
Supply Chain Management and Supply Chain Performace: The Case of Mcdonald's

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Abstract: *McDonald's is one of the well known fast food restaurant. McDonald's is known with their complicated supply chain management to make sure all aspects is working to consistently provide quick and fresh food for the customers. But we can't deny that not every supply chain is perfect, as McDonald's currently has difficulty in their supply chain because of global shortage of potatoes that affects some of their franchisees. Therefore, this paper aims to examine and understand on how the supply chain management, supply chain drivers, and supply chain performance in McDonald's work and on how McDonald's solve the supply chain issue. The result showed that McDonald's mainly use outsourced third party within their supply chain. Even though, McDonald's has a very complex supply chain management, it is still considered successful because it allows the huge fast food chain and its suppliers to create value together rather than merely exchanging it. As a result, more beneficial, lasting alliances are formed. McDonald's use JIT to eliminate cost and reduce waste as their supply chain performance indicator.*

INTRODUCTION

Supply chain has grown in importance in modern business. Many businesses concentrated on increasing the effectiveness and efficiency of their supply chain management. Supply chain management involves not only internal but also external relationships with partners. The goal of businesses participating in the supply chain management network is to delight customers by collaborating to produce affordable goods that are supplied promptly and of high quality. McDonald is one of the famous fast food restaurant. McDonald is known with many franchises around the world. Since it has franchises all over the world, McDonald's supply chain management become important to run their fast food restaurant and McDonald supply chain become complicated too.

McDonald is well known with their fried chicken and they try to meet the demand of the customers and give their service fast because people want everything fast paced in this busy era. Because of this, McDonald has to make their supply chain operating smoothly. But McDonald sometime found a trouble in their supply chain such as shortage in potatoes in some branches of the restaurant branches. McDonald's being obliged to stop selling large-sized French fries for more

than a month due to a global potato shortage. Some of the restaurant branches that are affected by this shortage are Japan, Indonesia, and Malaysia branches (Zaki, 2022). The issue is that American Russet potatoes are used in the production of a number of McDonald's potato-based products. The pandemic decreased the world's shipping capability. From social distance regulations to fewer workers on the ports, the American portion of the Russet potato export industry has been badly hit (Dorall, 2022). Another factors that caused this shortage is the harsh weather in Canada affect this shortage of potatoes (Mastup, 2022). Noted that Canada is one of the leading exporters of potatoes worldwide. If these problem not be solve quickly it can affected the whole branches of the restaurant around the world. Based on the background study this paper formulates some purposes as follows:

1. To understand McDonald's supply chain implementation
2. To understand McDonald's drivers of supply chain
3. To understand the solution McDonald's use to resolve the supply chain issue
4. To understand McDonald's supply chain performance

LITERATURE REVIEW

Supply Chain Management

A product's creation and delivery to the consumer are both handled by a network of people and businesses known as the supply chain. The chain's links start with the raw material producers and conclude when the van delivers the completed product to the customer (Hayes, 2022). As said by Chopra and Meindl, SCM is the management of all supply chain assets and flows (financial, informational, and product/materials) and the primary objective should be maximization of the supply chain surplus, or the total value created (Catarina Delgado, 2013).

Supply Chain Strategy Fit

A supply chain's ability to survive in a cutthroat business environment depends on the strategic fit between customer expectations and SC performance (S. Kamal Chaharsooghi, 2011). According to Kwasi Amoako, Strategic fit refers to how well an organization's resources and capabilities align with its external environment (the demands or requirements made of it by clients or customers) (Kwasi Amoako-Gyampah, 2008).

Supply Chain Drivers

The drivers of supply chain management are very helpful in boosting a company's performance. Facilities, logistical management, transportation, inventory management, information distribution, pricing, and sourcing are all drivers of supply chain performance management. The performance of a company can be improved through better management of all these activities (Irum Shahzadi, 2013). The first drivers is facilities, they describe this driver as the actual physical locations of raw materials, materials used in manufacturing, and completed goods (Sunil Chopra, 2007). The second one is inventory it refers to the movement of all materials during supply chain processes, such as the transition from raw materials to completed items. The third one is transportation, it's a method and route used to move inventory from one location to another (Sunil Chopra, 2007). The fourth one is information that refers to the movement of data, data processing, and distribution of the resulting information to supply chain professionals. The fifth one is sourcing, it refers to people whose responsible for carrying out various supply chain management tasks, including production, storage, and transportation (Sunil Chopra, 2007). And the last one is pricing to determine how much a business can charge for its goods.

Process View of Supply Chain

The management, storage, and movement of raw materials from the producer to the distributor, then the retailer, and eventually to the final consumers are all parts of its process (Basodan, 2016). To fulfil the demands of the client, all parties are involved, whether directly or indirectly. There are two ways of process view, which are cycles view and push pull view. Cycle view outlines the relevant procedures and their respective owners. A supply chain's process is broken down into a number of cycles. At the transition between two succeeding supply chain stages, cycles are run (vskills, 2019). Push supply chain process is determined by expected demand.

With a push system, businesses can estimate their supply chains' arrival times because they know what will happen long before it does (Sharma T. K., 2022). This gives them time to set up a location to store the stock they acquire and allows them to plan production to fulfill their needs. While Customers' demands are known in the pull process function. This technique has the significant benefit that, in a perfect world, the entire supply chain would have zero inventories. Initially, the majority of firms used the push approach, but over the past 20 years, the pull system has surpassed the push system in popularity (Sarbjit, 2017). Lean manufacturing and the Kanban System were made possible by these systems.

Supply Chain Performance

Supply chain performance is the process of monitoring the degree of effectiveness and efficiency of actions/strategies adopted by the sector can be viewed as supply chain performance (Kazi Arif-Uz-Zaman, 2014). The process, description, and measurement of a business's supply chain performance are all clearly included in this definition of supply chain performance. In-depth research in this area offers new options to determine whether the supply chain strategy should be maintained.

RESULT AND DISCUSSION

Company Profile

McDonald is food services that run franchises globally. The company provides burgers and fries through 36,258 outlets in 119 countries, and is best known for these products (Marketline, 2015). Additionally, a variety of morning foods are available, including Big Mac, Filet-O-Fish, McFlurry, Chicken McNuggets, McMuffin, and McGriddles, are used by McDonald's to sell its goods. It conducts business across the Middle East and Africa, as well as North and Latin America, Europe, and Asia-Pacific. Its main office is in Chicago, Illinois, in the US (Britannica, 2022).

Decision Phase of McDonald's Supply Chain

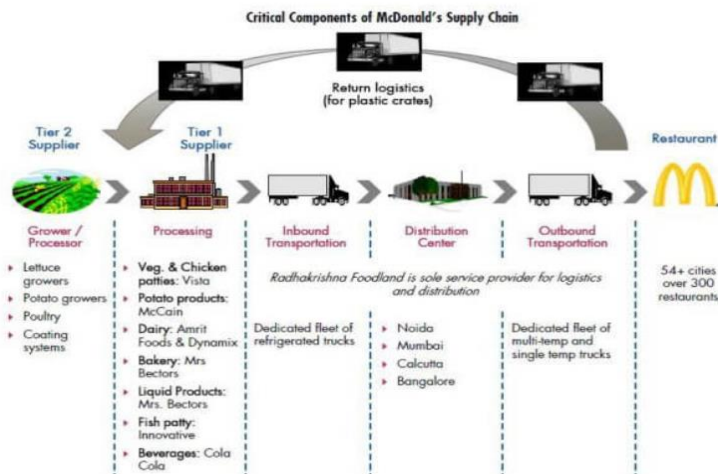
1. Supply Chain Strategy or Design
 - a. Products to be Made or Stored at Various Locations : McDonald stored their products in their warehouses. Separate regions in the McDonald's warehouses are used for dry, chilled, and frozen food storage. Each compartment is kept at a specified temperature to prevent spoilage from weather and climatic variations (Shrum, 2018).
 - b. Modes of Transportation : In order to get their raw materials to their branches, McDonald uses outsourcing. McDonald delivers their raw ingredients in refrigerated trucks to preserve their freshness. Because McDonald use many supplier and third parties logistics (3PL) in their supply chain,
 - c. Information Systems : McDonald relationship between their supplier is long term based and to maintain their relationship, each supplier has regular communication with McDonald's

quality assurance professionals as part of the business relationship to discuss expectations, challenges, and suggestions for improvement. (Magazine, 2006).

2. Supply Chain Planning

- a. **Inventory Policies** : There is regular communication between the central restaurant supply planning manager and the individual restaurants, which aids in more precise inventory management. The regional planner is a central group made up of personnel who have worked in each restaurant as well as supply control experts (Dzananovic). At the conclusion of each work day, stock inventories for various products are conducted on a daily, weekly, or monthly basis. The central ordering team uses this count to enable demand forecasts and to generate orders to guarantee that the restaurant has the proper stock levels on hand (McDonalds, 2018).
- b. **Market Promotions** : Simply defined, the company's advertising goal is to raise consumer awareness of a product and get them to appreciate and remember it. The intended audience must get the appropriate message through the effective platform. McDonald's advertises on television, in billboards, and on bus shelters (Howard, 2015). McDonald slogan "I'm loving it" is well-known among the general public worldwide than many superstars (Jonathan Rodrigues, 2016).
- c. **Subs-contracting** : It is impossible to evaluate the business using a single, universally accepted criteria because a large portion of the raw ingredients that go into McDonald's meals, including sauces and burger patties, are produced by different vendors under subcontracts. Coca-Cola is the company's lone global provider of soft drinks (Salisbury, 2011).

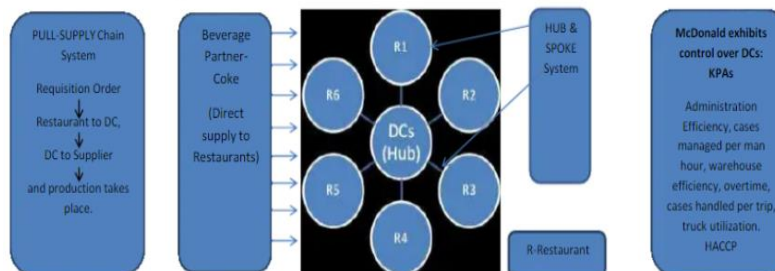
3. Supply Chain Operation



McDonald's has established an inventory system that consists of daily, weekly, mid-month, and end-of-month inventories. They solely use the daily inventory method for important necessities. The system of weekly inventories is used for food items like beef patties and chicken. All goods are being used while the mid-month and end-of-month processes are in place.

Process View of Supply Chain

1. Pull View and Push View :



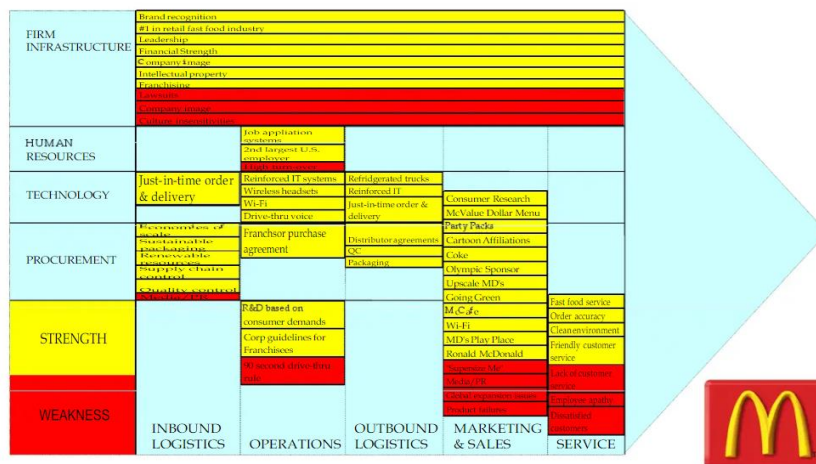
The idea of a "pull-supply" chain is the foundation for the overall effectiveness of the supply chain. The Distribution center receives orders from the restaurant and routes them to the supplier, and then produces the order. "Made to order" is another name for this approach. Thus, the supplier keeps a minimal amount of excess inventory; only in the event of an emergency, such as the need for machinery maintenance or an over haul, will the supplier manufacture excess inventory (Sharma K. , 2013). The restaurant also use push view that only started when a customer’s order is anticipated. So, customer order cycle is a push view process. We can see that the restaurant use push and pull view at the same time because the food will be pushed by suppliers, distributors, and restaurants to the customers hand to generate a pull effect. This indicates that the push and pull view will be located right when the customer order comes, just after the customer order cycle and before the replenishment cycle.

2. Cycle view :

- a. Customer Order Cycle : when customer place their orders to the employees. The orders will directly delivered to the cooking area to fulfil the customer’s order into finished dish.
- b. Replenishment Cycle : communication between the restaurant outlet and McDonald’s distributors when the store has to resupply their material
- c. Procurement Cycle : connects the distributor and the suppliers, when suppliers must gather material that are needed from the distributor.

3. McDonald’s Value Chain

MD’s Value Chain Analysis



4. Inbound Logistics

The company buy essential raw materials from their fixed suppliers. Backward vertical integration is a strategy used by McDonald's to cut overhead and guarantee high-quality products. They relies on the local businesses for fresh vegetables. Coca-Cola, a partner of McDonald's, offers soft drinks. From the established vendors, further necessary raw ingredients are also obtained, including flour, sugar, and yeast.

5. Operations

The fundamental equipment in McDonald's kitchens aids in their quick reaction. Those equipment are :

- a. A sizable grill, employee may simultaneously cook multiple burgers on the grill due to its size.
- b. Fryer, so that the employees can prepare French fries.
- c. Dressing station to make the employees can put topping over all the burgers with the same sauce.
- d. Soft drinks and ice cream machines are available at McDonald's for drinks and dessert products.
- e. Counters, so the customers select their orders and pick up their orders.

6. Outbound Logistics

The company want to deliver a variety of foods for the customers. Sustainable packaging, energy efficiency, and other issues are priorities for McDonald's. The restaurant chain is constantly working to improve the environment, its business, and other factors.

- a. The logistics relating to the product's delivery from a centralized distribution system to the customer
- b. The business uses freight trucks to deliver the raw material to the restaurants. So, scheduling and auditing are crucial. To guarantee freshness, McDonald's uses JIT order and delivery.
- c. The production line, order fulfilment, and transaction recording at the cashier all depend on information systems.
- d. Good packaging maintains freshness and guarantees warm food.

7. Marketing and Sales

McDonald's restaurants can be found in 119 different nations and territories. More than 31,000 restaurants (Nikhil, 2022). Along with its customary media coverage, which includes television and social media platforms, McDonald's always makes sure to run significant advertising campaigns. In addition to using advertising and billboards extensively, McDonald's also participates in a number of social events. Not only that, the restaurant give prices that are quite low without reducing the quality of the foods.

8. Services

The food that the customer order sometime is delivered to the customer in person from the kitchen to the seat. McDonald's takes pride in providing quick service, accurate orders, and welcoming customer service.

9. Firm Infrastructure

The company makes sure that its restaurants are functional as places where people may eat in a pleasant environment. To improve the restaurant for both customers and staff, the company renovated both the interior and exterior. The restaurant also established its first corporate-owned green restaurant in August 2008, and in April 2009, the company was awarded LEED Gold certification (Hidayat, 2013). The energy-efficient lighting and equipment, high-

efficiency plumbing fixtures, permeable walkways, and rainwater collecting for irrigation are just a few of the environmentally friendly features.

10. Human Resources

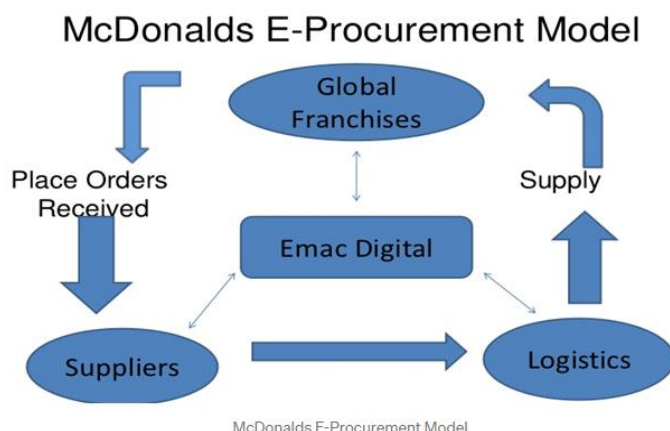
The business is effectively handled and employs well-taught employees who will produce and deliver quality products. many people choose to work there since they have a lot of advantages to those individuals who desire to work flexible hours and engage in other activities and duties, almost independent of what one may think of the job itself.

11. Technology Development

McDonald's is concentrating on upgrading its outlets while simultaneously changing its menu. The signing of a five-year IT support agreement with Fujitsu is an illustration of McDonald's technological advancement.

12. Procurement

The restaurant implements an electronic procurement platform known as Emac Digital



Company, a joint venture between McDonald's and Accel-KKR Internet Co (Verma, 2019). This E-procurement is in the form of website that help the restaurant to get the material they required.

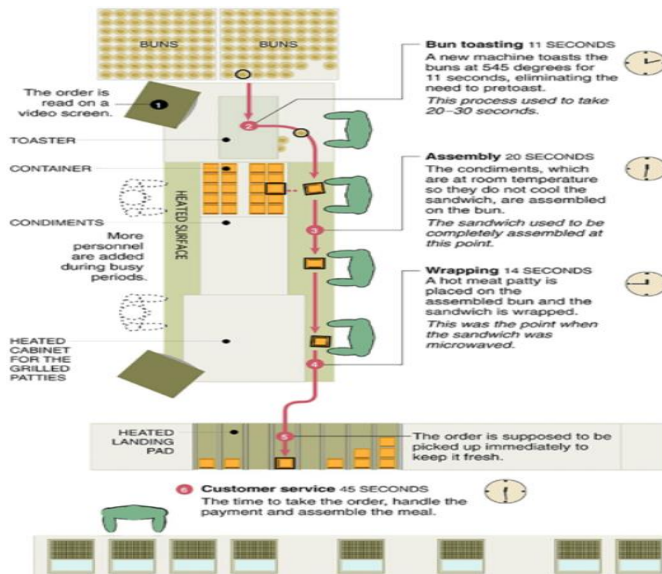
Achieving Strategic Fit

1. Understanding the Customer and Supply Chain Uncertainty

- a. Quantity of Products Needed in Each Lot : The restaurant face a problem which is managing stock accurately. To manage this problem, the restaurants use lean stock control to maintain the right amount of stock quantity to meet the demand. This guarantees that the restaurants can create the meals needed to meet the degree of demand anticipated.
- b. Response Time Customers Will Tolerate : McDonald is a fast food restaurants. Most of the customers want the food to be served quickly (Bhatnagar, 2009). According to research conducted by Kwangji Kim, it is stated that the average time of customers waiting time is 6.71- 8 minutes (Kwangji Kim, 2020). So, the workers must served the meals to the customer fast enough to not make the customer satisfaction low.
- c. Service Level Needed :

The figures indicates that the service time is 45 seconds, which is relatively brief for fast food restaurants. The cashier enters the order into their register. The counter person selects the food that is being requested in a specified order, which includes cold drinks first,

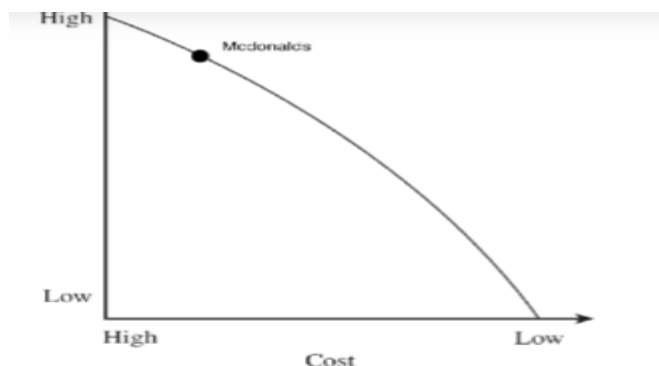
followed by hot drinks, then fries, and finally burgers. There are some regular food items that are meant to be kept in production bins. However, there are times when food availability varies, such as during breakfast, when food is only prepared as needed and not kept in the production bin. As illustrated in the image, if a specific food item is not available in the production bin. Due to low demand and to reduce waste, some foods are prepared upon order during lean times (UKEssays, ukessays, 2018).



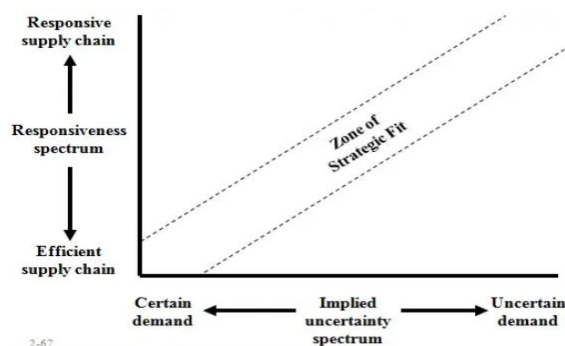
- d. Demand Uncertainty : The fast food restaurant will face demand uncertainty for new menus that they launched. For example, when they launched the breakfast menus for the first times. The supply chain has to be ready for any volume increase due to the breakfast menus launch's requirement for a rapid time to market. If the launch is successful, demand for McDonald's breakfast goods will rise. And if the forecast is wrong and the prediction underestimated the demand, then the restaurant can run out of foods and this will make the customer disappointed (McCorkle, 2017).

2. Understanding the Supply Chain

McDonald's cost responsiveness efficient is quite high. This conclude that this fast food franchise increases expense to respond to consumer needs more quickly (P, 2019). Because of this, McDonald looks for vendors who have affordable prices. McDonald's inventory system comprises of daily, weekly, mid-month, and end-of-month inventories.



3. Achieving Strategic Fit



Gambar 2.8 Strategic Fit McDonald's India

With its effective and efficient supply chain management system, McDonald's may gain a competitive edge. Ray Kroc, who is credited with making the fast-food business one of the most famous in the world, is credited with establishing the foundation for the success of McDonald's supply chain. His strategy, which is still in use today, is based on producing win-win outcomes for staff, suppliers, and franchisees. The "three-legged stool" business model is straightforward: When McDonald's flourishes, so do its suppliers. The model enables the massive fast-food chain and its suppliers to contribute to mutual value creation rather than just value exchange. As a result, more advantageous, long-term alliances result (Ashton, 2022).

Expanding Strategic Scope

1. Intraoperation Scope

McDonald uses vertical integration to control the source of its products. McDonald's has connections with contractual suppliers that allow it to be a part of the supply chain at every point (Insights, 2019). By controlling the component and distribution parts of the supply chain, this fast food restaurants be able to cut overall costs for its operation. The main factor making McDonald's one of the most affordable fast food companies in the world is the usage of these vertical integration strategies. McDonald deliberately owns factories that blend ingredients with standardized recipes.

2. Intrafunctional Scope

The franchises partner with different supplier because the fast foods franchises spread all around the world. McDonald usually use local ingredients from where they resided. For example, the branches in Indonesia will use ingredients from Indonesia's supplier. McDonald's is dedicated to empowering Indonesian businesses. For instance, veggies and chicken meat are directly imported from Indonesian farmers and breeders. So, The majority of the ingredients, between 80 and 85 percent, are from Indonesia. The other material will be imported from the other countries.

3. Interfunctional Scope

McDonald use Just In time System (JIT) and named it as "Made For You". The company use this system with the intention of cutting down on unnecessary production costs, they created the "Made For You" Just In Time production system to be used only in its restaurants (Tjahjono, 2016). The company implement this system by using fewer employees and more advanced machinery. The restaurant can eliminated excess production and inventory waste, and also be able to make their production process more effective and raised sales.

4. Intercompany Scope

McDonald use partnership with each of their supplier formally and informally. With the suppliers, there is just a simple "handshake connection." One product, one supplier is the stated policy with regard to suppliers. The principle has consistently been shown into long-term relationships. According to UK supply chain director Connor McVeigh, the ideas for process improvements, product enhancements, and product line expansions at McDonald's came from individual owner operators and suppliers (Jacobs, 2018).

5. Agile Intercompany Scope

There has been a significant change in the questions consumers now ask regarding the supply chain. Ten years ago, they would have been discussing the timeliness, quality, and cleanliness of the services. They are now inquiring about the origins of the food, standards for animal welfare, and environmental norms. Although it may surprise some people that McDonald's customers are asking those topics, the restaurants have taken note and taken appropriate action. So, the restaurant partners with different chicken breeder that implement the health principles.

Drivers of Supply Chain Performance

1. Facilities

- a. Role in Supply Chain : The location of the warehouses/distribution centers that McDonald's have are around 200 worldwide (O'Connor, 2019). The suppliers ships fresh and frozen goods and shipped it to the distribution center 2.5 times per week. The restaurant have so many franchises worldwide. So, they have distribution center located globally. In the UK branches, the restaurant use our distribution centers. North Hampshire, Greater Manchester, and Hertfordshire are home to the three biggest. A distribution center in the Dublin region provides service to the Republic of Ireland and Northern Ireland (McDonald, 2018).
- b. Role in Competitive Strategy : The restaurants use large number of facilities to distribute their raw material because they have franchises all over the world. McDonald prioritize responsiveness because is quicker and efficient to satisfy their customers.
- c. Components of Facilities Decision :
 - 1) Location : the fast food franchises use decentralization. It typically exists when a company has numerous locations and the head office is understandably unable to oversee or control all of the locations. Since McDonald's has operations in more than 100 nations, it is hard for the CEO to oversee everything in every one of them. Instead, each nation has a leader, manager, and other employees who are in charge of running operations in particular departments (smarter, 2021)
 - 2) Warehousing Methodology : At its locations, the fast food restaurant sells 30 to 35 distinct Stock Keeping Units (SKUs). There are 100-150 SKUs that are sold to clients with different combinations (a meal can be small, medium, or large, while a Coke can also be marketed as normal, medium, or large) (Jain, 2019). A small number of SKUs has provided quick service and simplified stock management. 14 core suppliers fulfill the majority of the demand (80%), and anytime the restaurant line expands, those 14 suppliers are the first to be considered. McDonald want to prevent bullwhip effect that occurs within their supply chain that can make demand inaccurate, resulting in unstable or changing demand.

2. Inventory

- a. Role in Supply Chain : McDonald's uses a JIT system, which means that it waits until after an order has been placed to start cooking (reheating and assembling) it. Firstly, a batch of hamburgers was preheated and placed under heat lamps for as long as feasible. Finally, the burgers that weren't sold were thrown out. In the previous system, a special order had to be placed in order to receive a fresh burger. McDonald's has just created new burger production technology that helps to speed up the process. They make sure that the finished product is delivered to the customer as soon as feasible while also minimizing the amount of time the finished product is held in inventory (UKEssays, 2018).
- b. Components of Inventory Decision :
 - 1) Cycle Inventory : McDonald's has established an inventory system that includes daily, weekly, mid-month, and end-of-month inventories. Only essential items are used in the daily inventory system. Applying the weekly inventory technique to food items like beef patties and chicken is common. Regarding the application of the mid-month and end-of-month systems to all items. For frozen and dry goods, McDonald's has a weekly ordering system that requires orders to be placed three times per week. Fresh milk and chicken, which are daily products, are ordered twice a day; nevertheless, vegetables are ordered twice a week. To prevent shortages, the restaurant always do weekly check to look into the amount of the remaining raw materials.
 - 2) Safety Inventory : The restaurant use FIFO (first in first out) method to lessen the chance of easy theft and damaged materials. Every materials that comes first will be used because the materials has expiration date.

3. Transportation

- a. Role in Supply Chain : the movement of edible commodities is done through a system of cold chain. There are compartments designed to keep frozen products at -18C to -25 C, chilled products at 1C to 4C, and dry products at ambient temperatures (Curz, 2015). Trucks deliver all the materials. Truck containers have two side doors in addition to the rear entrance, which is another feature. Products are unloaded through the side doors so as not to disrupt those in the other temperature zones.
- b. Role in Competitive Strategy : McDonald's food distributor Martin-Brower made a decision in response to rising transportation expenses (edu, 2019). Rail transportation appeared to be a wise choice. Railway transportation reduced prices and got rid of the traffic jams at corporate docks. Not all of McDonald's distributors employ this mode of transportation, they mostly still use trucks. But it's possible that could switch to railroad transportation in the future in order to cut costs.
- c. Components of Inventory Decision :
 - 1) Mode of Transportation : the restaurant mainly use truck to deliver their raw material from the distribution centers.
 - 2) Outsource : McDonald's has been essentially outsourced by reliable logistics, who are devoted to the system's performance and exceeding customers' expectations (Flinders, 2010).

4. Information

- a. Role in Supply Chain : Technology powers the entire supply chain system, making it effortless and seamless. While distribution centers use RAMCO Marshall ERP and Cobra software, suppliers use SAP. These systems are used to upload store orders automatically (Ajay Kumar Pagare, 2021). Technologies have been developed to help with day-to-day

operations of stores, such as tracking sales, allowing restaurants to schedule staff, sending forecast orders to DCs, etc.

- b. Role in Competitive Strategy : It allows supply chain to become efficient and responsive at the same time. It helps the restaurant estimate which products the store need in a single delivery period based on the data they have.

5. Sourcing

- a. Role in Supply Chain : The interconnected system of direct and indirect suppliers that compose McDonald's choose their supplier that must meet strict quality and productivity criteria (Vitasek, 2016). The business works with direct suppliers who orgaize ordering and supplying to restaurants. In contrast, indirect suppliers run businesses like abattoirs and grain mills. Cattle are raised on farms and ranches, as well as wheat, lettuce, and other necessary commodities.
- b. Role in Competitive Strategy : The founder of the company, Ray Kroc, believed in the outsourcing of the supply chain, which meant that the company had no financial stake in the products it provided to the restaurants (Benaroya, 2021). To create a highly transparent approach for the franchisees and suppliers was crucial.
- c. Components of Sourcing Decision :
 - 1) Supplier Evaluation and Selection : The supply chain is largely outsourced to dependable vendors who are fiercely dedicated to the system's success and exceeding client expectations.

6. Pricing

- a. Role in Supply Chain : McDonald use cost leadership to creates competitive advantage through cost reduction. Despite using competitive selling prices, the corporation uses standardized procedures to increase productivity, reduce expenses, and maintain profitability (Gregory, 2022).
- b. Role in Competitive Strategy : McDonald use bundle pricing strategy and psychological strategy. When opposed to buying each item separately, McDonald's sells meal sets and other product bundles at lower prices as part of its bundle pricing strategy. Customers can buy a Happy Meal or an Extra Value Meal, for instance, to maximize cost and product value. While in psychological strategy, uses prices that seem more reasonable, such \$_.99 for a meal (Meyer, 2022). Due to their apparent affordability, this price approach encourages customers to buy the company's food products.
- c. Components of Sourcing Decisions :
 - 1) Pricing and Economies of Scale : Because of the vast size of the business organization, economies of scale are possible, which results in lower costs for producing and buying ingredients for the company's restaurants.

Supply Chain Performance

1. JIT for Efficiency, Eliminate Cost and Customer Satisfaction :

McDonald's JIT called "Made For You" production system plan has so far significantly outperformed its previous production system in terms of positive advantages or values. In fast food establishments, food storage facilities for storing products are typically found behind the cashier. Since implementing the Just In Time system, McDonald's no longer uses this tool because it is less practical because products like Hamburgers that are not ordered by customers for a certain amount of time must be disregarded because they are considered not fresh, this makes loss in cost. In the past, McDonald's used this tool to place its Hamburgers that had been

provided to customers. So, the restaurant use JIT to eliminate cost and also to satisfy the customer by making precooked products. This product is for the consumer, who orders it once it is completed. Customers can order the goods and have it created. It stated that the product was "Made for you." McDonald's faces a challenge from this new technology. McDonald's success depends on its high level of adaptability. In addition, McDonald's produces a large amount of food due to the billions of clients it serves every day. McDonald's categorization of customer order types. When a customer requests it, a product can be manufactured to suit their taste, size, and quantity.

JIT system also help the restaurant to be quick in deliver and making the meal for the customers. Because the customer want their food to be served fast and the restaurant fulfilled their customer request by implementing JIT to maintain the customer satisfaction.

2. Minimization of Waste and Environmentally Friendly Packaging :

The restaurant want to reduce waste, because the restaurant want to cut the waste and the packaging. Packaging is crucial in serving meals to the customers safely. The restaurant want the packaging and the material they use support a circular economy rather than causing waste in the restaurants. The restaurant want to concentrate on implementing reduction on packaging and generate demand for recycled materials (corporation, 2021). In 14 November 2019, the restaurant formed the "Better M" to introduced a number of improvements as part of the drive to reduce the amount of plastic it uses. In the program, the restaurant change the packaging that can save 1200 ton of plastic waste annually (Newsroom, 2019). The restaurant make a new McFlurry packaging that won't use plastic lid. The new McFlurry packaging is lidless that made of paper and can be folded into the existing package to make a new lid.



3. Solution

The problem that rise in this fast food franchises is that many of the franchises is having a global potato shortage. So, many of the franchises in countries like Malaysia, Indonesia, Japan, UK, and more face the same problem. the reason of this shortage is because the potatoes that the franchises use is imported from the US. The restaurants only use Russet potatoes from America to make their potato-based products. The problem occurs when shipping capabilities have been reduced as well because of the pandemic until right now and it cause sea transportation delays. To solve this problem, the restaurant have to call the main office of McDonald to import the potatoes quickly by using airplane freight forwarder. But air shipping cost higher than using ocean shipping. So, the restaurant can use local produced potatoes in the

country that faced the potatoes shortage problem to avoid higher cost in spending freight shipping using airplane.

CONCLUSION AND SUGGESTION

McDonald has a complex supply chain. This fast food restaurant mostly use out sourcing in their supply chain. Because of that, they stored their raw materials in various location and use 3PL to delivers their raw material to other branches. This fast food franchises use pull view to bring effectiveness in their supply chain. McDonalds have a long term relationship with their suppliers, they always maintain their relationship through communication to make their supply chain run smoothly and share information to improve each other. To gain information, the restaurant and their supplier use SAP to send forecast to help them estimate which product needed based on the data they had.

The restaurant also implement JIT to cut down production cost and eliminate waste. The restaurant also implement cross docking to avoid bullwhip effect. Even though, McDonald's supply chain is complex, they can reduce their cost and give a low price for their foods. Vertical integration help the restaurant to cut some of the cost for its operation, because most of the materials the restaurant use, they use local ingredients but some ingredients is still have to be imported from the US. This sometime trouble them, when there is a delay in shipping and makes some shortage in their global supply chain. To solve this, the branches has to contact the main office to send the materials they needed quickly and it cost higher, so the restaurant has to use local ingredients for a while.

McDonald's supply chain is quite complex but it helps many of the restaurant branches to run well from ordering the raw material until it become a meal into the customer hand. But we can't deny about the human error within the supply chain. For example, when placing an order for raw materials from suppliers, a manager makes calculations and projects future demands for the company's raw material inventory. An incorrect estimate may be a barrier or result in a shortfall of the raw materials requested, which led to a company experiencing a shortage of their goods. Another human error McDonald's uses the ordering report, order diary form, quality assurance report, and ecosima review questionnaire as part of their raw material inventory control procedures. Employees of McDonald's occasionally makes mistakes when documenting papers, and this could be a problem in the restaurant's inventory of raw materials. So, the restaurants should manage the inventory system within their supply chain to make a better raw material storage and map out the positioning of the raw materials in accordance with the delivery date to prevent this problem in the future. The managers should do a forecast properly, so the manager can face the unexpected situation regarding a sudden big order that can come unexpected. The restaurants also need to involves more employees to work on ordering report, order diary form, quality assurance report and ecosima review to reduce the risk of error in computation, etc in those documents. By having multiple employees that work on those document it will keep the inventory under control and to avoid shortage.

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