

Riyadh Formula at Diriyah Gate 2022



Smart Global Events

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رقم المجموعة 5205

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Table of Contents

1.0	Strategy	6
	1.1 The Mission	6
	1.2 The Vision	6
	1.3 SMART Model	7
	1.4 Project Charter Model	7
2.0	Governance, Structure and Process	7
	2.1 Organizational Structure for Teams and Units	7
	2.2 Practical & Scientific Bases	7
	2.3 Projects Office Model	7
3.0	Compliance, Standards and Regulations	7
	3.1 Check Compliance Model	8
	3.2 Check List Model of 3 Stages	8
4.0	Power and Interest	8
	4.1 Stakeholder Register	8
	4.2 Develop of 2 networks	8
	4.3 Logical Diagram for Stakeholder register	9
5.0	Culture and Values	10
	5.1 Culture of Organization	10
	5.2 Proposals of Organization Values	10
6.0	Self-Reflection and Self-Management	11
	6.1 Three Personal Behaviors that can influence the project	12
	6.2 Study Behavior, Identify reasons, and how can they be eliminated	14
	6.3 Self-Professional assessment by using SWOT Model	15
7.0	Personal Integrity and Reliability	15
	7.1 Three Behaviors contradict the moral integrity	16
	7.2 Analyze the Financial, Social, Technical Influence	16
8.0	Personal Communication	16
	8.1 Register of Stakeholder	17
	8.2 Personal/Effective Communication	18
	8.3 Shapes, Models, Channels of Personal Communication	18

✚ 8.4	Communication Matrix	18
✚ 8.5	Three Wrong Scenarios of Communication	18
✚ 8.6	Stakeholder assessment Matrix	19
9.0	Leadership	19
✚ 9.1	Leadership Model	20
✚ 9.2	Reasons of Leadership Model	20
✚ 9.3	Five Proposals for Motivation Methods	21
10.0	Teamwork	21
✚ 10.1	RACI Model for 3 Administrative Measures of the Project	21
11.0	Conflict and Crises	22
✚ 11.1	Identify Conflict Crises	22
✚ 11.2	Three Expected Scenarios of Conflicts	23
✚ 11.3	Optimal Strategies to deal with each Conflict	24
✚ 11.4	Root Cause Analysis	25
12.0	Resourcefulness	26
✚ 12.1	Distribution of Human Resources	28
✚ 12.2	Analyze the Influence of Crashing & Fast-Tracking Process	29
13.0	Negotiations	29
✚ 13.1	General Rules of Negotiation Process	29
✚ 13.2	Two Negotiation Plans	29
14.0	Project Design	30
✚ 14.1	Identify Triple Constraints	31
✚ 14.2	List of Project Success Factors	31
✚ 14.3	Work Breakdown Structure	32
15.0	Requirements and Objectives	33
✚ 15.1	Requirements Traceability Matrix	33
✚ 15.2	Methods Used in Requirement Collection	34
✚ 15.3	Hierarchical Structure of Objectives “connected to Strategy”	35
16.0	Scope	36
✚ 16.1	Scope Statement	36
✚ 16.2	Scope Creep “examples included”	37
✚ 16.3	Product Analysis Management	37

17.0	Time	37
✚	17.1 Functions List “WBS related”	38
✚	17.2 Relationship between Activities	38
✚	17.3 Logical Diagram of Project Activities with Critical Path	39
✚	17.4 Gantt Chart & Milestones Model	39
18.0	Quality	40
✚	18.1 Deming Model for Quality	40
✚	18.2 SIPOC Model & Ishikawa for one of project output issues	41
19.0	Finance	41
✚	19.1 Cost Breakdown Structure	41
✚	19.2 Earned Value Management	41
○	19.2.1 Earned Value Management after completion of 20% period	42
○	19.2.2 Earned Value Management after completion of 50% outputs	42
20.0	Resources	47
✚	20.1 Resource Leveling and Smoothing	48
✚	20.2 Distribution of Project Resources	49
21.0	Procurement	47
✚	21.1 Procurement Execution Process & Contractor Selection	48
✚	21.2 Vendors Comparison Model	49
22.0	Plan and Control	42
✚	22.1 Agenda Invitation and Virtual record of Virtual Meeting	43
✚	22.2 Performance Measurement reports	43
✚	22.3 Change Request Model	45
○	22.3.1 Change Request Model Impact/Alternatives Analysis	47
23.0	Risk and Opportunities	47
✚	23.1 Identification of Risks & Opportunities “Examples included”	48
✚	23.2 Risk Register	49
✚	23.3 Qualitative Risk Analysis	50
✚	23.4 Risk Response Strategies	

24.0 Stakeholder

-  24.1 Stakeholder Engagement assessment Matrix

25.0 Conclusion & Recommendation

-  25.1 Conclusion
-  25.2 Recommendation

Appendix

Tab A - Change Request Form	52
Tab B - Requirements Traceability Matrix	53
Tab C - WBS	56
Tab D - WBS Dictionary	58
Tab E - Scope Validation Plan	60
Tab F - Change Management Instructions & Log	62
Tab G - Project Schedule	64
Tab H - Cost Plan	74

14.0 Project Design

• 14.1 Identifying Triple Constraints of Project

According to PMI (1), a project is a limited-time initiative intended at moving an organization from one level of measured performance to a higher level of measured performance from a business perspective. Good measurement procedures are required to establish if the project target has been met. Our focus and attention will be distracted away from the crucial if we measure the wrong things. The traditional Triple Constraint is insufficient as a tool for assessing project success since it does not allow us to assess how well we have performed in terms of the business potential. It takes the wrong measurements and diverts our focus away from the genuine opportunities.

Let us explore the classical Triple Constraint.



A paradigm for evaluating competing requests known as the Triple Constraint. In balancing competing project needs, project managers frequently refer to a "triple constraint" - project scope, time, and money. (PMI, p377, 2004)

In reality, the PMBOK® Guide covers three independent knowledge areas that are directly related to the three aspects of the Triple Constraint: Project Scope Management, Project Time Management, and Project Cost Management.

The Triple Constraint states that cost is a function of scope and time, or that cost, time, and scope are intertwined in such a way that if one changes, the others must follow suit in a defined and predictable manner. One of the model's major flaws is that it only has two elements, one of which is expressed in two different ways. Let's have a look at the three criteria.

The first is scope, which refers to the content. We can all agree that the more content we have to give, the more effort and time it will take. The cost/budget is the second consideration; a number of factors determines the project's financial commitment. There are resources to consider, ranging from goods to people, as well as labor costs. Other external factors can have an impact on a project's cost, which must be factored into the estimate. As a result, cost includes time, proving the proverb "time is money." Moreover, this is where the issue arises. Because time is money, it is more of a component of cost than a separate issue.

- Cost/budget:

We will be using a Historic Data to compare with similar projects for comparison, below you might find three tables of estimated cost with two similar projects with a variance of 15%.

Also, below can find the Estimation from lowest to highest work package.

Project A – WWE Event in Riyadh:

Budget were set to be around \$68,000,000

<i>Cost Plan</i>	<i>Low (positive)</i>	<i>Most likely</i>	<i>High (negative)</i>
General Preparation	2330666.81	2741960.95	3153255.096
Materials	9711025.01	11424735.3	13138445.6
Implementation	29909912.6	35188132.5	40466352.33
Project Close Out	6215053.69	7311827.88	8408602.057
Reserves	9633341.9	11333343.4	13033344.92
Total (in SAR)	57800000	68000000	78200000

Table 1

Project B – Comic Con Event in Riyadh:

Budget were set to be around \$38,000,000

<i>Cost Plan</i>	<i>Low (positive)</i>	<i>Most likely</i>	<i>High (negative)</i>
General Preparation	1302431.45	1532272.3	1762113.142
Materials	5426749.27	6384410.91	7342072.542
Implementation	16714362.9	19663956.4	22613549.83
Project Close Out	3473118.24	4086021.46	4698924.679
Reserves	5383338.12	6333338.96	7283339.807
Total (in SAR)	32300000	38000000	43700000

Table 2

Formula Event Project – Diriyah Formula Event:

Budget were set to be around \$45,000,000

<i>Cost Plan</i>	<i>Low (positive)</i>	<i>Most likely</i>	<i>High (negative)</i>
General Preparation	1542353.04	1814532.98	2086712.931
Materials	6426413.61	7560486.6	8694559.589
Implementation	19793324.5	23286264.1	26779203.75
Project Close Out	4112903.18	4838709.62	5564516.067
Reserves	6375005.67	7500006.67	8625007.667
Total (in SAR)	38250000	45000000	51750000

Table 4

- Resources Cost Estimation:

<i>Resource Type</i>	<i>Actual Work</i>	<i>Actual Cost</i>	<i>Standard Rate</i>
Supplier Management	0	0	\$60.00/hr
Raw Materials Management	0	0	\$75.00/hr
Consolidation Management	0	0	\$75.00/hr
Project Management	0	0	\$60.00/hr
Out of Scope	0	0	\$90.00/hr
Workers (average)	0	0	\$25.00/hr

Table 5

- Scope:

This section of the Diriyah Gate formula Event will clearly define the scope of the project, including requirements collection, the WBS, scope validation, control plans and techniques. Additionally, the Scope Management Plan will serve as an agreement of the project scope between the following parties: Project Sponsor/Stakeholder DGDA, GAS and SGE. (Project Director, Project Manager, Project Team) and other personnel associated with and/or affected by the project.

- Time:

This project will consist of planning an event starting October 10, 2021 for a one-week event on Saturday January 1, 2022 (Saturday - Friday) with a total budget of \$45,000,000 to drive the marketing and delivery of Formula event in Diriyah Gate. The project's targeted completion date is December 30, 2021. The event, which begins on January 1, 2022

• 14.2 List of Project Success Factors

Each stage of project deliverable development shall be delivered to the client as per the agreed project schedule. The sponsor (author), project manager, and project director will sign off each stage of project deliverable development whenever appropriate before submission to the client as per section “Scope Control” of this document. Each stage of project deliverable development shall be approved and signed off by the client whenever required.

We have established a model for a Project Success Factors, as it shown below we have set three categories as the main factors with its subs.

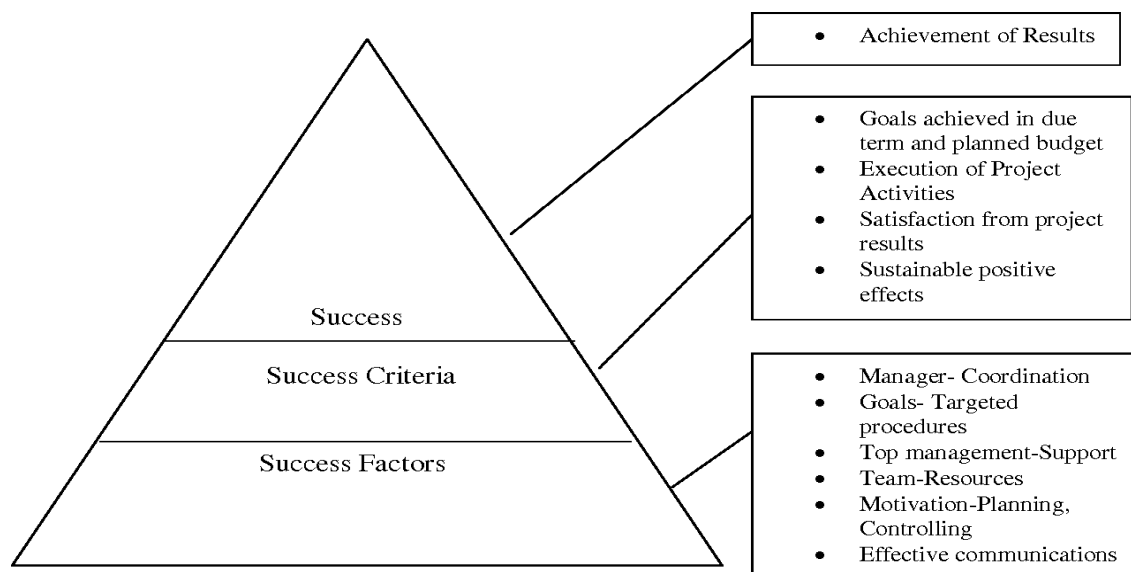


Figure 1

• **14.3 Work Breakdown Structure & Guides**

Below we have set the guidance of our Work Breakdown Structure and a sample brief of its structure.

- **14.3.1 Guides:**

- Gather Critical Documents
 - Gather critical project documents.
 - Identify content containing project deliverables, such as the Project Charter, Scope Statement and Project Management Plan (PMP) subsidiary plans.
- Identify Key Team Members
 - Identify the appropriate project team members.
 - Analyze the documents and identify the deliverables.
- Define Level one Elements
 - Define the Level 1 Elements. Level 1 Elements are summary deliverable descriptions that must capture 100% of the project scope.
 - Verify 100% of scope is captured. This requirement is commonly referred to as the 100% Rule.
- Decompose (Breakdown) Elements
 - Begin the process of breaking the Level 1 deliverables into unique lower Level deliverables. This “breaking down” technique is called Decomposition.
 - Continue breaking down the work until the work covered in each Element, and is managed by a single individual or organization. Ensure that all Elements are mutually exclusive.
 - Ask the question, would any additional decomposition make the project more manageable? If the answer is “no”, the WBS is done.

- **14.3.2 Brief WBS:**

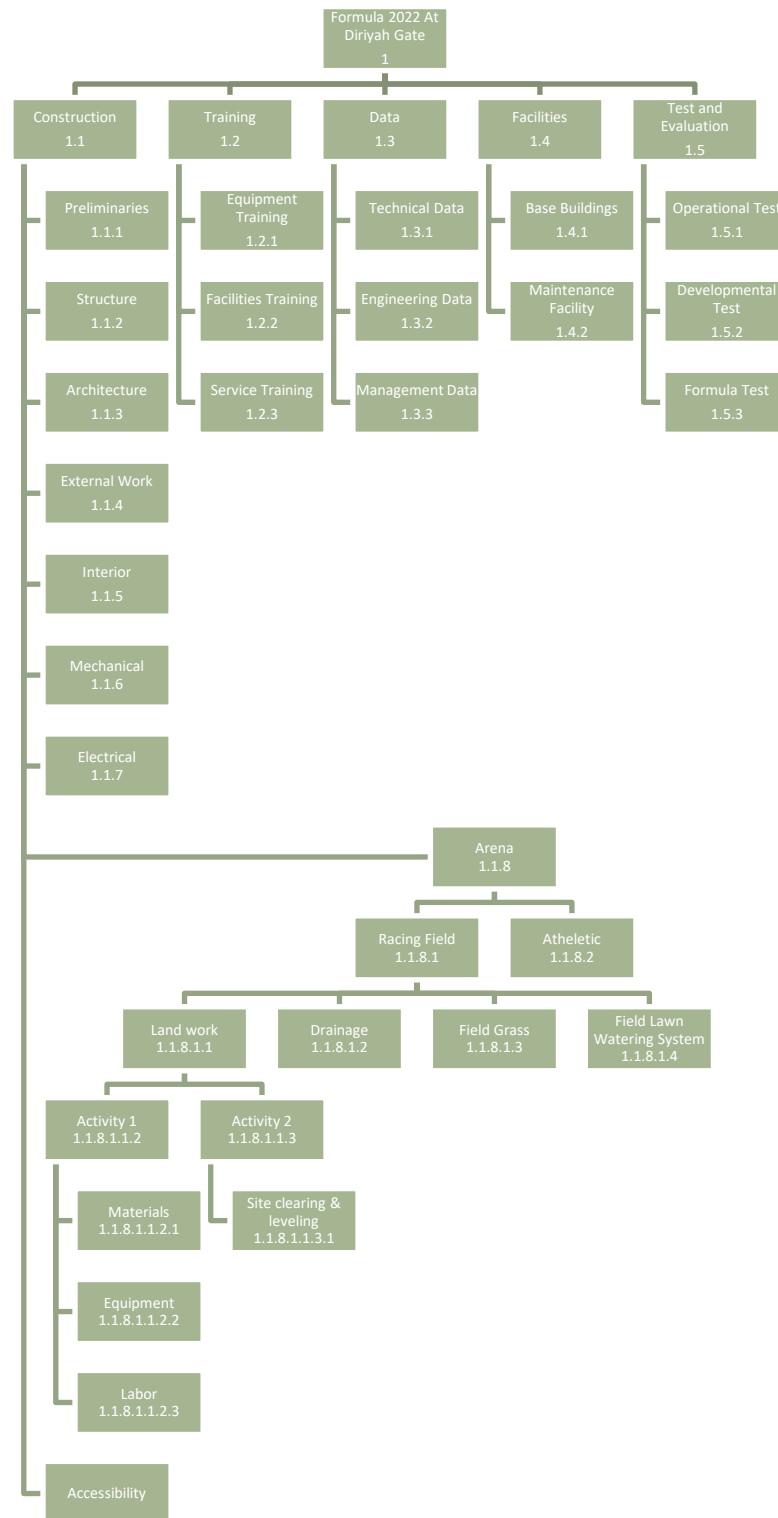


Figure 2

15.0 Requirements and Objectives

15.1 Requirements Traceability Matrix

The Requirements Traceability Matrix is used to link identified and documented project requirements to those elements within the scope and WBS that will ensure the requirement is met and satisfied. Below we have a sample model:

REQUIREMENTS TRACEABILITY MATRIX								
PROJECT MANAGER:	Tariq Al Rashdi			PROJECT ID:	SGE-DGDA/GAS-000001			
PROJECT SPONSOR:	DGDA, GAS and SGE			PROJECT TITLE:	Diriyah Gate Formula Event			
REQUIREMENT INFORMATION					RELATIONSHIP TRACEABILITY			
ID	CATEGORY	REQUIREMENT	PRIORITY	SOURCE	BUSINESS OBJECTIVE	DELIVERABLE(S)	VERIFICATION	VALIDATION
REQ-001	Mandatory	Ability for customers to search the knowledge base for solutions to broadband problems.	High	CTO	Increase self-service resolution rate by 13%	Knowledge base module Analytics module	Achievement of business objective within 1 yr. from go live.	Unit test and UAT.
REQ-002	Should have	My account area with ability for customers to register their product.	Medium	CCO	Increase registration rate of products to 50% in 2 yrs.	My account module Product registration plug-in	Achievement of business objective.	Unit test and UAT.
REQ-003	Nice to have	Ability for customers to see recently viewed knowledge articles in a my account area.	Low	Service Desk	Increase CSAT by 3% by 2nd half FY.	My account module and customization to save viewed knowledge articles.	Uptick of CSAT.	Unit test and UAT.

Chart Model 1

• 15.2 Methods Used in Requirement Collection

- Practical Illustration
- Data on customers' business environment
- Market data on customer
- Data on customer's customers
- Contact data
- Sales history
- Customer satisfaction data
- Feedback from customers on services provided
- Data from help desk or customer support services
- Correspondence data
- Data on customer's buyers

• 15.3 Hierarchical Structure of Objectives “Connected to Strategy”

Below we have a Hierarchal Structure model aligning with Objectives and responsible personnel

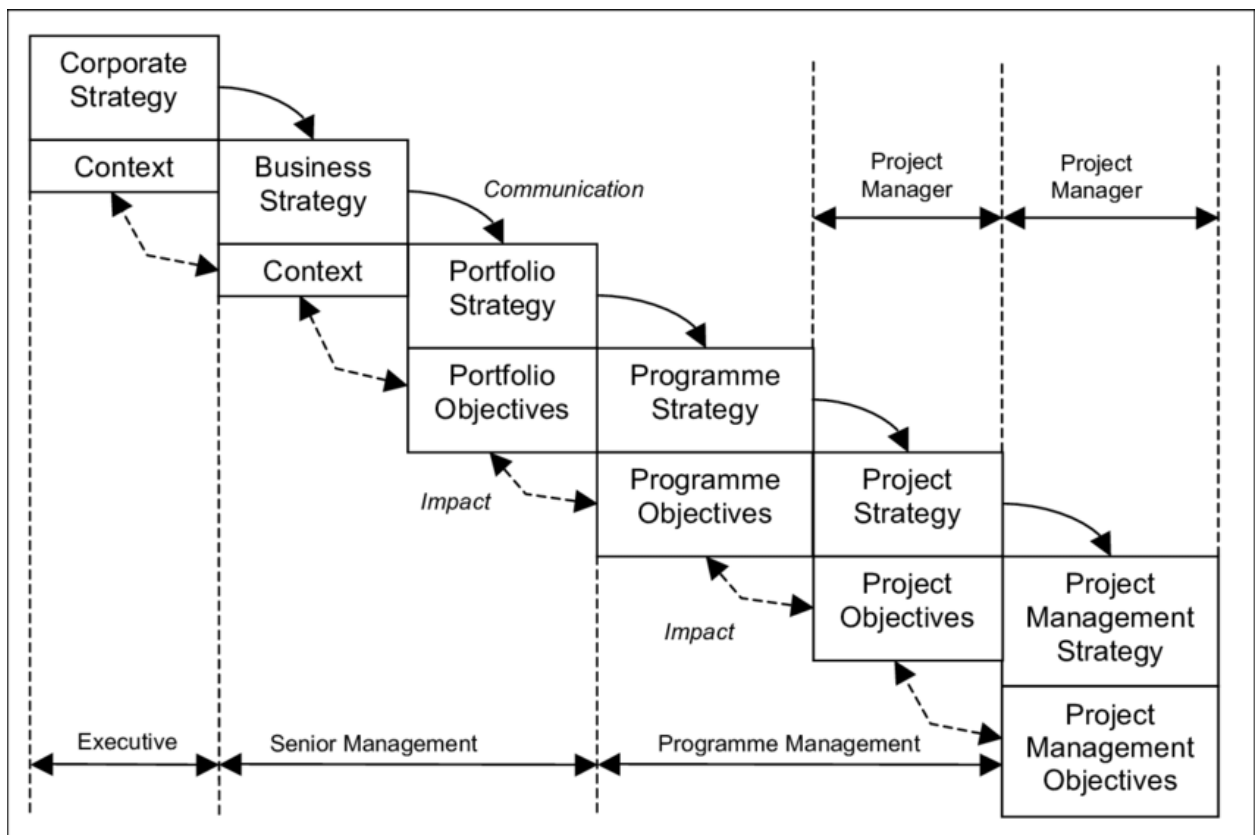


Figure 3

16.0 Scope

• 16.1 Scope Statement

Project scope will be broken down to two Major categories, project scope deliverables and product scope deliverables (Foods, Beverages, Maps, Brochures ... etc). Nevertheless, project related deliverables, would be as defined in section “Deliverables” down below, and it would refer to the package of documents, plans, and processes created by SGE (Smart Global Events) to empower the budget and execution period of the Diriyah Formula Event. Product related deliverables would refer to those items required to ensure the success of the entire event duration and on day-to-day activities and on site as well. This includes those items outlined in section “Deliverables” down below. The requirements of these two categories will be gathered as per the process outlined above.

Although, projects related deliverables outlined in section “Deliverables” down below would be created, accepted, and defined by the project sponsors in phases 1 and 2 of the project schedule, with close monitoring and control exercises it will persist into phase 3 of the project schedule, leading to a successful execution of the event. Each process, plan, or project document shall successfully pass throughout the acceptance criteria process outlined below before getting the acceptance from the client. Document review, creation and approval will have to be finished within a certain approved timeframe due to project schedule, and SGE team must work on document acceptance angle from first review to avoid any unnecessary re-do revisions which is time spent should be used in another fields to prevent any project schedule delays.

As the product, related deliverables relay directly to the success of the promotional event, it will be purchased, manufactured (if required), delivered, and installed at the site in phase 3 of the schedule. The delivery and installation of these products shall be reported to the project manager and project sponsors on a weekly basis to maintain a dynamic client acceptance process. Both categories of scope will be controlled, validated and monitored via the processes outlined in section “Scope Control” of this document.

• 16.2 Scope Creep

Scope creep is defined as when the scope of a project changes and the project work begins to extend, or "creep," beyond what was originally agreed. Change is unavoidable in almost any project, but it is the unmanaged changes that create project delays and scope creep on approved schedule. Changes that are recorded and implemented as part of a project's modified scope are controlled.

Unauthorized changes are one of the most frequent causes of scope creep, and it could be in many faces, below are few examples:

- A vague and indeterminate Statement of Work (SOW) that is documented.
- Conversations and agreements between the client and team members that are not documented.
- Attempting to make extra unapproved and uncontrolled alterations.
- Ineffective communication among team members, project leaders/managers, clients, and stakeholders.
- Deadlines and time limitations that are difficult to meet.
- A change control method that is either rigid or non-existent.
- There is no statement about the project's scope.

16.3 Product Analysis Management

In project management, product analysis is a useful tool. It's utilized to see if the product that'll be supplied will be successful in attracting its intended audience. It's crucial to remember that each application field has its own set of generally acknowledged procedures for creating a decent product that can be delivered to the market, but product analysis involves a variety of tools for analyzing the product. Systems analysis, product breakdown, system engineering, requirement analysis, value analysis, and value engineering are examples of these techniques.

We have established a sample model for product analysis:

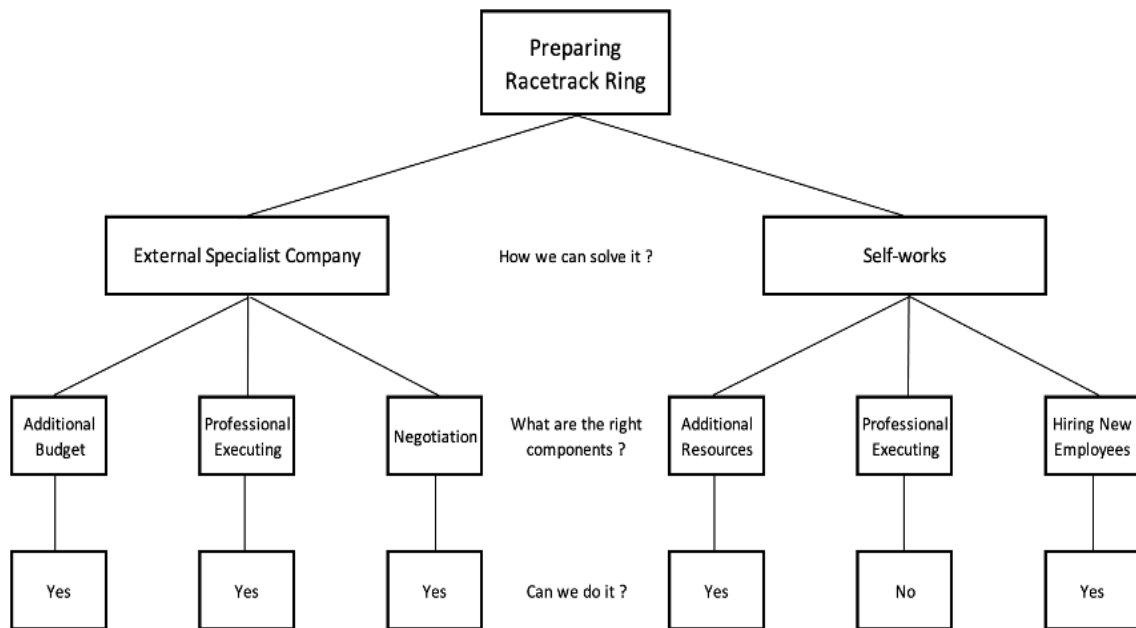


Figure 4

17.0 Time

• 17.1 Functions List “WBS related”

These are the general activities for the development of Arena (Construction); however, we can divide each activity in to sub activity to develop a sub- network. Concreting can be divided as conc. In foundation, in boundary wall, in superstructure etc. the activities of excavation, formwork, concreting and backfilling are divided in to two parts to make these activities concurrent to further reduce the time of completion and thus cost.

Activity no	Activities description
A	Site clearing & leveling
B	Layout
C	Procurement of material
D	Excavation for foundation
E	Foundation work
F	Waterproofing
G	backfilling
H	Construction of boundary walls
I	Construction of super structure
J	Construction of toilets
K	Services work (electrification, AC, plumbing)
L	Foundation for light structure
M	Fabrication of structure for lights for d/n facility
N	Construction of drains
O	Construction of Roads
P	Construction of parking area
Q	Finishing works in toilets
R	M/S railing works
S	Painting work
T	Structure of welded wire mesh around the Ground for safety of players
U	Preparation of Ground and pitch

V	Installation of Gadgets
W	Commissioning of Services
X	Handing over

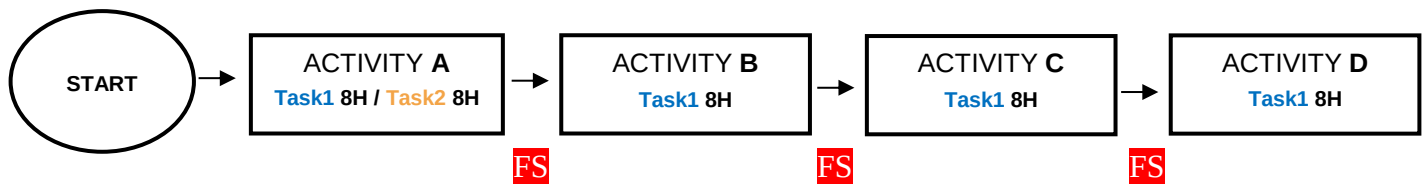
Chart Model 2

17.2 Relationship between Activities

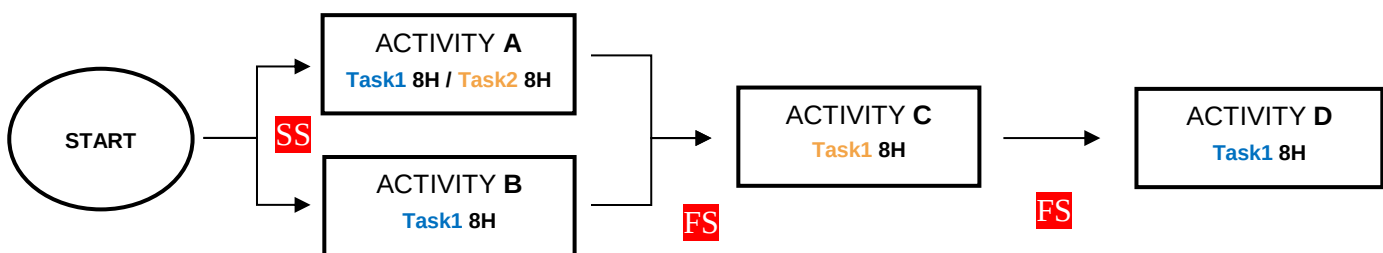
Since this is a fast track project, few activities would start at the same time once its predecessor is completed. Therefore, the major activities (milestones) shall be completed as per approved schedule.

Below a sample of fast track relationship between activities:

Before



After



Relationship between activities are SS, SF, FF, FS. (Table 6)

SS	Start to Start
SF	Start to Finish
FF	Finish to Finish
FS	Finish to Start

Here are the concerned activities

ACTIVITY NO	ACTIVITIES DESCRIPTION	PRECEDING ACTIVITY	FOLLOWING ACTIVITY	CONCURRENT ACTIVITY
A	Site clearing & leveling		B	C
B	Layout	B	D	C
C	Procurement of material		V	
D	Excavation for foundation	B	E,L	
E	Foundation work	D	F,H,I,J	L
F	Waterproofing	E	G	H,I,J,M
G	backfilling	F	X	
H	Construction of boundary walls	E	S	F,I,J
I	Construction of super structure	E	K,N,P,R,T,U	F,H,J
J	Construction of toilets	E	Q	
K	Services work(electrification, AC, plumbing)	I	V	G,N,P,R,T,U,Q
L	Foundation for light structure	D	M	E
M	Fabrication of structure for lights for d/n facility	L	V	F,H,I,J
N	Construction of drains	I	O	G,K,P,R,T,U,Q
O	Construction of Roads	N	S	V
P	Construction of parking area	I	S	G,K,N,R,T,U,Q
Q	Finishing works in toilets	J	S	G,K,N,R,T,U,P
R	M/S railing works	I	S	G,K,N,R,T,U,P
S	Painting work	H,K,N,P,R,T,U ,Q	V	O
T	Structure of welded wire mesh around the Ground for safety of players	I	S	G,KN,P,R,U,Q
U	Preparation of Ground and pitch	I	X	G,KN,P,R,T,Q
V	Installation of Gadgets	S,C	W	
W	Commissioning of Services	V	X	
X	Handing over	W		

Chart Model 3

17.3 Logical Diagram of Project Activities with Critical Path

As a sequence of activities below is an example of logical diagram with highlighted milestones (in red color)

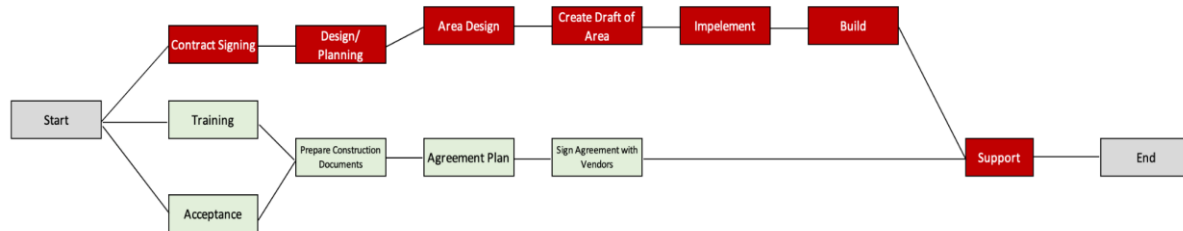


Figure 5

17.4 Gantt Chart & Milestones Model

Below is a sample of Gantt Chart Model

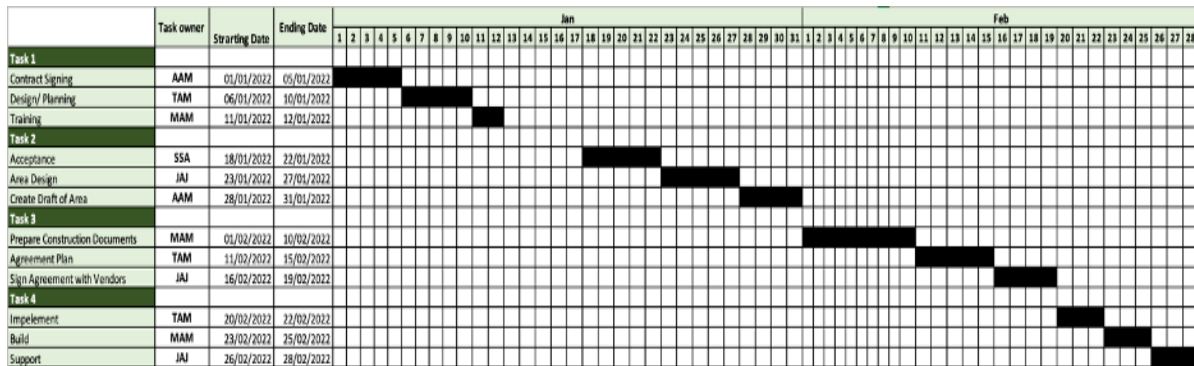


Chart Model 4

Moreover, Milestones sample Model (below)

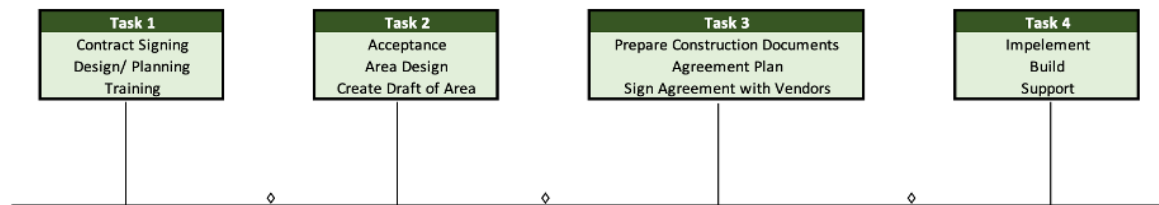


Chart Model 5

Resource Name	Team Lead	Start Date	End Date
Concept	Project Director	Oct-10	Oct-17
Project Charter	Project Director	Oct-18	Oct-21
Development	Project Manager	Oct-22	Oct-31
Project Plan	Project Manager	Nov-01	Nov-08
Implementation	Project Manager	Nov-09	Nov-18
Printed Materials	Project & Event Planning Officer	Nov-19	Nov-26
On-site Team	Project & Event Planning Officer	Nov-01	Dec-30
Organizer Team	Project & Event Planning Officer	Dec-30	Jan-08
Photographer	Project & Event Planning Officer	Nov-01	Jan-08
Decorations	Event Operations Officer	Nov-01	Dec-30
Project Close Out	Project Manager	Jan-07	Jan-08
Final Report Document	Project Manager	Jan-07	Jan-08

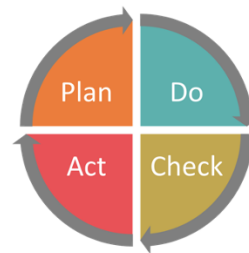
Table 7

18.0 Quality

• 18.1 Deming Model for Quality

Deming cycle or PDCA is a technique to continually improves quality. It consists of four steps (Plan, Do, Check and Act). Each organization or leader can develop the products or services and improve the quality through the PDCA steps as a following:

- Plan
 - Recognize an opportunity.
 - Plan for the goals.
 - Plan a change.
- Do
 - Test the outcomes.
 - Test the change.
- Check
 - Review the test.
 - Analyze the outcomes.
 - Identify learned results.
- Act
 - Implement.
 - Improve the process.



18.2 SIPOC Model & Ishikawa for one of project output issues

A SIPOC is a high-level process map that outlines a complicated process or functional organization's Suppliers, Inputs, Processes, Outputs, and Customers.

Below a sample of tentative Model of SIPOC:

Suppliers	Input	Process	Output	Customers
Zayed Heavy Equipment Supply Co.	Asphalt	Excavation work to create the formation level of the Racetrack Ring	Racetrack Ring	Contestants
Al Rawabi Company for the supply of asphalt stones and pavement	Pavement	backfill works		
Al Muhaidib Contracting		Asphalt works		
		pavement works of the Racetrack Ring		

Table 8

In addition, here we have definition and sample Model of Ishikawa:

The Ishikawa diagram depicts the causes of an event and is frequently used in manufacturing and product development to illustrate the many steps in a process, demonstrate where quality control concerns may arise, and determine which resources are necessary at key moments.

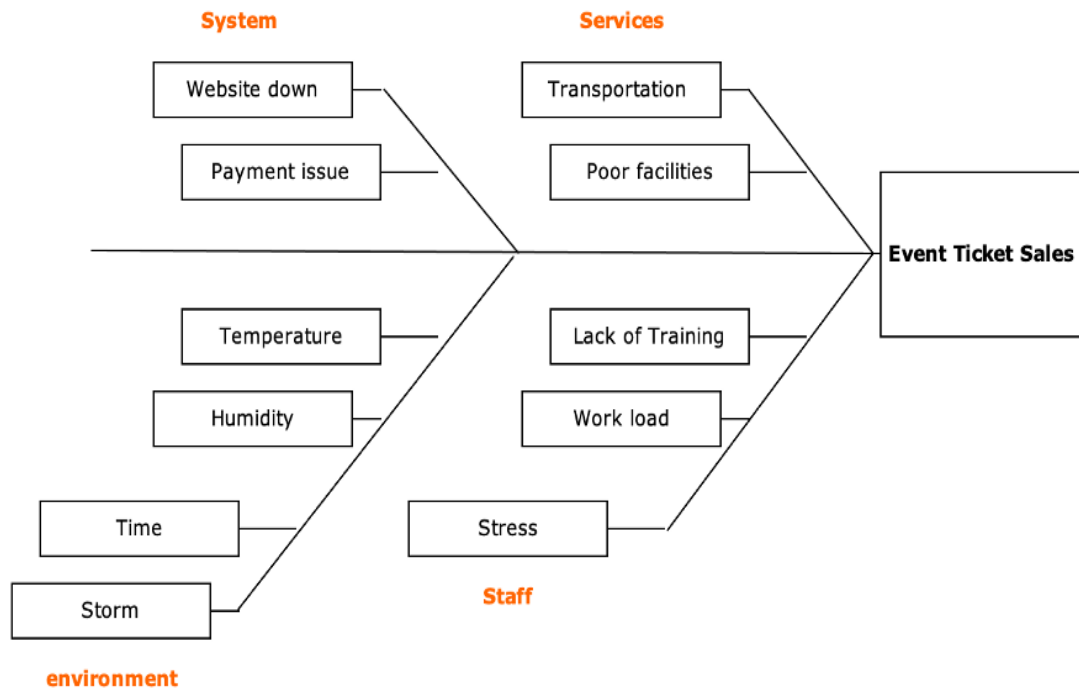


Figure 6

19.0 Finance

• 19.1 Cost Breakdown Structure

Cost Breakdown structure aka CBS or in some cases called Bill of Quantity BOQ, which represents the various costs of components in the project. (Marked in Project Design section under triple constraints)

Below an overview of Project Cost:

<i>Cost Plan</i>	<i>Low (positive)</i>	<i>Most likely</i>	<i>High (negative)</i>
General Preparation	1542353.04	1814532.98	2086712.931
Materials	6426413.61	7560486.6	8694559.589
Implementation	19793324.5	23286264.1	26779203.75
Project Close Out	4112903.18	4838709.62	5564516.067
Reserves	6375005.67	7500006.67	8625007.667
Total (in SAR)	38250000	45000000	51750000

Table 9

In addition, below is a Model of cost estimate of components:

ACTIVITY COST ESTIMATES										
Project name:		Diriyah Gate formula Event		Project ID:		Date prepared:				
Project manager:		Tariq Al Rashdi		Project Sponsor:		DGDA, GAS and SGE		Last update:		
WBS ID	Resource	Labor costs	Physical costs	Reserve	Total estimate	Basis of estimates	Method	Assumptions constraints	Range	Confidence level
1	Phase 1									
1.1	Task Level 2 Description									
1.2	Task Level 2 Description									
1.2.1	Task Level 3 Description									
1.2.2	Task Level 3 Description									
1.2.2.1	Task Level 4 Description									
1.2.2.2	Task Level 4 Description									
1.2.2.3	Task Level 4 Description									
1.3	Task Level 2 Description									

Chart Model 6

19.2 Earned Value Management for the period of 20% & 50%

Earned value management is a project management technique for measuring project performance and progress. It has the ability to forecast the required costs for accomplishment of the project.

An overview of our EVM

Earned Value Analysis Report

Prepared By: Smart Global Events
Date: 1/4/2021

For Period: Days 60

Summary:

The Baseline Budget \$45,000,000

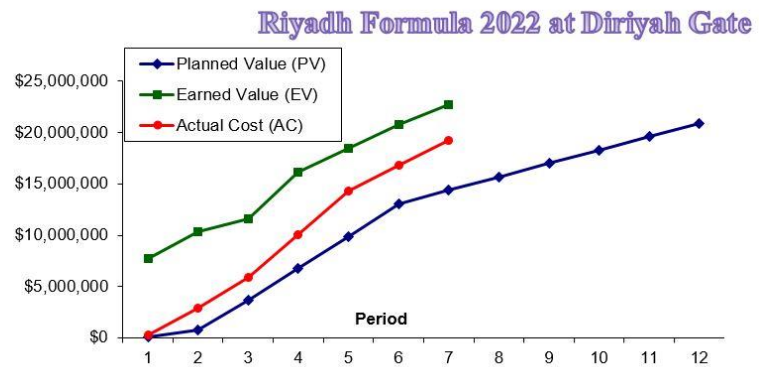


Chart Model 7

Planned Value (PV) or Budgeted Cost of Work Scheduled (BCWS)

WBS	Task Name	TBC	1	2	3	4	5	6	7	8	9	10	11	12
1.1	General Preparation	1814533	64533	750000	1000000									
1.2	Materials	7560486.6			1890000	1890000	1890000	1890000						
1.3	Implementation	23286264				1200000	1200000	1200000	1200000	1200000	1200000	1200000	1200000	1200000
1.4	Project Close Out	4838709.6												48000
1.5	Reserves	7500006.7						100000	100000	100000	100000	100000	100000	100000
		0												
		0												
		0												
		0												
		0												
		0												
		0												
		0												

Insert new rows above this one

Total Budgeted Cost	45000000	64533	750000	2890000	3090000	3090000	3190000	1300000	1300000	1300000	1300000	1300000	1300000	1348000
Cumulative Planned Value (PV)		64533	814533	3704533	6794533	9884533	13074533	14374533	15674533	16974533	18274533	19574533	20922533	

Actual Cost and Earned Value

Cumulative Actual Cost (AC)	272180	2933478	5866955	10085703	14304451	16783078	19186704							
Cumulative Earned Value (EV)	7772187	10297395	11582686	16179458	18477844	20776230	22696592							

Project Performance Metrics

Cost Variance (CV = EV - AC)	7500007	7363917	5715730	6093755	4173392.8	3993152.6	3509888	-	-	-	-	-	-	-
Schedule Variance (SV = EV - PV)	7707654	9482862	7878153	9384925	8593311.2	7701697.4	8322059.3	-	-	-	-	-	-	-
Cost Performance Index (CPI = EV/AC)	28.56	3.51	1.97	1.60	1.29	1.24	1.18	-	-	-	-	-	-	-
Schedule Performance Index (SPI = EV/PV)	120.44	12.64	3.13	2.38	1.87	1.59	1.58	-	-	-	-	-	-	-
Estimated Cost at Completion (EAC)	1575889	12819407	22793763	28051412	34836332	36351084	38041027	-	-	-	-	-	-	-

Chart Model 8

Earned Value Worksheet

This worksheet is used to help calculate the Earned Value (EV) or Budgeted Cost of Work Performed (BCWP).
Make sure that the WBS, Task Name, and TBC are identical to the table in the Report worksheet.
Enter the % Complete for each task to calculate the cumulative earned value.

Cumulative Earned Value (EV)

WBS	Task Name	TBC	Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6	Wk 7	Wk 8	Wk 9	Wk 10	Wk 11	Wk 12
1.1	General Preparation	1814532.98	15%	50%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1.2	Materials	7560486.6		25%	30%	60%	75%	90%	100%	100%	100%	100%	100%	100%
1.3	Implementation	23286264.1				10%	15%	20%	25%	30%	35%	40%	45%	50%
1.4	Project Close Out	4838709.62												1%
1.5	Reserves	7500006.67	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
-	-	0												
-	-	0												
-	-	0												
-	-	0												
-	-	0												
-	-	0												
-	-	0												

Insert new rows above this one

Cumulative EV 7772187 10297395 11582686 16179458 18477844 20776230 22696592 23860905 25025219 26189532 27353845 28566545

Chart Model 9

Actual Cost (AC) of Work Performed

WBS	Task Name	Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6	Wk 7	Wk 8	Wk 9	Wk 10	Wk 11	Wk 12
1.1	General Preparation	272180	771176	1043356									
1.2	Materials		1890122	1890122	1890122	1890122							
1.3	Implementation				2328626	2328626	2328626	2328626	2328626	2328626	2328626	2328626	2328626
1.4	Project Close Out												48387.1
1.5	Reserves						150000	75000	37500	18750	9375	4687.5	2343.75
-	-												
-	-												
-	-												
-	-												
-	-												
-	-												

Insert new rows above this one

Total Actual Cost 272180 2661298 2933478 4218748 4218748 2478626 2403626 2366126 2347376 2338001 2333314 2379357

Cumulative Actual Cost (AC) 272180 2933478 5866955 10085703 14304451 16783078 19186704 21552831 23900207 26238208 28571522 30950880

Chart Model 10

The expected return in equity

Return on Equity	
Net Income	5,000,000.00
Shareholder's Fund	20,000,000.00
Return on Equity using Formula	0.25
Return on Equity using Formula %	25%

Table 10

20.0 Resources

• 20.1 Resource Leveling and Smoothing

It is a Resource optimization that is used to adjust the start and finish dates of activities to adjust planned resource use to be equal to or less than resource availability. Resource Leveling and Resource Smoothing are two techniques used, where Leveling focuses on moving the resource, and smoothing focuses moving the activities.

Resource Leveling It is one of the methods of optimal utilization of resources, through which the start and end dates of activities are modified according to resource constraints, whether they are material or human resources, in order to achieve a balance between the demand for resources and the available ones.

Resource Smoothing

It is a term used in project management and refers to the methods of optimal utilization of resources, through which the activities of the schedule are adjusted so that the needs of those activities of resources, whether material or human, do not exceed the needs that were previously identified during the planning process with the aim of completing project activities and in The time specified for it without any delay and without any new resources and without any waste of resources as well.

	Resource Leveling	Resource Smoothing
1	Resource limited scheduling technique importance is given to the limited resource	Time limited scheduling technique importance is given to the duration of the project.
2	Removes all resource conflicts	Removes as much resource conflicts as possible but, may not remove all resource conflicts
3	May not require additional resource	May require additional resource to address left over resource conflicts
4	Activities may be shifted beyond the float available while rescheduling the activities	Activities are shifted only to the extent of the float available
5	Generally, the project duration gets extended	The project duration remains the same
6	May change the critical path	No change in critical path

Table 11

20.2 Distribution of Project Resources

A consistent distribution of resources across all projects ensures that no employee is overworked or underpaid. Under allocating resources leads to a loss of production and income. Over allocation, on the other hand, can lead to exhaustion, worse output quality, or, worst of all, unintended attrition.

To be trained on distributing the project resources of equipment and tools:

- Providing training opportunities so your team has the skills required to get their jobs completed
- Clearly defining roles and responsibilities
- Setting up recurring 1:1 meetings with the team members you need to work closely with, as well as weekly team meetings
- Giving everyone access to the software they'll need to do their jobs
- Making sure job descriptions and expectations are clear
- Considering how you will manage time away (i.e., sick days, holidays) and determining who will be back-up for others, so you are prepared when team members have time off

Role	Design Manager	Sale & Marketing Manager	Events Manager	Planning Manager	Quality Manager	subcontractor	—
Task	Autocad software	electronic invoice	Event Material	excavator equipment	crane equipment	transport bus	Construction and Building Materials

Table 12

RACI Model for Resources Distribution

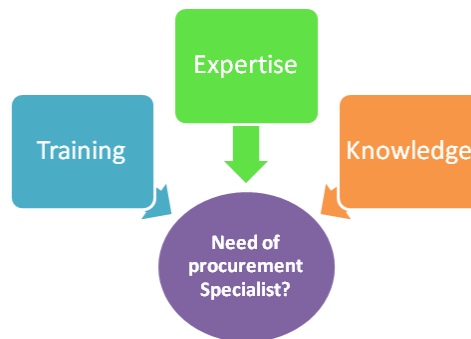
	Design Manager	Sale & Marketing Manager	Events Manager	Planning Manager	Quality Manager	subcontractor
Autocad software	A/R	I	I	C	C	I
electronic invoice	I	A	I	C	I	I
Event Material	I	I	A	C	C	R
excavator equipment	I	I	A	C	I	R
crane equipment	I	I	A	C	I	R
transport bus	I	I	A	C	I	R
Construction and Building Materials	I	I	A	C	I	R
Keys						
R : Responsible for completing the work				C : Consulted before any decisions are made		
A : Accountable for ensuring task completion / sign off				I : Information of when an action / decision has been made		

Table 13

21.0 Procurement

• 21.1 Procurement Execution Process & Contractor Selection

A procurement team is needed by a business to take calculated measures and steps throughout the process for this reason should train them for this Formula at Diriyah Event activities.



Project development requires the services of mechanical, electrical, and structural engineers and contractors; equipment suppliers; a project manager; environmental consultants; and financiers. The acquisition of these services may be through a traditional design-bid-build approach, which can require the host site or owner to provide a high level of oversight and project management.

The selection of a contractor or project developer is a critical decision. The facility owner often relies on the contractor or developer to manage the process of transforming a feasible concept into a functioning project. Some owners have the expertise, resources, and desire to lead the development effort on their own, but even in this case, choosing the right contractor can greatly improve the likelihood of project success.

Once the decision to develop a project internally is made, the facility owner should review the capabilities of individual contracting firms that meet the owner's general needs. When selecting a contractor, there are several qualities and capabilities that owner should look for, including:

- Previous CHP project experience.
- A successful project record of accomplishment.

In-house resources (e.g., engineering, finance, operation), including experience with environmental permitting and siting issues.

Typical procurement process includes:

- Identifying the needs of goods and services
- Finding suppliers
- Requesting proposals/quotations (RFP/RFQ)
- Negotiating with suppliers
- Agreeing terms with suppliers
- Arranging and receiving products/services
- Performing quality assurance
- Analyzing results and margins

· 21.2 Vendors Comparison Model

In the below Model table we can specify the product types, description, cost per unit for each Vendor.

Cost Comparison Worksheet									
Project Name:	Riyadh Formula 2022 at Diriyah Gate								
Date:	4/1/2022								
Number of Weeks in Menu Cycle:	24								
Number Menu Cycles Per Year:									
Product Type	Item Description/Specification (Detailed)	Unit Size (i.e., 5lb bag, each, #10 can etc.,)	Estimated # of Units Purchased (per cycle)	(Vendor 1)		(Vendor 2)		(Vendor 3)	
				Store 1 Price per purchase unit	Cost of Units Purchased (per cycle)	Store 2 Price per purchase unit	Cost of Units Purchased (per cycle)	Store 3 Price per purchase unit	Cost of Units Purchased (per cycle)

Chart Model 11

22.0 Plan and Control

· 22.1 Agenda Invitation and Virtual record of Virtual Meeting

There are various ways and technics into making an agenda invitation and virtual records of meetings, below two sample of invitations for two different positions:

(A)

Subject: Meeting Invitation

Dear Manager's,

I would be glad if we can arrange for a phone call to discuss the matter, so please do provide me with a phone number and a contact person I can reach out to.

I will be looking forward to receiving feedback from your side.

Best regards,
Project Manager

(B)

Subject: Invite for a conference call

Dear Manager's,

I would like to invite you to a conference call to discuss starting Formula at Diriyah Event activities, The meeting will take place on the 21st of December, starting at 2 pm and finishing at 4 pm. Could you please confirm whether you will be able to participate?

I have attached additional files, which provide some more background on our topic. An agenda will also be sent to you shortly.

Kind regards,
Project Director

Once invitations are sent, Agenda should follow, therefore either a follow up email should be sent or we can attached agenda in invitation email.

❖ Example of Agenda with Invitation:

Subject: VIRTUAL MEETING AGENDA FOR Riyadh Formula 2022

Date : 09/12/2021

Time : 10 AM

Link to virtual meeting sent request by mail

List of attendees and their titles or positions

List of attendees			
Mr.	Owner Project	Eng.	Project Manager
Eng.	Project Manager	Eng.	Director Manager

AGENDA

Preparations for the implementation of the project

Call to Order – Owner project

Introductions

Approval of Prior Meeting Minutes

Project Manager Summary

- Follow-Up from Previous Meeting
 -
 -
 -
- New Business Items

-
-
-
- Action Items
-
-
-

Next Meeting's Agenda

Announcements

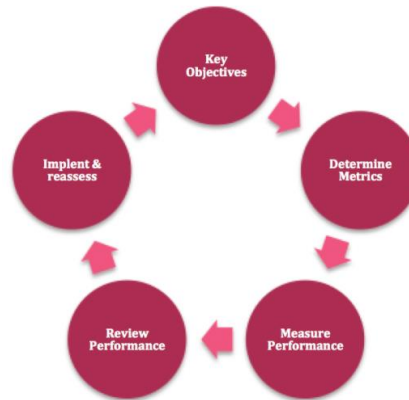
Public Comments

Meeting Minutes

10:00 am	Welcome/News/Announcements
10:05 am	Recognition
10:10 am	Administrative/Finance Updates
10:15 am	Review of Previous Action Items
10:20 am	Project Updates
10:30 am	Delivery items
10:40 pm	Round Table
10:45 am	Review of New Assignments/Travel Plans
10:55 am	Adjourn

• 22.2 Performance Measurement reports

By drawing the four quadrants on a big piece of flip chart paper. Starting in the upper left quadrant. First, we will put down the measure “of customers served” in the upper left quadrant. We will ask if there are better or more specific ways to count customers or important subcategories of customers, and list them. Next, we will ask what activities are performed. We will convert each activity into a measure when you are finished, we will ask if there are any major activities that are not listed.



Performance report example:

PERFORMANCE PROJECT REPORT

PROJECT NAME		PROJECT MANAGER	
Riyadh Formula 2022 At Diriyah Gate			
PROJECT STATUS DETAILS		REPORTING PERIOD	
%		15 days	

PROJECT DETAILS

ACTIVITY NAME	Printer material		
START DATE	19-11-2021	COMPLETION DATE	25-11-2021
SCHEDULE PERFORMANCE	As planned during the agreement with increase a deviation of half a day		
BUDGET PERFORMANCE	As stipulated in the budget		
QUALITY	As planned during the agreement		
RISKS	Delay on delivery material		
NOTES	The main reason for the delay in schedule performance is the need to replace printing inks		
ACTIVITY NAME	Decorations installation		
START DATE	01-11-2021	COMPLETION DATE	30-12-2021
SCHEDULE PERFORMANCE	As planned during the agreement		
BUDGET PERFORMANCE	As stipulated in the budget with increase %		

QUALITY	As planned during the agreement	
RISKS	Supply chain	
NOTES	For budget performance the reason for the deviation stems from the supply chain of equipment, which was affected by the Corona pandemic	
PREPARED BY name and title	PREPARED BY signature	DATE
Eng. Project Manager		09-11-2021
APPROVED BY name and title	APPROVED BY signature	DATE
Eng. Sponsor		09-11-2021

Chart Model 12

22.3 Change Request Model

Step	Description
Generate CR	A submitter completes a CR Form and sends the completed form to the Change Manager
Log CR Status	The Change Manager enters the CR into the CR Log. The CR's status is updated throughout the CR process as needed.
Evaluate CR	Project personnel review the CR and provide an estimated level of effort to process, and develop a proposed solution for the suggested change
Authorize	Approval to move forward with incorporating the suggested change into the project/product
Implement	If approved, make the necessary adjustments to carry out the requested change and communicate CR status to the submitter and other stakeholders

Generate CR

Evaluate CR

Authorize CR

Implement CR

Table 14

Priority	Description
High	A change affecting Scope, Time, Resources, Quality and Cost
Medium	A change affecting Duration of milestone activity
Low	A change that won't affect the process of the project

Table 15

Change Request example model:

Part I – General Information				
Project Name	Project Manager	Project Sponsor		
Riyadh Formula 2022	Eng.	Eng.		
Change Number	Change Number	Short Description	Requestor	
1	1	New Requirement	Sponsor	
Priority	Risk	Category		
high	Medium	o Scope	o Schedule	o Cost
		o Requirements	o Quality	o External
Detailed Description of the Change Request				
The requirement is not specified in the original specification to increase the new distance to the side of the main stage because the sponsor performs a new scan as an order from upper management in the formula event after applied hand offer project to SGE team				
Proposed Solution / Recommendations				
Accepted by project manager, With taking into consideration for re-costing assessment and reschedule time as well				
Impact / Justification of Proposed Change				
Increase man power cost, Materials supply, Operation.				

Chart Model 13

○ 22.3.1 Change Request Model Impact/Alternatives Analysis

Change Request ID: 1

Title: Riyadh Formula 2022

Description: The requirement is not specified in the original specification to increase the new distance to the side of the main stage because the sponsor performs a new scan as an order from upper management in the formula event after applied hand offer project to SGE team

Analyst: New Requirement

Date Prepared: _____

Prioritization Estimates:

Relative Benefit: 9 (1-9)

Relative Penalty: 1 (1-9)

Relative Cost: 8 (1-9)

Relative Risk: 4 (1-9)

Calculated Priority:

Estimated total effort: _____ labor hours

Estimated lost effort: _____ labor hours

Estimated schedule impact: _____ days

Additional cost impact: _____ dollars

Quality impact: _____

Other requirements affected: _____

Other tasks affected: _____

Plans to be updated: _____

Integration issues: _____

Life cycle cost issues: _____

Other components to examine _____

For possible changes: _____

Chart Model 14

23.0 Risk and Opportunities

• 23.1 Identification of Risks & Opportunities “Examples included”

Impact of Risk	Grade	Mitigation Actions	Responsible Staff	Value
Due to space of the event launch, there is increased risk for liability and safety issues if there is a high turnout.	C	SGE will ensure that the event plan meets all legal requirements. Review the Saudi fire and safety code, to determine the legal maximum occupancy of the event. Outdoor space will also be available to accommodate for large crowds. Staff will be prepared to handle issues as they arise.	Project Manager	TBD
Potential chance of power and mechanical failure on site.	D	Diriyah Formula event will be prepared and on standby in case the location is needed To provide quality of show & safety for the Diriyah Gate visitors. Staff will also have a backup generator available for the day of the event.	Project Manager	TBD
Weather is uncertain and rain could occur on day of event	B	SGE will order a tent to have a standby countermeasure to cover all outdoor activities. Umbrellas will be available for the site-team and Diriyah Formula staff since the event falls in winter season, rain can be expected.	Events Operations Manager	TBD
Depending on the time of day the event is held, there may be poor attendance.	A	The event will be held during peak business hours during the workweek. This will promote the event and create foot traffic from employees and businesses in the nearby offices of the event location entrance.	Project Director	TBD
Customers may have lack of eyesight on foot due to expected large audience, and maybe food allergies.	B	SGE staff will ensure that there are warning labels on all entrances to avoid such issue & foods that may contain certain ingredients.	Project Manager	N/A

Project Manager and the Project Team produced countermeasure options for each risk that was associated with the event. As the event plans continues and more risks are identified, the risks will be analyzed and a countermeasure will be determined with its value. The risks for the project will be managed and controlled within the triple constraints (time, scope and cost). The major constraint that the four identified risks (below table) can be related to is time. With the project team, each risk will be looked at on a case-by-case basis as they arise to determine and make sure the countermeasure is still the best option at the time. The Project Manager will be kept informed of all risks and inform the Stakeholders.

Examples of other kind of risks:

- Hazard from crowd unorganized movement :crowd can push each others and its may make someone to fall down and been underfoot
- Hazard of car crashing :the speed in the race can be more than 300 km per hour and the drivers may harm them self and others with this speed weather is uncertain and rain could occur on the day of the event
- Hazard of entering the event without ticket: some of the crowd may find a way to enter the even without paying ticket
- Hazard of kids falling into the racing track : we all know that the kids may get so excited when watching the race so if there was no security the kids may fall in the track

• 23.2 Risk Register

Risk	Risk Identification ID	Risk description	Risk categories	Risk analysis	Risk probability	Risk priority	Risk response	Risk Ownership
Hazard from crowd unorganized movement	A	The crown can push each other and if its happened its can cause to injuries ,falling and underfoot	operational Risk	The qualitative risk table is in the separate table below	3	900	There will be a unit in the event specialized to organize the movement of the crowd	Security department
Hazard of car crashing	B	At the high speed in the race there are a big chance that a car crash may happened	Budget risks	The qualitative risk table is in the separate table below	4	1600	An Ambulance car and a fire department will be ready for these type of risk	Ambulance and fire department
Weather is uncertain	C	If a heavy rain or a high speed wind its will effect the event	External Risks	The qualitative risk table is in the separate table below	1	200	The event will be in the summer which usually the weather is sunny and clear	Project management office
Hazard of kids falling into the racing track	D	If a kid fall info the track wile the race is happing the consequence will be tragic	operational Risk	The qualitative risk table is in the separate table below	1	400	There will be a high Fence to protect the crowd	Security department
Hazard of entering the event without ticket	E	The risk here that the crowd will be more than the capacity of the place	operational Risk	The qualitative risk table is in the separate table below	2	200	There will be an electronic gate so no one can enter without ticket	Security department

Table 16

• 23.3 Qualitative Risk Analysis

To make the Qualitative Risk Analysis first I will do the estimation probability for each risk, which will be from 1 to 4 which 1 is the lowest and 4 is highest:

Risk	Risk probability	Risk Impact
Hazard from crowd unorganized movement	3	3
Hazard of car crashing	4	4
Weather is uncertain	1	2
Hazard of kids falling into the racing track	1	4
Hazard of entering the event without ticket	2	1

Table 17

Probability	80%	0.8	1.6	4.8	19.2
	60%	0.6	1.2	3.6	14.4
	40%	0.4	0.8	2.4	9.6
	20%	0.2	0.4	1.2	4.8
	0	1	2	3	4
		Impact			

Table 18

- **23.4 Risk Response Strategies**

A Model below represent out Risk strategy

Probability	80%	0.8	1.6	4.8	19.2
	60%	0.6	1.2	3.6	14.4
	40%	0.4	0.8	2.4	9.6
	20%	0.2	0.4	1.2	4.8
	0	1	2	3	4
	Impact				
		Very High			
		High			
		Moderate			
		Low			

Table 19

24.0 Stakeholder

• 24.1 Stakeholder Engagement assessment Matrix

The Stakeholder Participation Assessment Matrix is a basic but effective project management approach for documenting and tracking stakeholder engagement levels. It aids in identifying potential gaps in stakeholder participation.

Position & Role	Unaware	Resistant	Neutral	Supportive	Leading
Sponsor/ Owners of Diriyah Formula DGDA & GAS				C	D
Project Director				D	CD
Project Manager				D	
Project Budget & Finance Officer			C	D	
Project & Event Planning Officer				D	
Event Operations Officer			C		
Project Coordinator				CD	
Project Admin				C	

Table 20

25.0 Conclusion & Recommendation

• 25.1 Conclusion

We decided to choose upon the awarding of Formula event at Diriyah Gate because it will add a amazing experience and knowledge to the profile of Smart Global Events. The schedule we finalized until the end of project was a top notch, and the group we had was structurally balanced wherein the communication flow was very efficient. We had established some SMART goals the team prior knowing the full scope of project, our group has frequently used style of collaborative approach, and we had no conflicts except for minor expected conflicts, mostly in schedule.

However, our frequent communication via email, conference calls, phone has enabled us to understand ones another's viewpoints and eliminate the misunderstandings. Maintaining the schedule and finishing the project upon a time was a big challenge for the group.

• 25.2 Recommendation

- Phase 1 conceptual and initiation is the time the project managers creates the core team, the core project team consist of supervisory and employees who have the skills. Smart Global Events will start the feasibility study.
- Phase 2 is the definition and planning of the project itself, this is when the manager is putting the project together. In this stage, the Formula Event Project Manager needs to plan on cost, budgets, and implementation on schedule.
- Phase 3 Project Launch, at this time the Formula Event team needs to distribute the resources tasks and communicate with each other's about their assigned responsibilities.
- Phase 4 Monitoring and controlling, Smart Global Event would need to measure the project performance. In addition, monitor the cost so it will not go over the approved budget. The employees' performance will be measured as well by the sponsors.
- Phase 5 Close out of Project, which is the primary responsibility of the project manager to ensure that all work in project has been completed and met the criteria. In this stage, project manager has to make the final payments to vendors (if any) and deliver the project to the Client.

❖ References

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(Page numbers shall be rectified with final submittal next week)