

Project X – Strategies and Lessons Learned

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Introduction

Project X is a documentary film series produced by Japan Broadcast Corporation (NHK), featuring tens of breakthrough innovative projects that formed Japanese development and industrial excellence since after WWII. Startup and evolution of major Japanese names in various industries are presented through this series.

Giving the wealth of potential lessons learned from these pioneer projects and how they made their way to success, I reviewed just a few films from this series, and tried to extract strategies applied and lessons learned from them. Here, we will talk about three films from this series.

Project 1 – Toyota's First Car “Crown”

Summary:

It was already 30 years of experience of making automobiles in Japan by the American company Ford, when enthusiastic engineers at Toyota were dreaming to launch a manufacturing line to make the first ever Japanese made car. Challenges faced lined up, starting from getting buy-in from the company management to accept the idea, to securing fund in light of economic troubles and employees strikes, to technical challenges faced during the several experiments to manufacture the car itself, and racing with contemporary attempts by local emerging manufacturers. It took them 5 years to release the first Japanese car, named “Crown”, manufactured by Toyota, which is still one of its leading brands until this time.



Strategies and Lessons Learned:

- A champion was the pivotal factor in this success story. Mr. Nakamura, the idea initiator and the project manager, who believed in his dream despite many set-backs. Being in his mid-30's, he wasn't seeking personal benefits, but only focused on a clear target of manufacturing domestic vehicles, devoted his time and efforts to achieving this dream, and even rejected head-hunting offers from the most prominent manufacturer at that time, Ford.
- Society culture and the Japanese self-pride, especially after WWII, is evident when local taxi companies chose to purchase from the new locally

manufactured cars rather than ordering from other companies. If it will run on Japan roads, then it's better to be a Japanese car. Resistance to change existed on the way when some sounds considered it a mere dream to manufacture a local car at that time, it's easier to get it ready from America.

- Persistence on achieving the goal and performing several technical experiments, and seeking consulting advices from technical specialists, are personal characteristics that enabled staff involved in this project to succeed.
- Research and development related to the scientific aspects of the project were essential in turning the dream into an actual reality.
- Celebrating success strengthened perception of the new product when the “Crown” team accepted the challenge of trying it on a London-Tokyo land trip, and it made it.

Project 2 – World’s First Online Railway Ticketing System (Mars) by Hitachi

Summary:

Railway ticket booking was done manually by phone, which is a time consuming process, causing delay and anger amongst passengers. The railway ticket booking responsible officers approached Hitachi for automating the process, resulting in the launch of a project to develop world’s first online railway ticket booking system, named “Mars”.

The project included not only the software system, but also firmware devices that will be used by operators to book and print tickets. The system was designed with central hosting in Tokyo, and ticket booking and printing device terminals at various train stations all over Japan. Development and deployment of the system went smoothly, but when the system was tried in actual use, problems started to pop-up over time, including duplications of seat reservations and data capacity issues. Besides, appearance of the Shinkansen (bullet) trains with different seating turned the system almost unusable. This is in addition to other usability and practicality issues.



Hitachi faced public troubles with a large public facing project. Troubles couldn't be fixed within the planned timeframe, and the project was almost said to be cancelled. The project leader called for public contribution and augmented the project team with new young staff, who have then been trained and educated internally, and a new system was started to be built from scratch. The new team worked almost in an agile fashion, completed the new system, tested it in live environment pre-deployment, fixed issues faced, and monitored the system in actual use after deployment.

Strategies and Lessons Learned:

- Team building activities were the rescue tool for revival of this project. While public pressures caused the project team to place blame and deny accountability, the augmented team for developing the second (new) release of the system enjoyed a higher team spirit. They created a song for the project “Mars song”, hung it on the wall in the team room, and held team social activities.
- Quality considerations, including testing and usability of the system, were key differentiators for the success of the second release of the system. They also paid attention to risk management by system continuity and recovery planning. However, noticing that that system was the first of its kind, we can say that improvements for the second release were building on observations and lessons learned from the first attempt.
- Stakeholder engagement by opening the project for public contribution helped in gaining momentum and innovative inputs to the project. This is a special consideration when the public is a stakeholder in large scale public facing projects like this one.

Project 3 – World’s First Digital Camera by Casio

Summary:

Casio started a project to develop a new electronic camera that uses a removable floppy disk instead of a magnetic film, with the possibility of viewing images on TV monitor. Few months after public availability in the market during which the product sold well under good economic conditions, a new product was released by a rival company, and the camera became not selling at all, even when offered for 70% discount, and the item stock accumulated in the company's store without selling. This caused a drop in employees' morale all over the company, and the project team who developed this product were depressed for making something that can't be sold.



Shortly after, the company leadership along with the project team decided to recover by launching a new product that wasn't offered in the market yet, that's a digital camera. They agreed on keeping the project in secret, even from internal employees. The same project team worked on development of this new product in an isolated location. Eventually, an initial prototype was completed, 3 kg in weight, large body digital camera, with an even heavier associated battery. It used digital memory for storage of digitally captured photos rather than analog photos. It was too costly to manufacture, and not viable from a business point of view.

The team kept researching improvements, capitalized on the already available pocket TV product, and developed a new model by attaching the digital camera to the pocket TV in a combined model. It turned out that the combined item is highly priced, so they improved further and finally reached the standalone digital camera, the first in the world. The age of viewing photos on a PC has arrived, the salesmen said. The new product was exhibited at an electronics fair in the US and impressed participants. It was then made available for public with offers and sales campaigns.

Strategies and Lessons Learned:

- Secrecy of new product ideas can be a strategic necessity. Casio was about to lose reputation and market share, and had to launch an emergency room to recover. This product success was born from failure, and the pressure of vulnerability raised the challenge.
- Sales function and direct interaction with the customer base in various stores is a major success factor in this type of consumer products. Mass production may lead to financial loss unless balanced with market demand through good analysis of market changes.
- Getting early recognition and promotion of the new product before actually availing it for sale is a marketing strategy that is still used by various manufacturers at the current time, and it can generate demand for the product upfront, and minimize risk by measuring potential interest and predicting sales, in addition to winning lights from competitors.

Acknowledgement:

I watched original copies of these films at the library of Japan Foundation – Cairo Office, and I should acknowledge the great service offered by them in availing free access to a treasure of resources on Japanese culture and language.

Disclaimer:

Films in this series were available in Japanese language only, and I couldn't find access to an official copy with English subtitles. I relied on my intermediate level of Japanese language to comprehend the key events in each story to conclude my target.

These stories are from the perspective presented by NHK in the mentioned documentary film series. Different perspectives may be found in different presentations of these stories.

About the Author



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