

VPM's
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Subject	Supply Chain Risks and Performance Measurement		
Roll No.		Marks	60 Marks
Total No. of Questions	7	Duration	3 Hours
Total No. of printed pages	3	Date	23.04.2016

Note: Q1 is compulsory and solve any FOUR from the remaining SIX questions.

Q1) 20 Marks (Compulsory)

Case Study: Supply chain Management at Samsung's

Today Samsung Electronics has proven to be one of the most successful global brands to follow. Moreover, Samsung Supply Chain has demonstrated the operational excellence that leads them to the supply chain hall of fame.

Samsung decided to approach the whole problem of supply chain risks and management in these turbulent times by aligning their internal operations philosophy basing it on the approach of TQM. They focused on the six key initiatives:

- 1) Listen to Voice of Customer:
- 2) Adopt Six Sigma Methodology:
- 3) Setup Cross Functional Team: in order to bring the internal departments closer, they use the system called "Voice of Business". What they do is to gather the internal requirements and establish an action plan based on collective decision.
- 4) Streamline Performance Evaluation System integrate a merit-based system and allow high performers to have the fast track career path.
- 5) Standardize Processes and Parts
- 6) Establish Risk Management System: Plan and implement risk mitigation strategies are low inventory level, flexible capacity and redundant suppliers.

Features of the Smartphone Industry

The Smartphone Industry is characterized by rapidly changing consumer tastes for more sophisticated and feature rich products. In the forefront are the two leading manufacturers Apple and Samsung, they are followed by OEMs like Nokia, LG, Sony and Motorola and the Chinese OEMs Huawei Technologies and ZTE. The industry is composed of In-house OEMs that possess their own facilities for making mobile handsets—a group that includes the likes of Samsung Electronics, LG Electronics and Nokia—accounted for 73.4 percent of all mobile phones manufactured in 2012. The industry also has outsourced manufacturers termed EMS (Electronic Manufacturing Services) who account for the balance quantity of phones in the market. Apple relies on outsourced manufacturing of its phones. The OEMs also outsource their lower end phones to the EMS so as to retain their global position in the market. There are also a few manufacturers who design their own phones and are classified as ODMs

The market for smartphones is characterized by high growth, in the emerging countries like India China as well as growing demand for more services laden and feature rich phones from the developed countries.. The level of competition is also very high since the high growth is forcing new entrants and forcing the existing players to innovate at a faster rate. The Smartphone market is global in its reach, adapting to different spectrum allocations and services delivered by the local telcos. One reason for all the interest is the sheer size of the global smartphone market it was USD 150 Bn in 2014.

Disruptions of smartphone supplies may be becoming the norm as there are sharp demand surges.

The smartphone manufacturing is tied to using increasing sophisticated components due to the drive to meet better and higher customer requirement for more features . Surging demand means manufacturers are straining to increase output despite increasingly sophisticated components.

Both Samsung and Apple have experienced inventory challenges in the past year, particularly with high-end phones that include features such as five-inch, high-definition screens; 12-megapixel cameras; and 16-gigabyte internal storage cards.

“The overarching issue is that product innovation from the handset makers, whether it’s Samsung or Apple, has not kept pace with the slower rates of suppliers ... to adapt changes into their manufacturing processes,” says Brian Sozzi, CEO and chief equities strategist at Belus Capital Advisors. He adds that materials shortages can put suppliers in a position to increase prices, eating into the margins of the big smartphone companies and potentially lowering share prices.

David Yang, industry analyst at market research firm IBISWorld, says that supply constraints will pressure companies to better manage public relations and consumer expectations about their devices. Increased inventory volatility and supply bottlenecks also will likely rise, he says.

The problem that stems from this race to the top is that some quarterly sales and earnings may be missed as product is unable to be brought to market to meet demand. Also, remember, where there are materials shortages, that puts suppliers in a more advantageous position to raise prices, in turn weighing on the margins of Samsung and [other smartphone companies.],” Sozzi added. “An investor therefore has to view sales/earnings guidance with greater skepticism than the norm.”

Samsung’s business model and supply chain management.

Here’s a rundown of a few of the strategies that appear to have paid off for the South Korean giant: When Google launched the Nexus 4 in the autumn of 2012, it was caught on the hop when demand far outstripped production. Customers were waiting weeks for shipment with little or no effective communication forthcoming. Samsung entered the gap. Samsung’s assertion: “supply chain management is a core differentiator for our brand” doesn’t appear to be mere rhetoric. In particular – and in practical terms, the fact that most key components are designed in-house means that the company is not totally reliant on outside suppliers. Authorship of the design blueprint means that control of supply is that much easier for Samsung than it is for a lot of its competitors.

Samsung have embraced the idea of Collaborative Planning, Forecasting and Replenishment (CPFR) – a concept that’s also been used by Wal-Mart and Proctor and Gamble. The key idea underpinning it is to share intelligence with your partners in the supply chain.

Sustainability, compliance with globally recognised environmental best practices, setting green requirements for your partners. It all features heavily on the Samsung official website. These are all the types of things that certainly don’t do any harm in tempting would-be Apple customers away from their beloved brand.

Samsung's superior supply chain management has enabled it to surpass Apple as the leading provider of smartphones, judges market research firm Gartner. According to the firm, Samsung outperformed its rivals in planning, delivery, product life cycle management; corporate social responsibility; and talent. The Korean tech firm has a program to train supply chain talent on a variety of issues, cultural differences and market characteristics by rotating them between headquarters and regional offices, says Gartner.

Answer any two out of three questions: 10 Marks

Questions:

1. Draw a simplified supply chain of Samsung for the Smartphone market and highlight the key factors that have ensured the success of Samsung in the market.
2. According to you describe a few performance attributes and the metrics to describe the supply chain performance of a company such as Samsung in the smartphone market.
3. What are some significant risks that affect the Smartphone makers? Explain how Samsung responds to these risks in serving the global market.

Attempt Any FOUR from the Remaining SIX Questions

Q2) Any two from (a) or (b) or (c) ————— (5x2) = 10 Marks

Distinguish between risk and uncertainty. Provide at least two important differences in decision making under Uncertainty and decision making under risk. In the following situations decide whether the decision is made under risk or under uncertainty give a brief reason for your answer

- A decision to set up a new warehouse to serve a growing market.
- A decision set up a new information security system to prevent leakages of confidential information.
- A decision to sell off a unit fearing worker unrest in the plant.

Q3) Any two from (a) or (b) or (c) ————— (5x2) = 10 Marks

List the important steps in the risk management process. Describe the steps in the following

- A company depending on a single large customer such as Tata Motors for its business
- A company seeking to engage its distributors in market development and avoiding conflict
- A company finding a supplier controlling supplies to the entire industry

Q4) Any two from (a) or (b) or (c) ————— (5x2) = 10 Marks

What do you understand by Reactive and Proactive risk management. Identify and Provide reasons for the following situations

- Insuring against materials lost in transit
- Developing a new packing format for the bulk supply of a product
- Depending on external vendors for information security in communications.

Q5) Any two from (a) or (b) or (c) ————— (5x2) = 10 Marks

Explain the statement " Globalization of the supply chain has made the supply chains complex and risk prone". Give reasons for your answer in the following cases

- Wal-mart's chain for readymade clothing
- Macdonald's chain for quick service restaurants
- Swatch' brand of Swiss watches

Q6) Any two from (a) or (b) or (c) ————— (5x2) = 10 Marks

Distinguish between performance attributes and performance metrics and list at least two important attributes and metrics in the following

- Customer satisfaction
- Production of light bulbs
- Supplier sourcing

Q7) Any two from (a) or (b) or (c) ————— (5x2) = 10 Marks

Write short notes on

- Risks and Business continuity management
- Vulnerability and Resilience of a supply chain
- Atomistic Risks and Holistic Risks