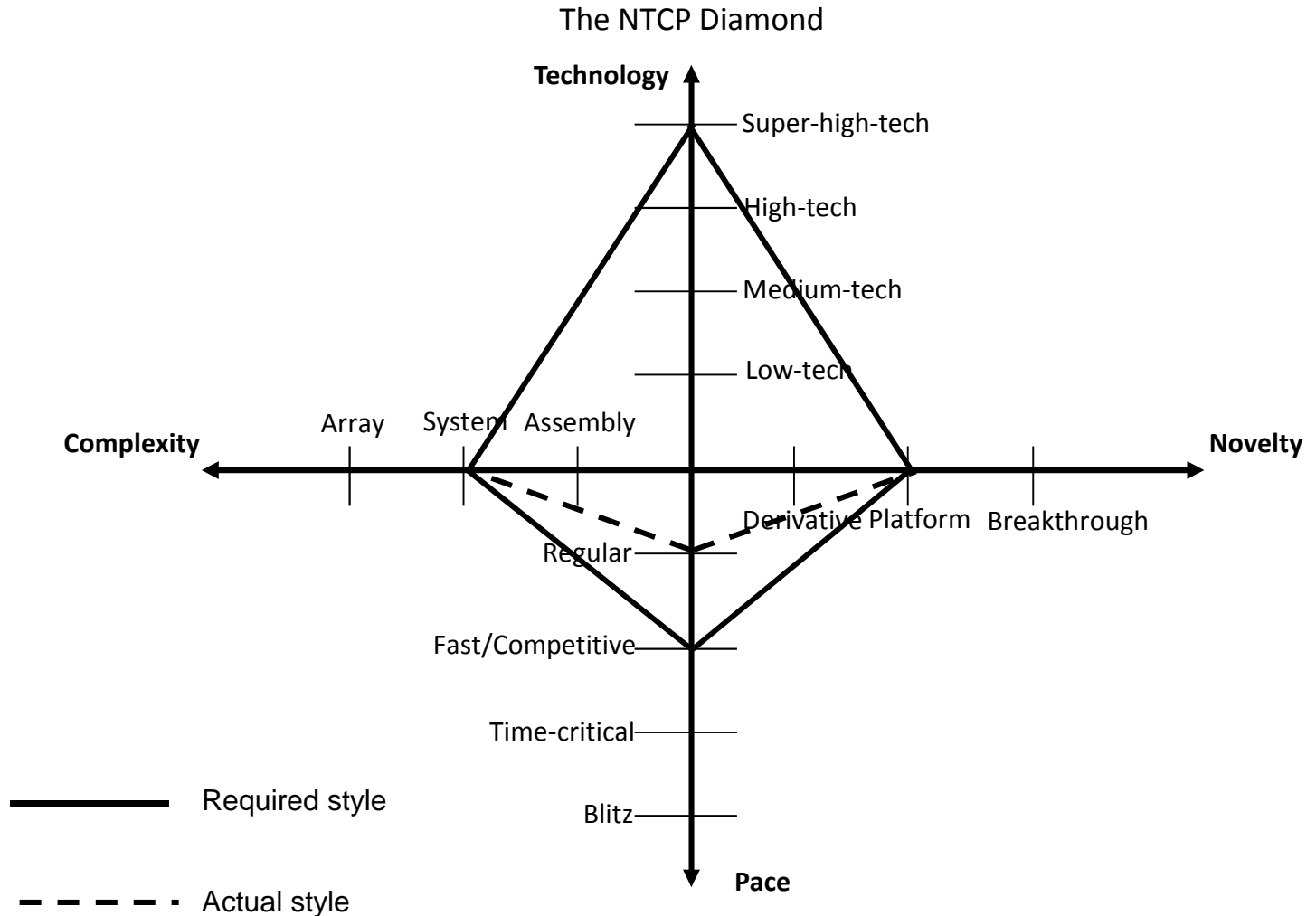


A Case study of the

Burj Khalifa project



Section 1.



Source: Shenhar and Dvir (2007)

Technology

Technology provides an opportunity for a better project performance compared to the past and creates an opportunity to do better things (Shenhar and Dvir, 2007). The project is classified as a super-high-technology project for the following reasons;

1. There is a pioneer technology innovation in the GPS-controlled jump formwork.
2. For the first time around the world, the use of a specially designed and developed Favco's diesel-powered self-climbing cranes
3. Development of special concrete pumps, which set new records in pumping concrete around the world

Novelty

The history of sky scraper dates back to 1885 when the Home Insurance Building located on the corner of Adams and LaSalle Streets in Chicago, Illinois, went down in history as the world's first modern skyscraper. Other sky scrapers have held the title of tallest building in the world with the last been the Taipei101 building in Taiwan before Burj Khalifa was built.

Pace

The Burj Khalifa project had a 9months opening delay. It was meant to be a "Fast/Competitive" project but ended up been a "Regular".

Complexity

The Burj Khalifa building project is a collection of abridged subsystems like electrification, plumbing, exterior cladding meant to perform various functions within the building project.

Section 2

Table 1.1 below discusses the five dimensions of project success with each components defined as either a Success or Failure for the Burj Khalifa project.

Dimensions	Conditions	Status (Success/Failure)	Remarks
Efficiency	Meeting schedule	Failure	9 months late
	Meeting budget	Failure	US\$600 million over the budget
	Product/Service delivery	Success	
	Other efficiencies	Mostly success	Success recorded with other efficiencies such as project quality
Impact on customer	Meeting requirement and specification	Success	
	Customer benefit	Success	
	Customer satisfaction and loyalty	Success	
	Brand name recognition	Success	
Impact on team	Team satisfaction	Success	
	Team morale	Success	
	Skill development	Success	
	Team member growth	Success	New challenges were encountered and the team was able to summount the challenges

	Team member retention	Failure	Most team members were contractors and majority were laid off after project completion
	No burnout	Failure	Working at 50 degree heat, most of the workers ended up with high blood pressure, depression, heart problems, breathing problems and much more
Business & Direct Success	Sales	Failure	The surrounding malls and hotels have made the most sales and not Burj Khalifa itself
	Profit	Failure	
	Market share	Failure	
	Return On Investment (ROI)	Failure	
	Cash flow	Failure	More money was spent than budgeted
	Cycle time	Failure	Took longer time than budgeted
	Service quality	Success	
	Regulatory approval	Success	All project sub systems that needs regulatory approvals were duly approved.
Preparation for future	New technology	Success	
	New market	Success	
	New product line	Success	Presence of observation desk on some floors of the hotel for tourists
	New core competency	Success	Aided by the development of new technologies
	New organisational capability	Success	Aided by the development of new technologies

Table 1.1 – Dimension of Project Success for Burj Khalifa

Looking at the project success from the perspective of the sponsor's satisfaction, the project is a success (Wateridge, 2001). The project's major objective is to garner international recognition and makes the country an investment destination.

Section3

The NTCP framework provides a clear insight of the opportunities for profit and success. It also allows for a uniform communication about project risks and provides a basis for the appropriate form of project management for each project. However, there are limitations of this model. Suggested dimensions which are improvements to the limitations of the NTCP model as it relates to the Burj Khalifa projects are;

1. Project type: Management styles for different projects should vary.
2. Risk tolerance: Knowing the risk level of a project can also influence the style of project management.
3. Requirement of the stakeholders: knowing stakeholders need will help determine the appropriate project management style.
4. Markets and Customers Influence: Project teams must know how their customers think; what their major problems are; and how they make decisions, finance the project, and communicate.

Section 4.

- A. There is an emphasis on the importance of project success over time (Shenhar et al.). In addition to the 5 dimensions of project success which are limited in defining project success, other criteria to measure project success are adequate project management process (Baccarini, 1999), adequate risk management and high standard of work quality (Collins and Baccarini, 2004) which are all under project control as a dimension of project success. Another dimension of project success is project sustainability. Sustainability is about the balance or harmony between economic sustainability, social sustainability and environmental sustainability. Based on the studies that relate the concepts of sustainability to projects and project management, the 'three pillars of sustainability: social, environment and economic dimensions are deemed applicable in incorporating sustainability in project management (Silvius and Schipper, 2014).
- B. Summarily, sustainability and control are the missing dimensions from the 5 dimensions of project success while the criteria (sub-categories) for each dimension are shown in the figure1.1 below;

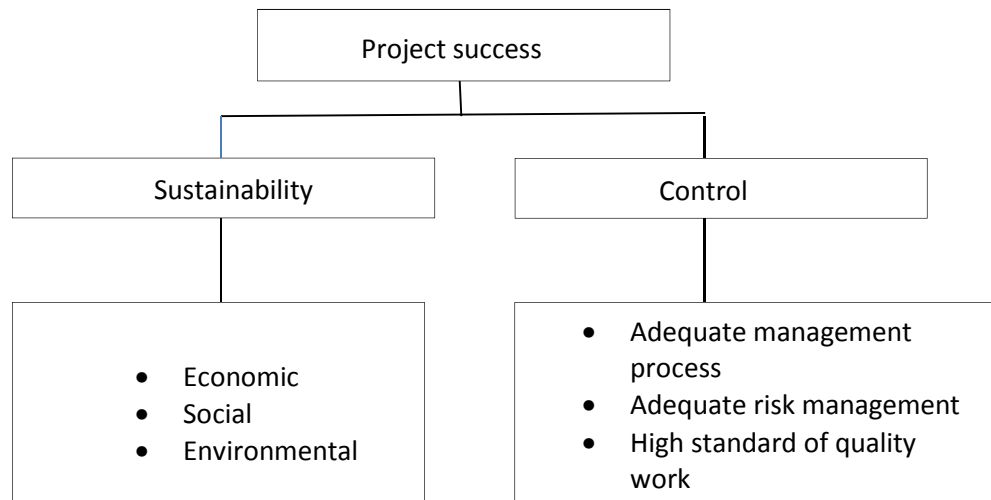


Figure 1.1 – Dimensions of project success

- C. Other ways to present the sustainability as a dimension of project success is to use the conceptual model. The dimensions of sustainability provide the conceptualization of considering sustainability in project management processes as shown in the conceptual model figure1.2 below. Because of the nature of the Burj Khalifa project, sustainability and control are vital dimensions of project success to be considered. The project have economic, social and environmental impacts in the society. For instance, Burj Khalifa is an example of a building that embraces the green agenda and circular economy. The tower is covered in solar panels for water heating used by the occupants. There is also an irrigation system supplied by condensation from the air-conditioning to provide water for plant use.

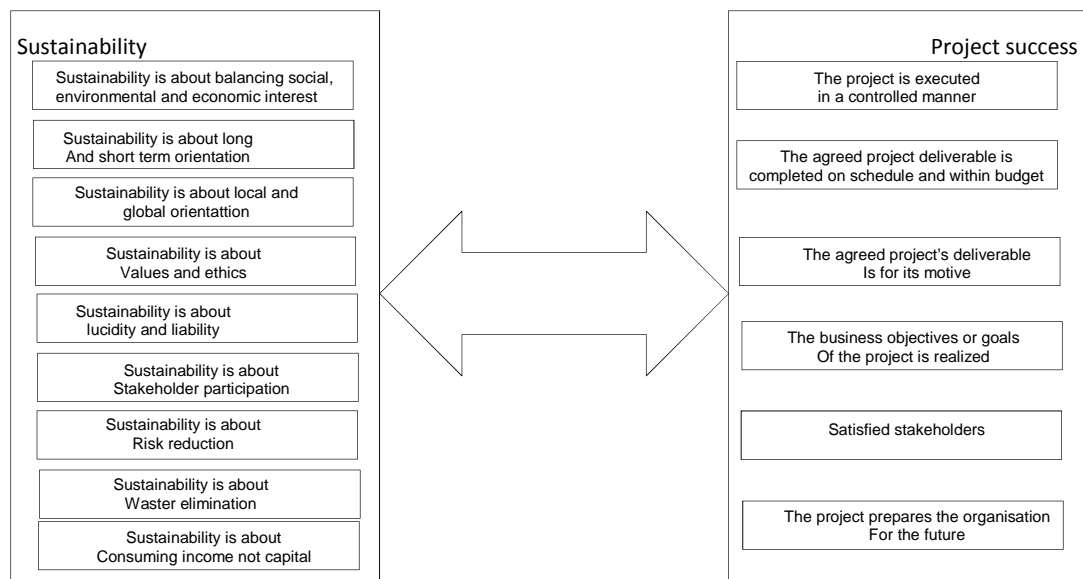


Figure 1.2 Conceptual model

Section 5.

The theories and framework covered in the module have been helpful in exposing me to the factors that affects project success. I have always thought that it is only cost, time and budget that determines the success of a project but I have learnt that there are other dimensions of project success like impact on customer, impact on team, preparation for future etc. that also contribute to the success of a project. I have also learnt to know how the NTCP/Diamond model provides clear recognition of the chances for gains and success, and the associated project risk. It also provides a basis to classify project management style for each project.

Section 6.

Group-work during seminar has been very helpful with the module teachings. Ideas are shared, critiqued and discussed before a superior argument is adopted and presented by the team. It is also interesting to note that cultural diversity among team members also help in having broader views on discussions which ultimately helps in shaping our opinions on case studies. For me, the experience with the group work during seminar has been quite exciting. However, in my opinion, incorporating a project site visitation, seminar talk by a project manager (probably the project manager of one of the projects been discussed during the seminar class) will also the students to better understand the module teachings.

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