

7. McDonald's plans to install coffee bars at its nearly 14,000 U.S. locations starting this year, its biggest menu addition in three decades. The effort to poach Starbucks' customers aims to add \$1 billion to the fast food chains annual sales.(Wall Street Journal, 1/08)

What type of thesis research might you conduct within your own major to examine some of the dynamics at play described in this Wall Street Journal article?

McDonalds plans to install coffee bars in nearly 14,000 locations this year. This would be its biggest menu addition in three decades. This would first off be quite a risky move for McDonalds since they are moving away from their image of cheap fast food, and entering into the gourmet beverage market. Although over the years McDonalds has been renovating its image into one that is classier and sophisticated, this would be quite a reach for McDonalds, even with its ever growing success over the past couple years.

The biggest question I would have in this situation being a Supply Chain major is how McDonalds plans to manage their inventory and their incoming costs as they add the coffee bars. Would the costs of coffee trickle down to the customer causing the menu prices to go up, and how would they plan to store the inventory to the biggest menu addition they have had in three decades... The research would consist of primary and secondary data, and would be done over the course of several years.

The first part of the thesis research would be to see whether or not McDonalds the capacity in their Supply Chain system to see if its distribution centers and transportation systems can handle the overload of products within their infrastructure. This would be done through an internship process or qualitative interviews with those distribution centers running this project. Inventory is the key to this entire process. How much would they plan to store and how much anticipation inventory would they store during seasons where coffee is popular. Most distribution centers cannot handle the capacity of having extra products being stored in their center without having the "Just in Time" goals breached. For instance, having extra inventory causes excess motion of workers since they have to deal with this inventory when they could be doing other things. This would be waste in terms of Supply Chain management. The Supply Chain at McDonalds will absolutely need to be able to complete the tasks of the JIT, having the required inventory only when needed, reducing setup times, and continuous improvement of the supply chain if the coffee business is one that McDonalds wants to sustain for the future.[3] Research would also be done on the current inventory system. If coffee products were to be added as inventory in the DC's, what products would be cut short a bit and how would they accommodate for safety stock. Safety stock is absolutely necessary because there are always uncertainties in the supply chain.

Also, the chances of a bullwhip effect would be researched. There may be errors in forecasting since demand is never uniform. The bullwhip effect is a phenomenon where demand volatility increases as demand moves upstream in a supply chain. The main cause of this is relying too much on forecasted demands and therefore affects safety stock. ^[4] Having less safety inventory increases risk, which on a small scale may not mean much, but if you add up the risk of all the suppliers for the 14,000 stores it is hard to ignore. Steps need to be taken to make sure they are not stocking short on Big Mac's for coffee products, or vice versa. I would need to see

reports of what items are being cut short in order to stock coffee and whether or not the DC has even fallen short on inventory delivery to any of its 14,000 stores. This basically comes down to the communication between the companies. By sharing information, a lot can be accomplished and problems like these can be reduced greatly. The communication levels between the two parties would be researched in order to see demand forecast updating schedules, and order batching schedules. ^[5]

Another portion of research that would be done would detail the transportation outline to add coffee into the McDonalds stores. For instance, McDonald's buys its potatoes from corporate farmers in Idaho not the commodities market; therefore it limits its exposure to price gouging that might have occurred by using the commodity exchange to get those potatoes. ^[7] McDonalds buys their coffee from Newman's Own produced by Green Mountain Coffee in Virginia which is a company not owned by McDonalds. ^[1] Previously, McDonalds sold its own blend of java. ^[1] What types of transportation they use is important because they want to reduce the transportation inventory (the time that inventory is "in the pipeline") as well as find the transportation that reduces cost in the overall Supply Chain, whether they use a continuous replenishment system versus a periodic system is key, this is because you need to adjust the transportation system accordingly, so that the stores do not hold any extra inventory that would potentially not sell in McDonalds. ^[5] A continuous replenishment system is based on replenishing when certain low levels of inventory are hit. A period replenishment system deals with replenishing in a fixed schedule i.e. every 3 weeks. You need to remember that the 14,000 McDonalds are special cases because they require special inventories of coffee, as well as selling the regular 50+ items sold at any McDonalds. How the transportation schedules adjust to those 14k stores without losing sales in any of the other items is what needs to be questioned.

Along the similar lines, researching whether a centralized or decentralized center is important for transportation needs. Do they plan to have only a centralized warehouse with coffee? Centralized purchase gives several advantages such as larger volumes, and better prices. In a centralized function it is also much easier to coordinate the activities between the company and the suppliers. ^[4] However, having a decentralized center means that the nearness is greater from the end user of the product, so products could respond faster when dealing with uncertainties. ^[4] It is a trade of between efficiency and responsiveness. ^[4]

Also, research would be done in finding the right EOQ levels. During the first months of sale finding the order quantity that minimizes annual holding and ordering costs for an item can be difficult since many people come to McDonalds purely for fast food. However, about one in five Americans drink some kind of espresso-based coffee each day, and the market is supposed to grow by at least 4% each year until 2011. ^[2] Depending on how much of that market McDonalds hopes to grab will determine their EOQ levels. The EOQ level would be key in determining whether enough capacity is representative for McDonalds to continue its coffee bars. More specifically, research would be done in how they measure the EOQ when determining volume discounts, since volume discounts is a procedure that is used often to have customers order in large quantities. ^[5]

With Starbucks struggling due to increases in dairy products and rising products, it may seem like a time for McDonalds to move in. But a cost-benefit analysis must be done in these situations. Research would be done of the complexity of the supply market. The complexity of the market affects the risk connected to the supply. ^[4] There is risk of how easy it is to replace

the product/and supplier with other competitors, and McDonalds needs to appropriately adjust to this. Research would be done to see how it can block competitors from entering its market share in the long run. Seeing what types of relationships the companies have with each other can help analyze the cost-benefit analysis. A strategic partnership where there is a high level of communication and early supplier involvement requires investments but is worth implying when trying to enter the competitive market of gourmet coffee.^[5]

The last portion of research that would be done is the Total cost of Ownership perspective. The choice of supplier has been based on price historically in companies. The supplier in this case Newman's Own would be evaluated in an atomistic way, including all the additional costs connected with being provided by this company and its cost over its lifetime.^[6] This research could imply that the preferred supplier might be a different one than preferred on the price basis. Some additional costs could be transportation costs due to location, costs of storage, costs of being short stocked, and service cost.^[6] Research would be done to see if the supplier is on the same page as McDonalds and what solutions and continuous improvement they have in store. The ultimate goal should be to make use of purchasing knowledge, of products for the benefit of superior product design. The lead time is only as strong as its suppliers are, if a shipment is not produced at the final time of transportation, the lead time is broken down.

These would be the main topics of my research into the thesis of whether or not McDonalds should enter the gourmet coffee industry. If specific measures would be taken, and the McDonalds Supply Chain can contain all the new possible problems that adding a new product on the menu can bring, than the correct decision was made in entering the gourmet coffee industry.

Works Cited

- [1] Abelson, Jenn. "McDonald's Brews a Java War." Boston Business. 28 Oct. 2005. 11 Apr. 2008
<http://www.boston.com/business/articles/2005/10/28/mcdonalds_brews_a_java_war/>.
- [2] Associated Press. "Coffee Clash At McDonald's." MSN. 21 Nov. 2007. 11 Apr. 2008
<<http://articles.moneycentral.msn.com/Investing/Extra/CoffeeClashAtMcDonalds.aspx?page=1>>.
- [3] Blanchard, David. "Just in Time -- How to Fix a Leaky Supply Chain." IndustryWeek. 1 May 2007. 10 Apr. 2008 <<http://www.industryweek.com/ReadArticle.aspx?ArticleID=13927>>.
- [4] Carlsson, Clara, and Johan Rasmusson, comps. Control and Synergies in the Outsourced Supply Chain. 2004. Lund Institute of Technology. 10 Apr. 2008
<http://www.tlog.lth.se/documents/exjobb/5545_Carlsson-Rasmusson.pdf>.
- [5] Walters, Felisa. Custom Business Resources. 1st ed. Boston, MA: Prentice Hall, 2007. 150-250.
- [6] White, Lisa. "<http://www.fesmag.com/archives/2006/02/cost-of-ownership.asp>." FoodService. 2007. 13 Apr. 2008 <<http://www.fesmag.com/archives/2006/02/cost-of-ownership.asp>>.
- [7] Winslow, Lance. "McDonalds Supply Chain of Potatoes." Ezinearticles. Autumn 2006. 10 Apr. 2008 <<http://ezinearticles.com/?McDonalds-Supply-Chain-of-Potatoes&id=33870>>.