

# Nissan Case Study Analysis

## Nissan Company Overview

Nissan Motor Company Limited is a multinational automobile manufacturing organization located in Japan. This company holds the sixth position after Toyota, General Motors, Volkswagen Group, Hyundai Motor Group as the world leading car manufacturing corporation, according to the World ranking of the Year in 2013. Having been established as early as 1930 and subsequently producing its first car that was popularly known as DAT, this company has seen significant changes in the automobile manufacturing industry. In addition to this, it has strategically merged with other automobile manufacturers so as to **expand** its operations across the world. Since then, the operations of this company are spread in different continents. In particular, Nissan has production plants in 17 different nations where their products are used in more than 160 countries. This has been made possible by its vast human resources, which is made up of more than one million employees. In more than 8 decades, this company has been in a position to sail through different generations and still retain its global market shares.

Consequently, different car users have dissimilar preferences. For instance, people prefer to using crossover cars as well as multi-utility automobiles in the North American and European region. However, in countries such as South Africa, people prefer off-roaders while in the Asian region small segment vehicles. Therefore, Nissan has employed distinct strategies so as to continuously meet the needs of its preexisting users and at the same time increase its market shares in a highly competitive environment. In order to achieve this, Nissan has developed sophisticated operational management functions so as to continuously meet the demand for Nissan car products in different regions, while at the same time maintaining the individualized customer preferences (Moder, Phillips & Davis,2008).

Incidentally, the Nissan Motor Company Ltd has adopted a cost leadership strategy to secure its customer base. In particular, this policy aims at positioning this company as the leading lowest-cost car producer in the automobile industry. Almost all its market segments in the car production market niche are supplied with particular emphasis of reducing the cost of production, and hence the overall cost of the car. In this case, Nissan aims at increasing the demand for its products, increasing its market shares as well as profits.

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More often than not, the cost leadership strategy is affiliated to large-scale businesses, which offer standardized products with little segregation that are entirely up to standard to the preponderance of the consumers. In addition to this, cost leadership enables a company to maximize its sales increasing its market shares. In most cases, the cost leadership works best when the discounts favors the primary company, against its competitors.

Competing businesses use varied strategies to increase their market shares. Consequently, a specific strategy adopted by an enterprise presents unique opportunity to improve and enhance its competitive advantage over its competitors, particularly through the operation management. The implementation of such strategies is often done by the operation management department. As such, operations strategies can be described as the overall prototype of resolutions that lay strong foundations for the long term potential of an operation and their input to the largely trade approach. As such, competitive advantage can be achieved through the managers. However, they must be in a position to make competent and effective decisions. For a company to perform better as opposed to other competitors in the industry valuable and realistic decisions should be based on goods and services design, location, process, technology, control and capacity design. Thus, the operations management supports the mission and general business strategy of in an organization.

Certainly, effective product approach involves the selection, designing and the description of goods and services, which are then translated from the product to production process. Effective implementation of production strategy through the aforementioned process maximizes the returns to the business. Thus, the operation management department must be in a position to come up with a well defined system that has the capacity to launch, design and fabricate final products with the ability yield competitive advantage in the market. As a result, product decisions are imperative to the firm's strategies since they have major implication on the entire chain of operations. A classic example of the importance of strong and unique product designs is the diesel engines manufactured by Nissan. Essentially, the production of diesel engines has strategically position this company as the leading low cost automobile manufacturing plant. This has allowed it to penetrate into the new market, especially in the European region. Notably, the newly introduced Micra Nissan UK indicates the results of a unique design in the production process.

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Through Micra, Primera, Almera and Almera Tino, Nissan has been in a position to provide different engine models in the market, increasing its market shares. Additionally, some of the engine designs are shared with Renault, which is Nissan's strategic treaty, in attempts to increase its dominance in the automobile industry across the globe.

According to Slack (2002), one of the most challenging decision is to establish the most appropriate way to produce. It is worth noting that processing comes after the operation management has selected, defined and designed appropriate goods and services in the organization. Most importantly, the product of the company is what determines the reputation of the company in the market. Subsequently, the reputation and the publicity earned is what define the market shares of the company. The method of transformation dictates how the goods are produced in the market so as to meet the immediate needs of the customers. Additionally, successive production process ensures that the products specification along with other relevant expenses is met. Whereas Nissan sells complete automobile units, there are various parts that are produced independently. This makes the production process extremely sophisticated since it requires different skills, personnel and operational logistics to complete the production of a single unit.

Different management levels in this factory are keen to evaluate total machine hours as well as the total hours of labor used in every unit produced by the country. As of June 2015, the global production in Nissan on year-to-year was 462,078. This was achieved after substantial amount of money was pumped into the production management and operations. Ideally, production strategies should be in a position to meet the desires of the clients, particularly in quantities, specifications, the estimated price that the customers are willing to part with in exchange of a complete unit as well as the meet the business profit objectives. In other words, the production process must be efficient so as increase the probability of the business performing exceptionally well. In this case study, the primary aim of the production process is to produce standard models that can accommodate individual preferences of the users. This is achieved by designing and producing flexible models that are in a position to such goals. For instance, offering car models with a variety of standard colors, interior designs, capturing some of the general preferences of the consumers.

If the demand reduces, then the production is limited to predefined limits. Equally, the manufacturing process is also adjusted if the demand increases.

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Essentially, the production flow in the Nissan production process is divided into three distinctive shops, including the support departments. These main shops are the assembly of the body parts, painting and final assembly. Usually, the supporting areas are often involved in the manufacturing process of vehicle panels, bumpers and other relevant parts. In addition to this, the engine shop is responsible for the fabrication and assemblage of engines, installation of oil, whereas the coolant fuel and axle plant are produced in their respective shops. These parts are then joined together in the final assembly stage in the production flow. Most importantly, the selection of a specific production process increases the competitive advantage of the company. Nissan global employs up-to-date technology in this process. Specifically, it uses highly advanced technology like robotic beings and computer integrated strategies in this process so as to significantly reduce the errors to the least possible.

According to Meredith (2002), capacity is the total quantity or number of products, or in this case units that can be stored, held, received or produced in a given facility over a specified period. In most cases, capacity of a given factor impacts the demand and the utilization of a given facility. For example, a large facility means that the some of the space will be less utilized, increasing the cost of maintenance, among other logistics, while as a small space may limit the production capacity of a plant. This reduces the projections of meeting high demand in the market. Thus, the capacity of the facility plays a central role in the formulation of strategic objectives in present and future markets.

Correspondingly, various companies opt to work in facilities that are slightly larger than their production capacity, so as to reduce the cost of managing space and at the same time increasing its ability to meet the demand. As such, Nissan global has strategically designed its facilities so as to accommodate increased demand. For example, the Nissan Motor Manufacturing UK limited, which is located in Sunderland, has sophisticated pieces of equipment that are designed to work up to a certain limit. The allowance gives this company an opportunity to decrease or increase the manufacturing rate. In addition to this, the company has a two shift work pattern that is capable of producing 360,000 on annual basis. However, the capacity of this company can allow an additional of a third shift, which would increase the production of up to 500,000 units on annual basis. It is important to note that the need for a third shift is directly proportional to the demand.

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One of the most important strategic decisions made by companies such as Nissan is where to locate its operations because location greatly affects both fixed and variable cost. For instance, depending on the product and the type of production or service taking place, transformation cost might be too high. Another cost that might as well affect the location is taxes, wages, raw material cost and rent. In order for a company to select its location, first it needs to decide the country following by the selection of the region. The final step is choosing a specific site within a community. When the company is evaluating the different alternatives, it must keep into account factors such as, labor productivity, foreign exchange, culture, government policies, and proximity to markets, suppliers and competitors.

Returning to our example lets to evaluate why NMUK decided to locate in Sunderland: For its UK factory, Nissan chose in 1984 a 300-hectare former airfield near Sunderland. Sunderland's attractions included firstly, skilled labor force; manufacturing has a long tradition in the area. A decline in other local manufacturing meant that skilled labor was readily available. Second, communications. Sunderland has good road and rail links to all major UK areas. This makes it relatively easy to bring in supplies from 105 separate UK component and sub-assembly suppliers, and also to distribute completed vehicles (Imhoff, 2006).

Incidentally, the five primary steps of the theory of constraints include Subordinate, Evaluate, Repeat and Identify and Exploit. The identification step is very important when it comes to the determination of the prevailing constraints. In this step, there are demerits associated with the rate of accomplishing a specific goal. The exploit step in this theory implies the utilization of the existing recourses to as to make a drastic improvement to the output of the constraint. Subsequently, the third step is the subordinate that is often tallied with the constraints. This step involves the validation of active date so as to ensure it align and empower with the prerequisites of the constraints. Fourthly, the evaluation performance requires the employment of additional activities aimed at eradicating the existing constraints. The last step, repeat, is a process that begins with the identification of the prevailing constrains, all the war to the evaluation step. The primary aim of the theory of constraints is relentlessly to continue with the enhancement of the production cycle and effectively resolving recurring constraints in an organization. The theory of constrains is best applied in numerous companies such as the Global Disaster Control.

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This is mainly because the duties in this company are associated with the leadership umbrella. Ideally, the subordinate and synchronize mainly because of the dynamic factors that happens with natural calamities. Additionally, new natural disasters present new challenges (Theory of Constraints, 2013). As such, the theory of constraint, the theory of constraints perfectly suits this company. On the other hand, Nissan Global has been utilizing these steps so as to overcome various market challenges. Having been in to the industry for more than seven decades, Nissan has encountered significant number of problems, where some of them have been recurring. Thus, this company employs the theory of constraints to solve these challenges. this has significantly contributed to the increment of its market shares.

Total Quality Management (TQM) principle is an organization's philosophy, which is dedicated to enhancement of the quality of products in order to meet the expectations of its customers. Alternatively, TQM is the management system that concentrates on the needs of clients, by stimulating the employees to focus on the overall improvement of the country. The application of TQM by the Nissan Global has significantly enhanced its success. Nissan has the capacity to extensively use this strategy so as to improve its needs during natural calamities. For instance, Nissan would produce cars fitted with GPS to all its customers. This improves the rescue operations by facilitating systematic approach in such operations. More so, GPS would improve the safety of the cars (What Is Total Quality Management Principles, 2015).

Nissan emphasized on rapid and flexible reaction. The management was empowered to make decisions in the field without lengthy analysis from the central authority. This was mainly done to increase the speed of decision making process regarding recovery related issues. It was mainly done to modify the company's delegation of authority rules for limited period. The decisions are often interrelated upon the introduction of the new information. Given the capacity constrains in the period of disaster, and the dependencies that existed across the Nissan operational network, allocation of components parts was critical (Cox & Schleier, 2010). The sales, marketing and regional supply chain management functions were done to increase the precision of the orders or the clients demand. Nissan indentified necessary car margins to integrate the GPS so as to meet the demand of the clients. This allowed them to increase the number of sales. This is mainly because the customers who did not want the car models with the GPS and those who wanted those that are fitted with these features are catered for.

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## Data Analysis

The following presentation indicates the generation of X-trail SUV, which is among the products produced by Nissan Global, through its subsidiary companies.

There are various ways in which a value map can be utilized. For instance, it can be used to assess and check the prevailing state of a project. Furthermore, it can also be used to evaluate and check the future requirements of the project in the cause of production.

Subsequently the cause of stress in a company is often sophisticated as illustrated by the diagram below. Ideally, insufficient materials along with the primary resources are some of the factors that strain the relationship between strategic partners in the process of production and supply chain in a given company. The following diagram illustrates the cause and effect, so as to illustrate the primary reason why several companies' supply chain might struggle to implement some of the newly developed materials.

## Cause Effect diagram

Factor	Weight	Mexico City	Columbia, SC
Political Risk	.25	70	80
Transportation Costs	.20	40	90
Labor Productivity	.20	85	75
Rental Costs	.15	90	55
Labor Costs	.10	80	50
Taxes	.10	90	50

With regards to the data provided above, Mexico City would be the most suitable location mainly because it will offer the firm subdued cost of operations, as opposed to other regions. The main disadvantage in this location is low labor productivity. However, this challenge can simply be solved by outsourcing necessary services to reduce the deficit highlighted on the low productivity.

The table below shows a sample of inventory management.

Item	Annual Demand	Cost/Unit
I5	1750	10.00
D1	6000	10.00

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Item	Annual Demand	Cost/Unit
A2	3000	50.00
E9	1000	20.00
J8	2500	5.00
C7	1500	45.00
B8	4000	12.00
G2	300	1500.00
H2	600	20.00
F3	500	500.00

## Analysis

A-Extremely important: G2, B-Moderately important: L5, E9, A2, C7, H2, F3 and C-Relatively important: D1, J8, B8. Ways of improving inventory management can include making use of inventory optimization tools, avoiding dealing with SKUs always and closely monitoring the suppliers.

## Sustainability

This is a framework for accounting that involves majorly three parts: people, planet, and profit. This is highly applicable in operations management mainly in decision making. First a company following this must consider how the way they conduct business and their actions impact people involved. Second these companies take into consideration the planet by enhancing environmental sustainability and finally the make decisions ensuring that the company remains profitable.

ISO 14000 standards are regulations that provide a tool for organizations that seek to manage their responsibilities regarding the environment. They can do this by documenting the standards as part of the organizations principles and training all the staff and employees on them.

They can do this by creating campaigns and awareness on corporate social responsibility, sensitizing their employees and stakeholders, creating penalties for stake holders and employees who go against what is required and rewards for those who uphold and finally ensuring that their strategies, policies, and structure is aligned to this. Ensuring that their strategies, policies, and structure are aligned to corporate social responsibility is more important since these set guidelines on how the organization runs (Dave, 2008).



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