



Smart Neighborhood Project



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2202



جامعة الجميع الذكية
EVERYONE'S SMART UNIVERSITY

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



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Project's Members name

No	Member Name	Member ID	Role
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5	Hasan Ali Ahmed	2021206149	Member
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Introduction:

Most of the Arab countries, including the Kingdom of Saudi Arabia, are facing major challenges regarding modern urban planning for cities, and smart neighborhoods have become a major goal to overcome these challenges. Our company's role is to contribute directly to the establishment of safer and more livable neighborhoods through the implementation of the latest infrastructure, products and technical services distinguished by the latest smart solutions that will improve lifestyles and achieve the Kingdom's Vision 2030.

Chapter 1: Strategy - Governance, Structure, and Process

- First Main Subject: Strategy

Vision:

Our vision is to become one of the leading companies in building smart neighborhoods by utilizing the latest technologies and playing a major role in spreading and implementing the concept of smart cities in the Middle East. **(Join our world to live a smart life).**

Mission:

Improving the lives in the cities by provides an ideal housing environment and implementing technology projects with smart solutions and providing the best services and products in the fields of (Safety and Security, Renewal Energy and Enhance Environment) to contribute and committed to improving the lifestyle and sustainability.



Objectives in SMART model:

There are four main objectives that focus on achieving the main topic of our project (Security and Safety - Renewable Energy- Enhance Environment) as following:

- 1- Enhancing the security level in the neighborhood by designing and installing (100) security surveillance cameras within a maximum period of (24) months so that the neighborhood is monitored through the control center and contributing to Reduce crimes rate around 70%.
- 2- Achieving the level of road safety by installing (20) smart traffic lights within (24) months and linking them to the control center and monitoring the traffic flow on the roads for reducing accident rate around 60%.
- 3- Using renewable energy by installing (20) solar energy for smart traffic signals and reducing electricity operational costs around 50%
- 4- Enhance Environment by planting (150) trees in the neighborhood according to the specifications and conditions of the Ministry of Environment, Water and Agriculture within a maximum period of (24) months for providing a clean environment and contributing to reduce pollution by 30%, and decreasing the temperature by 10%.

Project Key Performance Measurement Indicators:

Strategic Objectives	Lead measure	Lag measure
Enhancing the security level in the neighborhood	Number of security surveillance cameras installed all streets	Crime ratio Average People feel safe
Achieving the level of road safety	Number of smart traffic light installed in streets	Accident cars ratio decrease
Renewable Energy	Number of solar energy installed	electricity operational costs decrease
Enhance Environment	Number of trees planted	Pollution ratio Temperature ratio

Table5: KPIs, lead and lag measures



Project Charter Model:

Ahmed Ali	Project charter Model Builder	Project Charter	
22 April 2022	Creation date of the charter		
Khaled Nasser	Project manager	Saudi Arabia, Riyadh	Project address
aliahmed@hotmail.com	Project manager email	0553020001	Mobile No. project manager
Ministry of Municipal and Rural Affairs and Housing	The official sponsor of the project	15 June 2022	Project start date
2 years 3 million SAR			The project implementation period and Cost
The final output of the project			
Smart neighborhood is governed by high-performance technical, digital and electronic principle			
Project rationale			
Permit to build a smart neighborhood and sign an agreement with the Ministry to be the official sponsor of the project			
Project Description			
The company improves the lives of residents and provides an ideal housing environment by implementing technology projects with smart solutions and providing the best services and products in the fields of (safety, security, Renewable energy and enhanced Environment) to contribute to improving the lifestyle and sustainability.			



Project requirements	
4- land in a strategic and big area 5- availability of building designers and technicians with experience that reflects the culture in a creative and technical way	1-The official sponsor and executer companies 2-Executors and a work team with sufficient experience 3-Permits for all phases of the project
Risks that may occur to the project	
1- Not having enough cash and budget to complete the project 2-finish the project in the target date and time 3- bad weather, which causes delays in implementation or damage to some building material 4- Lack of designers with ambitious experience for the project 5-Late import of some materials due to shipping problems	
Project manager Signature	
	

Table 6: Project Charter model



- **Second Main Subject: Governance, Structure, and Process**
Project Organizational Structure:

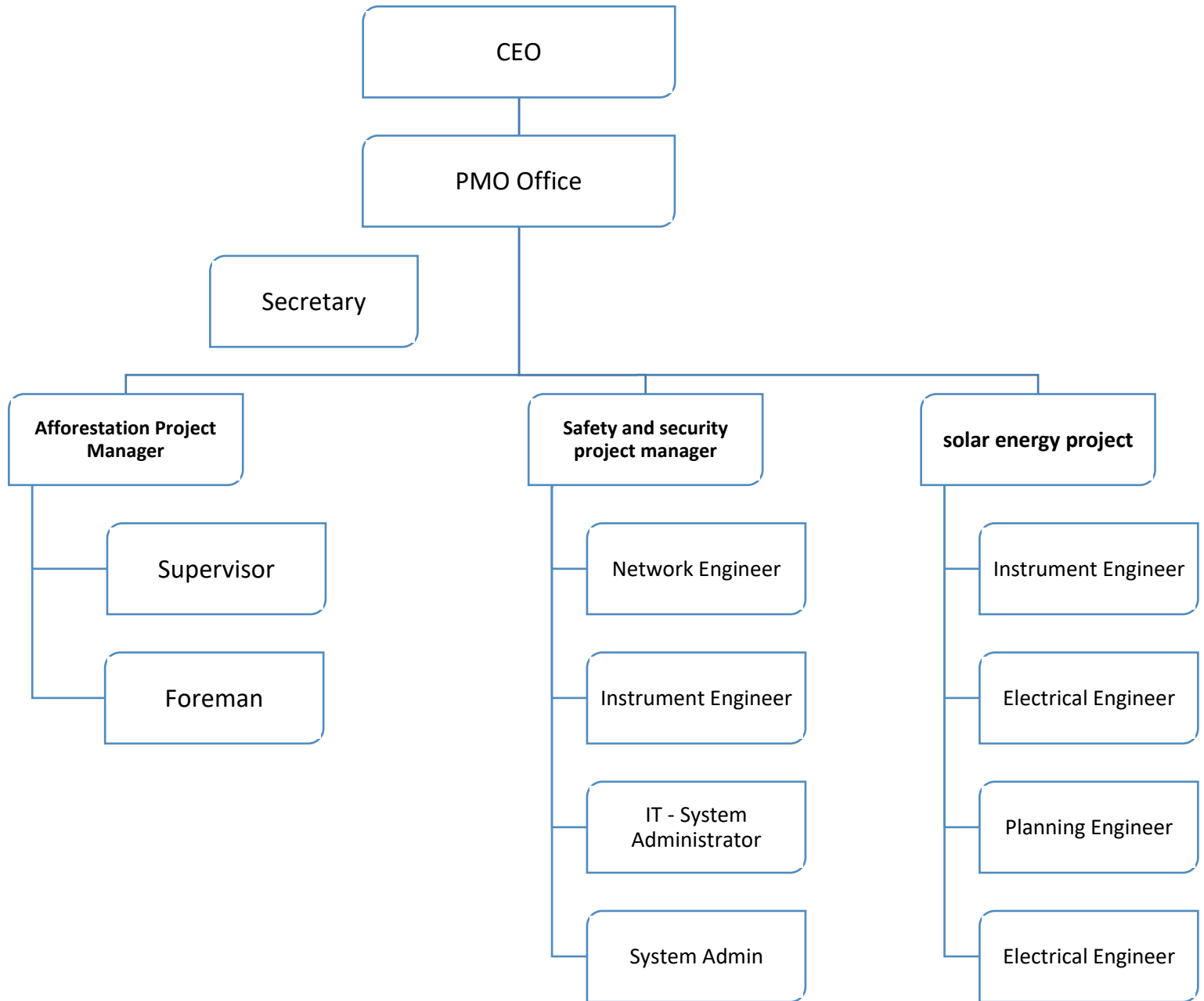


Figure1: Project Organizational Structure



The practical and scientific bases, adopted in developing the structure:

This project depends on a hierarchical structure which resembles a pyramid. This follows a chain of command from the top executives to regular employees. Authority ensures that everyone under a manager's command will work towards the organization's goals. In this structure the board directed to the top of the pyramid. Then, middle managers in the second level, and the workers in the bottom. (1)

Project model:

Types of Project Management Offices:

1- Supportive PMO (Low control):

This type provides support as consultations available upon request. It also provides forms, information, technical support and training to the project team without imposing control on their project or activities. This type of office fits institutions that are known for their successful projects and are only in need of some sort of data center. It's also characterized by its low level of control on projects and teams, in addition to following unified standards in all projects.

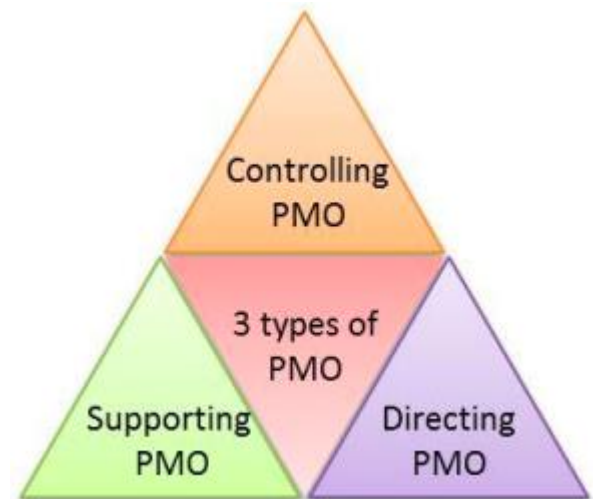


Figure2: Types of Project Management Offices

2- Controlling PMO (Moderate control):

This type of office provides a unified framework for the institution, which requires adjustments and modifications on the used methodologies, as well as forms and applications. Also, it imposes



a moderate level of control on projects and their activities. This form is used within institutions that are interested in having some control on their activities, processes and procedures.

3- Directive PMO (High control):

This type is known for its high control on projects, or even fully managing projects with providing needed resources and support. The office defines managers to run it directly after contacting the PMO project. This type also provides high professionalism in managing projects, where every manager has to write periodic reports for the office which guarantees a high level of consistency in work on projects level. This type fits big institutions that need technical support in many and various places. (2)

Our project model choice is "**Directive PMO**" because in the 'smart neighborhood' we will be needing high control, professionalism and fully managing the project with providing needed resources and support to guarantee a high level of consistency in all project levels.



Chapter 2: Compliance, Standard, and Regulations - Power and Interest - Culture and Values

- First Main Subject: Compliance, Standard, and Regulations

Compliance model:

Project title	Smart neighborhood in KSA	The owner	Ahmed Ali	main contractor : United Group
Reference		Day :		Date :

Requirements			Compliance		
No.	Goal or production	Executer or Responsible	Goal Description	Compliance (yes /No /not applicable)	Comments
1	Achieving a high level of quality standards	Quality management	Achieving quality standards and safety of public facilities, as well as achieving the highest standards of comfort	Yes	
2	Fast exchange of information	Information Technology management NETWORK Engineering	Providing an information system that provides the largest amount of data through high-accuracy and fast technical means	Yes	
3	Reducing transportation cost and its risks	Environment, health ,safety ,security management (EHSS Dept.)	Expanding service transportation options open to consumers, their databases, and attention to the cleanliness of the environment from pollutants	Yes	
4	Creating a spirit of public participation and interaction in civilized decision-making	management of Housing	Providing databases for consumers for evaluating & criticizing it	Yes	
5	Achieving the concept of sustainability	Process engineering Dept. & EHSS Dept.	Achieving advanced levels of organization and smart dealing with urban environmental variables, which reduces waste and tampering with the capabilities of the environment	Yes	
6	Urban competition from other smart cities in other countries	Quality assurance management & investment management	Entering the race to compete with other cities through services and investment	Yes	

Table 7: Compliance model



Checklist model for the project stages:

The Project Management Life Cycle consists of phases: (Initiation, Planning, Execution, Monitoring and Controlling, and Closing). Matthew Martin defines these phases as following:

- 1- **Initiation Phase:** "Initiation phase defines those processes that are required to start a new project. The purpose of the project initiation phase is to determine what the project should accomplish. This phase mainly consists of two main activities: (Develop Project Charter and Identify Stakeholders)".
- 2- **Planning Phase:** "Project Planning phase covers about 50% of the whole process. Planning phase determines the scope of the project as well as the objective of the project. It begins with the outputs of the initiation phase (charter, preliminary scope statement, and project manager). The output of the planning phase serves as the input for the execution phase".
- 3- **Execution Phase:** "The executing phase consists of those activities that are defined in the project management plan. This process involves managing stakeholder expectations, coordinating with people and resources, as well as performing other activities related to project deliverables. During the execution phase, the result may require re-baselining and updates to existing project requirements. Action taken in the execution phase may affect the project management plan or documents".
- 4- **Monitoring and Controlling Phase:** "After the execution phase, to check the project is on the right track, monitoring and controlling phase becomes active. During this phase various changes and reviews to enhance the project performance are done. This stage involves tracking, reviewing and regulating the progress in order to meet the objective of the project. It also ensures that the deliverables are according to the project management plan. The main focus of this step is to identify any changes made from the point of project management plan to determine appropriate preventive action".
- 5- **Closing Phase:** "It is the process that performs a controlled shut down of the project at the end. In a project, there are three closure activities that are going on: (Closure of the product-



Getting the customer to accept the final deliverables, if the project is external, Closure of the project- This include formally closing of administrative procedures, updating project documents and archiving those databases project should be returned)". (3)

All mission/tasks for five Project Phases mention in table below:

Phase	Mission/Task	Mission/Task Duration	Phase Duration	Comments
Initiation	Business Case		Two Month	
	Feasibility Study			
	Develop Project charter			
	Identify Stakeholder			
	Generate Organizational Structure			
Planning	Develop Project Management Plan		Nine Months	
	Scope Management Plan			
	Collect Project Requirements			
	Define Scope			
	Prepare WBS			
	Identify Goals/Deliverables			
	Time Schedule Plan			
	Identify Activities			
	Sequence Activities			
	Estimate Activities duration			
	Develop Time Schedule			
	Cost Management Plan			
	Estimate Cost			
	Calculate Budget			
	Quality Management Plan			
	Resource Management Plan			
	Communication Management Plan			
	Risk Management Plan			
	Identify Risks			
	Procurement Management Plan			
	Stakeholder Management Plan			
Execution	Direct/Managing Work Project		Ten Months	
	Managing Project Knowledge			
	Quality Management			
	Acquire Resources			
	Develop Team			



	Communication Management			
	Applying Risk Response			
	Conduct Procurements			
	Stakeholder Participation Management			
Monitoring and Controlling	Control/Monitor Work Project		During Project Phases	
	Scope Validate			
	Scope Control			
	Schedule Control			
	Cost Control			
	Quality Control			
	Resource Control			
	Communication Monitor			
	Risks Monitor			
	Procurement Control			
	Stakeholder Participation Monitor			
Closing	Finishing all activities Project		Three Months	
	Review and Submit Final Report			

Table 8: Checklist model for the project stages

- Second Main Subject: Power and Interest

STAKEHOLDERS ANALYSIS

NO	Name	Title	Category	Role	Information contact	Communication way
1	Lady Sogate	Project Manager	Internal	Supervising & completing the project	Lasy@gmail.com +966548741254	- F2F - Email
2	Abdulrahman Saad	Engineer	Internal	Solving the Issues	ABD.1990@hotmail.com +966555441178	- Phone - F2F
3	Saud Al-Mohammadi	Contract representative	Internal	Representing the company while dealing with third party	Saud.35@gmail.com	- Email - F2F - Phone
4	Our Company employees	Support	Internal	Support	Help achieving the organization's goals	- Email - F2F - Phone



5	Community	-	External	Help and support the smart neighborhood	Messages via smart robot	Messages
6	third party company	MKC	External	Smart Neighborhood Afforestation	Lama@MKC.com	Company Mail
7	Government	Government	External	Logistics and facilities	ATTS@gov.com	Mail
8	Stockholders	Stockholders	Internal	Financial support	Bord@hotmail.com	Via CEO

Table 9: Stakeholders Register

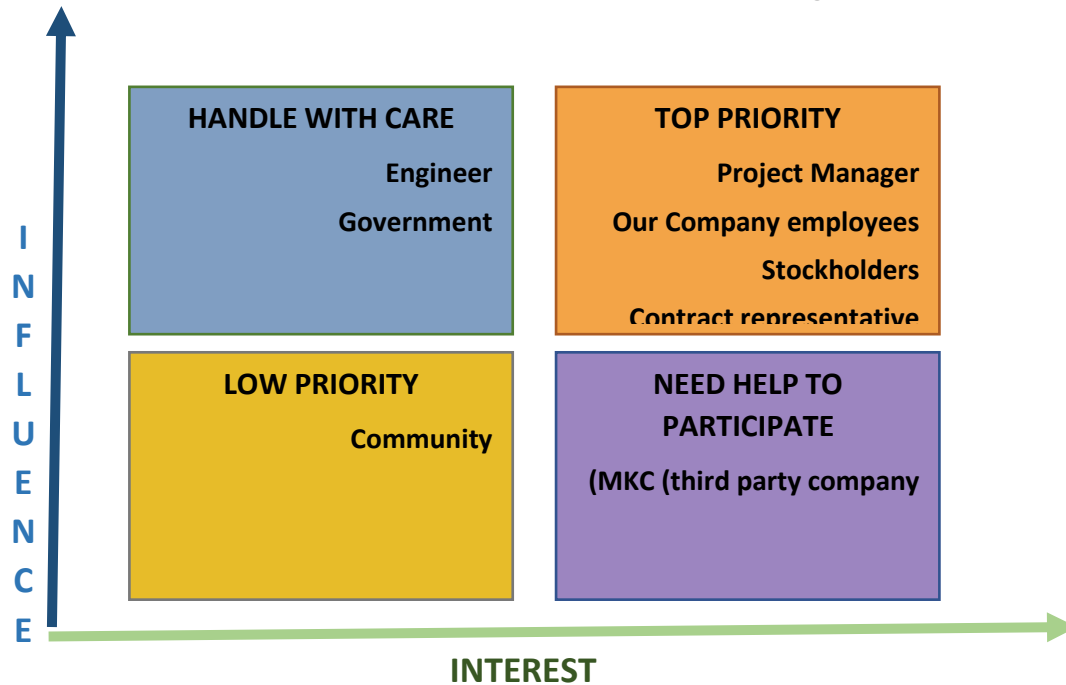


Figure 3: Interest and Influence diagram

- **TOP PRIORITY:** HIGH INFLUENCE AND HIGH STAKE.
- **HANDLE WITH CARE:** HIGH INFLUENCE AND LOW STAKE.
- **NEED HELP TO PARTICIPATE:** LOW INFLUENCE AND HIGH STAKE.
- **LOW PRIORITY:** LOW INFLUENCE AND LOW STAKE. (4)



Logical diagrams:

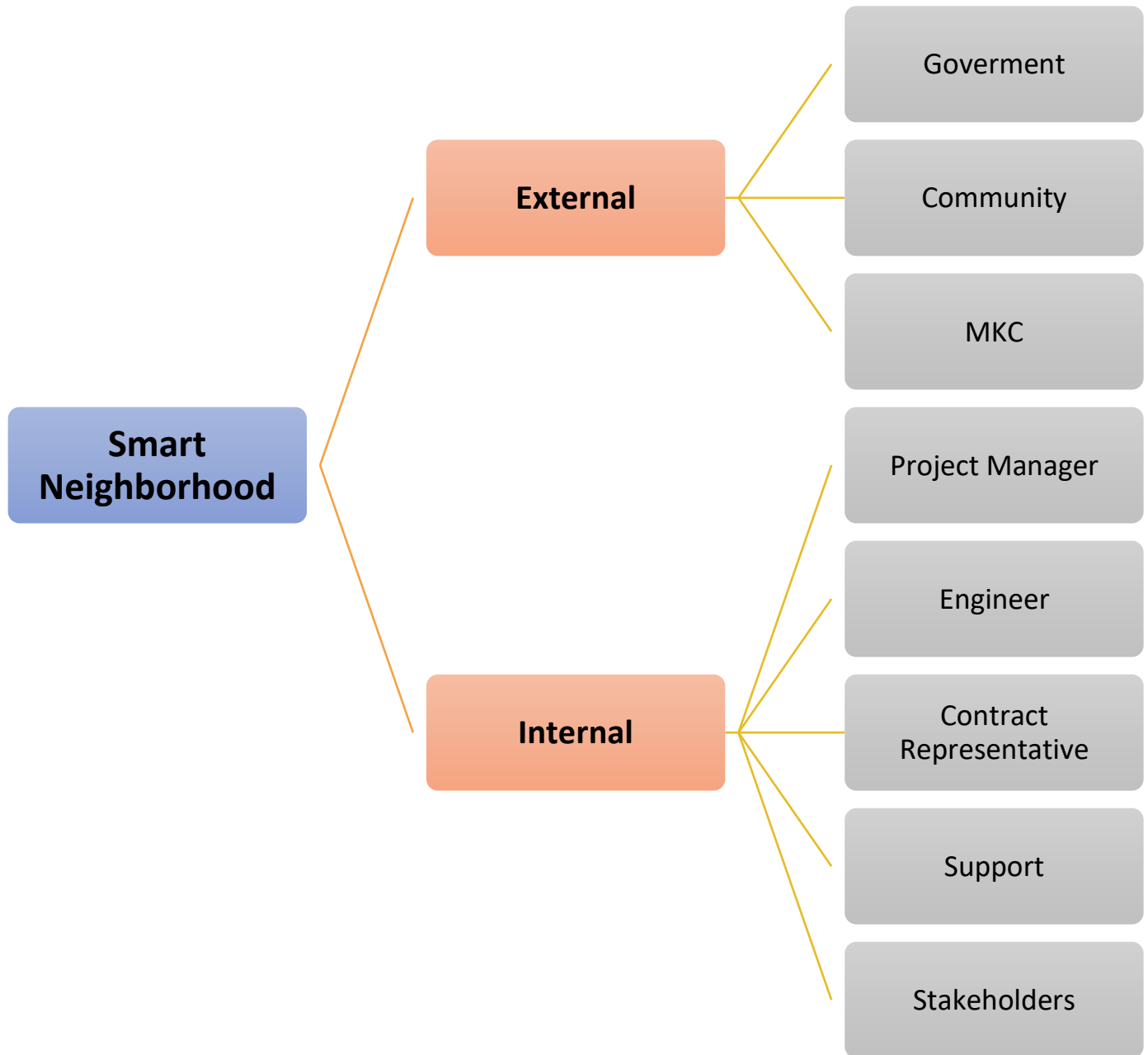


Figure 4: logical diagram for register of the Stakeholder



- Third Main Subject: Cultures and Values

Organization culture: inventiveness:

It is one of the special features that are interested in implementing the work of institutions as it relies on classifying innovation among their priorities. It also encourages employees to take risks and ensure innovation within their jobs.

Attention to detail:

It is one of the characteristics and characteristics associated with the culture of the organization. Employees are expected to be more accurate in carrying out their work, which depends on their interest in the details that contribute to their performance of their work in an accurate manner.

Focus on results:

It is the interest of companies in achieving results that are important values in the organization's culture, in order to obtain distinctive results.

Attention to individuals:

It is one of the characteristics that institutions classify as high values. The culture of the institution is concerned with the nature of the impact of institutional decisions on individuals, and institutions are also interested in applying treatment that preserves the dignity and respect for employees.

Teamwork:

It is the cooperative method that organizes all special activities in the work environment. The culture of the organization seeks to form teams and ensure positive relations between employees and managers at work.

competitive:

It is one of the characteristics encouraged by the culture of the enterprise. Companies are expected to be keen to deal with their competitors in the market, and a company with a competitive culture provides a high competitiveness in the market.



Stabilization:

It is one of the basic rules of enterprise culture. Companies are keen to establish a continuous and predictable cultural value, which contributes to guessing productivity levels, work and in the best possible conditions within the unstable market.

Organization values:

1. utilize the optimal Solar energy by developing efficiency gian, as well as the best direction to the Electricity network in the neighborhood.
2. Best utilization of the spaces in order to reduce the usage of transportation traffic issues.
3. Adopt the latest communication technologies for high performance of traffic monitoring to keep ways smoothly moving as well keep the streets monitored from crimes and theft attempts.
4. Reach to clean living environments from Carbon exposses by planting trees.
5. Effective decision-making based on data.
6. Improving the environment through various systems.
7. Optimization of time in hospital and public service lines.
8. Implementation of new business opportunities.
9. Electricity, water and waste tracking.
10. Energy-use optimization.
11. Intelligent traffic management.
12. Optimization of solar energy during the development gains better, optimal routing of the energy grid in the neighborhood.
13. The integration of the surrounding area into the neighboring area has an easy area.
14. Achieving the highest level of information and communication technology in monitoring and controlling traffic to reach a lower rate of congestion, reduce traffic congestion and eliminate crime and theft.
15. Get a clean environment of carbonaceous genesis. (5)



Chapter 3: Self-reflection and Self-management - Personal integrity and reliability - Personal Communication

- First Main Subject: Self-reflection and Self-management

Personal behaviors that can influence the project:

It is very important in any work environment to avoid negative behaviors because of their impact on the workflow of the system. Listed below are some of the negative behaviors:

- Absences
- Complaints
- Lack of Responsibility

1-Absence:

Reasons:

1. Family circumstances.
2. Differences in the working hours in the project team.

Solutions:

1. Agree on a specific time that suits everyone to avoid missing meetings.
2. Recording meetings so that members can view them and submit meeting minutes to everyone.

2-Complaining:

Reasons:

1. Misunderstand the requirements of the project.
2. Continuous absence from team meetings or lectures by doctor of the subject.

Solutions:

1. Alert team members to the necessity of attending the lectures of doctors.
2. Attempting to clarify and simplify the tasks assigned to them by members or the team leader.



3-Lack of responsibility:

Reasons:

1. Reliance on other team members.
2. They do not feel supported and do not work as one team.

Solutions:

1. The team leader alerts him.
2. Try to Support them, and involve them in decisions and discussions within the team.

SWOT ANALYSIS (6)

Strengths	Weaknesses	Opportunities	Threats
● High-level engineering team. ● Availability of modern technology. ● Provide protection and security. ● clean environment. ● Suitable environment for children. ● Rely on sustainable energy.	● high cost. ● Marketing the idea to investors. ● The need for a large area of land.	● promising market. ● People's desire to live in a new concept.	● Few of the companies specialized in this type of project to contract with. ● market competitors. ● Lack of compatible land. ● Delay in issuing government approvals.

Table 10: SWOT analysis



- **Second Main Subject: Personal integrity and reliability**
Behaviors that contradict moral integrity:

Behavior	Financial	Social	Technical
Bribery	Although obtaining exact figures on the economic costs of corruption is difficult, a 2016 report from the International Monetary Fund (IMF) estimated the cost of bribery alone to be between \$1.5 to \$2 trillion per year. This represents a total economic loss of approximately 2% of global GDP. bribery yields any selective benefits for the firm & Raising business costs.	Destroying company reputation and prevents customers and companies from dealing with them.	Diminished company capacity & Increasing polarization (When corruption, in particular company capture, becomes the norm, this can lead to polarization among employees: those in support of corrupt regimes (because of kickbacks and handouts) versus those opposed to them)
Conflict	Conflicts of interest can affect the payment of financial dues in the company to employees, suppliers and beneficiaries	Conflicts of interest can affect the payment of financial dues in the company to employees, suppliers and beneficiaries	Low recruitment of competent employees due to their lack of confidence in a clear company policy
Maintaining the required standards		The company has a reputation that it is a low-rated company that does not deal with the required standards and does not trust it	Failure to comply with the required standards affects the duties of an official as a watchdog, thereby losing independence and integrity in the performance of his duties.

Table 11: Behaviors that contradict moral integrity



- **Third Main Subject: Personal Communication**

Stakeholder:

Please refer to the mentioned table page 18.

Personal and effective communication: (7)

Effective project communication is considered one of the important factors to achieve success through which information is delivered at the right time and to the right person in a clear manner. Communicating between all parties to the project through email as a primary means and other auxiliary elements such as WhatsApp groups or holding periodic direct meetings to provide the necessary information and support to all parties to the project.

Project communications management steps:

1. Determine the parties involved in the project.
2. Communication planning.
3. Dissemination of information.
4. Managing stakeholder expectations.
5. Drafting a performance report.

Shapes of communication:

Communication skills are highly essential for a strong and healthy work culture. It is an act of sharing information from one person or group to another. However, there are 4 different shapes of communication: verbal communication, nonverbal communication, written communication, and visual communication.

1. Verbal communication:

Verbal communication is one of the preeminent methods of communication that is done when two or more people speak with each other. It can either be face-to-face, conference call, skype, and more. Besides that, some verbal communications are also done in a casual format, such as casually speaking with a colleague in the office. Verbal communication is one of the most common types



of communication that is often used during video conferences, phone calls, presentations, one-to-one conversations, and more

2. Nonverbal communication:

Nonverbal communication is one of the 4 types of communication that is used to communicate without words. Body posture, eye contact, and facial expressions are some of the preeminent elements of nonverbal communication. In simple words, it is the passive form of communication through which you represent your thoughts and feelings. You can also communicate and represent yourself via how you dress.

3. Written communication:

Written communication is one of the best techniques of communication, which is the act of writing, typing, and printing symbols to convey the message to the audience. It is highly helpful because it records the information in written form for reference. However, the information is generally shared through blogs, letters, books, pamphlets, memos, emails, and more. For better understanding, you can communicate your business planning writing form to ensure that everyone gets the same message for future reference.

4. Visual communication:

Visual communication is one of the other forms of communication that can be characterized as the preeminent helper of the organization. This type of communication can be used to provide a heavy amount of information. It is highly driven by social media platforms like YouTube, Instagram, and other digital platforms. In simple terms, it uses drawings, photographs, charts, graphs, and sketches to convey information.



Communication models:

Communication models can represent the communication process in its most basic linear form (sender and receiver), in a more interactive form that encompasses the additional element of feedback (sender, receiver, and feedback), or in a more complex model that incorporates the human elements of the sender(s) or receiver(s) and attempts to show the complexity of any communication that involves people. can be split into three categories:

- Linear models – only look at one-way communication.
- Interactive models – looks at two-way communication.
- Transactional models – looks at two-way communication where the message gets more complex as the communication event (e.g. conversation) progresses.

Model of communication:

Type of model brief description:

1-Aristotle's model linear:

Aristotle argues that we should look at five elements of a communication event to analyze how best to communicate: speaker, speech, occasion, target audience and effect.

2-Lasswell's model linear:

Lasswell's model is a basic framework for analyzing one-way communication by asking five questions: Who, said what, through which channel, to whom, with what effects?

3-Shannon-Weaver model linear:

The Shannon-Weaver model is the first to highlight the role of 'noise' in communication, which can disrupt or alter a message between sender and receiver.



4-Berlo's S-M-C-R model linear:

Berlo's S-M-C-R model explains communication in four steps: Source, Message, Channel, and Receiver.

5-Osgood-Schramm model: Interactive

The Osgood-Schramm model looks at reciprocal communication, showing how we have to encode, decode, and interpret information in real-time during a conversation.

6-Westley and Maclean model: Interactive

The Westley and Maclean model shows that our communication is influenced by environmental, cultural and personal factors.

7-Barnlund's transactional model: Transactional

Barnlund's Transactional Model of Communication highlights the role of private and public cues that impact our messages.

8-Dance's Helical model transactional:

Dance's Helical Model sees communication as a circular process that gets more and more complex as communication occurs, which can be represented by a helical spiral.

Channels of communication:

- | | | | |
|----------------------|----------------------|----------------------------|------------------------------|
| - Email | - Video conferencing | - Phone calls | - Instant messaging (IM) |
| - Direct | - Indirect | - Presentations | - Face-to-face conversations |
| - Audio conferencing | - Blog | - Formal written documents | |



Communication Matrix Timeline:

Communication	Purpose	Medium	Frequency	Audience
Kickoff Meeting	Introducing a project. Review objectives and goals	In person/face to face	Once	Project team, project sponsor, stakeholders
Daily meetings	Ensure all the action points been finalized on time	Virtual meeting/Face to Face	Daily	Project team, stakeholders
Project Team Meetings	Review status of project	Face to face or Conference call	Weekly	Project team
Technical and Creative Design Meetings	Discuss, review technical and design problems and solutions	In person/face to face	As needed	Technical team, creative team
Monthly Project Status Meetings	Update leadership on project status	Face to face or Conference call	Monthly	Project manager stakeholders
Project Status Meetings	Detailed report on project status including progress, costs, and problems	Email	Monthly	Project manager stakeholders

Table 12: Communication Matrix Timeline

Examples of three wrong scenarios of communication:

There are a limited number of reasons for communication failure. Each project manager must come to terms with these reasons to determine them within their behavior and that of others, and to take responsibility for working to resolve them.

Here we list three mis-communication scenarios and we may offer rent descriptions and why they happen as well as some tips to avoid them if possible.



● **Assumption**

When you walk in on a member of your team and ask him, you haven't done this important job assigned to you.

You assume several possibilities, including:

1. He knows that he must finish this work.
2. Or he knew when he was supposed to finish it.
3. Or he understands the importance of this work
4. Or you assume that he will somehow teach you that he has finished this work.

Therefore, before you ask him this question, good communication involves clarifying these assumptions that I assumed in advance by asking direct and more specific questions by opening a discussion with him that includes reminding him of that task, which you expect this member of the team to answer that he has finished the task, so good communication usually clarifies assumptions during the discussion on key points, for example when contacts have taken place, and confirms them again before the deadline.

● **Lack of clarification**

No one in the world can understand everything you say or some of it once you've said it or understood it, so you have to be clearer. The solution is to divide ideas until they reach a clear situation from which to explain what you are saying.

● **Personal or personal considerations**

When the discussion turns into personal considerations, communication is interrupted and the person exposed to an attack becomes away from serious discussion and the important place and examples of this when a task is presented to a member of the team and does not find time to



accomplish it and is answered as (your problem) because in this case the member will become a defender of his position instead of going to find better ways to communicate to solve the problem.

Stakeholder Assessment Matrix:

Stakeholder	Unaware	Resistant	Natural	Supportive	Leading
Project manager					D-C
Engineer					D-C
Contact representative				C	D
Support					D-C
Community			D-C		
MKC				D-C	
Government			D-C		
Others Stakeholders			C		

Table 13: Stakeholder assessment Matrix

C – CURRENT SITUATION

D- DESIRED SITUATION



Chapter 4: Leadership – Teamwork - Conflict and crisis

First Main Subject: Leadership

Definition of leadership: A guideline that a person or group of people must adhere to in order to maintain a well-organized environment (8)

Leadership types:

- **Dictatorial leadership**

The leader has absolute authority, forcing and guiding individuals.

- **Autocratic leadership**

It is unique in the decision-making process and develops policies and plans without the participation of subordinates. It is characterized by extreme firmness and accurate determination of the duties granted to each individual. The dictatorial leader differs as active and effective.

- **Democratic leadership**

It is characterized by the method of participation of workers in decision-making, planning and policy development.

- **Personal leadership**

Direct communication between the leader and individuals.

- **Unofficial leadership**

They are within informal social organization groups without being linked to an official function in the organizational structure.

The democratic leadership will be selected for the project because it is characterized by the method of participation of project personnel in the decision-making process, planning and policy development.



The reason for choosing the democratic leadership of the project :

It is characterized by the effective participation of the project staff in the decision-making, planning and policy making process. democratic leadership also creates a work environment full of motivated employees who yearn for success and have high confidence.

Also, shared democratic leadership may be a reason to increase productivity because it encourages employees and makes them happier when they know their opinions.

It also helps in diversity of ideas as the leader is free to consult any employee. (8)

Five proposals for the motivation methods that are compatible with the nature of the project:

Motivation is a major and important factor for the success of any company, as management must use appropriate methods to motivate employees to continue giving and not leak out of the companies. There are several ways to motivate employees: (9)

1- Providing a suitable and enjoyable work environment:

An enjoyable and convenient workplace (which includes many factors: furniture, employee rest areas, furniture, lighting, office design, providing places to serve food) is one of the main motivating factors for employees as providing a pleasant and comfortable workplace will encourage creativity and increase productivity.

2- Providing moral and material rewards to employees:

Rewards are one of the most important motivating factors for employees and include, but are not limited to (increase in salaries, annual bonuses, certificates of thanks and appreciation, promotions), as they will lead to an increase in employees' confidence in themselves and their capabilities.



3- Make working hours flexible:

After the Corona pandemic and the change in technology, working from home has become one of the factors that can motivate employees. Currently, most companies in the world have begun to set flexible working hours, and therefore the company has become obligated to provide working hours to keep pace with development and ability to compete.

4- Involve employees in the company's achievements:

One of the most important factors that positively affect the psychology of employees and their job performance is the company's sharing of its achievements (whether the success of a particular project or the achievement of a strategic goal for the company) with its employees and that they are considered an integral part of this success.

5- Existence of management (honest, supportive, respectful):

One of the most important factors that lead to employee desertion from companies is the presence of bad treachery. The management that works to support and respect its employees and honesty in dealing with them is a key and important factor for their survival in the company and their hard work. (9)

Second Main Subject: Teamwork

Design RACI model for 3 administrative measures of the project:

Responsibility Assignment Matrix:

It is a matrix which is an acronym that was derived from the four key responsibilities most typically used: Responsible, Accountable, Consulted, and Informed.

Responsible: Does the work to complete the task

Accountable: Delegates work and are the last ones to review the task or deliverable before it's deemed complete.



Consulted: Provides input based on how it will impact their project work or their domain of expertise on the deliverable itself.

Informed: Needs to be kept in the loop on project progress, rather than roped into details of every deliverable.

Activity	Project Manager	Third party company	Contract Representative	Stakeholders	Engineer
Supervising the project	R	A	C	I	I
A company representative	I	A	R	C	I
afforestation	I	R	A	I	C
Financial support	A		I	R	C
Problem Solving	A		C	I	R

Table 14: RACI Model



Third Main Subject: Conflict and Crisis (10)

Conflicts:

Conflict is a state of discord caused by the actual or perceived opposition of needs, values and interests. A conflict can be internal (within oneself) or external (between two or more individuals). Conflict explains many aspects of social life such as social disagreement, conflict of interests and fights between individuals, groups or organizations conflict in social settings can result in stress or tension amongst stakeholders.

How conflicts arise:

Projects are executed by people. And people or human resources make up the team. Most projects utilize the matrix structure to execute projects. And due to this structure, which creates multiple boss reporting situations, conflicts are generated automatically. In addition, project team members are assembled from diverse backgrounds, and, if in a large project, may not know each other well enough to be settled down yet, but are already striving to work towards meeting the tight deadlines. It will spell disaster if the project manager or team leader does not conduct a proper kick-off meeting or allow sufficient time for the project team members to know each other and understand their commitments. In order to minimize conflicts in this type of situation the project managers or team leaders should constantly motivate and develop the project team to lead them into accomplishing the objectives of the project.

What are some of the major barriers in a project team? The following points are noted:

- Different priorities, interest and judgment of team members
- Role conflicts
- Lack of commitment
- Communication problems



- Geographic scatter of team members
- Different Stakeholder Interests
- Change in scope

When the project progresses into the different stages of the project life cycle, i.e. from initiation, to planning, execution, and closing, it is amazing that you will find different patterns of behavior from the project team members. Some are committed and show enthusiasm in their roles whilst others may show signs of frustration and start to display symptoms of bad teamwork. Some of these symptoms are as follows:

- Lack of trust or confidence in the project manager
- Lack of synergy
- Unhealthy competitions
- Unproductive meetings

Crisis:

A crisis is a sudden and unplanned event that results in the instability of an organization and can be caused by internal or external factors.

To prevent serious damage to your company, it is important to address the factors that instigated the crisis and prevent further escalation.

Types of crisis:

Natural:

Disturbances in the environment and nature lead to natural crises. Such events are generally beyond the control of human beings. For example, Tornadoes, Earthquakes, Hurricanes, Landslides, Tsunamis, Flood, Drought all result in natural disasters.



Technological:

A technological crisis arises as a result of a failure in technology. Problems in the overall systems lead to technological crisis. For example, the breakdown of the machine, corrupted software and soon give rise to the technological crisis.

Confrontation:

Confrontation crises arise when employees fight amongst themselves. Individuals do not agree with each other and eventually depend on non-productive acts. For example, boycotts, strikes for indefinite periods, internal disputes, ineffective communication and lack of coordination give rise to confrontation crisis; employees disobey superiors; give them ultimatums and force them to accept their demands.

Malevolence:

Organizations face a crisis of malevolence when some notorious employees take the help of criminal activities and extreme steps to fulfill their demands. For example, Acts like kidnapping company's officials and false rumors, all lead to a crisis of malevolence.

Organizational Misdeeds:

Crises of organizational misdeeds arise when management makes certain decisions knowing the harmful consequences of the same towards the stakeholders and external parties. In such cases, superiors ignore the after-effects of strategies and implement the same for quick results. For example, Crisis of organizational misdeeds can be further classified into the following three types:

- Skewed Management Values
- Deception
- Management Misconduct



Deception:

Organizations face a crisis of deception when management purposely tampers data and information. For example, management makes fake promises and wrong commitments to the customers. Communicating wrong information about the organization and products lead to a crisis of deception.

Management Misconduct:

Organizations face a crisis of management misconduct when management indulges in deliberate acts of illegality. For example: accepting bribes, passing on confidential information.

Due to Workplace Violence:

Workplace violence is a type of crisis that arises when employees are indulged in violent acts. For example: beating employees, superiors in the office premises itself.

Due to Rumors:

The spreading of false rumors about the organization and brand leads to a crisis. For example, employees spreading factually inaccurate information which tarnishes the image of their organization. (9)

Three expected Scenarios of the Conflict's event in the project:

Scenario No. 1

The project has gone through a challenging phase, which is to increase the total budget by 10% due to the increase in the value of the tax on many building materials for the project and a meeting was held between the project manager and the finance director to raise this challenge and request an increase in the total budget. During the meeting, the project manager presented the challenges that the implementation of the project would face if the increase was not provided. After the completion of the presentation, the idea of the required increase was not accepted by the CFO, and during the meeting the CFO raised his voice to the project manager and accused him of mismanagement and



that the reasons mentioned in the offer were unrealistic and might be false information for the purpose of the increase.

The CFO's discussion intensified in an uncensored and impolite manner addressed by the project manager.

Scenario No. 2

The project manager met with the team to follow up on the progress of the project implementation and during a presentation by a member of the team for the achievements, it became clear to the project manager that there was a failure to carry out one of the tasks that they did not mention and no action was taken to resolve it from the beginning, which led to a delay in the delivery of one of the outputs. The project manager questioned why the mission was delayed and why it was not taken seriously, which led to a delay in the delivery of one of the outputs, which is considered Milestone.

Scenario No. 3

The official sponsor of the project continued to request the addition of new details in the Project's identity. It was made clear to the official sponsor that the addition he requested was not the prerogative of the project manager and that it was outside the agreement of the project charter, but that the official sponsor insisted more than once to add it and meet his request.



The optimal strategies to deal with each conflict and specific the reason for performance:

There are five conflict management techniques according to the Thomas Kalman model used by HR professionals. (11)

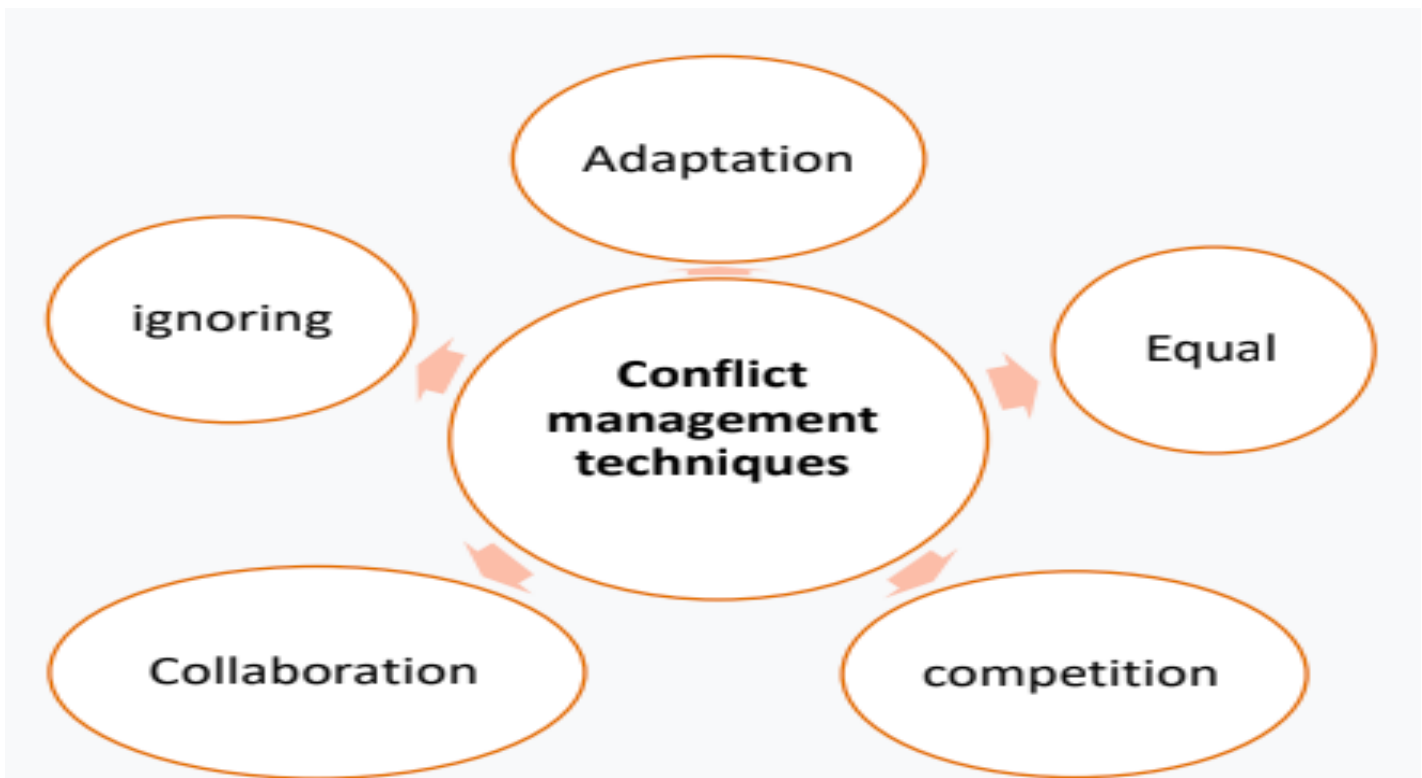


Figure 5: Conflict management techniques



Expected scenarios for the conflict that may happen during the project:

First Scenario: Inviting New Tools into the Mix I have seen several project management conflicts arise simply due to the introduction of new tech tools. As you start to implement a new methodology or play by the rules of a different project management technique, you will find your team getting uneasy.

In the first scenario: Adaptation with new technology is the best way to solve this problem, by making a course to train them to make it easier.

Second Scenario: Conflict may arise due to the lack of regulation of actual working hours and overtime hours. Some groups may have to work additional hours, which leads to physical and psychological exhaustion of the employees, and this will violate the rights of the employee.

In the second scenario: it is better to follow the equality method. Everyone should be given a chance to contribute to resolving the conflict, but if the avoidance method is chosen, it will overlook the conflict and make it continue.

Third Scenario: Lack of clarity in assigned positions. Conflict and problems may arise when the tasks of the positions are not defined and clarified. Some employees fail to get a clear picture of their responsibilities

In the third scenario: Following the competition method leads to increased participation and creativity. (11)



ROOT CAUSE ANALYSIS (RCA)

One of the major problems faced the project was the security breaches/Viruses to Governance systems which requires us to conduct a comprehensive investigation using the ROOT CAUSE ANALYSIS:

Why?

The security breaches/Viruses attack our systems?

We found that since our project depends on technology and governance systems, so many of our tools are electronic systems, so we have a lot of security breaches.

Why?

These breaches happen to us, and there are examples in similar projects that have the same systems without security breaches?

After investigation, we found that they have protection systems, firewalls.

Why?

We do not have firewalls protection systems?

After checking with the systems and information protection companies, it was found that **because we do not have a cybersecurity department.**

Recommendation:

One of the very important recommendations to the senior management is the necessity to start establishing a department specialized in cyber security to protect the project's systems and to ensure the continuity of the work for these systems to ensure the success of our project.



References:

- 1- <https://www.wallstreetmojo.com/board-of-directors/>
- 2- PBOK 6th Edition
- 3- <https://www.guru99.com/initiation-phase-project-management-life-cycle.html>
- 4- <https://toolbox.hyperisland.com/stakeholder-analysis>
- 5- International Organizations by Dr. Osama Arafat
- 6- https://www.mindtools.com/pages/article/newTMC_05.htm
- 7- Communication in the institution by Dr. Samia Awaj
- 8- Scientific and Educational Horizons
- 9- <https://squareup.com/gb/en/townsquare/how-to-motivate-your-employees>
- 10- Organizational Behavior by Stephen Robbins
- 11- <https://www.proofhub.com/articles/project-management-conflicts>