

Project Management Assignment Guidelines 2018-19

Andre Samuel

Part A- General Overview

- This component requires the use both theoretical (journals, texts) as well as practitioner **references** in your work.
- Please use Harvard Referencing System to cite sources and produce your Reference List
<http://libweb.anglia.ac.uk/referencing/harvard.htm>
- It is also important that you apply the context of the case to your discussions
- Remember you are making recommendations!

Part A- Requirements

Evaluate and analyse:

1. Critically evaluate the relationships between Time, Cost and Quality within Project Management.
2. What steps can be taken to improve the quality of the product provision at Prime? What are the key strengths of a Time Management Approach?
3. What are the key measures and tactics to implement a new approach that reduces the time problems?
4. How will customers benefit from the new approach? How will Prime become more competitive?

Context of your Answer

- The environment is that of an Car Manufacturing Industry
 - therefore the models and recommendations must be relevant to the industry
- Prime operates under two major constraints:
 - Fixed Price contracts
 - Cannot compromise quality
- You are making recommendations to Prime, so throughout your paper refer to Prime and apply your discussions towards Prime

Part A-Structure

1.0 Introduction

- Define Project Management
- State that project success is measured in terms of Time, Cost and Quality
 - Project success = min time + min cost + max quality
- Outline the functions of Project Management, use Turner (1999)
- Purpose and Outline of the paper. What will be analyzed in the subsequent sections

2.0 Relationship between Time, Cost and Quality (TCQ)

- Give a brief intro into the Triple constraints, include diagram
- **2.1 Overview Project TCQ Management**
 - Define each knowledge area
 - Discuss an overview of each knowledge area

– 2.2 Dynamics and Trade-Offs among TCQ

- Give brief intro into the need for trade-off's:
 - The triangle reflects the fact that the three constraints are interrelated and involve trade-offs i.e. one side of the triangle cannot be changed without impacting the others.
 - The triple constraints continuously faces conflicting demands and competing priorities.
 - Without the effective management of the triple constraint as an interrelated system, projects run the risk of becoming separated from purpose.

- Discuss the Theoretical background and assumptions
 - Trade-off's are based on the deterministic project environment
 - The Triple Constraint says that cost is a function of scope and time
 - Time–cost trade-off concentrated on shortening overall project duration by crashing
 - Concern over quality degradation then crashing project activities is not desirable, and more time should be allowed
- Introduce the 3 key relationships
 - $Q \uparrow = T \uparrow C \uparrow$
 - $T \downarrow = Q \downarrow C \uparrow$
 - $C \downarrow = Q \downarrow T \uparrow$

- **2.2.1 Maximizing Quality**

- Discuss the implication of attempting to maximise Quality:

- » necessitates an increase in time ($T \uparrow$) and/or cost ($C \uparrow$).

- » If cost remains unchanged, then the project can be delivered good (because $Q \uparrow$) and cheap (because C fixed as planned) but not fast (because $T \uparrow$);

- **2.2.2 Reducing Time**

- Discuss the implication of attempting to reduce Time:

- » necessitates a reduction of scope/quality ($Q \downarrow$) and/or an increase in cost ($C \uparrow$).

- » If Quality needs remains unchanged, then the project can be delivered fast (because $T \downarrow$) and good (because Q fixed as planned) but not cheap (because $C \uparrow$);

- **2.2.3 Reduce Cost**

- Discuss the implication of attempting to reduce Time:

- » necessitates a reduction of scope /quality ($Q\downarrow$) and/or an increase in time ($T\uparrow$).

- » If time remains unchanged, then the project can be delivered cheap (because $C\downarrow$) and fast (because T fixed as planned) but not good (because $Q\downarrow$).

- For each of these discussion of the trade-off's please use:

- necessary examples relevant to Prime Automotive

- Models of the project triangle to show trade-off's

- **3.0 Steps to Improve Quality**

- Give overview of PMI Quality Management Processes i.e. Plan Quality Management, Quality Assurance and Quality Control

- **3.1 Quality Management Framework for Prime**

- Discuss Quality management standards e.g. ISO 9001:2015
 - Discuss Quality Management Models e.g. PDCA cycle
 - Discuss industry relevant models
 - Recommend a framework for Prime

- **3.2 Quality Control Tools and Techniques**

- Discuss the use of Quality Assurance
 - Discuss the use of Seven Basic Quality Tools
 - Discuss use of Inspection

- **3.3 Continuous Improvement**

- TQM, Six Sigma

4.0 Key Measures and Tactics for Time Management

– Introduction to Project Time Management

- It is premised on the project methodology and project lifecycle stages

– 4.1 Recommended Project Methodology for Prime

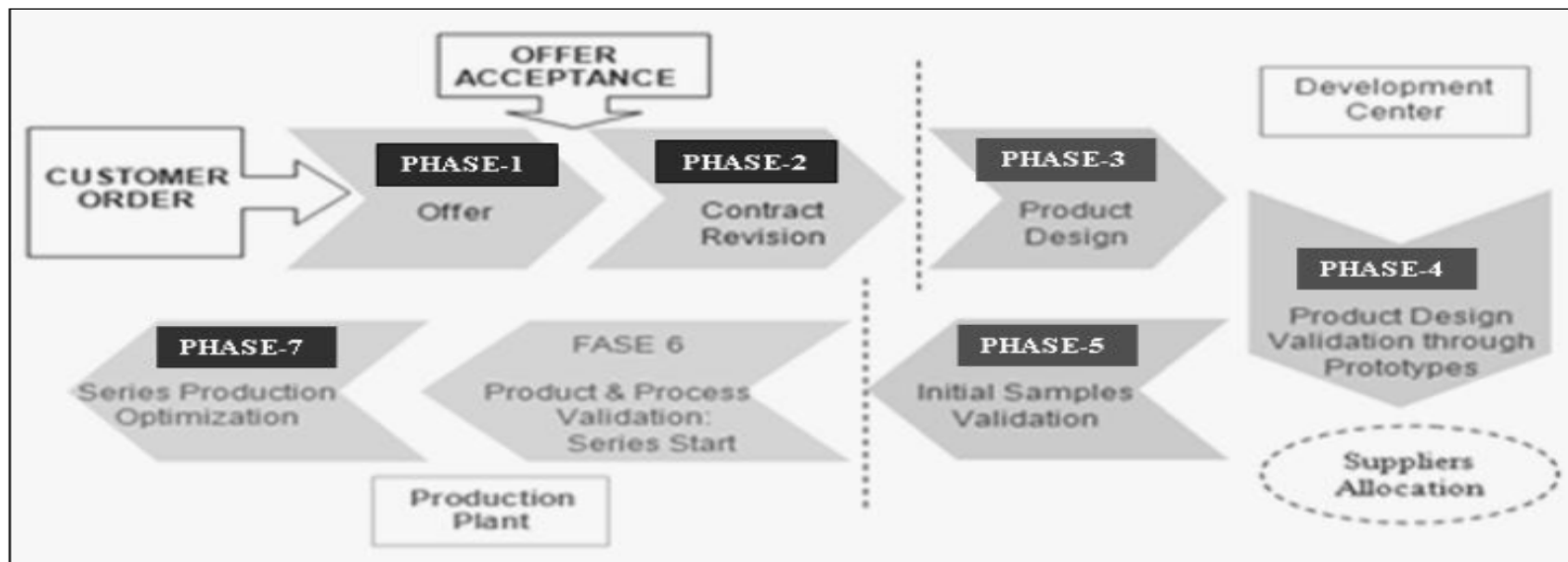
- Define Project Methodology, introduce the array of methodologies. (do not discuss them)
- **4.1.1 Waterfall Methodology**
 - Brief Discussion of the Process (lifecycle), Principles, Practice, Tools
- **4.1.2 Agile Methodology**
 - Discuss the Process (lifecycle), Principles, Practice, Tools
 - Could briefly discuss the SCRUM framework

- **4.1.3 Recommended Methodology**

- Here you should recommend that Prime use an Agile Framework e.g. SCRUM

- **4.2 Recommended Project Lifecycle**

- Define project lifecycle, discuss that it can be determined or shaped by the unique aspects of the organization, industry, or technology employed
- Then, outline the stages/phases Prime should use. Draw or use a diagram of the stages. Example:



Goicoechea & Fenollera (2012) Project Stages in Automotive Sector

– 4.3 Project Time Management Processes

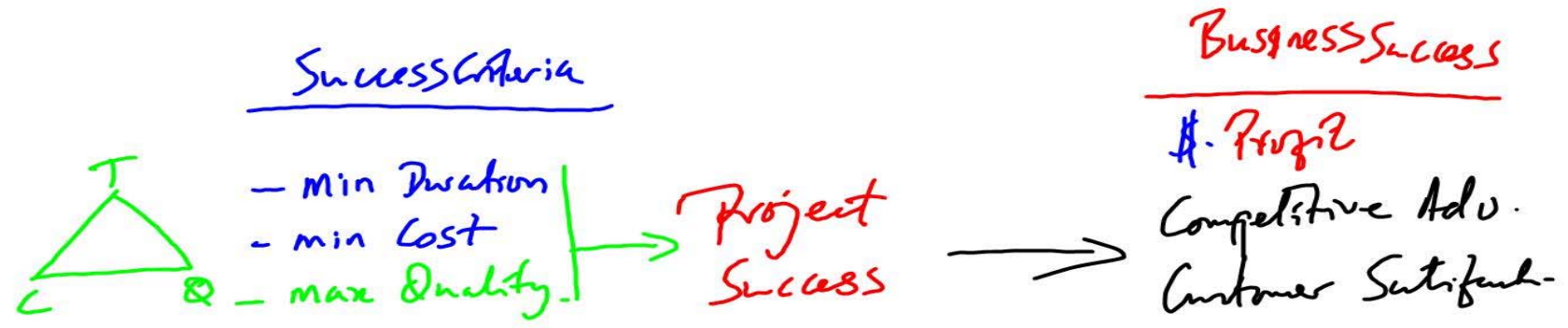
- 4.3.1 Activity Definition
- 4.3.2 Sequence Activities
- 4.3.3 Estimate Activity Duration
- 4.3.4 Control Schedule
- For each of these processes define it, discuss the tools and techniques that should be used.

– 4.4 Benefits of Project Time Management

- Use literature to discuss the benefits
- Should discuss no less than 3 direct benefits

5.0 Improving Competitiveness and Customer Benefits

- Start by saying that competitiveness of Prime is based on their project success
- Project success is measured by typical KPI's such as fast delivery, within budget, lower cost than competitors and a quality product
- Therefore, to achieve project success, it depends on managing the key knowledge areas: Scope, Time, Cost and Quality



link between Project Mgt → Project Success → Competitive Adv.

– 5.1 Summary of Recommendations

Project Management Areas	Key Recommendations
Time Management	<ul style="list-style-type: none"> • X • X • X • x
Cost Management	<ul style="list-style-type: none"> • X • X • X • X
Quality Management	<ul style="list-style-type: none"> • X • X • X • X

Part B- Project Planning

- **Original Gantt Chart- 5 month**

- In Body:**

- List all assumptions e.g. start date, holidays etc
 - Print Dependency Table
 - State the critical path
 - Comment on what is a Critical Task/Path and its significance

- In Appendix B.1**

- Print/Screen Capture Original Gantt Chart- 5 month
 - Paste into final Report Appendix B.1

- **Updated Gantt Chart- 3 months**

- You will need to justify your modification to shorten duration

- **In Body**

- Discuss briefly that you used the Critical Path Method to Crash or Fast Track Project or both

- Briefly explain concepts of Crashing and Fast tracking

- State any new assumptions e.g. use of Project managers from Prime

- Explain the adjustments made:

- Note new schedule finish date (3 months)

- Note new critical path or paths

- **In Appendix B.2**

- Print/Screen Capture Updated Gantt Chart- 3 months

- Paste into final Report Appendix B.2

Part C- Budget Creation

- **Original Budget- 280K**
 - **In Body of report**
 - State any assumptions
 - Add Other Explanatory notes as necessary
 - **In Appendix C.1**
 - Print Screen Budgets/Gantt chart with Cost Columns
 - Paste in Appendix C.1
- **Reduced budget- 210K**
 - **In body of report**
 - State any assumptions
 - Add Other Explanatory notes as necessary
- **In Appendix C.2**
 - Print Screen Budgets/Gantt chart with Cost Columns
 - Paste in Appendix C.2

Report Format

- Title Page
- Table of Contents
- Part A – General Overview (2500 words)
- Part B – Project Planning (250 words)
- Part C – Budget Creation (250 words)
- Reference List
- Appendix B.1- Original Gantt Chart (5 mon)
- Appendix B.2 - Updated Gantt Chart (3 mon)
- Appendix C.1- Original Budget (280,000)
- Appendix C.2 – Reduced Budget (210,000)
- Other Appendices

Disclaimer

- This guideline is not a prescription, but rather an outline of the basic structure and contents required to meet the minimum requirement of the assignment.
- It is therefore flexible
- It does not guarantee any particular grade/mark
- Your final grade/mark is determined by your application, use of literature and academic rigour in answering the questions.