Sample Answers to In-Text Questions

# Chapter 4: Product and Service Innovations

## Discussion Questions

1. Why do new products fail? Pick an example of a product and a service that have failed and discuss the reasons for their failure.

Answer: Either a bad price/value relationship, management of the product release, misunderstanding the target market, incorrect product positioning, lack of understanding by the consumer, or inadequate infrastructure. Examples will vary.

1. Discuss the reasons why businesses develop new products.

Answer: Usually it is because of an external source, such as market changes, competitor changes, technology changes, economic conditions change, etc.

1. Compare and contrast sustaining and disruptive innovation using examples to describe each.

Answer: Sustaining innovations are targeted toward an existing market, (incremental or radical); and Disruptive innovation is a new product that gains in market share, and displaces current products.

1. Compare and contrast Product Lifecycle Management (PLM) and Product Life-Cycle Management (PLCM).

Answer: PLM refers to engineering managing the supply chain stages of a product’s useful life. PLCM, usually refers to managing the business side of the life cycle, especially the costs and sales performance.

1. Provide examples of products in each of the following categories that are in different stages of their lifecycles :
2. Televisions
3. Computers
4. Pharmaceuticals
5. Entertainment

Answer: Student examples will vary.

1. Think of a new product and how the stage-gate system could be used to develop it.

Answer: Examples will vary

1. Name a product or company that you believe uses the following new product development concepts or tools:
2. Robust design
3. Mass customization
4. Design for manufacturing and assembly (DFMA)
5. Quality function deployment (QFD)
6. Computer-aided design (CAD)

Answer: Student examples will vary.

1. Pick a product or service, and using the House of Quality analyze how that company meets its customers’ expectations.

Answer: Student examples will vary.

1. Discuss the concept of time-based competition

Answer: There are two main aspects of time based competition, Time to market, and time to the customer. The first relates to the pressures during new product development to get the new product identified, made, and release. This often creates problems, if the product has any flaws. Time to the customer relates to supply chain and logistics speed.

1. What are the fundamental aspects of globalized new product development?

Answer: The overall objective is to release products that exceed customer satisfaction, while maximizing the efficiency and productivity of the NPD process. It encompasses all of the activities in the macro sense of the Supply Chain.

1. Discuss the challenges of designing new products globally. What factors are critical to the success of such a strategy?

Answer: Some of the issues are protection of intellectual property, a formal process of NPD, compatibility of software and data, preparing staff to work effectively globally, and understanding cultural differences, such as customs, language, currency, etc.

1. Discuss some of the supply-chain issues that affect the development of new products.

Answer: The NPD team should be well versed in the complexities of the firm’s supply chain, so that they can use the synergies of the partners. They should consider suppliers, inventory levels, location networks, and all of the strengths and weaknesses.

1. Discuss the four key areas of supply-chain collaboration that affect the success of the new product development process.

Answer: Key success areas are early involvement of all of the members, to avoid surprises, have a good development process design, quality test all stages of the supply chain to look for possible problems, understand the processes of each supply chain member, in the big picture view.

1. Outline the questions a service design should address.

Answer: Understand 3 key areas, understand the nature of the service, understand all of the customer interactions, and understand the level of customer satisfaction – and how it might be improved.

1. Describe the service system design matrix and explain how it helps companies develop better services for their customers.

Answer: It is a graphical matrix that indicates for each task area where the areas of customer contact, the most production efficiencies, and which offer the most sales opportunities, etc. for planning the service operations.

1. Pick a new product and discuss the three sustainability criteria you would look at when designing the product. Be specific.

Answer: Student examples will vary

1. What are some of the legal and ethical issues that companies need to consider while developing new products?

Answer: Companies are responsible for customer’s safety. They need liability insurance to cover them in any lawsuits. They must be aware and compliant with legal statutes. They must not be found to have been negligent, and showed diligence towards consumer safety.

1. Pick a new product and use the stage-gate system to outline how you would integrate sustainability into the product’s development.

Answer: Student examples will vary.

## Critical Thinking Questions

The purpose of this exercise is to promote entrepreneurial thinking among students by exposing them to some creative new products that were developed to meet the needs of everyday life.

Google “strange new products.”

This website lists some of the weirdest and some of the most ingenious new product ideas. Working as a team with some of your classmates, develop an idea for a simple new product or service that will satisfy an unmet need in your everyday life. You need to fully develop the product concept delineating the features the product will have to satisfy your unmet need. Next, create on paper a visual representation of the product idea.

Answer: Promotes entrepreneurial thinking. Student examples will vary.