's Definition and Measurement:

KPI Ref	KPI Title				
KPI-3	Gradually reduce operational waste by 5% annually				
Target performance against which the KPI performance will be assessed					
Bassline	Year 1	Year 2	Year 3	Year 4	Year 5
1	950.0	902.5	857.4	814.5	773.8
billion	million	million	million	million	million
Description	Reduce the annual OPEX expenditure by 5 %				
Method of Calculation	Sum of OPEX expenditure (last year) * 0.95 * Sum of OPEX expenditure 2021 = 1,000,000,000 SAR				

Table 1.5: KPI-3 Definition and Measurement

KPI Ref	KPI Title				
KPI-4	Increase visitors flow by 10 % annually.				
Target performance against which the KPI performance will be assessed					
Bassline	Year1	Year 2	Year 3	Year 4	Year 5
1.0 million	1.10 million	1.21 million	1.33 million	1.46 million	1.6 Million
Description	Increase company revenue				
Method of Calculation	Total Number of paid Ticket * Ticket Price * Sum of Total Revenue 2021 = 1,000,000 SAR				

Table 1.6: KPI-4 Definition and Measurement

Project Charter Model



Project Charter - ميثاق المشروع

SUSTAINABILITY OF HISTORIC BUILDINGS IN SAUDI ARABIA PROJECT

Date: 20/12/2021

1- Project Information

Project Title	Develop the historical buildings in Riyadh city – Al Diriyah
Program	HISTORIC BUILDINGS Development
Project Manager	Khalid Almotairi
Program Manager	Fahad Alanazi
Sponsor	Mansur Alhumidan,
Project Start Date	01/01/2022
Project End Date	31/12/2024
Project Cost	90 million (Saudi Riyal)

2- Project Description

Develop 50 Historical building served by Construct and develop Market Area and Social Zone.

3- Project Goals and Link it to Strategic Goals

Strategic Goal:	Develop the historical building
KPI:	Develop 50% of Saudi historical building during first 5 years from 2022.
Project Goals	
1	Develop 50 historical building located into Al Diriyah area
2	Increase visitors flow by 6.25 %

4- Project scope

The project consists of:

- Develop 50 historical buildings in Al Diriyah Zone.
- Rehabilitate the Mosque
- Construct a Restaurants & Coffee-Shop area
- Construct a Kids lot
- Construct a Shopping area
- Construct a museum

5- Project Main Phases/Milestones

Phase	Description	Duration
Develop the Market area	It consists of the shopping area, kids lots, Museum	6 Months
Develop the social Community Zone	It consists of the Mosque, Restaurants, and Coffee Shops	9 Months

Open the Commercial area for Visitors	Open the Market area and Social Community Zone for visitors (local, and tourist)	12 Months
Handover the First Building	Handover the first historical building to Ministry of Tourism	14 Months

6- Project Budget Estimate

Phase	Budget
Develop the Market area	30 million (Saudi Riyal)
Develop the social Community Zone	10 million (Saudi Riyal)
Develop the Historical Building	50 million (Saudi Riyal)

7- Project Stakeholders Analysis

Name	Level
Al Diriyah Gate Development Authority	High
Ministry of Tourism	High
Royal Commission for Riyadh City	High
Saudi Tourism Authority	Medium
Saudi Electricity company	Medium
National Water company	Medium
Ministry of Municipal and ruler and housing	Low

8- Assumptions

Sr.	Assumptions	Remarks
1	Water and wastewater network are working in good condition	N/A
2	The electric power system is connected and working in good condition	N/A

9- Risks

Description	Level	Initial Respond
Infrastructure efficiency	Low	Utilities company to fix it.
Permits & Approval	Medium / High	Dedicate a high-level coordination with concern parties

10- Approval list

Position	Name	Signature
PMO Manager	Aseel Salih Alsalamah	
Finance Manager	Asma Abdulallah Alsalman	
Engineering Department Manager	Ahmad Ali Alzughaibi	
CEO	Fahad Ahmed Alanazi	

2 Governance, Structure and Process.

2.1 Develop an organizational structure for the teams and units of the project.

A project is undertaken with the aim of achieving a particular goal. For this project, we developed an organizational structure for the teams and units of the project. Organization is a very basic requirement for the success of any project.

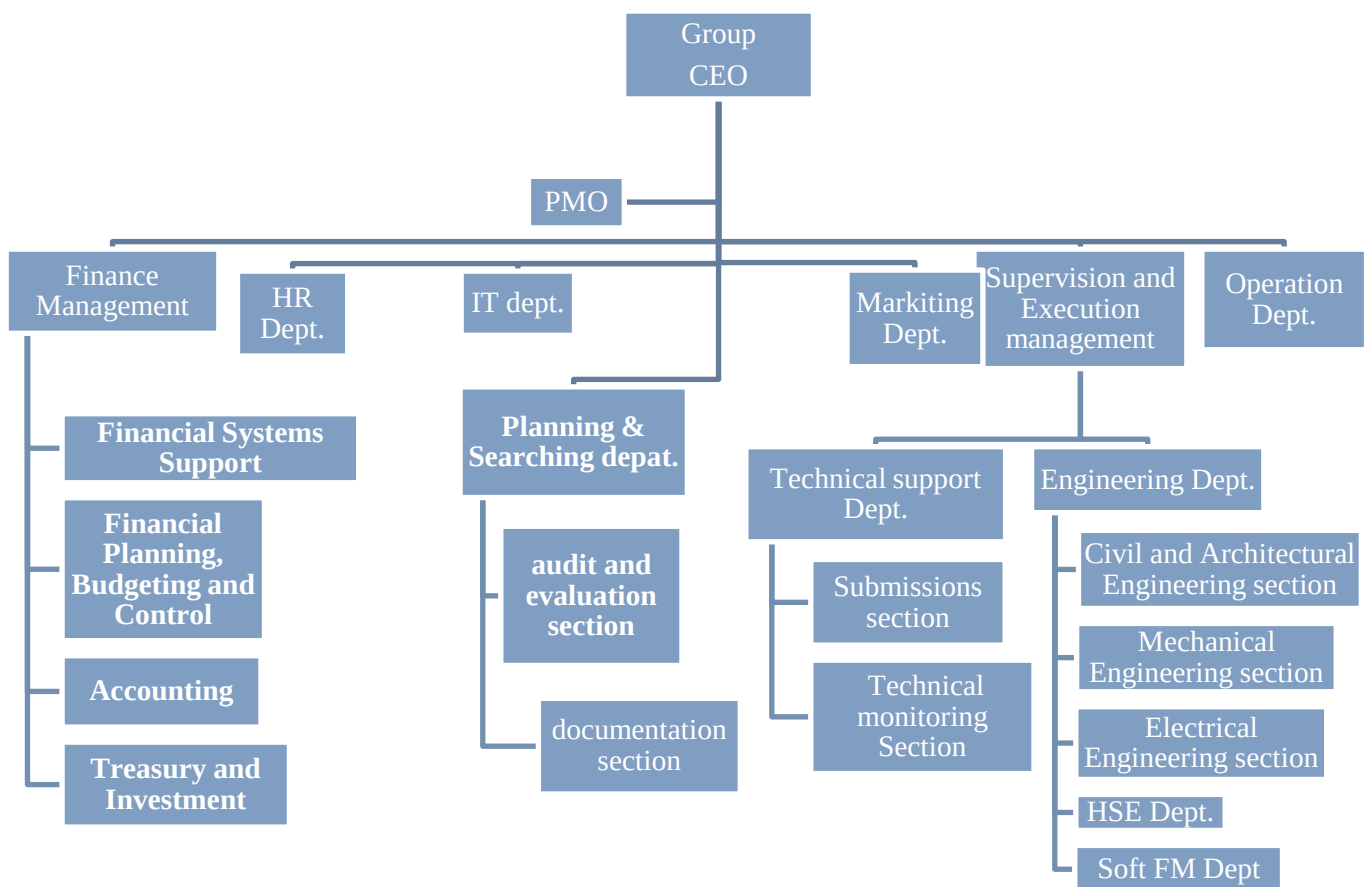


Figure 2.1: Organizational structure

2.2 Identify the practical and scientific bases, which adopted in developing the structure

The process of designing or developing the organizational structure is based on key organizational principles and foundations. It considers as a reference point for making decisions about multiple regulatory options. The bases are:

- Specialization – Departmentalization.
- Relative importance for Main functions
- Integration and Harmony

2.3 Identify projects office model, most appropriate to manage the project, in addition to mentioning the reason

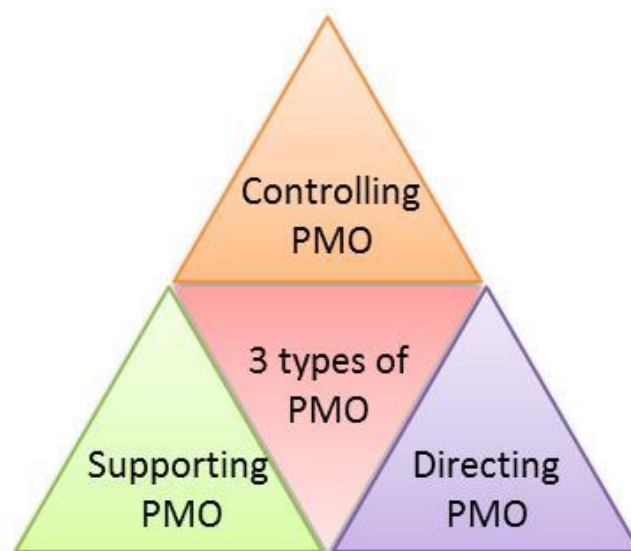


Figure 2.3

For the project, we prefer to define (PMO directive) because this type is very suitable for large organizations that need technical support in many and varied places.

Also, this type is characterized by providing high professional in project management, as each manager writes periodic reports for the office, which ensures a very high level of consistency in the work at the level of all projects.

3 Compliance, standards, and regulations

3.1 Design a check compliance model before delivering the project outputs.

Project Name:	Develop the historical buildings in Riyadh city – Al Diriyah Zone	Owner:	Mr. Mansur Alhumidan	Main Contractor:	J&P Company
Date		Day		Ref.	01
Compliance Model					
No.	Goal / Deliverable	Responsible		Compliant (Yes/No/NA)	Remarks
1	List of lessons learned	PMO		Yes	
2	Project closure document	PMO		Yes	
3	Budget Closure memo	PMO		Yes	
4	Final project status reports	PMO		Yes	
5	Supply contracts and process	PMO		Yes	
6	Completed the develop of buildings	Project Manger		Yes	
7	Site investigation report.	PMO		Yes	
8	Engineering report.	PMO		NA	
9	Summary disposal equipment and material	PMO		Yes	

Table 3.1: Compliance model

3.2 Develop Check List model for the three stages of the project

(Start & Plan- Execute- Close)

Project checklists are a simple but essential tool, often developed and distributed by a Project Management office PMO.

Whose purpose is to assist project managers in following the project governance processes established in the organization, in this way standardizing the approach and assuring its quality.

Initiation stage		
No.	Description	Status
1	The scope of the project clear	
2	The project fundings are approved	
3	All the stakeholders have been identified	
4	Identify a sponsor	
5	Confirmed the project delivery expectations (time and scope) with all the stakeholders	
6	All the project benefits been captured and are reasonable	
7	Aware of the process of getting the project approved	
8	The business case cover assumptions, dependencies, and constraints	
9	Risk assessment be conducted	
10	The project team established & resources available to start the project	
11	Business case to start work are approved	
12	Develop Project charter	

Table 3.2.1: checklist of Initiation stage

Planning stage		
No.	Description	Status
1	Determining 50% of the selected buildings	
2	Develop project management plan	
3	Develop work breakdown structure	
4	Create a baseline for the project plan	
5	Project team comfortable with the project schedule	
6	Defined the milestones for the project	
7	Plan to track project progress	
8	Collect Requirement	
9	Develop resource plan for the duration of the project	
10	Define the scope	
11	Plan cost management	
12	Plan quality management	
13	Plan risk management	
14	Plan procurement management	
15	Plan stakeholder engagement	
16	Assign the PMO and the main contractors	
17	Organized a project kick-off meeting	

Table 3.2.2: checklist of planning stage

Execution stage		
No.	Description	Status
1	Signed off & finalized the business requirements	
2	The project team are aware of the project deliverables	
3	All the hardware and infrastructure requirements are finalized and addressed	
4	The team are aware of roles and responsibilities for everyone	
5	The team are aware of the benefits and business value of the project	
6	Planned the resources required for the implementation	
7	The project team aware of the project deadlines	
8	Developed a plan to update the system documentation after the project is complete	
9	Develop a list of critical tasks	
10	Will there be a need for environment setup required?	
11	The project team have the required hardware and software	

Table 3.2.3: checklist of execution stage

Close stage		
No.	Description	Status
1	all the project benefits still on track	
2	Provide a closure document	
3	All the stakeholders authorized the project closure	
4	Provide a list of lessons learned	
5	Made adequate arrangements for the handover of the new or updated systems/processes	
6	The project budget been finalized	
7	All the project resources released	
8	All the post-project activities completed	
9	Handover is complete for all deliverables	
10	All deliverables are accepted and signed off by the client	
11	Final project status reports are complete	
12	All financial processes and reports are complete	
13	Project review is done	
14	All supply contracts and processes are terminated	
15	Site operations and facilities used for the project closed down	
16	Disposal of all equipment and materials	
17	Announcement of completion of a project (internal, external, and public relations contacts)	
18	Completion of storage for all the project files	

Table 3.2.4: checklist of close stage

4 Power and Interest

4.1 Develop a stakeholder register and form groups for them. (Competency 8)

4.2 Develop the two networks: (Strength/Interest) and (Influence/ Strength)

A stakeholder is any individual or group, or organization that has any direct or indirect impact in a project and is likely to be affected by the project's outcome. A project can have multiply stakeholders (internal/external), and each one may have varied interests and Influence from the project.

No.	Stakeholders	Category	Influence	Interest	Expectations
1	Sponsor	Internal	Strong	Supportive	Financing & Approval of the project charter
2	Project Manger	Internal	Strong	Supportive	Clear Requirements and timely completion of works
3	Transport Companies	External	Important	Neutral	Cost of transportation and providing buses to transport the project team and tourists later
4	Competitors	External	Weak	Resistant	To adopt fair trade practices regarding price, quality, and service
5	Ministry of Culture	External	Important	Supportive	Empower and encourage the cultural sector
6	Ministry of Tourism	External	Important	Supportive	Obtaining the necessary licenses and supporting heritage tourism

7	Ministry of Commerce	External	Strong	Neutral	Obtaining all the necessary documents for the project
8	Heritage Commission	External	Important	Supportive	Highlighting the sustainability for heritage buildings in international forums
9	Contractors	External	Strong	Neutral	Supply materials & executing the works

Table 4.1 & 4.2

4.3 Use the logical diagrams for the register of the stakeholder

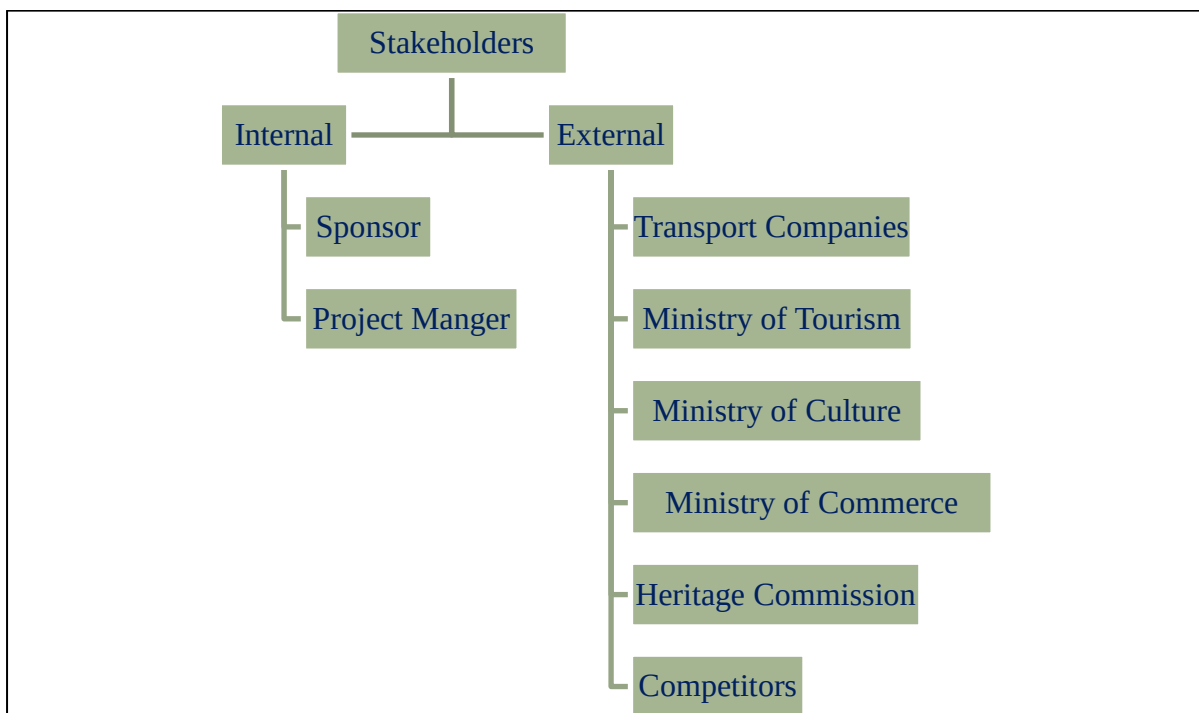


Figure 4.3: logical diagrams for the register of the stakeholder

5. Culture and Values

Pride

Our pride comes from the way we live together and work together, inspire each other to create a common future based on cooperation and sharing with our friends and neighbors in everything we do

Our heritage is solid and rooted

We want the world to see our great heritage, be passionate about our community, and make visiting the historic buildings on his list of interests.

Building effective partnerships

It's all about the way we care for each other, and how our societies unite and create kinds of lasting, interactive bonds, let's make the historical and heritage buildings a landmark and an icon for Saudi Arabia, and a symbol of heritage and a beacon of pride for all Saudis, who are proud of it and strive to develop into an exceptional global attraction.

Empowerment

We are a good neighbor for our community, which is why we aim to increase our interaction with everyone to make sure that everyone who lives here feels that they are part of the work we do.

Our society

We aim to provide support, advice, and awareness's to all members of society regarding historical and heritage buildings.

Originality : We stress that our projects and conversations are credible and reliable.

6 Self-reflection and self- management

6.1 specify “3” personal behaviors of the student that can influence on the project.

1. Poor delegation skills

as project manager, I delegate much of my work to my team members. Here's the problem - team members are confused; they're not sure of what is expected and when things are due.

Things to do: Plan the delegation. Then, communicate what you are delegating, the level of authority being given, due dates, and when you will follow up. Let your team members know that you are available to discuss issues and to provide support.

2. Poor listener

Great project managers know how to listen. Rather than interrupting to make a point, leaders listen with the intent of digging deeper and understanding the perspective of others.

Things to do: Focus more on the person speaking. Make good eye contact. And ask appropriate follow-up questions that show empathy and concern.

3. Too many projects’ meetings

Some project managers keep their team members in meeting prison, and often, the meetings are things that could have been handled in other ways. This behavior leads to frustrated team members who are busy trying to get their project work completed.

6.2 Study such behaviors, identify their reasons, and how they can be eliminated.

Things to do: Eliminate recurring meetings when possible. Eliminate status meetings gather status information and share through status reports. Always ask yourself:

Is there another way to handle something that does not involve a lengthy meeting?

A quick conference call. An email. Instant messenger. A quick stand-up meeting.

6.3 conduct a self-professional assessment by using SWOT model

SWOT Analysis

S INTERNAL STRENGTHS	
1	The ancient history of the Arabian Peninsula
2	Many ancient historical buildings in the Kingdom
3	The availability of the resources.

W INTERNAL WEAKNESSES	
1	High operating costs.
2	Rising costs of building renovations.
3	High dependence on imports of raw materials

O EXTERNAL OPPORTUNITIES	
1	Saudi Vision 2030
2	Increasing the number of tourists, visitors, and pilgrims to the Kingdom of Saudi Arabia
3	Diversity of new projects

T EXTERNAL THREATS	
1	The complexity of government establishments procedures.
2	Raw material turbulence increases cost.
3	The availability of the workers.

Figure 6.3: SWOT Analysis

7 Personal integrity and reliability

7.1 provide “3” behaviors contradict the moral integrity.

7.2 analyze the financial, social, and technical influence, if any, of such behaviors on the works of the project and the relationships.

1- Bad behavior in dealing with the work team:

Bad behavior in dealing with the work team affects the workflow and productivity of the required quality, which may result in job leakage and thus non-compliance with the timeframe for completing the project. Therefore, an internal policy must be developed to report any immoral abuse. Any incoming report is investigated by an independent committee to study the communications, and the results of the study of the communications are submitted to the stakeholders to take the appropriate action against the violator.

2- Professional Integrity:

Professional integrity affects several aspects of the project, including the financial and technical aspect, in which the project manager may have some personal interests in awarding contracts to suppliers that have a direct or indirect relationship with him for the purpose of personal financial profit and overriding them over the quality of materials used in the project. Thus, this affects the final output of the project and may result in a distortion of the company's reputation in the labor market and additional financial costs to correct what has been accomplished from previous work. Therefore, a special committee must be formed to review the offers submitted by suppliers,

with a limit of three offers, and the conditions and technical specifications of the materials are verified, and then the contract is awarded to the best supplier that meets the technical conditions at the appropriate price, which does not exceed the allocated budget.

3- Failure to comply with the statutory requirements:

Failure to comply with the statutory requirements leads to the suspension of the company's projects and consequently the failure to adhere to the time plan for the completion of the project and to undermine the company's credibility towards its clients. Therefore, an independent department must be allocated to ensure that all the statutory requirements of the relevant legislative authorities are completed to avoid any sudden stoppage of work because of non-compliance with them.

8 Personal communication

8.1 Prepare the register of the stakeholder.

A stakeholder register is a document that describes who (individual or group) is affected by a project, and their effect and impact on the project. The table 8. shows personal communication with stakeholders and communication channels.

No.	Stakeholders	Channels of & personal communication	No.	Stakeholders	Channels of & personal communication
1	Sponsor	- Physical& virtual meetings - Phone - Emails	5	Ministry of Culture	- Authorization letters - Visual & Meeting - Email: info@moc.gov.sa - Phone: 8001189999
2	Project Manger	- Physical & virtual meetings - Phone - Emails	6	Ministry of Tourism	- Authorization letters - Visual & Meeting - Email: info@mt.gove.sa - Phone: +966 - 118808855
3	Transport General Authority	- Authorization letters - Physical & virtual meetings. - Email: info@tga.gov.sa - Phone: +966118261111	7	Ministry of Commerce	- Authorization letters - Visual & Meeting - Email: CS@mc.gov.sa - Phone: 1900
4	General Authority for Competition	- Physical & virtual meetings. - Email: Info@gac.gov.sa - Phone:8002441222	8	Heritage Commission	- Authorization letters - Visual & Meeting - Email: info@moc.gov.sa - Phone: 8001189999

Table 8.1: Personal communication with stakeholders and communication channels

8.2 Identify the personal communication and the effective communication

Communication serves as the foundation of every facet of a business and life. It is the process of information sharing between team members in a way that keeps in mind what you want to say, what you say, and what your audience interprets. There are two classifications of personal communication, formal (officials) and informal. In the field of work & business formal of communication must be used to sharing of official information, which is either meeting (Physical & virtual) documented by minutes of meetings MOM.

The second method is through e-mail, you should be clarity in your message, commitment, completeness and courteous about your goal or purpose, never leave your sentences incomplete it. The phone can be used to help with simple formats, it can be used in a formal or informal way so it depends on the awareness of the person, as you must document all kinds of personal communication related to the work.

There is a difference between being able to communicate and to communicate effectively, the Effective communication is communication between two or more persons with the purpose of delivering, receiving, and understanding the message successfully, the successful delivery of the message depends on several influences, including: clarity and transparency in the delivery of the message, commitment, personal skills of the sender and its understanding through receiver.

8.3 Identify the shapes, models, and channels of the personal communication

As shown in table (8.1) clarifies the stakeholders and the communication channels between us, as the communication channels used officially through personal communication channels have the greatest impact in making personal communication effective and successful. and to reduce the communication channels we will be one an official Spokesperson for each project section, which makes it more successful.

The best-known communication models are:

- 1- Transmitter-receiver model according to Shannon
- 2- Weaver, the 4-ear model according to Schulz von Thun
- 3- Iceberg model according to Watzlawick
- 4- BERLO'S SMCR MODEL OF COMMUNICATION.

The BERLO'S SMCR MODEL OF COMMUNICATION:

This model is not specific to any communication, Berlo's model includes several factors under each of the elements: The Figure (8.3) shows The BERLO'S SMCR MODEL OF COMMUNICATION

1. Source: The source is situated where the message originates.
2. Message: Content & Elements –It includes various things like language, gestures, body language, etc. They constitute all the elements of a particular message.
3. Channels– It refers to the five sense organs. The following are the five senses: Hearing, Seeing, Touching, Smelling and Tasting. Communication occurs through one or more of these channels.
4. Sender: Berlo's model believes that for effective communication to take place, the source and the receiver need to be on the same level. Only then communication will happen or take place properly. Hence, the source and the receiver should be similar.

Berlo's Communication Process Model as Applied to the Behavioral Theories of Maslow, Herzberg, and McGregor

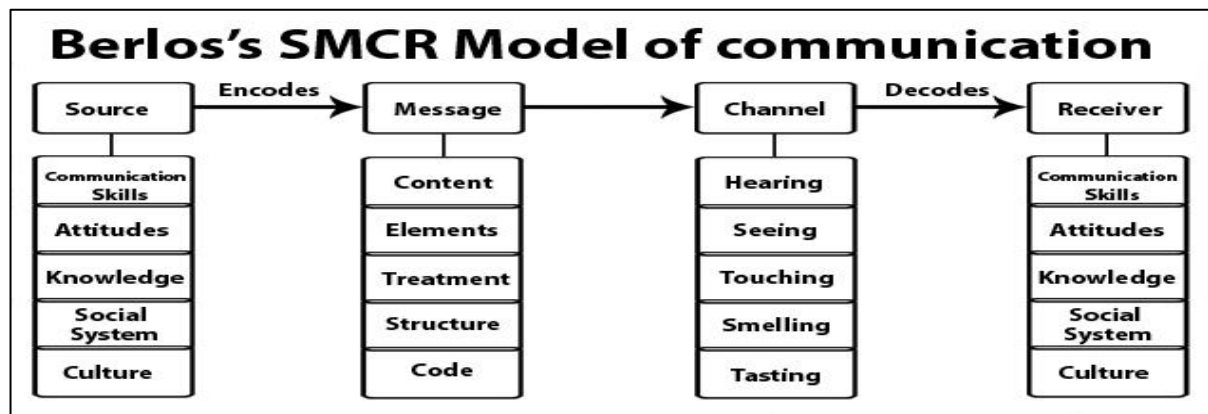


Figure: 8.3: Berlo's Communication Process Model

8.4 Establish the communication matrix.

Communication is, essentially, the effective sending and receiving of information. In order to share the right information about the project with the right people in an effective and timely manner.

Information	Method of communication	Sender	Receiver	Timing of communications
Documents (draft)	Email and share drive	Documents controller	Sustainable project manger	Monthly
Documents approval	Email and share drive and meeting	Project teams leaders	Sustainable project manger	Monthly
Time usage hours	Email	Project manager and project team	Environment team	Weekly
Project status reports	Phone or meeting	Project manger	Overseeing VP	Monthly
Team status change	Phone or meeting	Team members	Project manger	Monthly
Expense approval	Email or meeting	Project manger	Overseeing VP	Monthly
Work requests	Email or fax	Project manger	Vendors	Daily
Request of review	Email or meting	Project manager or project team	Project team	Daily

Table 8.4: Communication matrix

9 Relationships and engagement

9.1 Provide 3 wrong scenarios of communication.

As we know that in any sustainable plan or strategy communication plays a vital role, sometimes poor communications are due to feeling overwhelmed by the project or are unable to effectively manage a conflict. there are three scenarios of negative communications at the project:

1- **Examples for Getting Personal at the project**

would be dismissing a co-worker as stupid or an idiot for presenting a plan that needs improvement. There is NEVER a situation where a negative comment directed at someone personally will get you good results.

2- **Intimidation in the project**

Intimidation tactics are form of negative communication that quickly creates a toxic and often fear-filled work environment. A boss who bullies his employees into getting things done is likely to experience high turnover rates. Intimidation can also occur between co-workers competing for the same promotion at the project. This unnerving type of behavior is often in the form of direct verbal language or physically threatening actions. Examples of intimidation include loud speech, physically taking over workspace, or standing in close physical proximity to cause discomfort.

3- **Failing to listen:**

In project environment, failing to listen to team members or to project manager is also problematic. It creates an ecosystem of disregard for individual feelings and devalues personal relationships in the workplace. For example, if team members express concern over an issue they see in the workplace, but the project manager doesn't ask them to explain the problem in greater detail or investigate the issue, the problem may go unchecked and the team members will likely feel that their input does not matter. Project members want to feel that their ideas have value and know that they are recognized as valuable contributors to the project mission.

9.2 Develop and prepare stakeholder assessment matrix.

Stakeholders' assessments:

C = CURRENT, D= DESIRED

No.	Stakeholders	Unaware	Resistant	Neutral	Supportive	Leading
1	Sponsor					
2	Project manger					
3	Transport Companies			D		
4	Competitors	C				
5	Ministry of Culture				D	
6	Ministry of Tourism				D	
7	Ministry of Commerce			D		
8	Heritage Commission				D & C	
9	Contractors				C	

Figure 9.2: Stakeholder assessment matrix

10 Leadership

10.1 Describe and identify the leadership model, which is preferred to the project leadership

10.2 Specify the reasons for which such model is preferred

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

The construction industry has a greater need for leadership than any other industry. Construction projects are large and technically complex, and they involve a combination of specialized skills. Thus, the teams are not only large but are also multi-disciplinary and the members are from several different construction disciplines, and this makes leadership important in this industry.

Project management and Construction management were developed in the construction and engineering fields to improve planning and cost controls. A person can be a leader without being a manager and a person can be a manager without being a leader.

Leadership is a key factor for success in any activity that involves collaboration among a group (or groups) of people. Additionally, the project leader plays a very important role in project success or failure.

Leadership styles have to do with how people interact with those they seek to lead.

Following are some examples of leadership styles:

- 1) Autocratic leadership
- 2) Democratic leadership
- 3) Transformational leadership
- 4) Transactional leadership

Autocratic leaders tell others what to do and expect them to comply obediently. Although it may work in certain circumstances in the short run, but this is not effective in the long run.

Democratic leaders are those who make their decisions final only after consulting with the people they are leading based on the consensus. This style claims that popular decisions are not always the best that can be taken, so they will not produce the desired outcomes.

Transformational leaders on the other hand empower their team members to develop their own decisions based on the information provided to them and exert little control over the decision-making process. This may be a time-consuming process but works well when the team members are very committed to the best interest of the organization.

Transactional leaders are result-based leaders who ask their team members to focus only on the goals at hand. These leaders also believe in rewarding subordinates. Opponents of this leadership style say that this is too narrowly focused and often centered on the wrong concerns.

The key to being a successful leader is to have the right behavior, skills, and actions, and less on personal characteristics. To be effective, leaders must exhibit the ability to identify and apply the optimal leadership style for any given situation rather than relying on predefined personalities. leader should be able to adapt to change and sometimes contradictory circumstances in which they need to show versatility and flexibility.

All transformational factors which are charisma, inspirational motivation, intellectual stimulation, and individualized consideration, and of transactional factors which are contingent reward, management-by-exception, active and passiveness was of great importance for the effectiveness of any leadership.

Inspirational motivation, idealized attributes, intellectual stimulation, idealized behaviors, contingent rewards, and individualized considerations are well-perceived leadership elements among our company.

As a company, we leverage transformational leadership to ensure greater employee satisfaction and performance.

In addition, below are some key points that the leader should do to motivate the team members:

- The team should be treated fairly by the leader and with a good attitude.
- Leader should recognize the accomplishments of his team members.
- Efforts by the leader to challenge the team to increase their expertise and capabilities.
- Leader should communicate to the team the big picture and what the team is expected to accomplish.

11 Teamwork

11.1 design RACI model for 3 administrative measures of the project.

RACI Model							
Project Deliverable	Executive Sponsor	Project Sponsor	Project Manager	Functional Lead	SME (Subject Matter Expert)	architect	Project Team Member
Initiate Phase Activities							
• Submit Project Request	A/C	R/A	R/A	A/C	C		
• Request Review by PMO			R	c			
• Research Solution	I	C	R/A	A/C	C		
• Develop Business Case	I	A/C/I	R/A	C	C		
Plan Phase Activities							
• Create Project Charter	C	C	R/A	C	C		
• Create Schedule	I	I	R/A	C	C		C
• Review Plans		R	C	I		A	
• Create Additional Plans as required	I	I	R/A				I
Execute Phase Activities							
• Build Deliverables	C/I	C/I		R/A	R/A		R/A
• Create Status Report	I	I	R/A	R/A	R/A		
Control Phase Activities							
• Perform Change Management		C	R	A	A		A
Close Phase Activities							
• Create Lessons Learned	C	C	R/A	C	C		C
• Estimated Budget		A	C	R	I		
• Final Review		R	A	C	I		
• Create Project Closure Report	I	I	R/A	I	I		I

KEY	R = Responsible
	A = Accountable
	C = Consulted
	I = Informed

Figure 11.1: RACI model

12 Conflict and crisis

12.1 identify the conflict and crisis

Conflict is present when two or more individuals or groups pursue mutually incompatible goals. Conflict and team crisis can easily flare up. This spells disaster for a busy project team, who cannot afford to take their eyes off their targets. Conflict and interpersonal crisis sap the energy of the project team and distracts them from their focus. Conflict must be managed decisively and effectively.

These are not skills that come naturally. Most project managers need help to develop these skills and form competencies that can be applied for the benefit of their projects. Projects can be perfectly planned, and yet can be unsuccessful due to interpersonal conflicts and tension.

It is important for this stage to concentrate in the project's environment and the project organizations to avoid any harm of effective to the project

12.2 Provide 3 expected scenarios of the conflict's events in the project

- Personal conflict
When employees have personal issue and this conflict interfere in their work.
- Discussion conflict
The conflict of different opinion during the discussion of the meeting and this will affect the result.
- Major Event: a major crisis during the project.

12.3 Set the optimal strategies to deal with each conflict and specify the reason of preference.

The strategies focus:

Personal	Discussion	Major event
It can be solved thru the communication with then and third party interfere	It can be leaded to bring the two opining together and show the important output to project and take their commitment	It requires immediate action carefully, after reviewing all information, then we proceed to high levels

12.4 Root Cause Analysis

Root because analysis (RCA) is a structured method used to analyze serious adverse events.

The root cause analysis has all fundamentally connected by three basic questions:

- What's the problem?
- Why did it happen?
- What will be done to prevent it from happening again?

Defined the issue	Collaborate	Compromise	Convince	Escalate	Power action
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13 Resourcefulness

13.1 To distribute the human resources on the functions.

Resourcefulness is defined as the ability and creativity to cope with difficulties.

The key to being resourceful is to ask the right questions in a positive way.

This is done by adopting an attitude of the art of the possible: extreme positive thinking.

Becoming resourceful is a journey for you, your team, and even your organization.

We'll be able that we're resourceful. instead of giving up when come across an issue we're unprepared to deal with, we become determined to find a solution.

NO.	Functions	Resources	Time per week
1.1	Assigning a team to inventory of historical buildings	3	1
1.2	Communicate with involved authorities	3	2
1.3	Get the polices of environment & all necessary documents	3	2
1.4	get the approvals from sponsor to provide the project charter	3	1
2.1	Studying the required jobs	4	1
2.2	Recruiting the work teams	4	2
2.3	Rehabilitation the staff	6	4
3.1	Assigning a team to study the market	4	1
3.2	make plan for delivery of materials and store it	4	1
3.3	Purchase the materials	3	1
4.1	Assign the PMO & the main contractor	2	1
4.2	Approval of designs and work plan	4	1
4.3	Kickoff the executing	300	35
4.4	furnishing work	40	12
4.5	Hand over all deliverables	3	2

Table 13.1: distribute the human resources on the functions

13.2 To analyze the influence of conducting Crashing and Fast-tracking process on the timetable, in addition to representing the table after achieving the two measures.

Fast tracking and Crashing techniques are used in project management and all these techniques have same importance in the compression of project schedule as per applicability and situations.

Fast Tracking:

In this technique project manager make the project activities in parallel instead of series and try to achieve the project timeline duration. However, risks are involved in the fast-tracking technique because parallel activities might be:

- 1- Increase the reworking some time.
- 2- Works only when the activities are independent of each other.
- 3- No change in cost but increased risk.

Crashing:

Crashing is a technique which use for meeting the deadline of project. This technique is based on increase the resources in some phases to complete the work earlier or on time. However, risks are involved in the crashing technique might be:

- 1- Project cost increases in this technique due to more resources.
- 2- May not be adequate and could result in Quality issues.
- 3- Not all processes can be made faster by mere addition of resources.

projects may need to compress the schedule for different reasons. However, Projects manager can consider different factors to decide which method will be a better for various sets of activities in the schedule.

Figure 13.2.1: Main Timeline

Figure 13.2.2: Fast Tracking

14 Negotiations

The main points are the set plan of all the requirements of the projects to proceed by creating the negotiations agreement to avoid any conflict of interest internally and externally. In addition, we will lead the matching principles of the two parties successfully.

Internal negotiations are a part of bringing all department requirements and discuss the values usage of our project and finalize it by resolving all points.

As of the external negotiations, it will require the involvement of other entities and our relation value and projects strategies, will give us space to discuss the potential requirements and match the interests to a perfect negotiation.

14.1 Develop general rules for the negotiation process:



Figure 14.1: Negotiation process

14.2 Prepare 2 negotiation plans

First negotiation plans:

We focus during our strategies negotiation to add our project goal to convince of our projects outcome and we discuss the value of the result which it will bring sustainability's to our buildings. We also showed our commitment in this project and research evidence of the profit use of installing the sustainability's to our vision.

Second negotiation plans:

We decide to use the BATNA to our agreement to make our negotiations much stronger and it will show our strategies guideline.

15. Project design

The project design is an important stage in the project management. It helps to set the project's main features as well as criteria, and success factors. The final deliverable of the project is also determined in this important phase of the project.

15.1 Triple constraint of the project

The constraint aspect of the project will include time, cost, and scope. Although these are the main constraint that any project manager would experience, we will establish other constraints which are related to the project. These three constraints are primarily connected to each other and changing one constraint would significantly affect the other (Khan, 2019). The three constraints are related and would be represented in the management triangle below.

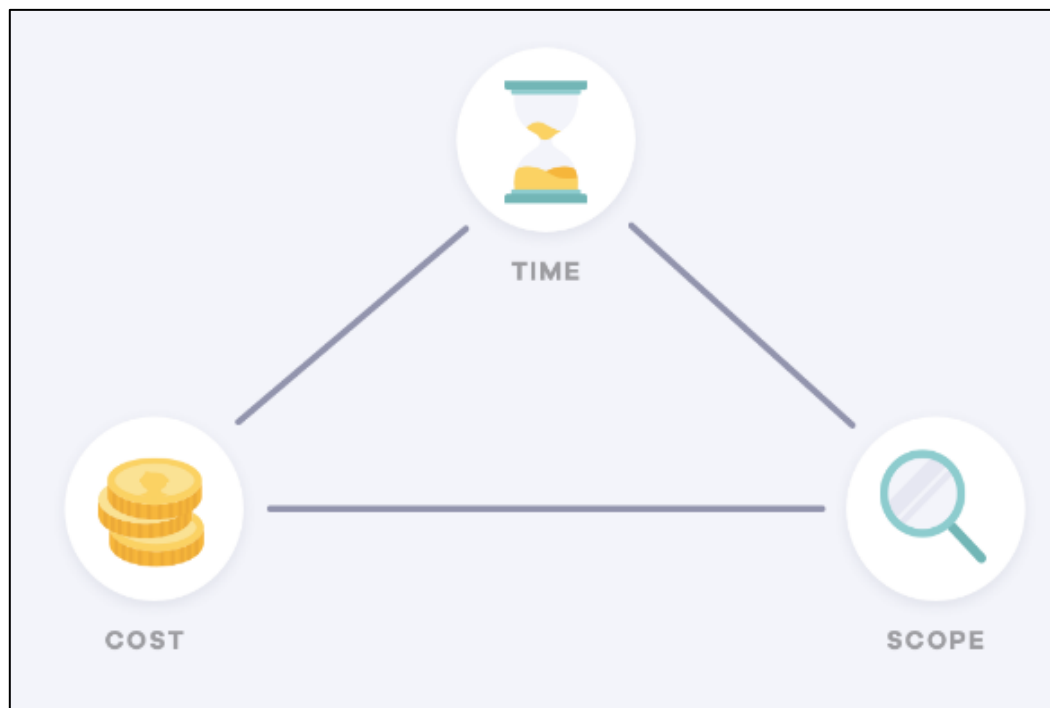


Figure 15.1: Project constraints

Time Constraint- This would include the time schedule starting from initiation stage to the completion stage. The time for rolling out the final deliverable is also important in accounting for this constraint. This would be represented based on the Work break down structure (WBS).

Scope Constraint- Scope of a project incorporate the goals, vision, mission, features, deliverables, functions as well as resources required. In this regard, the project members will ensure the scope is clear and align with the project requirements.

Cost Constraint- This includes the project budget, and financial resources which help the projected to be completed in time and in line with scope. It will also include cost of quality control, labor as well as operational expenses. Cost will be determined in the budget.

15.2 list of the project success factors.

The project will require some blueprint in which the project manager will truck down the success. The success factors of the project will vary from one phase to another, and it would be important for project team to ensure each phase is completed within the time limit and scope. The success factors of the project would be represented below in a table

Success factor	Description
Experienced project manager and team	This would help to steer the project operations effectively.
Methodic approach	Choosing the best methodology would be crucial in project completion
Proper planning	Planning is important in enhancing phase execution of the project.
Monitoring and control	Would include defining KPI and use the report to improve operations.
Effective communication	Would help to coordinate the operation from one project team or department to another.
Work with committed people	Workforce is important in project execution which would be important in this project.
Risk management	To evaluate the constraints and help to monitor progress and limit risks.
Strong closure of the project	Sustainability of the project is enhanced

Table 15.1: project success factors

15.3 Develop and identify work breakdown structure, in addition to prepare a guide to illustrate Wok break down structure is a document that helps to divide the project into several components which are deliverable oriented. It helps to manage the activities of the project in what would be used to identify key project deliverable and sections The WBS of this project would involve five main activities in historical buildings in the city of Saudi. Among the activities would include planning, design, build, inspection and closing phase. Each of the five phases would involve other smaller activities. The WBS is illustrated below.

Work Package	Description
1.1	Assigning a team to inventory of historical buildings
1.2	Communicate with involved authorities
1.3	Get the polices of environment & all necessary documents
1.4	get the approvals from sponzor to provide the project charter
2.1	Studying the required jobs
2.2	Recruiting the work teams
2.3	Rehabilitation the staff
3.1	Assigning a team to study the market
3.2	make plan for delivery of materials and store it
3.3	Purchase the materials
4.1	Assign the PMO & the main contractor
4.2	Approval of designs and work plan
4.3	Kickoff the executing
4.4	furnishing work
4.5	Hand over all deliverables

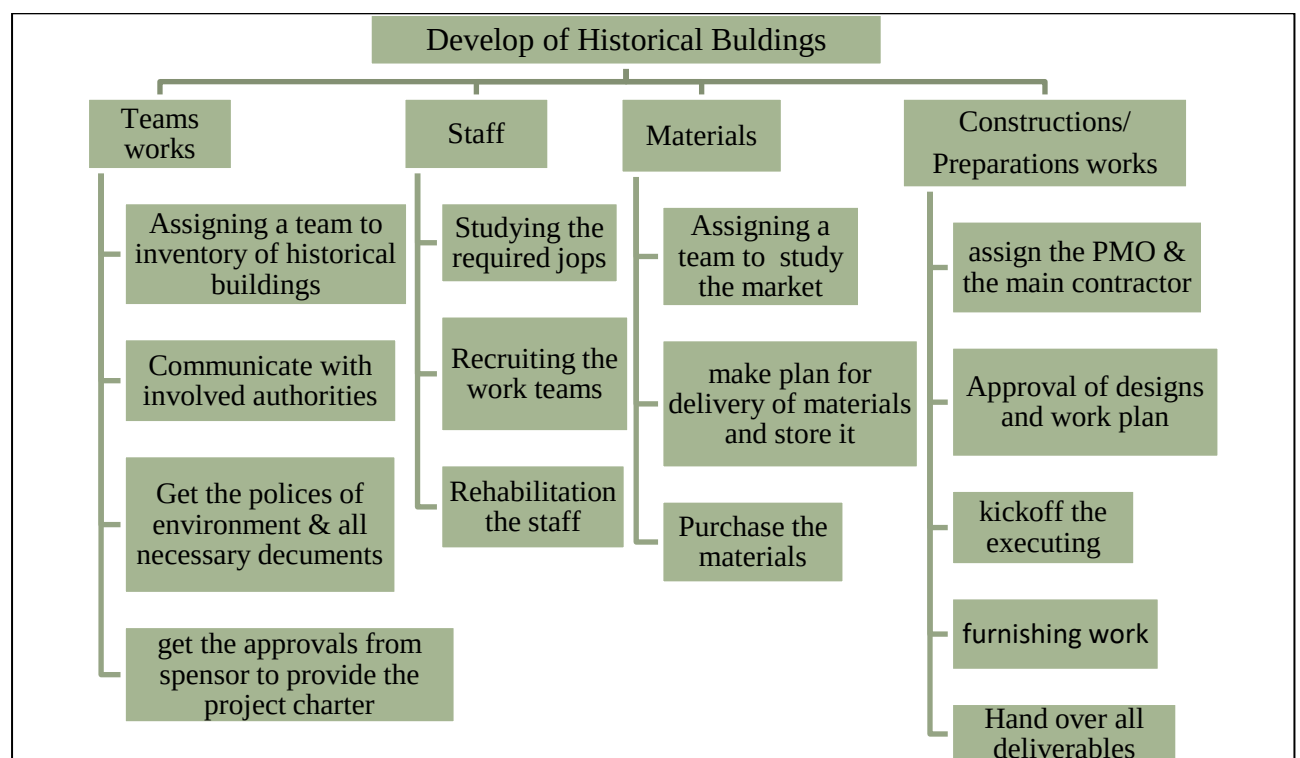


Figure 15.2: Work Breakdown Structure

16. Requirements and objectives

Defining project requirements and objectives are paramount especially in a project which involves several activities as illustrated in the work break down structure.

16.1 Identify Requirement traceability matrix

This document helps to show the relationship between the project requirements and other artifacts. In other words, requirements traceability matrix helps to show or prove that the requirements are fulfilled in the project execution. This document is helpful in documenting requirements of the project, tests, and test results as well as other issues related to the project execution.

Requirements	Test cases
Experienced project manager and team	Excellent innovation in project execution
Proper planning	Phase to phase task execution
Monitoring and control	Monitory systems
Effective communication	Clear flow of information from one person to another
Work with committed people	Punctuality in project execution
Risk management	Risk management system
Strong closure of the project	Sustainability of the project in Saudi

Table 16.1: requirement traceability matrix

The main importance of requirement traceability matrix is to help to meet goals of the project phases, through running the right tests and making decision which are imperative in enhancing project completion. (Turban, 2013).

16.2 methods used in requirement collection

Method	Description
Brainstorming sessions	Exchanging ideas with project stakeholders and taking the views.
Interview users	The users of this project would include Saudi people, private and public organization, and government. Interviewing the beneficiaries would help to gain requirements.
Examining reports	This would be research based on internet and journals. These reports should be related to the project scope.
Study improvements made by users	Suggestions and views of the users would be the main source of requirement.
Work in the target environment	Working with end user beneficiaries.
Study analogous systems	This would include studying available systems related to the construction project.

Table 16.2: collection methods

16.3 develop the hierarchical structure of the objectives

Hierarchical structure of the objectives helps to show the arrangement of the organization objectives in relation to achieving company strategy and goals. We will ensure these objectives are achieved in our organization. The ultimate objective of this project is to maximize shareholders' wealth and enhancing profit creation.

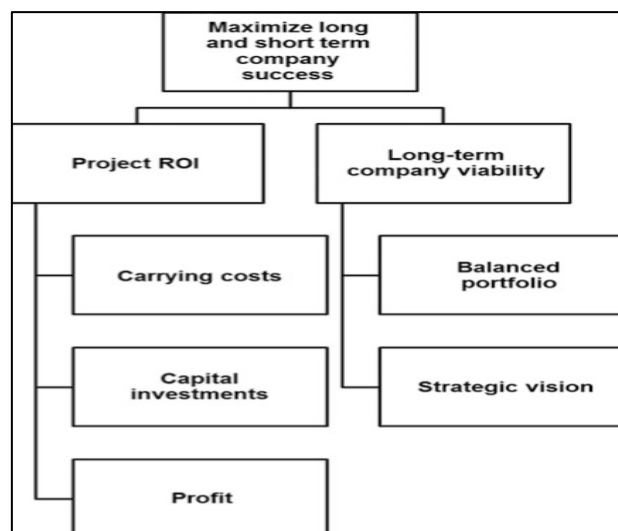


Figure 16.3: objective structures

17. Scope

17.1 Develop, identify, and prepare the scope statement (Its limits- and objects that are not included)

17.2 Develop, identify, and explain the concepts: Scope creep and giving examples

17.3 Illustrate product analysis management. To illustrate the transformation of the work packages in Work Breakdown Structure to activities.

PROJECT OVERVIEW

This project is being undertaken to establish a Building Sustainability Organization for Historic Buildings in the Kingdom of Saudi Arabia. The new Building will be a free-standing, single-Company dwelling built on a two-acre lot (lot 24) located at Sheikh Mubarak Al-Sabah, Olaya, Riyadh 12331, and will complete no later than Thursday, June 30, 2022.

This building is being constructed to take advantage of the latest building materials and codes and will employ emerging technology to minimize energy consumption. Construction will be overseen and managed by Aseel Al Salamah, the prime contractor who may subcontract components of the construction effort. All labor will be bonded, and all materials will meet or exceed local building code guidelines.

SECTION I. PROJECT PURPOSE

The Company project is being undertaken to establish a new primary Company for Building Sustainability Organization for Historic Buildings in the Kingdom of Saudi Arabia. The new company is scheduled for completion in June so that the sustainability Organization for Historic Buildings in the Kingdom of Saudi Arabia's team may move in during the first two weeks of July. Mr. Fahad will be taking responsibility for his company's North Riyadh's operations in July and is relocating from old Office to do so. sustainability Organization for Historic Buildings in the Kingdom of Saudi Arabia's team will be moving and relocating during June of 2022 and will move directly from their current office to the newly completed Office.

SECTION II. PROJECT SCOPE

This is a Fixed-Price Contract

Contractor commitment estimate is SR. 2.812.500

Upon completion, the new property will include the following as described in the detailed specifications and blueprint:

- Landscaping
- Foundation (with basement)— poured concrete and concrete block
- Driveway— 2000 feet, concrete with brick inlay
- Main home — 4500 square feet, brick/stucco
- Deck / Patio / Screen Room
- Garage — 1600 square feet, two story

SECTION III: PROJECT MILESTONES

As described in Section II, completion of the project must be achieved by June 30, 2022.

Progress milestones associated with the project are as follows:

1. Architectural drawings complete and approved
2. Building permit approved
3. Lot preparation and clearing complete
4. Foundation excavation complete
5. Footings poured and set
6. Foundation poured, block construction complete, foundation set
7. Home and garage exterior closed to weather
8. Driveway and landscape complete
9. Interior wiring complete
10. Exterior wiring complete
11. HVAC complete
12. Interior plumbing complete
13. Exterior plumbing complete
14. Interior finish complete
15. Exterior finish complete

ISSUE MANAGEMENT

- 1- Walkthrough complete
- 2- Certificate of occupancy granted
- 3- Interior and exterior punch list approved

- 4- Interior and exterior punch list complete
- 5- Acceptance review and key turnover complete

SECTION IV: PROJECT APPROACH

- Prime contractor will maintain all project documents and schedule.
- Prime contractor will perform work with contractor's own employees who are bonded and hold the appropriate trade licenses and credentials. If the prime contractor subcontracts work, all subcontractor's employees will be verified by prime contractor to be bonded and will hold the appropriate trade licenses and credentials.
- Prime contractor agrees to pay a 10% single quarter penalty for any project worker found on the project site without proof of proper trade license and credentials.
- Prime contractor will be responsible for all subcontract oversight, deliverables, and management.
- Prime contractor has agreed to the terms of the fixed-price contract and schedule.
- During planned project execution, prime contractor will provide periodic progress reports to buyer (biweekly, monthly).
- Following any schedule delay, prime contractor agrees to provide progress reports on a weekly basis until schedule has been "caught up."

ISSUE MANAGEMENT

- Project-related issues will be tracked, prioritized, assigned, resolved, and communicated in accordance with the Prime Contractor's Issue Management protocol.
- Issues will be reported using an Issue Report Form. Issue descriptions, owners, resolution, and status will be maintained in an Issues Log in a standard format.
- Issues will be addressed with the project owner and communicated in the project weekly status report.

CHANGE MANAGEMENT

The change control procedures as documented in the prime contractor's Change Management Plan will be consistent with standard Office construction methodology and consist of the following processes:

- The Project Manager will establish a Change Log to track all changes associated with the project effort.
- All Change Orders must be submitted via a Change Order Form and will be assessed to determine possible alternatives and costs.
- Change Orders will be reviewed and approved by the project owner and accepted/acknowledged by the buyer.
- The effects of approved Change Order on the scope and schedule of the project will be reflected in updates to the Project Plan.
- The Change Log will be updated to reflect status of Change Orders.

COMMUNICATIONS MANAGEMENT

The following strategies have been established to promote effective communication within and about this project. Specific communication policies will be documented in the prime contractor's Communication Plan.

- The Prime Contractor's Project Manager will present project status to the buyers on a biweekly basis.
- The buyer will be notified by the prime contractor via e-mail or telephone of all urgent issues. Issue notification will include time constraints, and impacts, which will identify the urgency of the request.
- The buyer will notify the prime contractor of schedule, scope, or budget modifications in a timely manner. Communications of changes may be made by voicemail or telephone but will not be acted upon by prime contractor until a Change Order Form is received.

PROCUREMENT MANAGEMENT

The prime contractor will maintain a Procurement Management Plan in accordance with the Project Plan. The Procurement Plan will document the following:

SECTION VI: APPROVALS

- How much, when and by what means each of the materials and services that this project requires will be obtained.
- The types of subcontracts required (if any).
- How independent estimates (as evaluation criteria) will be obtained.
- How procurement will be coordinated with project schedule and budget.
- What a subcontracted Statement of Work includes.
- Potential sources of goods and services.

RESOURCE MANAGEMENT

The Prime Contractor will produce a Resource Management Plan that will document the following:

- All materials and services to be delivered as part of the project along with cost estimates and quality information
- Which materials and services will be obtained from sources outside the Prime Contractor's organization?

SECTION V: OUTSTANDING ISSUES

- Prime contractor will be responsible for all work and workmanship
- Incentive approved for early delivery—5% of contract value Penalty approved for late delivery—5% of contract value
- Temperature expected to average below 20°F beginning December 15, 2021.

SECTION VI: APPROVALS

All funding has been preapproved and placed in a reserve account against which the primary contractor may draw. Contractor may draw quarterly payments of equal amount beginning with the second quarter following start of work. Buyer will withhold first quarterly payment until all work is completed and approved at end of project close and turnover. Pending satisfactory acceptance of project close and transition, buyer will provide final payment to contractor.

Note: Invoices will be generated by contractor at the close of each construction quarter.

- Invoicing will document all materials purchased during the previous quarter.
- Invoicing will document all work completed during the previous quarter.
- Payment will be made in four (4) equal quarterly payments.
- Anticipated materials or labor cost variance above 2% in any single quarter, or 5% overall requires detailed explanation and approval of the buyer before commitment to purchase or perform work.
- All cost increases invoiced without prior approval either by the previous bullet or by the buyer will be paid at the original contract price.

SECTION VII: REFERENCES

- See applicable state and local building codes.
- Site plan and building permit will be filed at Riyadh City.

SECTION VIII: PROJECT DELIVERABLES AND QUALITY OBJECTIVES

- See Sections I, II and III.
- All HVAC (heating, ventilation, and air conditioning), landscaping, finish work, including inside and exterior doors, interior and exterior cabinetry and doors and door and cabinetry hardware, office fixtures, Office appliances, counter tops, backsplash material, garage finish work, flooring and attic are at the contractors “Level V—Premium Grade” per the contractor’s detailed office plans and upgrade options. Buyer will select Tables, chairs and cupboards fixtures and appliances as specified on contractor’s detail schedule.
- Contractor has included a SR. 37,000.00 lighting allowance. All lighting requirements that exceed the allowance will require submittal of change request to the contractor.

SECTION IX: QUALITY CONTROL ACTIVITIES

- See Section III, IV.
- Contractor reserves the right to require change orders for any/all modifications to current design and “Level V— Premium Grade”

SECTION XI: PROJECT SCHEDULE

Finish plans following contract approval. Additionally, contractor reserves the right to require change orders for any/all modifications to project (plan, design, schedule, scope) requested by purchaser following official schedule approval prior to commencement of work.

SECTION XI: PROJECT SCHEDULE

- See Section I, Section IV.
- Prime contractor will provide detailed schedule prior to the start of project.

• Scope creep and giving examples:

Because of the suspension of travel trips and the quarantine that occurred due to the Corona virus, the work plan was affected a lot and I had to change the quality of the tiles and use the national type so that the plan would not be affected, and the scope of work would creep.

Because of the suspension of travel, I did not have enough workers to finish on time, which forced me to extend the period until they were allowed to travel.

18. TIME

18.1 Develop the functions list or the activities included in each work package in WBS

Work Package	Activities		Description	Duration
		A	start	0
Team Works	1.1	B	Assigning a team to inventory of historical buildings	1
	1.2	C	Communicate with involved authorities	2
	1.3	D	Get the polices of environment & all necessary documents	2
	1.4	E	get the approvals from sponsor to provide the project charter	1
Stuff	2.1	F	Studying the required jobs	1
	2.2	G	Recruiting the work teams	2
	2.3	H	Rehabilitation the staff	4
Materials	3.1	I	Assigning a team to study the market	1
	3.2	J	make plan for delivery of materials and store it	1
	3.3	K	Purchase the materials	1
Constructions/Preparations works	4.1	L	Assign the PMO & the main contractor	1
	4.2	M	Approval of designs and work plan	1
	4.3	N	Kickoff the executing	35
	4.4	O	furnishing work	12
	4.5	P	Hand over all deliverables	2
		Q	Finish	0

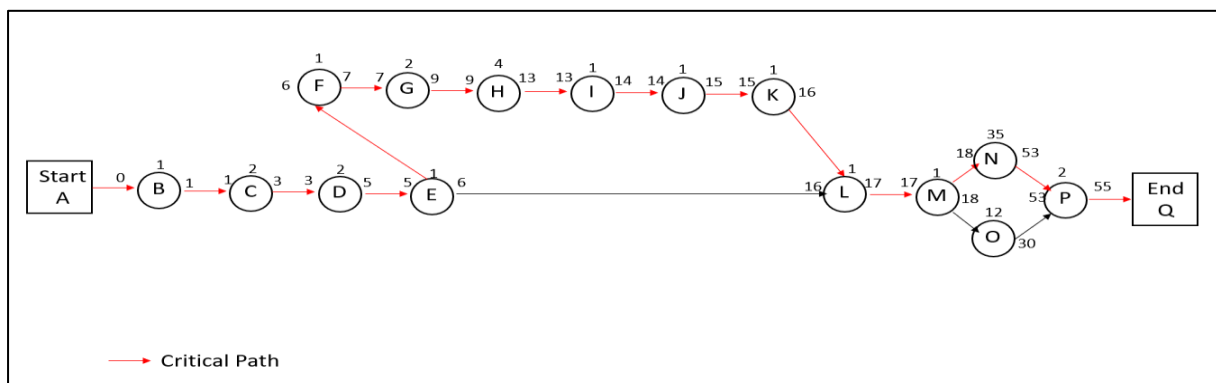
18.2 Illustrate the relationships between the activities

Activities in this project will be undertaken or executed chronologically and the work packages will follow one after each. In short, the first work package will first be completed before the second work package and the activities will also follow. These are the activities involved in construction of the historical buildings.

Activity	Predecessor	Duration
A	-	0
B	A	1
C	B	2
D	C	2
E	D	1
F	E	1
G	F	2
H	G	4
I	H	1
J	I	1
K	J	1
L	K, E	1
M	L	1
N	M	35
O	M	12
P	N, O	2
Q	P	0

18.3 Develop the logical diagram of the project activities, and identify the critical path

The critical path is the longest sequence of activities and events that must be completed to the project from the start to the completion stage. This path describes the longest time taken by the project team to execute. In this case, the critical path is:



18.4 Prepare Gantt chart and Milestones model



Milestones	Description	Duration
Develop the Market area	It consists of the shopping area, kids lots, Museum	6 Months
Develop the social Community Zone	It consists of the Mosque, Restaurants, and Coffee Shops	9 Months
Open the Commercial area for Visitors	Open the Market area and Social Community Zone for visitors (local, and tourist)	12 Months
Handover the First Building	Handover the first historical building to Ministry of Tourism	14 Months

19. QUALITY

19.1 Clarify Deming model for quality.

19.2 Develop SIPOC model, and Ishikawa for one of the issues of the project outputs.

Quality became an important business issue due to the increase in competitiveness in world markets. The total quality management approach introduced by W. Edwards Deming has been used by many organizations worldwide to enhance their operations and processes in all functional areas. Its purpose is to reduce the number of errors made during the manufacturing or service process, enhance customer satisfaction, and improve product/service quality, productivity, and competitiveness by improving communication among stakeholders (customers, suppliers, employees, shareholders, and society). The application of TQM varies from business to business, even within the same industry.

The Deming Theory of Management is a management philosophy that follows on four principles:

- Appreciation for systems.
- Knowledge of variation.
- Theory of knowledge.
- Psychology.

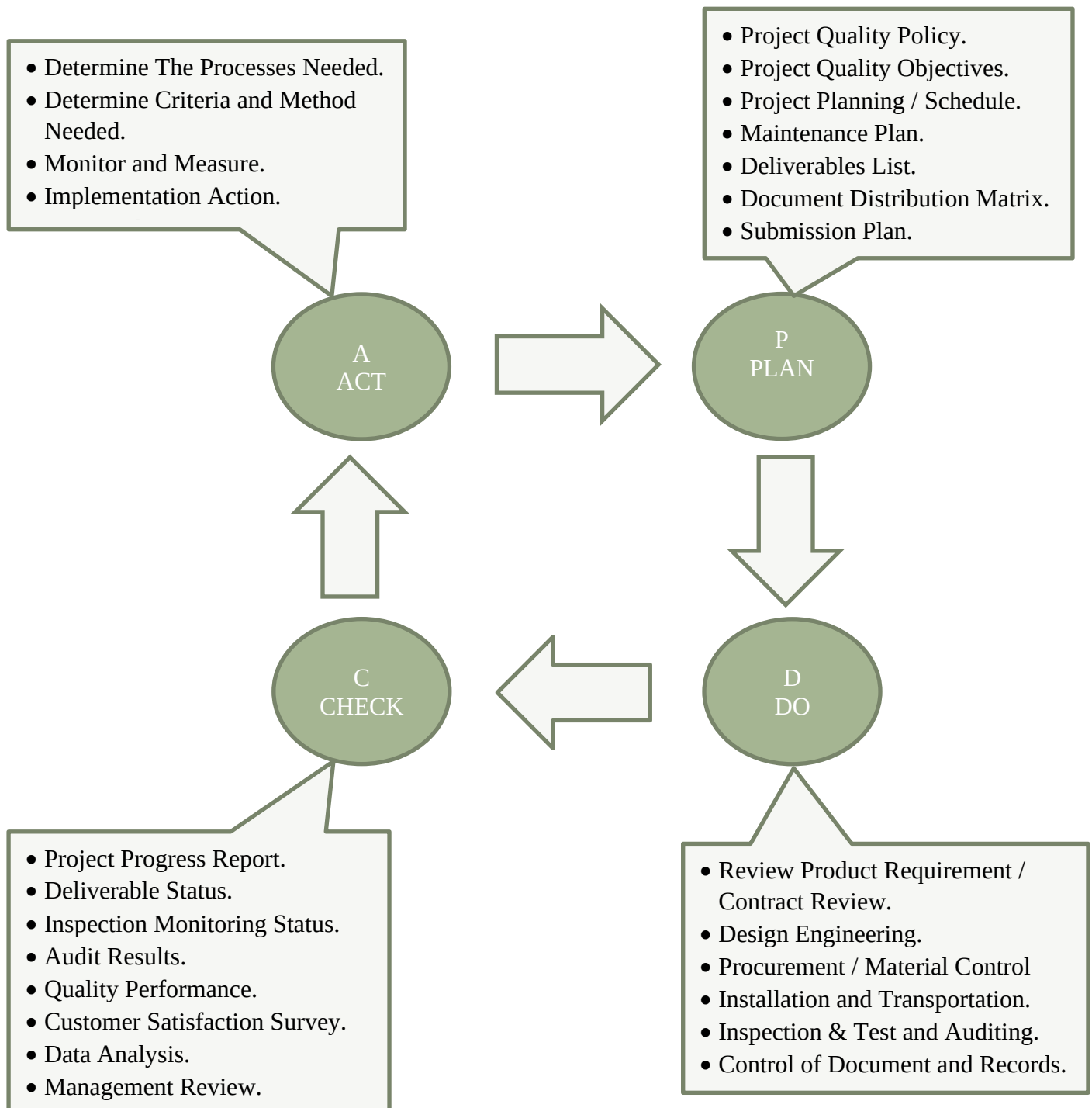
Deming was well known for developing a model for quality-based problem-solving based on Japanese philosophy. The model was called as Deming cycle or PDCA (Plan, Do Check, Action).

In Deming's approach, the process of improving an organization does not have to be limited to its processes alone but it can be applied to the whole organization.

The key points on which Deming was working are:

- Having a system for continuous quality improvement.
- Reducing errors and defects through higher levels of quality uniformity.
- Understanding the meaning of quality in the context.

PDCA (Plan, Do Check, Action) Cycle Model:



SIPOC TOOL APPLIED TO PROJECT MANAGEMENT PROCESS				
S	I	P	O	C
Supplier	Input	Process	Output	Customer
Project Team	Employees' Profiles	Formulate project team	Project team formulated with defined roles and responsibilities	Business Owners
Human Resource Department	Process Map	Develop project policy	Project policy created and approved	Stakeholders
Business Owner	Management review	Determine project baseline	Baseline data measured and identified	Sponsor
Procurement Department	Project charter	Identify Significant Project Users (SPUs)	SPUs identified, measured, stratified and prioritized	Employees
Finance Department	Business Strategy	Conduct gap analysis	Project analyzed and causes identified	Project Team
Project Management Team	Procurement Strategy	Conduct root cause analysis	Objectives, targets, and action plans developed	Facility Managers
Top Management	Project Bills	Develop project management opportunities	Control plan procedures developed	Local Community
Engineering Technical Department	Measurements	Control and sustain		Legal Authorities
Consultants	Measured Baseline Data			
Auditors	Operational Standards			
	Legal and other Requirements			
	Gap in Project Performance			
	Brainstormed Ideas			
	Information about new technologies			
	Results From root Cause Analysis			
	Resources Availability			
	Funds Availability			
	Generated Objectives, Targets and Action Plan			
	Communication Plan			
	Contingency Plan			
	Corrective and Preventive Actions			
	Internal Audit			

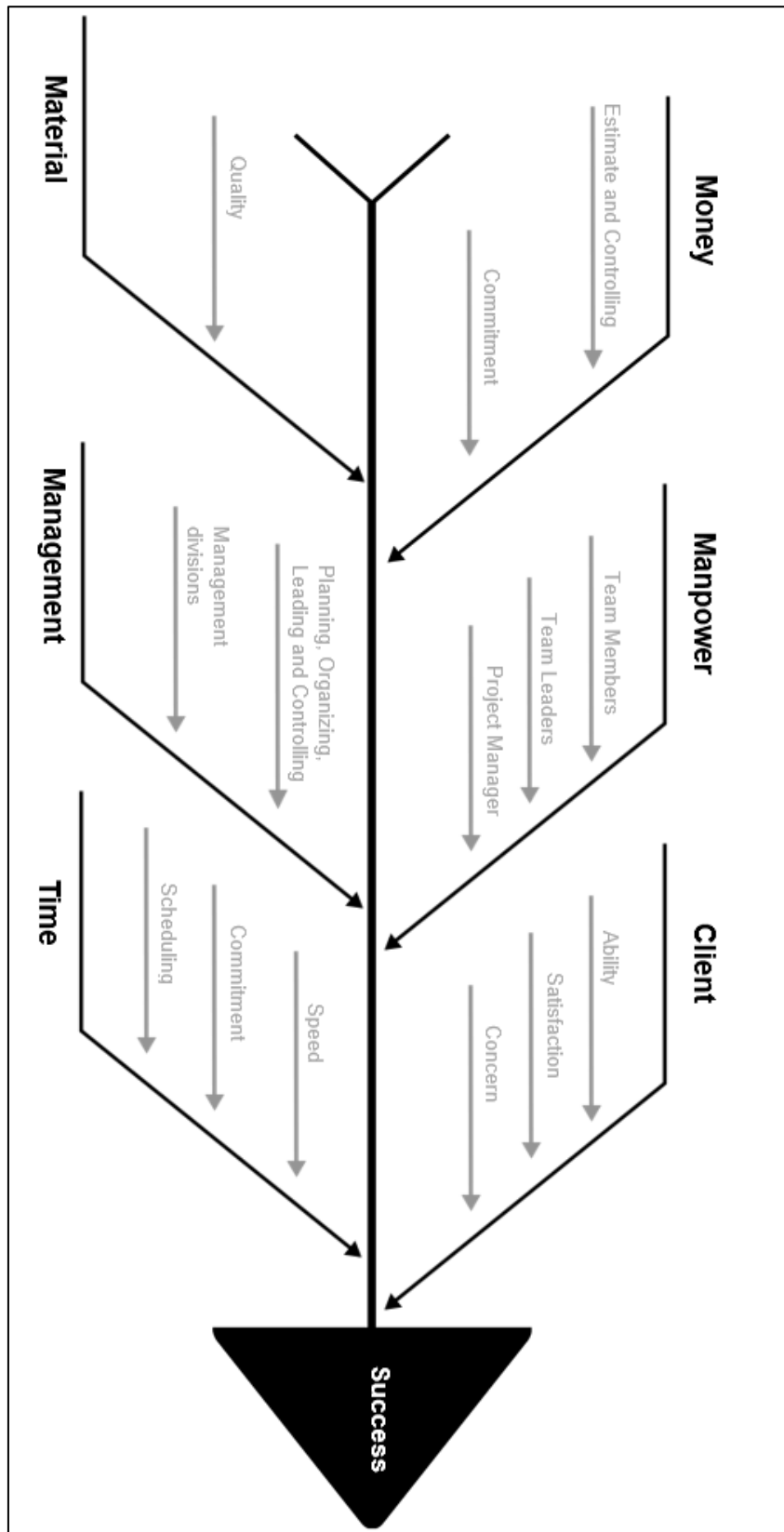


Figure 19.2: Ishikawa

20. FINANCE

20.1.1 Cost Breakdown Structure

This represents the cost estimate of each work package and the cost of activity or task of each work package. Each activity will be allocated its own budget for a better execution of the project. The table below (Table 20.1.1.1) shows the Cost Breakdown Structure & Project Balance in Accordance with WBS (Top-Down Approach).

Cost Breakdown Structure & Project Balance in Accordance with WBS (Top-Down Approach)						
ID	WBS	Title	Duration	unit	Unit Cost	Total Cost
1	1	The Foundation Costs				
2	1.1	Buildings (Constructions, Development and Renovation)				
3	1.1.1	•Develop the Market area				
4	1.1.1.1	Shopping area	6	50	500,000	25,000,000
5	1.1.1.2	Kids area	6	3	1,000,000	3,000,000
6	1.1.1.3	Museum	6	2	2,000,000	4,000,000
7	1.1.2	•Develop the social Community Zone				
8	1.1.2.1	Rehabilitate the Mosque	9	2	2,000,000	4,000,000
9	1.1.2.2	Construct a Restaurants & Coffee-Shop area	9	10	600,000	6,000,000
10	1.1.3	•Develop the Historical Building				
11	1.1.3.1	Develop 50 historical buildings in Al Diriyah Zone	12	50	1,000,000	50,000,000
12	1.2	Maintenance for Buildings, Mosque, Market & Social Area	12	1	-	2,500,000
13	1.3	Bills for (water, electricity)	12	115	5000	575,000
14	Total Foundation Costs		12	38	7,105,000	95,075,000
15	2	Organization & Administrative Costs				
16	2.1	Organizations Employee (Salary, costs new employee, others.)	12	40	108000	4,320,000
17	Total of Organization & Administrative Costs				108,000	4,320,000
18	3	Insurance Cost				
19	3.1	Buildings Insurance (Equipment, Tools)	12	1	1,000,000	1,000,000
20	3.2	Laborers & Employee Insurance	12	40	20,000	800,000
21	Total Insurance Cost				1,020,000	1,800,000
22	4	Reserve Budget Costs 5% of the budget (90,000,000) SAR			4,500,000	4,500,000
23	Total Estimated Costs		12	1		105,695,000

Table 20.1.1.1: Cost Breakdown Structure

20.1.2 Estimation of Revenues & Future Cash flow.

We have two types of revenue in this project:

- 1- Fixed Revenue: We achieve it from Rent (Table 20.1.2.1)
- 2- Variable Revenue: We achieve it from Visitor's Tickets (Table 20.1.2.2)

Revenue Items	Unit	Price	Annual revenue
Fixed Revenue (Rent)			
Shopping area rent	50	700,000	35,000,000
Restaurants & Coffee-Shop area rent	10	1,100,000	11,000,000
Kids area rent	3	1,200,000	3,600,000
Total Fixed Revenue (Rent)			49,600,000

Table 20.1.2.1: Fixed Revenue (Rent)

Visitors Tickets Revenue				
Capacity of visitors	#Numbers of visitors per day	Ticket Price	Total revenue per day	Annual Total Tickets Revenue
Number of visitors (Max capacity)	1000	30	30,000	10,800,000
Number of visitors (Average)	300	30	9,000	3,240,000

Table 20.1.2.2: Variable Revenue (Visitor's Tickets)

Total revenue (Based on average)	52,840,000
(Mins)Total cost	105,695,000

20.1.3 Payback Period.

It measures the time it will take to recover the project investment.

Time	Net Cash Flow	Cumulative cash flow
Year 0	105,695,000	105,695,000
Year 1	52,840,000	(52,855,000)
Year2	52,840,000	(15,000)

Table 20.1.3: Payback Period.

Payback period = $105,690,000 / 52,840,000 = 2$ years

The result it would take 2 years to reach the payback period and the shorter the payback, the more desirable the investment. Conversely, the longer the payback, the less desirable it is.

20.1.4 Net Present Value.

Net Present Value (NPV) is calculated using the formula given below

$$NPV = \sum (CF_n / (1 + i)^n) - \text{Initial Investment}$$

0 = Initial investment (since it is an outflow, the number will be negative)

F_t = Net cash inflow for period (t)

K = Required rate of return (nominal)

-	K	Year 0	Year 1	Year 2	Year 3	Total
Required	15%					
Outflows		105,695,000				105,695,000
Inflows			52,840,000	52,840,000	52,840,000	105,680,000
Net inflows			52,840,000	52,840,000	52,840,000	(15,000)
NVP				14,950,615		

Table 20.1.4: Net Present Value.

The result of NPV is positive (14,950,615) The project meets the minimum required rate.

20.2. Calculate Earned Value Management of the project after ending of 20% of its period and completion of 50% of the outputs case-by-case basis.

Earned value is useful to project manager to measure the performance of the progress. It is calculated in relation to total budget and percentage of the project completion.

Time and cost factors of the project are taken into consideration in calculating earned value. Project managers use Earned Value to indicate whether the project is ahead or behind in relation to time and cost allocated.

$$\text{Earned Value} = \text{Percentage complete of the activity} \times \text{task budget}$$

To calculate the Schedule Variance (SV) we need to use the below formula:

$$\text{SV (Schedule Variance)} = \text{EV (Earned Value)} - \text{PV (Planned Value)}$$

In this Project when we completed 50% into the project & the Budget (105,580,000) SAR.

$$\text{EV (Earned Value)} = (\text{Total Project Budget}) \times (\text{The Percentage of Work That Should Be Done by Now, Based on Time Elapsed})$$

$$\text{EV (Earned Value)} = (105,580,000) \times (50\%) = 52,790 \text{ SAR}$$

The project period is 12 months, and if we completed 50% of outputs during 20% of the period that means $(20\% \times 12 \text{ months}) = 2.4 \text{ months}$.

That means we will have completed 50% of the outputs within 2.4 months.

So, the planned progress is 6 months while the actual progress is 2.4 months.

The Schedule Variance (SV): Schedule variance is the difference between the planned progress and the actual progress to date = $(6) - (2.4) = 3.6 \text{ months}$.

Positive results mean we are proceeding according to our schedule.

21. RESOURCES

21.1 Concept of Resource Leveling and Smoothing

In project management, resource leveling is the concept used to describe the ability to execute the project using the limited resource (Carstens, D. S., & Richardson, G. L. (2019). It considers the resource factor and its scarcity. Resources are important in project implementation and with limited resources the project manager must be ready to re-use or maximize the resource. In this project, we will ensure resource is readily available and enhance resource leveling to meet the needs.

On the other hand, resource smoothing takes into consideration that time is a constraint resource and that the project is supposed to be completed within the time allocated. Resource leveling and resource smoothing are important for project managers in completing the project within the limited resources and time.

Department	Sub department		No. of Employees
Group CEO			3
Finance Management	Financial Systems Support		4
	Financial Planning, Budgeting and Control		2
	Accounting		3
	Treasury And Investment		4
HR Dept.			4
IT dept.			3
Planning & Searching dept	audit and evaluation section		3
	documentation section		2
Marketing Dept.			3
Supervision And Execution management	Technical support Dept.	Submissions section	3
		Technical monitoring Section	3
		Civil and Architectural Engineering section	8
		Mechanical Engineering section	5
	Engineering Dept.	Electrical Engineering section	5
		HSE Dept.	4
		Soft FM Dept	7
Operation Dept.			10

21.2. Distributing project resources of equipment and tools.

Resources are important in the whole project execution process. Resources in a project include raw materials, finance, equipment, and tools as well as labors resource among others.

- Below are some examples of distributing project resources of equipment and tools.

						
EQUIPMENT ID	ITEM NAME	ASSIGNED TO	ISSUE DATE	AGE OF ITEM	EMPLOYEES	ITEMS LIST
ITEM0001	stationery	Employee 2	11/11/2021	25 days	Employee 1	chair
ITEM0002	table	Employee 3	8/14/2020	479 days	Employee 2	coffee maker
ITEM0003	scanner	Employee 4	6/12/2021	177 days	Employee 3	copy machine
ITEM0004	coffee maker	Employee 5	11/18/2021	18 days	Employee 4	desktop computer
ITEM0005	table	Employee 6	4/23/2021	227 days	Employee 5	dusting cloth (1 set)
ITEM0006	copy machine	Employee 7	10/17/2021	50 days	Employee 6	extra monitor
ITEM0007	inkjet printer	Employee 8	8/8/2021	120 days	Employee 7	inkjet printer
ITEM0008	USB drive	Employee 9	7/25/2020	499 days	Employee 8	laptop computer
ITEM0009	stationery	Employee 10	11/6/2021	30 days	Employee 9	laser printer
ITEM0010	coffee maker	Employee 11	10/17/2021	50 days	Employee 10	marker pens (3 pack)
ITEM0011	chair	Employee 12	9/12/2020	450 days	Employee 11	scanner
ITEM0012	coffee maker	Employee 13	10/12/2020	420 days	Employee 12	stationery
ITEM0013	inkjet printer	Employee 14	3/31/2021	250 days	Employee 13	table
ITEM0014	whiteboard	Employee 15	10/22/2021	45 days	Employee 14	USB drive
ITEM0015	inkjet printer	Employee 16	7/22/2020	502 days	Employee 15	whiteboard
ITEM0016	laptop computer	Employee 17	12/21/2020	350 days	Employee 16	

EQUIPMENT CHECKOUT FORM



Name: _____ Department: _____

Employee ID #: _____ Email: _____

Pickup Date: _____

QTY	EQUIPMENT	INVENTORY	CONDITION LEAVING	CONDITION RETURNING

1. Must be a project team member and must present a valid ID card.
2. The employee agrees to return all equipment listed above in the same condition as it was issued by the designated date in the Handbook. The project team member account will be charged if the equipment is lost, stolen, damaged, or not returned by the date designated in the Handbook.
3. Upon return, the equipment will be inspected for damages, etc.
4. The project team member signature attests that he has read, understands, and agrees to the terms and conditions of this agreement.

PROJECT TEAM MEMBER'S SIGNATURE

DATE

DEPARTMENT NAME

PHONE NUMBER

- Below are some examples of Job Descriptions:

❖ Chief Executive Officer – CEO Job Description.

Role Overview:

- Develop a clear growth strategy with the Board including a clear implementation plan.
- Leading the development of the company's short- and long-term strategy.
- Providing strategic, financial, and operational leadership and integrating the strategic directions of the company.
- Work closely with the Board of Directors, overseeing the operation and act as the main link between the different partners and customers that the company engages with.
- Evaluate company's financial, operational, and sales and marketing structures to plan for continual improvements and a continual increase of operating efficiencies.
- Innovative thinker, not afraid to fail and highly resilient.
- Willing to roll up their sleeves and help in all areas of the business as needed.
- Experience of implementing strategic plans, including business planning systems and ensuring good governance and performance.

Requirements:

- 10 years of experience as CEO or in other senior leadership position.
- Shipping/ Logistics/ Supply chain Background.
- Business acumen and project management.
- Leadership skills.
- Strategic mindset.
- Collaborative.
- Interpersonal skills required for internal and external relationships.
- Budget control.
- Proactive.

❖ Finance Manager Job Description:

Role Overview:

- Prepare the Annual Budget in collaboration with all department heads.
- Work with both internal and external auditors on different assignments to ensure proper compliance and reporting.
- manage the cash flow and supervise financial transactions within the company to ensure there are no discrepancies in reports.
- Implement and Maintain the ERP financial data. interact regularly with financial staff and heads of departments to ensure ERP data are up to date each month and at year end.
- Ensure all purchase orders and contracts are processed as per the approved process/guidelines and policies.
- work with teams in the company to obtain financial data, such as the expenses incurred throughout the month, so that records can be updated for accurate auditing at the end of the year.

Requirements:

- Bachelor's Degree in finance or related field.
- Minimum 3-5 Years of experience in a similar role.
- Analytical skills – to identify trends in data, spot inaccuracies, and advise Management on important matters.
- Organization – good organization skills and prioritization ensure that tasks are completed on time.
- Computer skills – to use database software and ERP programs.
- Communication skills – working with colleagues, clients, and auditors on a regular basis, ensure clear communication with professional demeanor.

❖ **HR Manager Job Description:**

Role Overview:

- Ensures that HR and management practices in the country are compliant with local legislation; manages local relationships with external authorities.
- Is responsible for (proactively) managing industrial relations and successfully conducting local negotiations. This includes managing directly or indirectly all relationships, Safety committees, union delegates, staff representatives.
- Supports the Performance Enhancement process, advising and guiding managers and employees through all aspects of the process: cascading objectives, appraisals, compensation planning, relative assessment, human resources planning (HRP), multi-rater feedback, employee development and career management.
- Conducts due diligence assessments for potential acquisitions and is responsible for the HR integration/divestiture strategy.
- Advises on market practices and market conditions to define the annual salary policy - Provides advice to employees on any HR matter, as required. Supports employee communication working with management and Communication specialists as appropriate.

Requirements:

- is an experienced, HR Manager, with business acumen, capable of directing change management initiatives within the country. He/she has 7 to 10 years of experience in a similar type of organization.
- on the HR front and is familiar with all local HR legislation and requirements to ensure that business Managers are advised correctly on the legal implications of the business strategy.
- The ability to work through individuals and build relationships is essential.
- The incumbent must have a high level of proficiency in English to be able to communicate on phone, emails, and international meetings.

❖ IT Manager Job Description:

Role Overview:

- Manage information technology and computer systems.
- Plan, organize, control, and evaluate IT and electronic data operations.
- Manage IT staff by training and coaching employees, communicating job expectations, and appraising their performance.
- Design, develop, implement, and coordinate systems, policies, and procedures.
- Ensure security of data, network access and backup systems.
- Audit systems and assess their outcomes.
- Preserve assets, information security and control structures.
- Handle annual budget and ensure cost effectiveness.
- Assist in building relationships with vendors and creating cost-efficient contracts

Requirements:

- Proven working experience with minimum of 7 years of relevant experience.
- Excellent knowledge of technical management, information analysis and of computer hardware/software systems.
- Hands-on experience with computer networks, network administration and network installation.
- Ability to manage personnel.
- BS in Computer Engineering, Computer Science, MIS, or similar field.

❖ **Planning Manager Jo Description:**

Role Overview:

- Managing the performance of the baseline schedule and the maintenance and control.
- Collecting and interpreting schedule data and providing output to the program and project teams.
- Monitoring actual performance against the schedule to identify delay, early and late completion.
- Interfacing with the project technical staff to define change to schedules and identification of variances from the original plan.
- Identifying and evaluating associated schedule, resource conflicts and potential cost impacts and issues.
- Working closely with the contractors, evaluating their schedules and actively manage the schedules with them to ensure a successful outcome.
- Managing and maintaining schedules on a variety of projects with project managers at the same time.
- Managing schedules at various phases from feasibility through to handover to client.
- Developing of scheduling reports, together with the planning and controls leads.
- Collecting and interpreting schedule data and providing output to the program and project teams.
- Interfacing with the project technical staff to define change to schedules and identification of variances from the original plan.

Requirements:

- A Degree in Civil Engineering.
- Minimum 10+ years post-graduate experience.
- Extensive experience with consultancies.
- Previous experience in Planning, Project Controls and Project Management.
- Good knowledge and experience of the project lifecycle for mixed use projects in respect to planning, cost, and schedule control.
- Good knowledge of the design process and construction methodologies.

❖ **Marketing Manager Job Description:**

Role Overview:

- Responsible for the all-city marketing campaigns that will help drive awareness and growth across the KSA.
- Driving all online and offline activation campaigns across KSA cities.
- Localize the execution of brand strategy to resonate with the city's cultural references.
- Utilize data-driven decision making to improve the performance of our marketing efforts, prioritizing initiatives based on the highest potential impact.
- Build and execute partnerships with other brands to drive awareness.
- Activate the brand in different city-relevant customer touchpoints (events, malls, public areas, hospitality venues).
- Understand different attribution models and analyze the different channels for efficient media mix.
- Work cross-functionally and with marketing teams across the country to help establish the systems and processes that will consistently drive our business growth.

Requirements:

- 8+ years of experience building and managing marketing campaigns with a mix of digital, offline and BTL experience.
- Experience in managing teams, people, and agencies.
- Strong analytical and numerical skills to frame marketing strategies, understand results and support proposed approaches, with a demonstrated ability to utilize consumer research and data to drive actionable insights to inform marketing strategy and improve the consumer experience.
- Strong ability to influence other areas of the organization and third party in negotiations.
- An ability to effectively provide input on creative development from a local market perspective and work on multiple projects simultaneously in a dynamic and constantly evolving context without compromising on the speed and quality of execution.
- Strong written and verbal communication skills in English.

❖ **Project Manager Job Description:**

Role overview:

- Managing relationship with the client and other parties, by acting as the central point of contact.
- Ensuring compliance with the Employers requirements via technical reviews.
- Assisting the Clients PM in the preparation of Tender docs, evaluating tender docs and tender queries.
- Managing the Project Management team.
- Planning, executing, monitoring, and closing projects.
- Performing quality assurance and risk management.
- Managing project team members.
- Project budget and scheduling estimation and management.
- Conducting status review meetings with team members and clients.
- Providing reports and documentation on project stage and progress.

Requirements:

- A bachelor's degree in Engineering, Construction Management, or related field.
- Certified Project Management Professional status or member of equivalent institution.
- Lead large-scale Project Management and Construction Management projects across a range of Client types and multi-disciplinary teams with success.
- Possess 10+ years' experience in delivering fully coordinated, multi-disciplinary Project Management and Construction Management projects.
- Demonstrable experience in successfully delivering a fully coordinated Project Management and Construction Management projects using the latest engineering design and collaboration tools, including BIM.
- Worked over 5 years of your experience has been in the Middle East.
- The ability to converse in technical matters across all disciplines associated with our Project Management and Construction Management projects.

❖ **Operation Manager Job Description:**

Role overview:

- Lead the delivery of Operation & Maintenance management services for PMC programs across the organization, including the management of contractors, provision of O&M PMC services to clients, etc.
- Oversee the development of program management policies and procedures.
- Provide input on capacity and capability required to deliver O&M PMC projects.
- Coordinate for the estimation of project delivery cost estimates for the supervision staff on O&M PMC projects, respectively.
- Guide the development of program and project plans, including master programs, method statements, procurement plans, submission schedules, project / interface management, etc.
- Oversee the development and deployment of Program Management Information Systems (PMIS) on the projects.
- Ensure the provision of expert advice and training to O&M PMC staff and ensure the provision of contractual and legal counsel to Program Senior Managers and Project Senior Managers on the projects, in coordination with the Contracts Department.
- Enforce policies and procedures within the O&M PMC, including quality policies and procedures.
- Ensure the implementation of risk management policies and procedures, including risk identification and mitigation.
- Ensure consistency and high performance of all stakeholder's resources.
- Lead and manage the Project teams towards achieving the project plan targets.
- Accountable for the performance of the project managers for all projects.
- Define and implement the projects O&M PMC strategy and business plan.
- Develop and promote the business, oversee delivery, enforce policies and procedures, ensure quality, and manage cost, capacity, and utilization.
- Develop detailed project budgets for large city and regional planning projects of high complexity or large programs.
- Manage project budgets and resource allocation, ensuring the adherence to allocated budgets.

- Monitor the adherence of projects compared to budgets

Requirements:

- To be successful in this dynamic opportunity, we envision that you will bring a minimum of 10+ years' career experience with a bachelor's in engineering degree or equivalent qualification.
- Has experience in the infrastructure industry and has managed mega projects.
- Has demonstrated an overall knowledge of project planning and execution management.
- Coordinates and directs all functional managers to ensure full compliance with all project requirements.
- Accountable and fully responsible in meeting project objectives and Company directions.
- Has overall responsibility for obtaining the necessary project resources to plan and execute the work.
- Must have experience in Saudi Arabia and the Middle East.
- Strong experience and track record in managing large and complex projects.
- Excellent communication skills: proficiency in spoken and written English & Arabic is a must.
- Solid knowledge in all aspects of project management.
- Excellent knowledge of project management software.
- Strong budget management skills.
- Strong analytical and problem-solving capabilities.
- Good understanding of quality control and risk management.
- Excellent interpersonal and leadership skills.

22. PROCUREMENT

22.1 Procurement execution process and contractor selection

22.2 Develop a comparison model between suppliers and a comparison model scoring

as per our company policy, the procurement process moves through 4 stages, as illustrated in figure 22.1. The procurement process starts with Pre-Requisite which is most likely not considered till submitted from requester to procurement department to validate the request either to be rejected or approved, to proceed to bidding process which contains several procurement execution sub-processes that have to be met to proceed to the awarding process as a last.

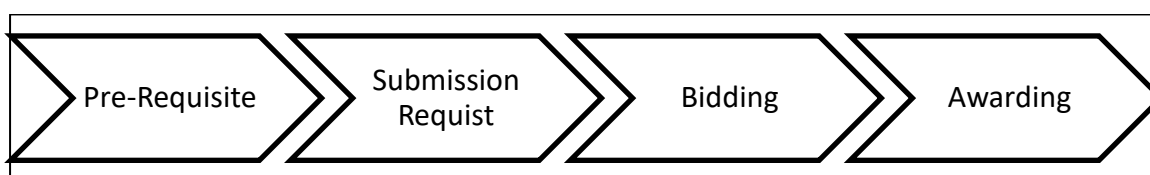


Figure 22.1: Procurement Execution Process Stage

The table below details these four process stages

Stage	Process Title	Description	Remarks
1	Pre-Requisite:	In this stage, the requester in this stage preparing the tender (Bid).	
2	Submission Request:	In this stage, the procurement specialist reviews the request and validates it under three conditions: i. Rejected: the request does not meet the minimum requirements. ii. Clarification: asking for more information or adding missing documents iii. Approve: the request is complied with requirements, to proceed to next stage and with procurement bidding execution process.	The request will include bid documents such as (RFI, RFP, etc.)
3	Bidding: (Execution Process)	This stage consists of 4 sub-processes: i. Announcement ii. Bid Opening (Technical & Financial)	Process details are explained

Stage	Process Title	Description	Remarks
		iii. Evaluation (Technical & Financial) iv. Contractor Selection	in item no. 22.1.1
4	Awarding:	Our company has defined two sets of criteria, which are using in determining to whom a contract should be award. These two criteria mainly based on: i. Lowest price & finance capabilities (Financial): the criteria are defined in bid documents and evaluated by Financial Evaluation committee ii. Most economically advantageous tender (Technical): the criteria is defined in bid documents and evaluated by Technical Evaluation committee Therefore, based on the bidding process stage output and the decision of selection been taken, the bid winner will sign the contract and handover the site during this stage.	

Table 22.1: Procurement Execution Process Stage Descriptions

22.1.1: Bidding (Execution Process): Due to the sensitivity level of these process, the company has governed every single step of this stage of Procurement Execution Process Stages, in the Bidding (Execution Process) which are consist of four sub-processes as shown in figure 22.2.

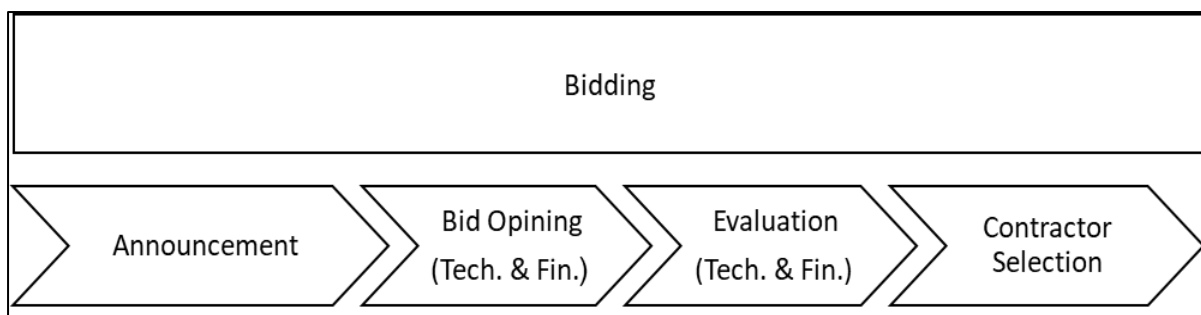


Figure 22.2: Procurement Bidding Execution Process

22.1.1.1: Announcement: In this process, by using the company portal, the procurement department announce the business opportunity. Only bidders whom technically and financially prequalified by company can purchase the bid.

22.1.1.2: Bid Opening (Technical & Financial): In this process, the procurement department formalized the technical and financial Bid Opening Committee. A Bid Opening Committee will be composed of procurement personnel and a rotating membership from other Departments within the organization, and/or member. The Bid Opening Committee will be comprised of no less than three (3) members. Instantly, formalize the technical and financial Bid Evaluation Committee.

22.1.1.3: Evaluation (Technical & Financial): The Evaluation Committees shall be composed of members with the necessary skills, knowledge, and experience, relevant to procurement requirements. Bid Evaluation Committees will be composed of up to five (5) members, with the required technical expertise suitable for the evaluation of specific tenders. Subject matter experts may also be used. The Committee membership should be an odd number in total and include members who have skills in the following areas:

- Relevant technical expertise and knowledge.
- End user representation.
- Procurement and contracting skills.
- Financial management or analysis skills.
- Legal expertise (where possible).

Any bidder does not pass the minimum score of technical (70%) & financial (75%) will be rejected as well as the health and safety program.

22.1.1.4: Contractor Selection Criteria: The bid winner must score the highest technical and financial scores as weighted in below figure 22.3 to win the bid based on technical and financial criteria listed in table 22.2 and 22.3 respectively. Then, calculate the final score by apply technical and financial score in the following formula 22.1:

$$\text{Score} = (\text{Technical Score} * 60\%) + (\text{Financial Score} * 40\%) \dots\dots\dots (\text{formula 22.1})$$

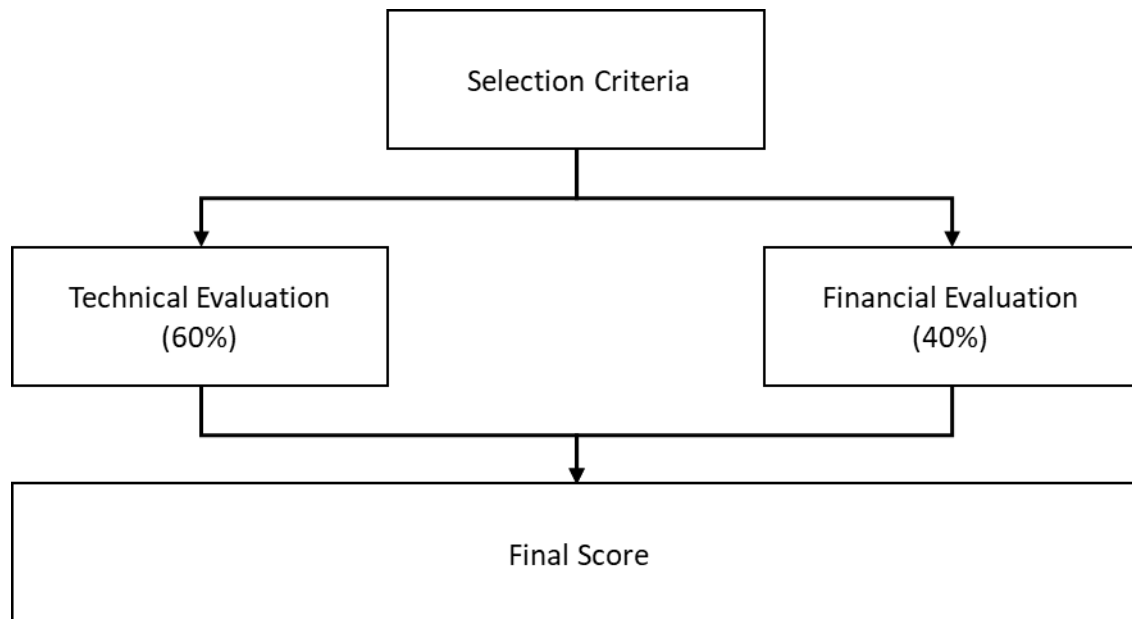


Figure 22.3: Selection Criteria References and Waiting

Technical Criteria:

Criteria no.	Wight, %	Subject
1	10	Execution Plan
2	5	Construction Plant & Equipment
3	10	Subcontractors, Supplier Experience and Supply Chain
4	10	Schedule
5	5	Project Organization and Work Plan
6	PASS / FAIL	Health and Safety Program*
7	5	Resumes of Key Personnel
8	10	Quality Program
9	5	List of Standard Specifications etc.
10	5	Miscellaneous Information
11	10	Experience Statement
12	10	Environment Compliance
13	10	Importation and Materials Management Plan
14	5	Alternative Material and Equipment
Total	100	

* If Health and Safety Program fail, the bidder will be rejected.

Table 22.2: List of Technical Criteria

Financial Criteria:

Criteria no.*	Wight, %	Subject
1	70	Offer pricing of the bidder
2	10	Items balancing
3	5	Cost deviation
4	15	Local Content
Total	100	

* *Company Financial Statement must be accepted by company under prequalification process see 22.1.1.1.*

Table 22.3: List of Financial Criteria

22.3 Scoring Model:

Tender no.	1 (Company Name)	2 (Company Name)	3 (Company Name)
Technical Score			
Financial Score			
Final Score <i>(Technical Score * 60%) + (Financial Score * 40%) *</i>			

* *The highest score will win the bid*

Table 22.4: Scoring Model

23. PLAN AND CONTROL

23.1. Prepare agenda- Invitation and virtual record of a virtual meeting

Prepare agenda:

MEETING AGENDA

Date: December 20.2021

Time: 2 p.m.

Location: Conference Room at ESU

AGENDA DETAILS

Goals: rebuild, develop, rehabilitate 50% of total Saudi historical buildings, minimize operational waste by 40% and increase the revenue by 10% within ten years starting from 2022.

1. Review the Saudi vision 2030 and how the **Sustainability and Historic buildings will affect Saudi income in general**

Time: 15 minutes

Purpose: Share information

Leader: Fahad Ahmed Alanazi, (Team Leader)

2. How do we can **Increase Sustainability and Historic buildings companies' revenue?**

Time: 30 minutes

Purpose: Decision

Leader: Ahmed Ali Alzughaibi,

a. talking about sales numbers in the future.

b. Identify any trends in sales numbers.

c. Brainstorm ideas on how to increase Sustainability and Historic buildings companies' revenue?

3. How do we can **Increase visitors?**

Time: 15 minutes

Purpose: Decision

Leader: Ali Abdulaziz Abdulaal,

-What do we need to prepare for Increase visitors?

- Review the attached marketing and materials.

-Identify tasks for each team member.

-How will we track the effectiveness of this project

- Review income goals for the Saudi historical buildings.

4. End of meeting review

Time: 5 minutes

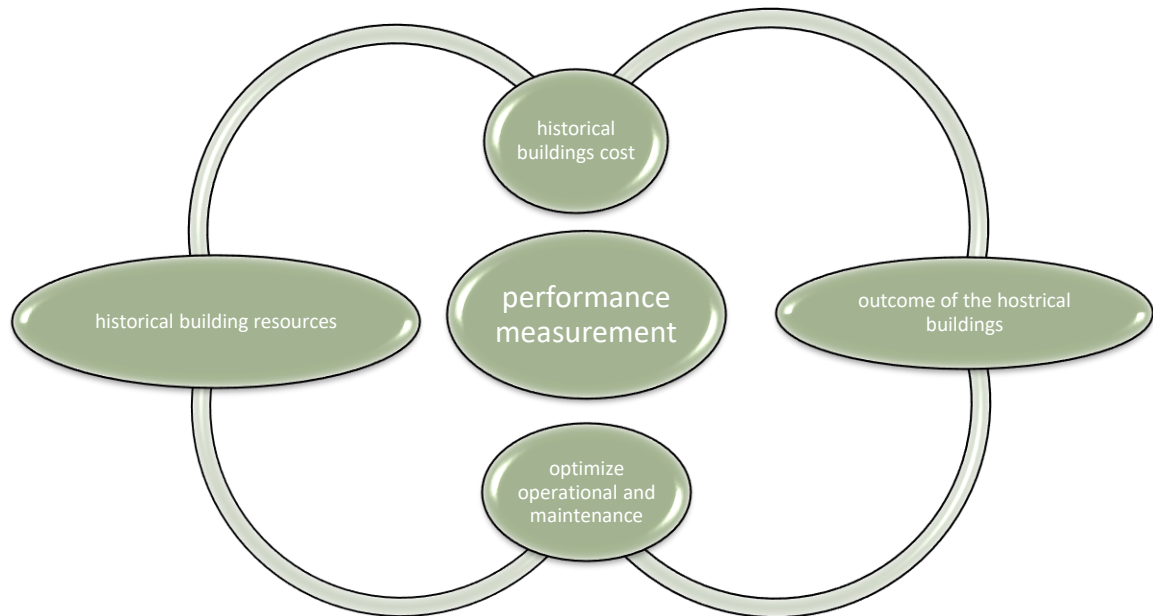
Purpose: Decision

Leader: Fahad Ahmed Alanazi, (Team Leader)

- a. What did we do well in this meeting?
- b. What should we do differently next meeting?

Project Management	
Riyadh, Saudi Arabia	
December 20.2021	
Dears Transport General Authority Representative, General Authority for Competition Representative, Ministry of Culture Representative, Ministry of Tourism Representative, Ministry of Commerce Representative and Heritage Commission Representative,	
We are writing this letter to inform you of the coming meeting about Sustainability and Historic buildings at Riyadh City, <i>Conference Room at ESU on December 20.2021 in the afternoon FROM 2 pm TO 3 pm. You are hereby invited to attend this meeting.</i>	
Meeting Agenda:	
-Review the Saudi vision 2030 and how the Sustainability and Historic buildings will affect Saudi income in general.	
- How do we can Increase Sustainability and Historic buildings companies' revenue.	
- How do we can Increase visitors.	
Your presence is highly appreciated.	
Team Leader	Chairman
Fahad Ahmed Alanazi	Sami AlZahrani

23.2. Identify performance measurement course and submit reports, in addition to explaining the reason



Historical building cost:

Sustainable of historical building cost and performance that will provide a simple method for measuring whole building cost and performance that would generate data that could be used to demonstrate the life-cycle benefits of sustainable design to financial makers. The measurements for the cost and performance impact of water, energy, maintenance, and operations, be compared to similar buildings with more historically typical designs.

Historical building resources:

Historical building makers and designers have begun performing studies related to the resources and benefits of sustainable design. The important thing in this stage is the environmental impacts. For example, natural disasters, we must mitigate the devastating impact (as much as possible) on the historic buildings. so, we must prepare preparedness plans, to aim and dealing with the repercussions of the situation with flexibility commensurate at emergency developments. In addition to immediate intervention to protect and save the historical buildings during emergency response to disasters.

Optimize operational and maintenance:

Historical building may have been design and construction, it can only remain so if it is operated responsibly and maintained properly. For example, the use of toxic cleaning products can deteriorate indoor air quality and materials; that will be failure to control project points. Sustainable operations and maintenance practices focus primarily on the actions of building occupants, and encompass safety, health and safety, comfort, and productivity, with an understanding of the need for subsequent generations to reuse and recycle building components. and maintenance personnel are part of the project planning and development process, such as by establishing commissioning criteria at the onset of a project.

Outcome of the historical building:

The sustainable preservation is that guarantees a longer and more productive life for historical buildings, and it will be better life for their users. By preserving and promoting historical buildings as a tool for social, economic, and environmental development.

23.3. Develop Change Request model, including (impact analysis- alternatives analysis- recommendation)

Change request model (CR)

Change request number	ESU- PMG697- changing working hours at winter
Requested by	Fahad Ahmed Alanazi
Reason for the request	During winter, the axial tilt is away from the sun. This results in longer nights. longer nights at winter. (In summer the axial tilt is towards the sun, resulting in longer days.
Impact analysis	distribute working hours at winter only – workers are agreed
Alternative analysis	Working at night during the winter dyes
Recommendation	as per Saudi Arabia weather at summer, it is so hot, this change request will help workers to work comfortably and is recommended at winter times.
Received by	Dr. Waleed Sulaiman.
Status	Approved
Date of CR status	19 November 2021



Figure 23.3: change request

24. RISK AND OPPORTUNITIES

24.1 Identify Risks (threats) and opportunities, and giving examples

RISKS	Examples
Technology risk	Risk of lack of appropriate information systems and management information systems and other software to undertake the project.
Communication	Weak communication system and language barrier
Inadequate skills	No expertise and technical knowhow within the project team
Performance risk	No coordination in performing the project implementation.
Cost risk	High cost of raw materials,
Health and safety	Risk of getting sick

Table 24.1.1: Risks

OPPORTUNITIES	Examples
Marketing	Available marketing platforms
Healthcare	High customer base
Construction	Huge skills
Software development	More software and information systems.
Information technology	Huge investment
Energy	Energy for construction

Table 24.1.2

24.2. Risk Register

ID	Risk	Likelihood of the risk occurring	Impact if the risk occurring	Owner	Mitigation
1	Technology risk	medium	medium	Project sponsor	Define scope
2	Communication	medium	high	Project manger	Set communication system
3	Inadequate skills	medium	high	Project sponsor	Hire experts
4	Performance risk	high	medium	Project sponsor	Make plans
5	Cost risk	medium	high	Project sponsor	Budget
6	Health and safety	low	medium	Project sponsor	planning

Table 24.2: Risk Register

24.3 Qualitative Risk Analysis

It is the process of assessing the certainty of the risk occurring through prioritizing different risks and predicting the probability of the same risks occurring during project completion.

Risk 1	Technology
Risk 2	Communication
Risk 3	Inadequate skills
Risk 4	Performance risk
Risk 5	Cost risk
Risk 6	Health and safety

Table 24.3.1

LIKELIHOOD	HIGHLY LIKELY	Risk 2	Risk 5	Risk 6
	LIKELY	Risk 3		Risk 1
	UNLIKELY		Risk 4	
		LOW	MEDIUM	HIGH
IMPACT				

Table 24.3.2

24.4 Risk response strategies

This involves the action plan that we will undertake to identified, control and mitigate the identified risks (Rahimi, 2020). Although the risk occurs unexpectedly and unavoidably, the mitigation will be paramount to reduce the effects. Our organization will undertake the following risk response strategies to mitigate the risks.

	Risk Response Strategies
Technology	Ensure modern technology is implemented
Communication	Come up with communication plan
Inadequate skills	Hire experts and people with technical knowhow
Performance risk	Ensure coordination of resources and people
Cost risk	Plan a plausible financial budget
Health and safety	Give project team protective gadgets.

Table 24.4: risk response

25. Stakeholder engagement assessment matrix

This document is important to show the level of engagement of the shareholders in relation to project completion. Involvement of the shareholders is paramount to help identify the gap.

Stakeholders' assessments:

C = CURRENT, D= DESIRED

#	Stakeholders	Unaware	Resistant	Neutral	Supportive	Leading
1	Sponsor					
2	Project manger					
3	Transport Companies			D		
4	Competitors	C				
5	Ministry of Culture				D	
6	Ministry of Tourism				D	
7	Ministry of Commerce			D		
8	Heritage Commission				D & C	
9	Contractors				C	

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26 Appendix 1: Strategist Consultant Review Dr. Sami Alzahrani



Ahmad Alzughaibi <alnuzhah84@gmail.com>

استفسار بخصوص الرؤية والرسالة والأهداف ومعايير الأداء

Sami Alzahrani <salzahrani@esu.edu.sa>

Thu, Sep 30, 2021 at 12:24 AM

To: "Ahmad A. Alzughaibi" <alnuzhah84@gmail.com>

وعليكم السلام ورحمة الله وبركاته

اجتهاد تشكرون عليه وعمل رائع

لا يخلوا أي عمل من بعض الاختلافات والملاحظات لكن أرى أنه ممتاز ولا عيب فيه بشكل كبير.

وفتكم الله

د سامي

On Wed, 29 Sep 2021 at 8:43 PM Ahmad A. Alzughaibi <alnuzhah84@gmail.com> wrote:

وفقك الله

سعادة الدكتور سامي الزهراني

السلام عليكم ورحمة الله وبركاته،،،

بداية دكتور أتمنى أن تكون ومن تحب بآتم الصحة والعافية.

لا يخفى على سعادتك بوجود مادة مشروع التخرج والتي ضمن مهامها وضع رؤية ورسالة وأهداف ومعايير أداء، وقد أفادنا دكتور المادة الفاضل وليد سليمان بعدم وجود ما يمنع أخذ الاستشارة والاستعانة بدكاتره الجامعة الأفاضل لتصويب المشروع.

أمل فضلاً إطلاع سعادتك على ما تم وضعه كرؤية ورسالة وهدف ومعايير أداء لمشروعنا خصوصاً لوجود بعض الاختلافات بالرأي بين أعضاء الفريق وقد كلفت وشرفت بالندابة عنهم بالتواصل مع سعادتك بهذا الصدد:

1 Strategy: Our strategy was initiated as a compatible part of our nation vision 2023, we committed to contribute and envisioning our nation goals, and to be one of the most specialized worldwide companies in sustainability.

1.1 Company's Vision: Our vision is to be the preferred Saudi leader in Sustainability.

1.2 Company's Mission: Our mission is to responsibly provide quality sustainability services through innovation, applying highest environmental standard and worldwide practicing in construction methods while sustaining maximum value for our partners.

1.3 Company's goals & objectives: Our goals are to rebuild, develop, rehabilitate 50% of total Saudi historical buildings, minimize operational waste by

40% and increase the revenue by 10% within ten years starting from 2022.

1.4 Project's Key Performance Indicators (KPI's):

1.4.1 Introduction:

The KPIs have been developed to prioritize improvements in support of the overall our vision and materialize our goals.

The KPIs are summarized into two categories as follows:

Figure 1.1: KPI's Categorization

- Lead KPI's:

KPI	Reference no.
Rehabilitate 70% of Saudi historical building during first 5 years from 2022.	KPI-1
Develop 50% of Saudi historical building during first 5 years from 2022	KPI-2

Table 1.1: Lead KPI's Summary Table

- Lag KPI's:

KPI	Reference no.
Gradually reduce operational waste by 5 % annually.	KPI-3
Increase visitor flow by 5 % annually.	KPI-4

Table 1.2: Lag KPI's Summary Table

1.4.2 Lead KPI's Definition and Measurement:

Table 1.3: KPI-1 Definition and Measurement

Table 15: KPI 1 Definition and Measurement						
KPI Ref	KPI Title					
KPI-1	Rehabilitate 70% of Saudi historical building during first 5 years from 2022.					
Target performance against which the KPI performance will be assessed						
Bassline	Year1	Year 2	Year 3	Year 4	Year 5	
4,000	4,600	5,600	5,800	6,400	7,000	
Description	The number of historical buildings that been rehabilitated and classified as safe and useful building from authorized governmental entity.					

Method of Calculation	Total Number of Classified Building as Safe & Useful utilities / Sum of Total Historical Buildings * Sum of Total Historical Buildings = 10,000
------------------------------	--

Table 1.4: KPI-2 Definition and Measurement

KPI Ref	KPI Title				
KPI-2	Develop 50% of Saudi historical building during first 5 years from 2022.				
Target performance against which the KPI performance will be assessed					
Bassline	Year1	Year 2	Year 3	Year 4	Year 5
1000	1,800	2,600	3,400	4,200	5,000
Description	The number of historical buildings that been developed and classified as investment opportunities building from authorized governmental entity.				
Method of Calculation	Total Number of Classified Building as investment opportunities building / Sum of Total Historical Buildings * Sum of Total Historical Buildings = 10,000				

1.4.3 Lag KPI's Definition and Measurement:

Table 1.5: KPI-3 Definition and Measurement

KPI Ref	KPI Title				
KPI-3	Gradually reduce operational waste by 5% annually				
Target performance against which the KPI performance will be assessed					
Bassline	Year1	Year 2	Year 3	Year 4	Year 5
1 Billion	950.0 Million	902.5 Million	857.4 Million	814.5 Million	773.8 Million
Description	Reduce the annual OPEX expenditure by 5 %				
Method of Calculation	Sum of OPEX expenditure (last year) * 0.95 * Sum of OPEX expenditure 2021 = 1,000,000,000 SAR				

Table 1.6: KPI-4 Definition and Measurement

KPI Ref	KPI Title
KPI-4	Increase visitors flow by 10 % annually.

Target performance against which the KPI performance will be assessed					
Bassline	Year1	Year 2	Year 3	Year 4	Year 5
1.0 Million	1.10 Million	1.21 Million	1.33 Million	1.46 Million	1.6 Million
Description	Increase company revenue				
Method of Calculation	Total Number of paid Ticket * Ticket Price * Sum of Total Revenue 2021 = 1,000,000 SAR				

شاكر ومقدر دعمكم ومساعدتكم وملاحظاتكم القيمة جزاكم الله خيرا...

الطالب / احمد الزعبي

الرقم الجامعي / 2021202466