

## **Strategic Analysis and Evaluation of Cheesecake Factory's Supply Chain: Uncertainties, Challenges, and Remedies**

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### **Abstract**

In the business world, it is important to maintain a profitable balance between efficiency (cost) and responsiveness (to changes in the market, customer demand, etc.) We took the fundamentals of supply chain theory and used them to analyze the real-world case of The Cheesecake Factory's retail cheesecake supply chain. After an examination of the background of its supply chain structure, The Cheesecake Factory's supply and demand uncertainties were first identified and assessed. We reviewed how supply uncertainties are influenced by disruptions to material flow on the supplier side as well as how implied demand uncertainties are influenced by changes in customers' behavior and preferences. It follows that these different forms of uncertainties led to many supply chain challenges faced by The Cheesecake Factory, and we made remedial recommendations to address those challenges, including adding and continuously improving the flow of information with advances in technology and partnering with eco-friendly farms. Finally, we reviewed the ability and thus sustainability of The Cheesecake Factory to maintain a strategic balance between cost and responsiveness with their high-end cheesecake products given the ongoing challenges. Understanding supply chain variables is key to remaining profitable in business. The Cheesecake Factory's cheesecake supply chain displays similar operational and consumption characteristics experienced by many other counterpart food processing supply chains. Our strategic analysis and evaluation can offer valuable insight to manage these supply chains and to improve their profitability.

**Keywords:** Supply chain management, operations strategy, distribution network and logistics responsiveness and cost efficiency, food processing supply chain analysis.

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## **1. Introduction**

With the advancement of technology and the changing landscape of consumer market over this decade, companies have been constantly looking for ways to improve their supply chains. The increasing competition has also forced the supply chains to face the reality and adopt a more strategic examination to assess its level of responsiveness and cost structure as well as their tradeoffs. These notions are especially applicable to the food and food processing industry because of the inflation along with growing demand and expectation from customers. Our study aims to utilize the fundamentals of supply chain theory (e.g., Chopra and Meindl (2013); Cakanyildirim (2014); Penteado-Marchesini and Chicarelli-Alcântara (2016)), and analyze the real-world case of Cheesecake Factory's cheesecake supply chain, which consists of multi-channels – physical wholesale, physical retail, direct online sales, and more. For the sake of brevity, our analysis and evaluation, which also include remedial recommendations, focus on only the retail channels. Since Cheesecake Factory's cheesecake supply chain displays operational and consumption characteristics similar to many other chains in the food processing industry, our work should be able to generalize and can offer valuable insight to manage other supply chain counterparts.

The paper is organized as follows. An overview of the background and basic elements of Cheesecake Factory's supply chain is provided in the next section. Major uncertainties encountered by the supply chain are also identified and described. In addition, their influences on the system are assessed from an operational perspective. Section 3 encompasses a strategic analysis and evaluation of the supply chain. To be more specific, elements and practices pertinent to responsiveness and cost efficiency are analyzed and their effects on the overall system performance are evaluated, respectively. The tradeoff between these two domains are then examined and explained. Subsequently, these tradeoffs are projected to and evaluated by an array of

operational performance measures. In Section 4, current challenges faced by Cheesecake Factory's supply chain system are identified and elaborated. Remedial recommendations pinpointing each of the challenges are suggested. Finally, the paper is concluded in Section 5.

## **2. Supply Chain Background and Uncertainties**

### **2.1 Background of Cheesecake Factory Supply Chain**

In general, a supply chain network is one overarching entity where all stages are involved in fulfilling a customer request, usually an order. Each stage is involved either directly or indirectly. Products, information, or both are moved throughout the network directionally: either upstream to downstream customers or vice-versa. Figure 1 illustrates The Cheesecake Factory's supply chain from a high-level perspective. The diagram shows how product flows downstream to the end customer. Information, however, travels between stages both upstream and downstream. A supply chain diagram is also useful in illustrating how strategy developed at stages furthest upstream will affect decisions and processes throughout every stage of the supply chain network. The objective of a supply chain is to maximize the overall value created where the customer is the only source of revenue and this objective can be met by using a variety of strategies. Interested readers can refer to Chopra and Meindl (2013) and Olavson, Lee, and DeNyse (2010) for a pragmatic exposition of the subject matters.

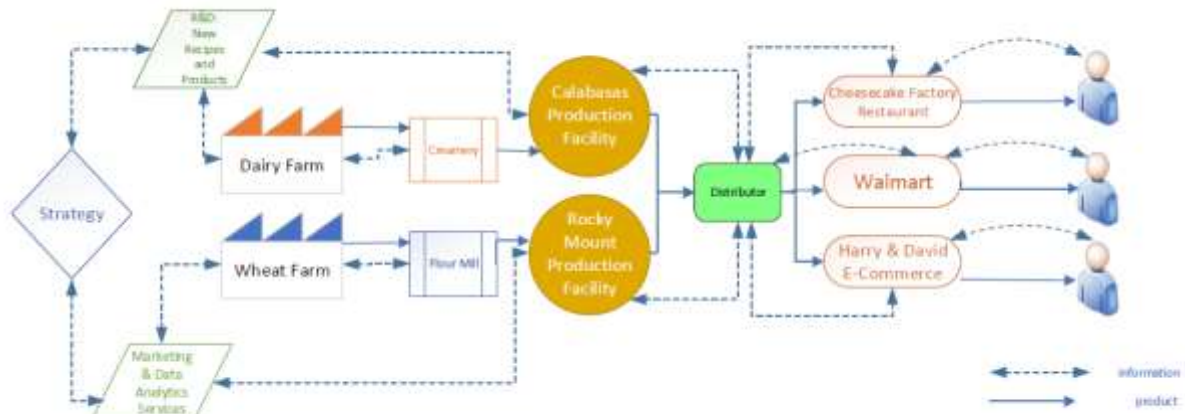


Figure 1

Multi-channeling (see Easingwood and Coelho (2003) for description and examples) is utilized by The Cheesecake Factory in order to reach different markets as part of its overall strategic plan. If a customer wants to purchase a cheesecake from The Cheesecake Factory, he or she can visit a local Cheesecake Factory restaurant and enjoy a slice as a sit-down meal. Alternatively, the customer has the option of ordering one online for pick up to enjoy in a separate location. This is part of The Cheesecake Factory's direct sales operations. If a customer is not near a Cheesecake Factory location, the customer can also benefit from The Cheesecake Factory's multi-channel approach. Currently, customers are able to purchase Cheesecake Factory cheesecakes at both Walmart and Target, as well as their online counterparts Walmart.com and Target.com. These outlets are additional retail options for customers, although they are not direct sales. It should be noted that The Cheesecake Factory distributed its products through both retail and wholesale channels.

The Cheesecake Factory reaches an even larger audience with their partnership with e-commerce site, Harry and David. While Harry and David does not offer every cheesecake option sold by The Cheesecake Factory, they do offer a limited selection of "Best Sellers." For a premium price plus premium shipping fee, customers can have

entire cheesecakes shipped to their door in 2--business days. Harry and David packages each cheesecake with dry ice to ensure the desserts arrive in the best quality and that the customers appreciate value received for the price paid.

Through utilization of each of these channels, The Cheesecake Factory is able to execute operations that are in line with its strategic and competitive plan. However, multi-channeling presents tradeoffs that must be dealt with on a regular basis. In order to meet their ultimate objectives, The Cheesecake Factory will have to carefully analyze the decisions regarding these channels (in particular, which channel deserves the most focus or highest priority). For example, if The Cheesecake Factory puts too much focus on the relationship with Harry and David, their restaurant business will suffer. The inverse is true as well, which is why the decisions must be made intentionally and after careful planning lest total sales or profit will suffer.

In order to calibrate the success of the supply chain, which is made up of separate entities, we need to focus on the overall system profitability instead of myopic stage-wise performance. Hence, supply chain (system) profitability is found by measuring the "supply chain surplus," which is calculated by subtracting all of the supply chain costs from the customer value created by the entire chain. It is important to focus on maximizing total surplus as it is not specified where along the chain the value will be or can be created. Table 1 exemplifies various costs incurred in different major stages in the supply chain.

<b>Stage</b>	<b>Cost</b>
Raw Materials	Cost of supplies (ex: eggs from the poultry farm)
Raw Materials	Transformation costs (ex: milk to cream and cream cheese at the creamery)
Production	Facility Rent
Production	Facility inspection costs
Production	Equipment costs
Production	Loss due to spoilage or mistake
R&D	Research costs
Marketing	Costs to acquire a customer
Distribution	Shipping and transportation costs
Direct Sales	Server wages
Retail (Walmart & Target)	Shelf space costs
e-Commerce (Harry & David)	Information costs

*Table 1*

Referring to the original equation in Chopra and Meindl (2013), we can easily adapt this to The Cheesecake Factory's cheesecake line, as shown in Figure 2, where:

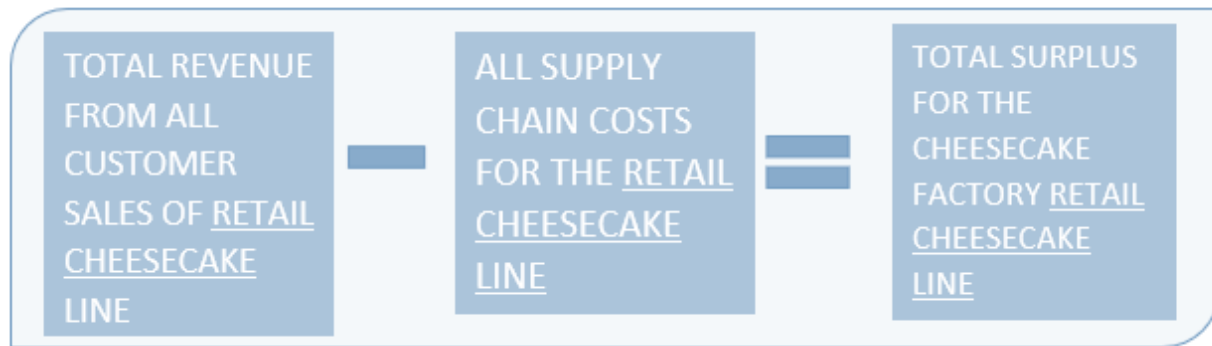


Figure 2

**TOTAL REVENUE** = all earnings from retail sales of cheesecake by customers; and

**ALL SUPPLY CHAIN COSTS** = as an example, the sum of all costs from Table 1

Before The Cheesecake Factory can make meaningful or effective business decisions, they must have a basic understanding of the concept of supply chain profitability. That is, The Cheesecake Factory must understand that their net profit will be continuously affected by decisions made at all stages of their supply network. The Cheesecake Factory must also have a clear understanding of what their product is, to whom they are selling, and where the product will be sold. Following this, The Cheesecake Factory can execute their strategic objectives through improved decision-making by gaining an understanding of the various uncertainties that the entire supply network faces during business operations.

## 2.2 Supply Chain Uncertainties

Although the supply chain of The Cheesecake Factory's cheesecake line embraces a variety of operational uncertainties, they can be roughly classified into three major types – demand uncertainty, implied demand uncertainty, and supply uncertainty. Some of these uncertainties may stem from the inherent nature of retail business while others are largely associated with the probabilistic environment found in

manufacturing and logistics systems. An assessment of the three domains and how they are tied to the cheesecake supply chain are summarized below.

### Demand Uncertainty

The Cheesecake Factory experiences supply chain uncertainties. Demand uncertainty is the uncertainty of customer demand for a product from time to time. The customer demand could be seasonal meaning demand is high only during one season of the year. Believe it or not, demand for cheesecake can fluctuate. For example, July 30th is National Cheesecake Day, so cheesecake demand will be exceptionally high. To increase demand even more, The Cheesecake Factory discounts the cheesecakes to half-price (Campbell, 2016).

Customer demand could be dependent on the customer demand of geographically close retailers. Business Insider magazine reported in August 2016 that sales for Nordstrom department store and The Cheesecake Factory are closely correlated throughout the year (Archer, 2016). When department store holiday sales are up, so are cheesecake sales. When post-holiday sales are at a low point in January, so is the demand for cheesecake. The correlation is due to the two businesses being located near each other in shopping mall entrances, which causes a dependence on Nordstrom's customer demand. This dependence will lead to demand uncertainties for The Cheesecake Factory.

### Implied Demand Uncertainty

Implied demand uncertainty is the result of changes in customer behavior. The customer may switch from one standing favorite flavor to another flavor that is the current trend. For the Cheesecake Factory, there is a need to be responsive to changes in their downstream customers' behaviors and preferences. Regardless of what the changes are in the downstream behaviors, The Cheesecake Factory will have to respond



to them and do so in an efficient manner. The Cheesecake Factory is especially susceptible to implied demand uncertainty because they charge premium prices for their products. When a company charges a premium price, customers expect commensurate value. That is, a customer of The Cheesecake Factory will want many customization options and quick shipping. Quick shipping results in a lead time decrease which causes implied demand uncertainty to increase because there is less time to react to orders.

When implied demand uncertainty remains high, overstock can result requiring markdowns. Could it be possible National Cheesecake Day, which happens seven months after the end of holiday sales, was invented by The Cheesecake Factory to rapidly move overstocked product at a big discount? It is entirely possible.

Due to difficulty in forecasting, implied demand uncertainty can also lead to stockout, a lack of supply. This is evident when searching the online ordering of cheesecakes. The Cheesecake Factory's website redirects the customer to the Harry & David website to place the order. The cheesecakes listed have a descriptor underneath the photo indicating whether the cheesecake is available. If demand were more certain, The Cheesecake Factory could develop their own distribution network rather than using a third party, Harry & David, known for selling other foodstuffs from potential competitors.

The Cheesecake Factory is experiencing implied demand uncertainty due to the wide range of cheesecakes offered. The menu lists 30 types of cheesecake. It has something for every flavor preference. Large product variety is responsive to customer wants and desires but does lead to increased implied demand uncertainty resulting in a higher margin. Figure 3 displays the expansive range of cheesecake varieties offered at each restaurant location.

Cheesecakes from The Cheesecake Factory can be obtained through multiple channels. Customers can get cheesecakes from the restaurant, from a local grocer's bakery section, from a local grocer's freezer section, or by ordering online. The restaurant offers more than twice the types of cheesecakes offered anywhere else and the size of the cheesecakes is larger. The differences in variety and lead times in the various distribution channels, as well as the number of channels available lead to disaggregate demand.

As mentioned earlier, customers want value commensurate with the higher price being paid for The Cheesecake Factory. To respond to the desired value demanded, The Cheesecake Factory must increase the service level offered. I predict The Cheesecake Factory will add ketogenic diet compliant cheesecakes and gluten-free cheesecakes to their menu in the near future to increase their service level to the customer. New innovation, increased service level, and increased product variety will lead to increased demand uncertainty to the Harry & David website to place the order. The cheesecakes listed have a descriptor underneath the photo indicating whether the cheesecake is available. If demand were more certain, The Cheesecake Factory could develop their own distribution network rather than using a third party, Harry & David, which is known for selling other foodstuffs from potential competitors.

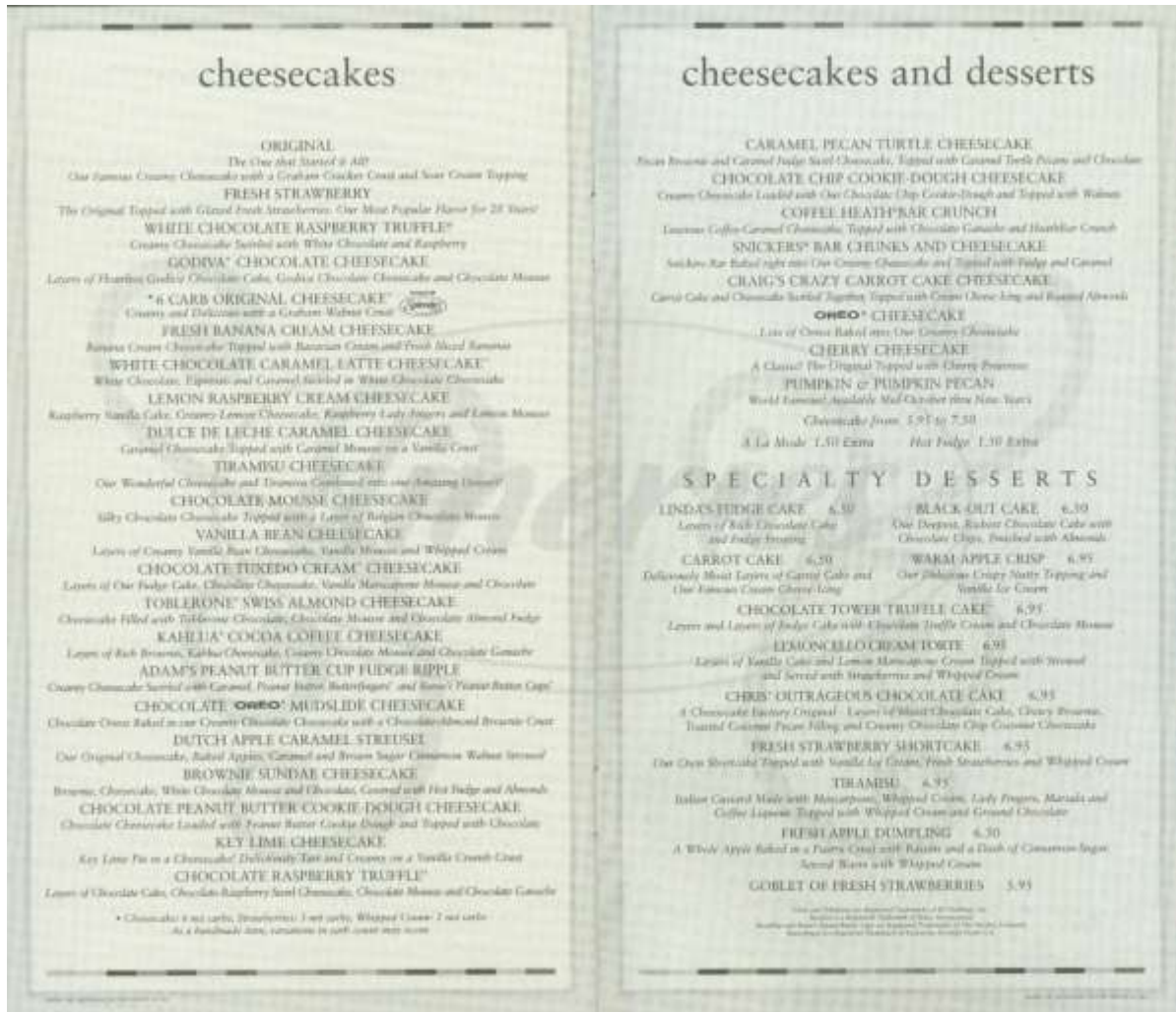


Figure 3

Supply Uncertainty

The Cheesecake Factory also experiences supply uncertainties. Supply uncertainties and uncertainties in the upstream supply chain include suppliers and manufacturing. The Cheesecake Factory has two baking facilities, one on the west coast in California and one on the east coast in North Carolina. Frequent breakdowns, for example, the ovens stop heating, in either of these facilities will result in supply

uncertainty because The Cheesecake Factory will be unsure if they can stock the multiple distribution channels.

An example of a supply chain uncertainty event is a severe freeze in Washington state that can cause the crop of cherries for the year to be lost. The low yield can cause the supply uncertainty for the cherry cheesecakes The Cheesecake Factory had planned to produce. The same supply uncertainty occurs with unpredictable yields, for example, an early spring causes an abundance of cherries, more than The Cheesecake Factory forecasted using and more than customer demand requires. Poor quality, like low yield, will cause supply uncertainty. The Cheesecake Factory is being urged by investors to address poor quality in the form of antibiotic use in animal products like milk and cheese according to an article in *Logistics Middle East* in 2013 (ASC Staff, 2013). The Cheesecake Factory has several locations in the Middle East. At the time of the article's writing, investors wanted The Cheesecake Factory to change their suppliers to those that provide antibiotic-free animal products before the government forces the change. The government mandate would be considerably costlier than a voluntary change. The voluntary change would be an evolving production process which would lead to increased supply uncertainty because The Cheesecake Factory would have to obtain new suppliers of antibiotic-free animal products. This particular type of supplier may not be prevalent because the market does not have a high demand for antibiotic-free animal products.

The Cheesecake Factory is facing increased competition from other cheesecake suppliers. For example, HEB and Walmart carry their store brands of cheesecake in the frozen foods section of their stores. The increased competition requires The Cheesecake Factory to be more responsive to customers and be more efficient to control costs. Responsiveness to customers and efficiency by keeping costs low are conflicting goals, so a balance between the two must be sought. One method The Cheesecake Factory has

employed to reach this equilibrium is using Big Data Analytics in the supply chain to respond to issues of poor quality much quicker according to a 2013 article in Business Insider (Durisin, 2013). Pulling items off the shelves sooner decreases the instance of customers receiving poor quality goods. Decreasing the likelihood of a bad experience results in the increase of customer responsiveness and, indirectly, the loss of future sales from the customer, thereby preventing the increased cost of the product to accommodate the lost revenue.

### **3. Strategic Qualitative Analysis and Evaluation**

#### **3.1 Responsiveness**

How fast The Cheesecake Factory is able to respond to changes or adjust in order to meet demand is otherwise known as their “responsiveness.” In order to be responsive, The Cheesecake Factory must be able to meet short lead times when necessary, the supply network must be able to respond to a wide range of quantities demanded, and the supply network must be able to handle a large variety of products while remaining innovative and meeting high service levels. The Cheesecake Factory determined at the executive level that the brand would be extremely responsive as a part of its strategy and competitive objectives.

#### **3.2 Cost Efficiency**

Efficiency within a supply chain network is the inverse to the cost of making and delivering the product to the end customer. Essentially, efficiency can be quantified in terms of costs per function throughout every stage of a supply chain. In order to be efficient, The Cheesecake Factory would prefer to minimize inventory to lower costs, ensure manufacturing utilization remains high to lower costs, and select suppliers based on cost and quality. The primary goal of an efficient supply chain is to supply demand at the lowest possible cost. Traditionally, lower costs would reflect an

organization's standard of performance. However, when a brand such as The Cheesecake Factory determines responsiveness is the primary goal, efficiency becomes a secondary variable in the cost-responsiveness tradeoff equation.

### 3.3 Responsiveness and Efficiency Relationship and Tradeoff

As stated, the decision to be a brand known for its responsiveness comes at a cost for The Cheesecake Factory. Figure 4 depicts, in a general sense, the lowest possible cost for any given level of responsiveness. The Cheesecake Factory has determined a level of responsiveness it would like to provide and now needs to operate at a certain level of efficiency in order to maximize sales and profits.

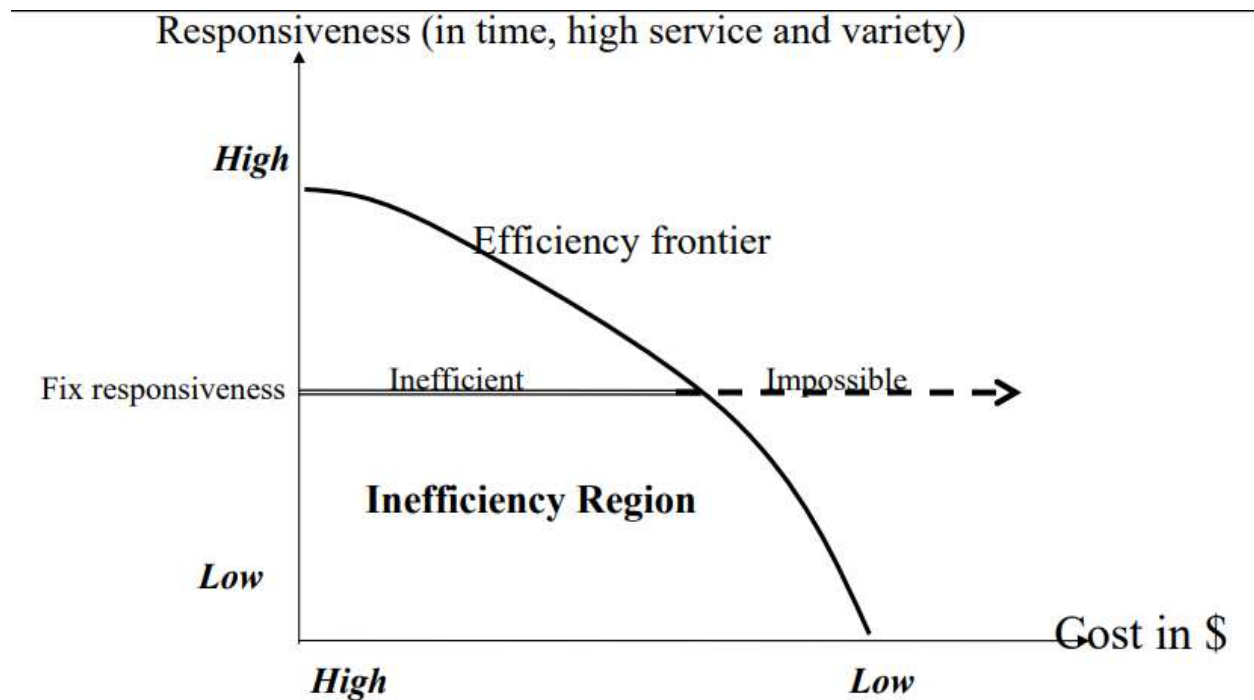


Figure 4

Several logistical drivers can be considered and modified in order to meet these goals. Decisions regarding facilities, inventory, transportation, pricing, sourcing, and

information can be made to effect outcomes in the cost-responsiveness frontier. Just as responsiveness is a function of what The Cheesecake Factory is willing to expend in terms of costs, the six listed logistical drivers are interrelated as well. For example, The Cheesecake Factory may consider increasing the number of manufacturing facilities to be more responsive. However, considerations are required for the resulting changes in inventory costs. As depicted in Figure 1, any tradeoffs The Cheesecake Factory chooses to make will originate with the strategy at the top of the supply chain network and will be adjusted accordingly based on feedback received and performance against benchmarks.

Continuous measurement is required in order to optimize the decisions along this tradeoff frontier. To that point, The Cheesecake Factory has worked to implement new customer satisfaction measurement platforms which provide each unique restaurant with actionable insights to address any issues. The Cheesecake Factory ensures that restaurants and retail partners make changes that are in line with its overarching strategic and competitive objectives by focusing on these aspects in the customer satisfaction surveys (2017 Annual Report). With the help of this innovative satisfaction measurement tool, The Cheesecake Factory is able to ensure continuously developing responsiveness while restricting focus to opportunity areas that are the most efficient or greatest value to the supply network.

### **3.4 Evaluation of Supply Chain**

The distribution network is evaluated along two dimensions: customer needs and the cost of meeting these needs. During this process, we evaluate the impacts on customer service (responsiveness) and the cost (efficiency). After evaluating these factors within the context of their strategic and competitive objectives, The Cheesecake

Factory is able to decide on an optimal distribution configuration for their retail cheesecake line (Fisher 1997).

Chopra and Meindl (2013) outlined an analytical framework to evaluate the operational performance of a supply chain distribution configuration with respect to six dimensions. Each of these dimensions is related to distinctive sets of tradeoff between different drivers for better financial performance. In other words, it indirectly proxies the profitability of the chain using the ongoing operation outcomes. Readers can refer to Manzini and Accorsi (2013) for another perspective and framework for evaluating supply chain pertinent to the food industry.

### Response Time

Response time is the amount of time it takes for a customer to receive an order. Response times can be affected negatively by distance or order processing times. The response time also varies by product or component, thus complicating receiving.

The response time for The Cheesecake Factory is quick, primarily because its inventory consists of perishable foods. Suppliers to the main production facilities are often local because they can quickly provide a replenishment of stock. With new online services, customers can order directly from The Cheesecake Factory or partner retailers (Walmart and Target) and have their products ready for delivery or pick-up within the hour, depending on their location.

### Product Variety

Product variety describes the number of different products that are offered by the distribution network to the customer.

All Cheesecake Factory restaurant locations serve at least 30 cheesecake options for customers, depending on the season. Although partner retailers don't carry the full



selection of SKUs, customers have the option to buy a whole cheesecake with one flavor or buy a “sampler” cheesecake featuring popular flavors together in one pie.

### Product Availability

Product availability refers to the probability of having a product in stock when the customer orders it.

Although the Cheesecake factory doesn't make their cheesecake at the individual locations, they still offer a high level of availability because of aggregation at the manufacturer. If The Cheesecake Factory doesn't have a specific product a customer is looking for, employees are trained to assist with ordering an alternative or having the original product shipped to the customer at a later date.

### Customer Experience

Customer experience includes the ease with which customers can place and receive orders, and the extent to which their experience is customized. Customer service can suffer if orders from several manufacturers are sent as partial shipments.

Since the Cheesecake Factory operates many restaurant locations, there is an inherent focus on customer service for dine-in and to-go sales. Whether you're at a restaurant location dining in or picking up a to-go cheesecake, customers have the option to personalize the top of the cheesecake for any celebration. This makes the customer experience unique and makes things easier from them as well. Likewise, as discussed previously, a customer can order a “sampler” cheesecake and include multiple flavors of Cheesecake Factory cheesecake in one whole cake. For a restaurant with a premium price such as The Cheesecake Factory, customer experience is the most crucial responsiveness factor to be considered.

### Order Visibility

Order visibility is the ability of customers to track their orders from placement to delivery. This allows customers to have insight into order processing at the manufacturer and retailer level. It provides some peace of mind to customers to be able to track their goods after payment.

Whether a customer is ordering cheesecake from The Cheesecake Factory restaurant in-store, online, or from a partner retailer, they are able to track their shipment in some fashion. In-store, a customer can inquire with a server. If a cheesecake is purchased online, the customer can look up the order history and tracking number provided. It will tell them what products were ordered, expected and actual ship dates, movement updates, and will provide a delivery notification. This aspect is very important from a customer service perspective. Order visibility is another crucial factor for Cheesecake Factory customers because of the nature of the product. Having cream cheese, a product that spoils easily, as its primary ingredient makes Cheesecake Factory cheesecakes particularly perishable. Additionally, Cheesecake Factory cheesecakes are elaborate works usually purchased for special occasions or celebrations. The customer needs to be confident that their special cheesecake is going to arrive in the right condition at the right time. Therefore, emphasis should be placed on order visibility for The Cheesecake Factory.

### Returnability

Returnability describes the ease with which the customer can return products in case of dissatisfaction. This service factor can be expensive and difficult to implement depending on the method used.

Since the items that The Cheesecake Factory sells are perishable, it is difficult to establish a return policy. However, customer satisfaction is of utmost importance to The

Cheesecake Factory. Because of this, they have established provisions that allow customers to return or exchange cheesecakes in certain situations.

Like the returnability issue, The Cheesecake Factory is continuously looking to identify challenges within the entirety of its supply chain network. When a challenge is identified, The Cheesecake Factory must evaluate it in terms of its desired strategic and competitive objectives and choose a solution that aligns with those goals.

#### **4. Challenges and Recommended Remedies**

Like most food processing supply chains, The Cheesecake Factory faces many challenges in achieving and maintaining strategic fit of the supply chain. Some supply chain challenges that the Cheesecake Factory must confront are increasing product variety and shrinking life cycles, globalization and increasing uncertainty, fragmentation of supply chain ownership, changing technology and business environment, and environmental and sustainability matters. It is important for the Cheesecake Factory to identify and understand these challenges because of their potential impacts on supply chain management. In addition, according to our assessment of the responsiveness-cost tradeoffs, corresponding remedies are proposed. Interested readers can compare and contrast our remedial recommendations to the study by van der Vorst et al. (2001) which focuses on the food supply chain for poultry industry.

##### Increasing Product Variety and Shrinking Life Cycles

The Cheesecake Factory sells over 50 premium cheesecake products through their restaurants and a few more via grocery stores. The more variety the company offers for the cheesecake products, the greater the implied demand uncertainty. Increasing product variety may also result in lower demand for older goods, thus causing the life cycles to shrink at a faster pace than if having less cheesecake variations.

The cheesecakes are perishable items, so the company cannot inventory a high variety of foods at the restaurants or grocery stores for long periods of time. To address this challenge, the Cheesecake Factory should continuously monitor customer preferences, but limit the introductions or changes of their cheesecakes to once every year.

Therefore, the company can focus more resources to supply foods with the most value to consumers without having to sacrifice life cycle time.

### Fragmentation of Supply Chain Ownership

Fragmentation of the supply chain occurs when the network is split between multiple parties within the supply chain. The Cheesecake Factory faces fragmentation as the company does not own the entire supply chain process; some stages (such as distribution) are managed by outside businesses. These outside businesses have their own policies and methods that can cause coordination problems for the Cheesecake Factory. Therefore, the less vertically integrated the Cheesecake Factory becomes, the more difficult it is to align and manage the supply chain. This can negatively influence supply chain profitability. The Cheesecake Factory may overcome supply chain fragmentation by investing in technology to improve communication and information flows throughout the network. In addition, the company must carefully select external partners that best satisfy supply chain fit.

### Changing Technology and Business Environment

The Cheesecake Factory must address how its supply chain will handle changing technologies and evolving business environments. Right now, the big trend for the food industry is consumers requesting online ordering with a home delivery service. Another current trend is to invest in data analytics for various business requirements. Staying up-to-date with new technology and industry trends can be very costly and problematic to implement. On the other hand, failing to do so can give competitors an

edge against the Cheesecake Factory. Likewise, it could result in jeopardizing potential supply chain profitability. The Cheesecake Factory should often evaluate its supply chain strategy and execution to ensure it can adapt to the changes. The company should also take on the new technologies and trends if it supports strategic fit, enables competitive advantage, and satisfies consumer demands.

Chopra and Meindl (2013) proposed a scorecard approach to evaluate a supply chain with online sales / technology component. This analytical approach is essentially a hands-on representation of the conceptual frameworks in Golicic et al. (2002) and Garcia and You (2015). Figure 5 delineates the relative scores of The Cheesecake Factory online operations versus those of the brick and mortar counterpart. A comparison of the ratings (next page) reveals the existence of tradeoff between acquiring for higher responsiveness to customer expectation and additional costs to improve infrastructures and information technology.

### The Cheesecake Factory Online Sales Scorecard

Area	Online	Restaurants
Response Time	0	+2
Product Variety	+1	+2
Product Availability	+1	+2
Customer Experience	+1	+1
Time to Market	0	+2
Order Visibility	+2	+2
Direct Sales	+1	+2
Flexible Pricing, Portfolio, Promotions	0	+2
Efficient Funds Transfer	+2	+2
Inventory	Lower Cost	Higher Cost
Facilities	Lower Cost	Higher Cost
Transportation	Higher Cost	Lower Cost
Information	Higher Cost	Lower Cost

Key: +2 = very positive; +1 = positive; 0 = neutral; -1 = negative; -2 = very negative

Figure 5

#### Environmental and Sustainability Issues

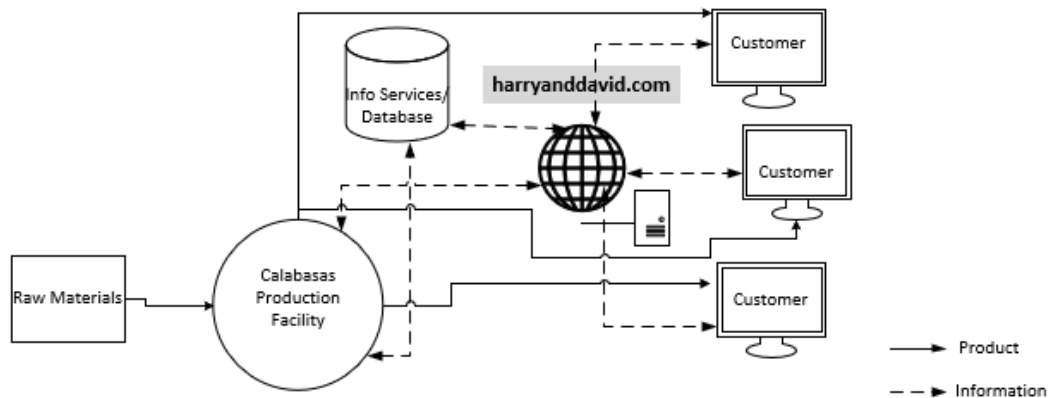
The Cheesecake Factory relies on its farm supplies to provide the ingredients for the cheesecake products. These farms, and therefore the Cheesecake Factory, are influenced by environmental problems. Drought, flooding, and other natural disasters can cause severe losses of resources, while simultaneously rising supply costs. The

Cheesecake Factory is also negatively impacted by pollutants and food-borne diseases. Finally, energy demand around the world has grown at an alarming pace, which is a major concern for all stages of the supply chain. The Cheesecake Factory should be environmental-minded by partnering with farms that embrace safe, eco-friendly agriculture practices and technologies. Also, the company should often review its supply chain process to see how it can reduce waste and slow energy consumption.

### Online Sales and Borderless Competition

The Cheesecake Factory has partnered with e-commerce retailer Harry and David to offer their cheesecakes to customers who want or need to be able to purchase via online ordering. The customer experience is very positive with The Cheesecake Factory online sales because of the convenience the format offers. Online sales for The Cheesecake Factory do encounter significant issues. Transportation costs are negatively affected. In the restaurant, the customer takes the product with them so shipping is not involved. When purchasing from Harry and David, every item must be shipped by The Cheesecake Factory or its representative. The shipping must be quick to both maintain produce freshness and meet customer expectations. Information costs are also negatively affected by an online store. It is important to the company's success that information sharing with Harry & David regarding online orders has a strong infrastructure. In addition, this information sharing is critical to forecasting demand and planning with the suppliers upstream. Because of the positive customer experience associated with online ordering, and other benefits such as a reduced need to carry inventory in their physical stores (if there is a physical store stockout, the customer can be directed to order online), and increased geographic reach, The Cheesecake Factory should look to mitigate the challenges associated with e-commerce rather than avoid utilizing online sales entirely. The Cheesecake Factory can reduce the risk involved by reducing the uncertainty involved. This is accomplished by focusing on relationship

management within the supply chain. Information sharing is one of the ways The Cheesecake Factory maintains their supply chain relationships and therefore, considerable focus should be placed on establishing the necessary information infrastructure. Overall, the costs associated with establishing successful information infrastructure will be less than the benefits received creating a net positive effect for The Cheesecake Factory.



*Figure 6*

Figure 6 depicts the flow of information in an e-commerce setup for The Cheesecake Factory. As shown, product continues to flow downstream to the end customer. However, the online distribution network is contingent upon information infrastructure to run as effectively and efficiently as possible. It is an information system that is used for the entire process, from order creation to order fulfillment. Additionally, proper information sharing will be required between production and Harry and David's e-commerce site so that sales and profits do not suffer as a result of poor decision making due to unreliable or distorted information.

## **5. Conclusions and Future Extensions**



The main objective of supply chain management is to maximize the overall value created by delivering quality products to customers in a manner most profitable for the network. Analyzing the potential issues and trade-offs that influence the supply chain is crucial for proper decision-making that will address these challenges and benefit profitability. The purpose of our study is to identify and explore the uncertainties and management challenges for a supply network while also evaluating the cost-responsiveness balance for certain remedies. We applied a qualitative framework based on contemporary supply chain theories to retail product lines of Cheesecake Factory and obtained meaningful insights which can be projected to other companies and supply chains in the food processing industry.

Essentially, we found that Cheesecake Factory needs to strategically determine the optimal levels of responsiveness and cost structure given the tradeoff of the two entities in the supply chain. Major and influential demand and supply uncertainties encountered by the Cheesecake Factory supply chain are fluctuations in customer demand, production system failure, risk of stockout, and increased product variety. On the other hand, key challenges for the retail cheesecake line are managing the need for customization with shrinking product life cycles, globalization, and prioritizing logistic efficiency (i.e. faster delivery). Our suggested remedies for meeting these contemporary challenges include investment in modern ERP systems, implementation of innovative distribution systems, and consolidation of production but decentralization of specialized products via regional partnerships.

Future extension of the study can focus on a strategic analysis and formulation of an integrated global supply chain system based on the current suggested recommendations for improvement. The system should address both aspects of physical distribution and e-commerce transaction along with their coordination in cross-border trading. Another meaningful extension is to compare and contrast

Cheesecake Factory's supply chain operations with those of its competitors in food processing industry such as Nestle, Kraft, and Tyson. This will generate useful and actionable insights through examining generalization and diversity of practices.

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