

Final score for Homework 1: 115 / 150

Please talk to / email your instructor right away if you have any questions / concerns OR want additional feedback.

Q. 1: 19 / 20

Product/Service	Categorization		Explanation	
	Max	Scored	Max	Scored
1.1: Gourmet food at an expensive restaurant	1		1	
1.2: Neck and shoulder massage by a masseuse	1		1	
1.3: Dinner with a celebrity of your choice	1		1	
1.4: Scuba diving training and certification	1		1	
1.5: A helicopter ride over the Grand Canyon	1	1	1	0
1.6: Advice from your favorite professor	1		1	
1.7: Ready-to-assemble furniture bought at IKEA	1		1	
1.8: New central air-conditioning unit for your home	1		1	
1.9: Gasoline / diesel bought at a full-service pump	1		1	
1.10: 3,000 mile oil-change for your car	1		1	
Comments:				

Q. 2: 24 / 30

Component	Max	Scored	Component	Max	Scored
a) Explain where you see each company on the low-to-high continuum for each V (8 points)					
Company 1			Company 2		
• Volume	1		• Volume	1	
• Variety	1		• Variety	1	
• Variation	1	0	• Variation	1	0
• Visibility	1		• Visibility	1	
b) List at least two operations implications for each firm (8 points)					
Company 1			Company 2		
• Volume	1		• Volume	1	
• Variety	1		• Variety	1	
• Variation	1	0	• Variation	1	0
• Visibility	1		• Visibility	1	
c) Explain at least two operations implications for each firm (8 points)					
Company 1			Company 2		
• Volume	1		• Volume	1	
• Variety	1		• Variety	1	
• Variation	1	0	• Variation	1	0
• Visibility	1		• Visibility	1	
d) Quality of writing (6 points)					
Company 1	3		Company 2	3	
Comments:					

Q. 3: 21 / 25

Component	Max	Scored	Component	Max	Scored
a) Company description (2 points)					
Company 1	1	1	Company 2	1	1
b) Single polar diagram showing relative <u>IMPORTANCE</u> of ops perform. obj. for both firms (10 points)					
Company 1			Company 2		
• Quality	1		• Quality	1	
• Cost	1	0	• Cost	1	0
• Dependability	1		• Dependability	1	
• Flexibility	1		• Flexibility	1	
• Speed	1		• Speed	1	
c) Explain how relative importance of each objective reflects in the firm's products/services (10 points)					
Company 1			Company 2		
• Quality	1		• Quality	1	
• Cost	1		• Cost	1	
• Dependability	1		• Dependability	1	
• Flexibility	1		• Flexibility	1	
• Speed	1		• Speed	1	
d) Quality of writing and the polar diagram				3	1
Comments: Single polar diagram!					

Q. 4: 4 / 10

Component	Max	Scored
a) Logical explanation of why some of the Operations performance objectives are order winning objectives	3	1
b) Logical explanation of why some of the Operations performance objectives are order qualifying objectives	3	1
c) Logical explanation of why some of the Operations performance objectives are less important objectives	3	1
d) Quality of writing	1	1
Comments: Quality, Cost, Flexibility, Dependability, Speed ⇒ All missing!		

Q. 5: 9 / 10

Component	Max	Scored
a) Description of the core concept	3	3
b) Description of the package , ⇒ Fortune is missing!	3	2
c) Description of the process	3	3
d) Quality of writing	1	1
Comments:		

Q. 6: 20 / 25

Component	Max	Scored
a) Product / service description (9 points)		
1. Description of the core concept "Fitted" missing!	3	2
2. Description of the package You described the packaging!	3	2
3. Description of the process	3	3
b) Relevant questions and logical explanations of how you would find the answers (12 points)		
1. Feasibility		
▪ Question 1	2	1.5
▪ Question 2	2	1.5
2. Acceptability		
▪ Question 1	2	1.5
▪ Question 2	2	1.5
3. Vulnerability		
▪ Question 1	2	1.5
▪ Question 2	2	1.5
c) Quality of writing	4	4
Comments:		

Q. 7: 18 / 30

Component	Max	Scored
a) Product / service description (9 points)		
1. Description of the core concept	3	3
2. Description of the package Same issue as above!	3	2
3. Description of the process	3	1
b) Logical choice of most suitable process type and sensible explanation (9 points)		
1. Logical choice	1	0
2. Sensible explanation	8	4
c) Logical choice of layout, and rational explanation (9 points)		
1. Logical choice	1	1
2. Rational explanation	8	4
d) Quality of writing	3	3
Comments: "Continuous" is used for gases & liquids !!!		

Additional comments:

DSCI 303: Homework 01 (150 points)

Your section: Section A (1: Mon 1 pm, 2: Mon 2:30 pm, 3: Mon 4 pm, 4: Tue 2:30 pm, 5: Tue 4 pm)

Your name:

Abdullah

(First Name)

Alyabis

(Last Name)

Q. 1: Classify each of the product/service named the table below as PURE GOODS, CORE GOODS, CORE SERVICES, or PURE SERVICES; and explain the reasoning behind each categorization. **(20 points)**

1.1: Gourmet food at an expensive restaurant	1.2: Neck and shoulder massage by a masseuse
1.3: Dinner with a celebrity of your choice	1.4: Scuba diving training and certification
1.5: A helicopter ride over the Grand Canyon	1.6: Advice from your favorite professor
1.7: Ready-to-assemble furniture bought at IKEA	1.8: New central air-conditioning unit for your home
1.9: Gasoline / diesel bought at a full-service pump	1.10: 3,000 mile oil-change for your car

- 1.1 Core Good: This is a core good because the gourmet food is what drives the price, and makes up the core part of the offering. People go to restaurants because of the food. However, most people expect high quality service from the wait staff at an expensive, gourmet restaurant such as this.
- 1.2 Pure Service: This is purely a service, because the massage (what makes up the offering) is a service, and there are no goods exchanged. However, if the masseuse used oils, candles, etc. it might be considered a core service, since then goods would be involved.
- 1.3 Core Service: This is a core service because the time spent with a celebrity (intangible, no goods exchanged) is the attractive part of the offering. However, because of the food at dinner, there are also goods involved in the exchange.
- 1.4 Core Service: The service lies in the actual training and certification. However, when one becomes SCUBA certified, they also receive a certification card, a valuable product as it shows proof of the certification. Furthermore, certification requires products such as pressurized air and SCUBA equipment to be used.
- 1.5 Core Service: The attractive aspect of this offering is the actual ride and experience of seeing the Grand Canyon from a helicopter. However, the helicopter ride also uses gasoline and oil, physical products which are likely considered in the price of the helicopter ride.
- 1.6 Pure Service: This is intangible, and there are no goods exchanged in words and knowledge.
- 1.7 Pure Good: There is no service involved since the assembly must be completed by the consumer. The furniture is a good.
- 1.8 Pure Good OR Core Good: If the air-conditioner is simply purchased by the consumer with no installation, then it is a pure good. However, if they also get installation and maintenance with the new A/C unit, then there are service aspects involved and it becomes a core good.
- 1.9 Core Good: The gasoline (the product) is the main part of the offering and what draws consumers in. However, the full-service nature of the pump means that there are service aspects involved also.
- 1.10 Core Good: The quality of oil largely dictates the price of the oil change, and is why people seek out the offering. However, the actual oil change performed by the mechanic is a service. Depending on the consumer, however, they may view it as a core service, viewing the oil change service as the most attractive part of the offering, as oil can be bought separately at stores.

Q. 2: Select two companies that operate in the same industry, but compete very differently from each other. Describe in detail **how and why** the four V's affect their operations. **(30 points)**

Little Caesar's Pizza and Decent Pizza are two pizza restaurants.

DSCI 303: Homework 01 (150 points)

Little Caesar's has high volume: They produce many of the same type of pizzas and sell them pre-made for a low cost. This means that their operations are more standardized. Their operations are also more consistent in that they are always stocked with pizza.

Little Caesar's has low variety: The company makes pizzas and only a few selections for sides and drinks. Their operations are thus tailored towards making only a handful of products, with emphasis on pizzas. This also means that there is not a great deal of training required of the employees involved in the operations process.

Little Caesar's has medium variability: The company offers different types of pizzas and variation on the sides (e.g. cheese sticks, breadsticks) but does not have a great deal of unique flavors or specialty pizzas. This means that in their operations procedures, they must account for the storage and preparation several ingredients. Also, their operations must account for a step in the manufacturing process where the variation can occur, such as different toppings.

Variation in demand over time!

Little Caesar's has medium visibility: The kitchen where the pizzas are made is right in the store, and there is a window where customers can see back into the kitchen to see the operations process. However, the kitchen is still largely walled off and not in plain sight of the consumers. Their operations must have the appearance of cleanliness and organization to appease consumers. However, their operations can also benefit from the partially hidden kitchen as they can use things like premade, frozen ingredients which save on costs, but may not be the most appealing to consumers.

Decent Pizza has low volume: They offer specialty pizzas and make them only when they are ordered. Their higher prices ensure lower demand. This means that their pizzas are made individually with little standardization. Also, their operations are less consistent and employees likely have periods of downtime.

Decent Pizza has high variety: They offer many types of products, including pizzas, sides, calzones, pastas, and other food and drink items. Their operations must encompass a great deal of food preparations. Furthermore, cooks and employees must undergo more intensive training to learn how to prepare and serve these various items.

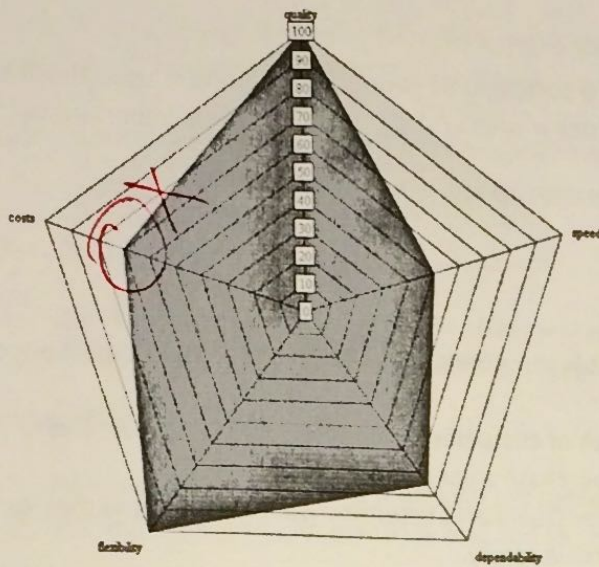
Decent Pizza has high variability: In addition to offering several extremely unique pizzas and ingredients, Decent Pizza also offers many different sizes of pizzas, sides, and other dishes. Customers can also make custom food items with their choice of ingredients. Their operations must account for preparation and storage of many ingredients and food items. The operations line must also be able to be tailored to accommodate the uniqueness they offer the customer, and so the manufacturing line cannot be strict and unchanging.

Decent Pizza has high visibility: The only thing between the kitchen area and the eating area is a waist-high counter. Thus, consumers can see every part of the operations process. This means that operations must be cleanly and the food must be prepared in an aesthetically pleasing way. Operations must also be efficient with little slack time as people don't want to see their food stuck at a step in process for too long.

Q. 3: Select two companies (different from those chosen to answer Q.2) operating in the same industry with very different sets of offerings. Construct a polar diagram to show how the relative importance of five operations performance objectives differ between these two companies, and comment on how this reflects in the products / services offered by each firm. **(25 points)**

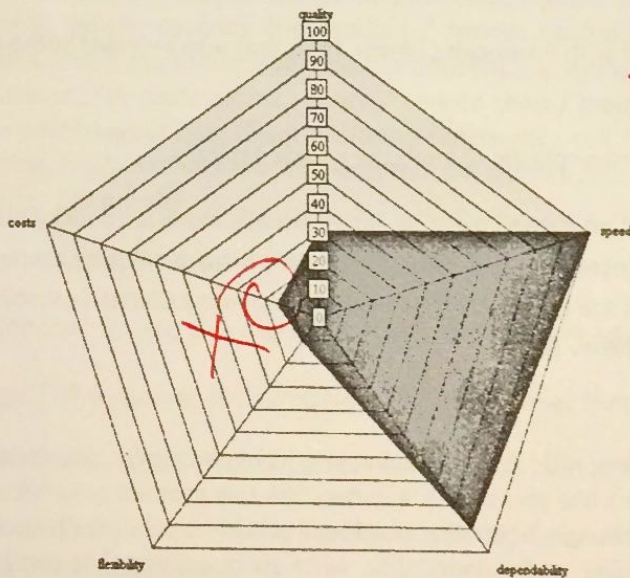
Gucci is a high quality clothing and accessories brand.

DSCI 303: Homework 01 (150 points)



Gucci is very high quality. They also offer a high degree of uniqueness in products and so exemplify flexibility in their operations. Their speed is not as high as other companies because they put a great deal of work into the design and marketing phases. Because of their higher flexibility and quality, their costs are higher. That being said, they are still dependable in getting products to stores to create demand and appease consumers.

Merona is a clothing and accessories brand sold in retail stores such as Target.



Show the IMPORTANCE
of each objective!

Merona is highly standardized, making many types of the same clothing. This cuts their costs down, and ensures that the organization is speedy and dependable, as the high standardization allows them to supply clothing items

DSCI 303: Homework 01 (150 points)

as consistently as needed. This high standardization means the brand is not very flexible to changes but they can cut down costs. Merona is not very high quality, as another method of cutting costs.

Q. 4: List five operations performance objectives. For a company of your choice (different from those chosen to answer Q.2 and Q.3), explain why some of these are order winners / order qualifiers / less important performance objectives. (10 points)

Ford company makes automobiles.

Performance objectives:

- 1) Car engines run smoothly – Order Qualifier: this is something that most people would expect out of an automobile they were going to buy.
- 2) Cars can be repainted/customized within a week of customer's purchase – Order Winner: This is something that might convince a customer to purchase a car from Ford.
- 3) Cars meet minimum safety requirements – Order Qualifier: Customers would want any of their car to meet at least the minimum standards of acceptable safety.
- 4) Cars are highest rated for fuel efficiency – Order Winner: this is not something that customers might deem necessary out of their cars, but would be a very attractive feature.
- 5) There are less than three serious accidents per year per manufacturing plant – Less Important Performance Objective: This is something that benefits the organization more than the consumer, thus it is less important than an order qualifier or an order winner.

Q. 5: Select any one product or service of your choice (again, different from those used in answering previous questions), and describe the core concept, the package, and the process through which that product / service is produced and delivered to the end customer. (10 points)

Product: Fortune Cookie

Core Concept: A sweet snack that can be included with American Chinese food that also includes some aspect of perceived Asian culture.

Package: Fortune cookies are wrapped in sealed, clear plastic to keep the cookie sanitary.

Process: The fortune is first conceived and printed on a small piece of paper, usually along with lucky numbers or a Chinese saying. These pieces of paper are then inserted into folded cookies in a mass-producing manufacturing plant before being sealed in plastic. These cookies are then purchased and sent to many Chinese establishments, where they are included with Chinese meals for the consumer.

Q. 6: Think of another product or service (something different from what you have chosen for answering previous questions) that you believe could attract customers like yourself. Briefly describe this product or service (including the core concept, the package, and the process through which that product / service is produced). Looking at the concept screening criteria of feasibility, acceptability, and vulnerability, write six questions that can help screen the concept (two questions per criteria) and describe how the firm can find the answers for each question. (25 points)

Product: Fitted Bed Sheet

DSCI 303: Homework 01 (150 points)

Core Concept: A sheet that can cover the mattress to increase the comfort and feel of the bed, while also keeping the mattress clean.

Package: The bed sheet is wrapped around a square piece of cardboard to maintain form and then put in a plastic covering with a label that describes the color, brand, and quality of the bed sheet.

Process: Bed sheets are normally produced by machinery, before having the elastic sewn on by skilled workers and then packaged. Then they are sent to various stores to sell to the consumer.

Feasibility:

- 1) Can fitted bed sheets be produced efficiently and in a timely manner?
- 2) What type of machinery is needed to produce these bed sheets?

Acceptability:

- 1) Does the perceived benefit outweigh the perceived costs?
- 2) Will this build the customer base and add to consumer perceptions of the organization?

Vulnerability:

- 1) If this production opportunity ultimately fails, will it significantly impact the organization?
- 2) Does this take resources away from other operations processes?

The firm can find answers for these question by examining similar products that they produce and how they affect the organization. The company should also consider the current competitive market, along with their current resources that they possess. The firm can also examine other firms in similar scenarios and how they have handled the situation.

Address each question separately & specifically!

Q. 7: Select any product or service of your choice (must be different from what you have chosen for previous questions). Briefly describe the product / service (including the core concept, the package, and the process through which that product / service is produced). Explain which process type (project / jobbing / batch-cell/ mass / continuous; OR professional service / service shop / mass service) would best suit this product/service. Then, explain which layout type (fixed-position / functional / cell / product) would best suit this product/service. Also, if applicable, explain whether a long-and-thin OR a short-and-fat layout would be most appropriate for this product or service. (30 points)

Product: Hershey's Kisses

Core Concept: Sweet, chocolate, individually wrapped candies.

Package: Foil wrapping, with characteristic slip of paper that carries the Hershey's brand name.

Process: Mass produced on a mechanized assembly line. *Need to give specific steps!*

Process type: Continuous – the product has steady demand and sales, and it can be simply produced in large quantities by machinery.

Layout: Product – the product is continuously produced and is highly standardized with little to no customization.
Long & thin vs. Short & fat?