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T.I.M 125
Homework 2

Homework #2

Plan

Friday – read the problem

Saturday – start on homework

Sunday - Finish the homework best effort

Thursday – Review and submit

1. Amazon.com

Define

a) Using appropriate diagrams briefly explain how Amazon's supply chain works?
b) How would you characterize the competitive strategy of Amazon.com? What are the key customer needs that Amazon aims to fill? Where would you place the demand faced by Amazon on the implied demand uncertainty spectrum? Why?
c) What level of responsiveness would be most appropriate for Amazon's supply chain? What should this supply chain be able to do particularly well? (Visit the amazon web-site and perform "experiments" when solving this problem.)
d) How can Amazon expand the scope of strategic fit across the entire supply chain?

Plan

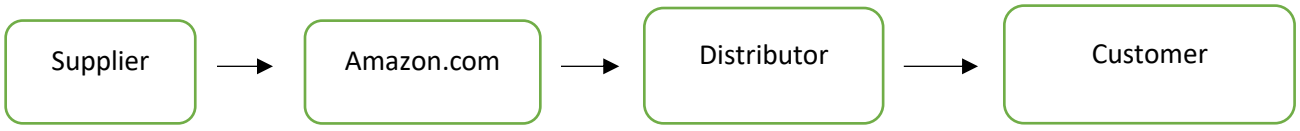
What information is available for solving the problem?

- Lecture notes
- Further research on Amazon.com
- Structured Problem Solving

Execute

A. What is Amazon.com supply chain?
Amazon's strategy is to fill all the orders that they receive by using items purchases from a distributor in response to their customers orders. For example, if someone wants a text book for an economy class, Amazon will retrieve this book and use a distributor such as UPS to distribute the book to their customer.

Amazon's Supply chain



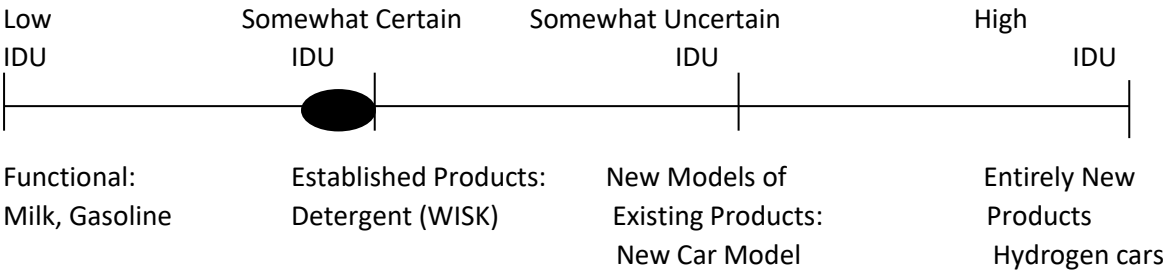
Suppliers: companies like Sony, B&N and other retailer chains
Amazon.com: Amazon

Distributors: UPS, USPS, ect.
Customer: People who ordered goods through Amazon.com

B. How would you characterize the competitive strategy of Amazon.com? What is the key customer needs that Amazon aims to fill? Where would you place the demand faced by Amazon on the implied demand uncertainty spectrum? Why?

Amazon makes it convenient for customers to purchase goods. They can browse though different items available just at the ease of their own homes. Customers do not need to physically go to a store for a particular item.

IDU spectrum

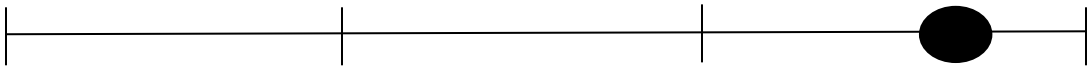


Above is the IDU spectrum where I have given some examples of what falls into which part of spectrum.

Since Amazon changed the way the supply chain operates and provides a new type of service through the internet, I would place Amazon under HIGH IDU which categorizes under distributive technology. This is because amazon makes shopping fast and way one clicks checkout.

C. What level of responsiveness would be most appropriate for Amazon's supply chain? What should this supply chain be able to do particularly well? (Visit the amazon web-site and perform "experiments" when solving this problem.)

Highly efficient SC Somewhat efficient SC Somewhat responsive SC Highly responsive SC



Amazon would want to have a high level of responsiveness since their supply chain since their supply chain strategy is to fill all orders that they receive using distributors that will reach the customer to their desired destination. Customers would want to be able to receive their goods fast and as soon as possible, even if it means paying a little more faster shipping.

D. How can Amazon expand the scope of strategic fit across the entire supply chain?

Amazon can expand the scope of strategic fit across the entire supply chain by applying each of the scopes to each part of the supply chain. Amazon can move their warehouses and manufacturing factories to closer distances that way they can reduce transportation cost. They can also so store less popular items in smaller lots to lower storage cost and store items on high demand in bigger lot sizes to reduce transportation cost. Amazon can also balance inventory levels with product availability to customer needs and through information transparency.

Check your work

I have checked my work by making sure that I have answered all sections. And then proceeded to go over the answers.

Learn and generalize

Amazon has changed the way people shop for goods such as furniture, books, videos, electronics, ect, . This is a pull strategy unlike traditional retailing strategies, which are classified as push strategies. Amazon SC is responsive where they answer to their customers request as soon as possible and make sure everything is smooth.

2 Toyota

Define

A. Answer the same questions posed above for Toyota.

How would you characterize the competitive strategy of Toyota? What are the key customer needs that Toyota aims to fill? Where would you place the demand faced by Toyota on the implied demand uncertainty spectrum? Why?

What level of responsiveness would be most appropriate for Toyota's supply chain? What should this supply chain be able to do particularly well? (Visit the Toyota web-site and perform "experiments" when solving this problem.)

How can Toyota expand the scope of strategic fit across the entire supply chain?

B. How can the full set of six drivers to used to create strategic fit with Toyotas competitive strategy?

Plan

What information is available for solving the problem?

- Lecture nots
- Problem 1
- Further research on Toyota
- Structured Problem Solving

Execute

A. Answer the same questions posed above for Toyota
What is Toyota's supply chain?

Toyota's supply chain strategy is to open factories in every market it serves. Each plant that is available is quipped only for local productions yet, still enabling them to supply to every market.

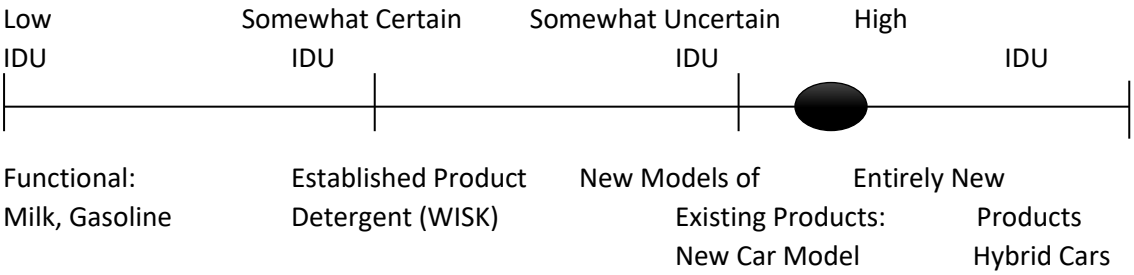
Toyota's supply chain

Supplier: Material, Electronics, Windows
Manufacture: Local Toyota
Distributor: Toyota
Retailer: Local Dealer
Customer: those who wish to purchase a Toyota brand car

The way Toyota differentiates its supply chain with other Car Manufactures is the way they supply their vehicles to the market. Rather shipping their vehicles to other markers, Toyota actually has designed plants that product for their own markets. This allows Toyota to supply their products at a much faster and cheaper rate than other competing car manufactures.

B. How would you characterize the competitive strategy of Toyota? What are the key customer needs that Toyota aims to fill? Where would you place the demand faced by Toyota on the implied demand uncertainty spectrum? Why

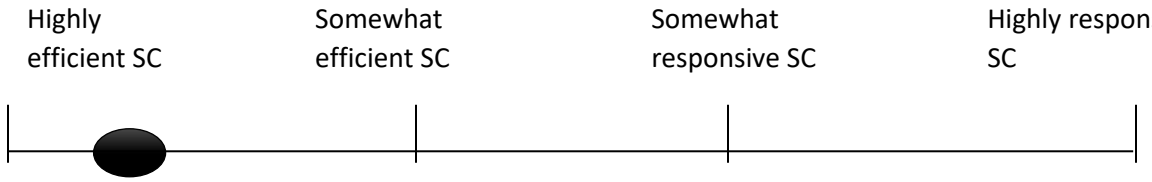
Toyota provides top of the line automobiles at low prices due to their advanced supply chain strategies.



Above is the IDU spectrum where I have given some examples of what falls into which part of spectrum

Since Toyota is an automobile manufacture, the company falls unser the somewhat uncertain IDU. The example would dbe new models of existing products, since Toyota constantly creates new models of their automobiles ever year. Every auto manufacture would probably fall under the somewhat uncertain IDU.

C. What level of responsiveness would be most appropriate for Toyota's supply chain? What should this supply chain be able to do particularly well? (Visit the Toyota web-site and perform "experiments" when solving this problem.)



Toyota would want to have a more efficient supply chain strategy to enable them to continue to provide products that are cheap and attractive. Since Toyota has plants designated for each market, Toyota does not need to have much of a responsive supply chain that Amazon would need.

D. How can Toyota expand the scope of strategic fit across the entire supply chain?

One of Toyotas recent supply chain strategies called global complementation Toyota had redesigned its plants to be able to export products to markets that remained strong.

B. How can the full set of six drivers be used to create strategic fit with Toyota's competitive strategy?

Toyota has also recently partnered with BMW to attract more European customers. Toyota is trying to expand to new markets by making a partnership with a lead auto manufacture in Europe. This allows the row auto manufactures to provide their specialty into new products specialty into new products specifically made for Europe.

Check your work

I checked my work by making sure that I have answered all of the equations. I then proceeded to go over my answered again and make sure that I had addressed the questions accordingly.

Learn and generalize

Toyota made sure that they had the capabilities to provide their vehicles to their targeted markets by designating local plants. Toyota also managed to change its strategy to allow them to provide to markers that continued to be strong. It is important to keep in mind that the supply chain is important and it is important to whole when the company should change its supply chain strategy to take advantage of the changing economies.

3 Apple

Define
Extract five key lessons from this article, with respect to Apple's SCM strategy
Use these lessons and discuss how Apple achieves strategic fit

Plan
What information is available for solving the problem?

- Apple supply chain secret
- Lecture Note?
- Structured Problem solving

Execute

A. Extract five (5) key lessons from this article, with respect to Apple's SCM strategy.
    1. Supply chain Management is just as important as the product
    2. Deals suppliers results in lower cost and efficiency
    3. Information on demand allows Apple to adjust its product forecasts daily
    4. Booking suppliers can often work in favor by delaying other manufactures supply chains
    5. Apple closely monitors their suppliers

B. Use these lessons and discuss how apple achieves strategic fit

Apple is able to keep an edge on its completist due to its leadership In supply chain management. Since apple can get suppliers at a cheaper price, Apple can have a higher profits while also reduces the ability for competitors to have response supply chains. Since competitors can get behind in their schedule, the consumers demand may increase for the apple products because apple is able to provide their products to their customers at a fast rate.

Check your work
I checked the work by making sure I answered all the parts of the equations. I proceeded to go over my answers again and make sure that I had addressed the equations accordingly.

Learn and Generalize
Apple has strategically implemented their supply chain and has become the world leader in Suppl chain management. It is important to look at more than just the product, but also the supply chain and of Couse other areas well. The supply chain is a major factor as to why Apple has become as successful as they are today.

4 Demand forecasting

Define

Demand forecasting for Tahoe Salt: Using excel through static forecasting for the Tahoe Salt problem. Your results should match the given solution.

Plan

What information is available for solving the problem?

- Excel
- Lecture notes
- Textbook
- Excel Tutorials

Execute

Trend corrected Exponential smoothing

1	Trend Corrected Exponential Smoothing											
2	Period, t	Demand, Dt	Level, Lt	Trend, T	Forecast, Ft	Error	Absolute Error At	Mean Squared Errc	MADt	%error	MAPEt	TSt
3	0		12,015	1,549								
4	1	8,000	13,008	1,438	13,564	5,564	5,564	30,958,096	5,564	70	70	1
5	2	13,000	14,301	1,409	14,445	1,445	1,445	16,523,523	3,505	11	40	2
6	3	23,000	16,439	1,555	15,710	-7,290	7,290	28,732,318	4,767	32	37	0
7	4	34,000	19,594	1,875	17,993	-16,007	16,007	85,603,146	7,577	47	39.86	-2.15
8	5	10,000	20,322	1,645	21,469	11,469	11,469	94,788,701	8,355	115	54.83	-0.58
9	6	18,000	21,570	1,566	21,967	3,967	3,967	81,613,705	7,624	22	49.36	-0.11
10	7	23,000	23,123	1,563	23,137	137	137	69,957,267	6,554	1	42.39	-0.11
11	8	38,000	26,018	1,830	24,686	-13,314	13,314	83,369,836	7,399	35	41.48	-1.9
12	9	12,000	26,262	1,513	27,847	15,847	15,847	102,010,079	8,338	132	51.54	0.22
13	10	13,000	26,298	1,217	27,775	14,775	14,775	113,639,348	8,981	114	57.75	1.85
14	11	32,000	27,963	1,307	27,515	-4,485	4,485	105,137,395	8,573	14	53.78	1.41
15	12	41,000	30,443	1,541	29,270	-11,730	11,730	107,841,864	8,836	29	51.68	0.04
16												
17												

Trend and seasonality corrected Exponential Smoothing

Trend and Seasonality Corrected Exponential Smoothing											
Period, t	Demand, Dt	Level, Lt	Trend, T	Seasonal Factor St	Forecast, Ft	Error	Absolute Error At	Mean Square	MADt	%error	MAPEt	TSt
		18,439	524									
1	8,000	18,866	514	0.47	8,913	913	913	832,857	913	11	11.41	1
2	13,000	19,367	513	0.68	13,179	179	179	432,367	546	1	6.39	2
3	23,000	19,869	512	1.17	23,260	260	260	310,720	450	1	4.64	3
4	34,000	20,380	512	1.67	34,036	36	36	233,364	347	0	3.5	4
5	10,000	20,921	515	0.47	9,723	-277	277	202,036	333	3	3.36	3.34
6	18,000	21,689	540	0.68	14,558	-3,442	3,442	2,143,255	851	19	5.98	-2.74
7	23,000	22,102	527	1.17	25,981	2,981	2,981	3,106,508	1,155	13	6.98	0.56
8	38,000	22,636	528	1.67	37,787	-213	213	2,723,856	1,037	1	6.18	0.42
9	12,000	23,291	541	0.47	10,810	-1,190	1,190	2,578,653	1,054	10	6.59	-0.72
10	13,000	23,577	515	0.69	16,544	3,544	3,544	3,576,894	1,303	27	8.66	2.14
11	32,000	24,271	533	1.16	27,849	-4,151	4,151	4,818,258	1,562	13	9.05	-0.87
12	41,000	24,791	532	1.67	41,442	442	442	4,432,987	1,469	1	8.39	-0.63
13				0.47	11,940							
14				0.68	17,579							
15				1.17	30,930							
16				1.67	44,928							

Check your work

I have checked the work and everything seems reasonable. I have labeled all the tables that were used for this problem. I also answered the questions that are listed for this problem

Learn and generalize

This exercise has allowed me to develop my excel skills further while also learning new functions such as. I have also gained an understanding of the $ in the function.
Excel is a very useful tool where you can map out all the data and information gathered and sum it up on a simple worksheet.