**IFSM 300 Final Assessment Exam**

**NOTE:** As for all work in this class, the final exam must be original work developed by the student solely for use in this class and must conform to UMUC’s academic integrity policies.

**Instructions:**

Use the Case Study presented here to answer the questions below. Your answers should be long enough to answer each question fully and completely and typed below the individual question in this document. Follow the instructions in the questions to determine the appropriate length of your responses.

* Your answers should demonstrate an understanding of the concept(s), should apply critical thinking, and should provide analysis of the Case Study in light of the concepts(s).
* You should not just re-iterate what has been presented in class, but integrate the information and relate it to the Case Study.
* Incorporate information from the class content, discussions, and assignment feedback.
* Proper APA style must be used for any citations and references that you use.
* Your exam will be graded on the completeness and accuracy of your responses and whether you have appropriately tied your responses to the Case Study. Responses that do not mention the Case Study will receive very few points, if any. Each question is worth 10 points.

** Virginia’s Finest Meat Distributors**

Victor Constantine is owner of one of the few remaining privately owned meat distributors in the Washington DC Metropolitan region. Independent butcher shops have decreased in number over the last decade, since meat sales have fallen overall and restaurants have increasingly moved to large wholesale distributors. However, this has created an opportunity for specialty butcher shops in markets that provide only basic options through these larger retailers. Victor's market niche is providing customized meat cuts for each client – clients are individual restaurants, chains, caterers and specialty places such as country clubs.

Virginia’s Finest Meat Distributors (VFMD) operates a 40,000 square foot processing plant in Winchester, Virginia. The company is doing very well with revenues steadily increasing over the last several years and reaching $19 million in gross revenue last year, netting a modest but satisfactory net profit. As would be expected, the largest expense is the cost of the meat itself, followed by labor costs currently hovering around $2.5 million per year. Current debt includes approximately $4 million on its current building.

Retail butchers have been replaced with grocery chains and big box stores. In addition, people are eating more meals away from home. With an increasing percentage of food dollars spent in restaurants, there is a growing need for sales of specialty meats to the niche market that can afford and desire them. Caterers, especially those serving high-end corporate and private events, and upscale restaurants seek high-quality specialty meats at market prices.  VFMD sells to catering businesses and restaurants, meeting their special timing needs and highly variable special demands, which puts VFMD in high demand and provides them with an above average margin of profit.

VFMD treats its employees well and the labor costs include matching funds on employees 401K plans, a very good medical plan, and bonuses for all employees. At this time, there are approximately 50 employees. The business began with Victor's father who originally sold meat to local families and restaurants from a wagon and ran the business out of his home. Today’s business is quite different. In addition to Victor, who has long-term relationships with the best suppliers of meat as well as an understanding of the craft of butchering, the leadership team includes Victor’s son and daughter. His son, who performed every job including receiving, shipping and cutting the beef, is currently the Vice President and is expected to take the reins when his father retires; his formal education includes food service management, state food hygiene laws, business to business sales, and finance. Victor's daughter handles marketing and social media.

A typical day starts very early in the morning when employees receive carcasses, cut and grind the meat, weigh, package and label it (if needed), and load the 8 refrigerated trucks owned by VFMD. These trucks deliver on average 65,000 pounds of meat and poultry to roughly 375 customers in the Washington area each week. Deliveries consist of standing orders of specific cuts of meat, special orders to be delivered on specific days, and expedited deliveries to meet unexpected demand.

At the operational level, orders are taken by the office clerk over the phone or Internet.  The clerk works with Victor and the customers to ensure their individual needs are met. For example, when a restaurant client couldn’t get its nine-pound racks of lamb to cook equally from end to end, Victor reduced the size of the cut he sold them to precisely 7.5 pounds; the problem was solved and a valuable customer was pleased. Orders for immediate delivery of specific cuts are written down and carried from the clerk to the butchers on duty who will prepare the cuts.  They will be packaged, priced, and prepared for delivery. While products can be replenished within a few days, there is the possibility of certain items running out because of unexpected high demand, and VFMD may run out of stock on certain products until new shipments arrive. In such cases, the sales staff will offer suggestions of substitutions or special offers in order to make sure all customers are satisfied.

The majority (about 85%) of VFMD’s product is boxed beef from the Midwest which arrives every other day. Additionally, pork, beef, lamb, and poultry are sourced from local farms. Victor insists on purchasing from well-managed and supervised farms where no drugs or medicated feed are used. The majority of beef is wet-aged – a common process where the meat is aged by sealing it in a bag with its own juices. However, the real profit is in dry-aged beef that high-end restaurants require, and then sell, at a substantial premium. Costs are considerably higher as a large percentage of weight (close to 50%) is lost in the dry-aging process and the time to age is considerably longer. This process results in a more tender and flavorful meat. The profit margin is higher than wet-aged beef as high-end restaurants are willing to pay for this – which in turn their customers expect. VFMD operates a very busy dry-aging facility where the dry-aging process takes from 15-28 days and the stock rotates continuously. Vincent refers to his dry-aging facility as the “Money Room.”

While VFMD is doing well in today’s market, Victor is aware of the increased trends in healthy eating and vegan lifestyles. In addition, he’s seen the number of producers shrinking as small, high quality livestock farms and ranches struggle to stay competitive with large-scale commercial producers. He’s also observed the impact to high-end restaurants when the economy dips. He has read the American Meat Institute's analysis on why meat prices rise and fall:

"The meat industry is unique because it relies on live animals as its raw materials.  Within livestock production, there is a classic, livestock price cycle.  Prices rise and fall as producers raise more animals in response to high prices or low supply, and then cease producing when livestock inventories become high and prices fall." (North American Meat Institute, p.1)

(North American Meat Institute, Jan 2015, Fact Sheet, retrieved on April 14, 2016 from <https://www.meatinstitute.org/index.php?ht=a/GetDocumentAction/i/89479>)

VFMD's primary competitor in this market is Maine Avenue Butchers, which was established fifteen years ago and sells only high-quality beef products, both wet and dry-aged. Maine Avenue Butchers charges high prices for its quality beef, and sells primarily to caterers and specialty restaurants. There are a number of very large big box stores in the area who are competing for business from caterers by offering one-stop shopping for all their catering needs. Neither Maine Avenue Butchers nor the large box stores provide the level of service and expedited delivery as VFMD

Victor and his leadership team have identified the following Keys to Success as part of their business plan:

1. Maintain high quality standards for its suppliers and continuously monitor this quality.
2. Provide unequaled customer service and delivery.
3. Preserve meats in optimal conditions to maintain freshness and minimize waste while in the facility.
4. Maintain excellence in the skill of butchering meats through hiring, training, and supervision of staff.
5. Listen carefully to customer needs and respond with custom-cut products, whether in person, over the phone, or through Internet orders.
6. Maintain appropriate profit margins on all products.
7. Increase productivity, management of the business and profit margin through the use of information technology.

**Victor is seeking your help to analyze his business and identify areas where information systems could help him better manage and grow his business. Review the Instructions above and respond to the questions that follow. Each is worth 10 points.**

**Questions:**

1. Analyze the Virginia’s Finest Meat Distributors business. This question has 2 parts.
2. Discuss each of Porter's **Five Forces in relationship to VFMD.**

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| **FORCE**  List Porter's Five Forces | **JUSTIFICATION** of your selected impact  Minimum 3 good sentences that explain the impact of the force on VFDM to demonstrate understanding of the force.  Refer to specific details from the business in the case study to support your explanations. **You must mention relevant specifics from the case study to gain all points for your submission.** |
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1. **I**dentify which one of the forces should be the **primary** factor in the development of future business and their information technology strategy. Include the chosen force **and** your explanation of why you chose that force using information you’ve learned in this course and specifics from the case study in a minimum of 3 well-written sentences. **Your explanation must explicitly refer to the VFMD business in the case study**.
2. **Identify which of Porter's Generic Strategies** is most appropriateto Virginia’s Finest Meat Distributors and explain why you selected it in light of your Five Forces Analysis. **You must incorporate information from the case study to gain all points for your response.**

3. Victor uses the **three business processes listed below**, and each of them could be improved using **technology**. Identify and explain how a type of information technology system solution could improve each one of the processes. Do not research a specific product (e.g., SalesForce) but it must be clear what type of solution this is – for example, CRM, human resource system, etc.

a. Purchasing meat products from suppliers. How could a technology solution improve this process?

b. Creating and managing a schedule to deliver ordered products (standing orders and special orders) to the right customers each day. How could a technology solution improve this process?

c. Managing inventory.How could a technology solution improve this process?

1. Using the **three business processes listed in question #3**, **identify one step in the process, and then** **list one input, one system processing action, and one output** that would be part of that step in the process. **Note: these 4 pieces need to relate to each other.**

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| **Business Process**  Choose **one step** in the process listed and write it in the next column | **Step**  List the **one step** in the process you selected | **Input**  Information/data item entered into the system as part of this process step  *(input needed for the system)* | **Processing**  Processing or action the system must perform for this process step  *(what the system will do with the input)* | **Output**  Information/data item displayed or printed out for the user in this process step  *(what the system will output/display)* |
| **PURCHASING PRODUCTS** |  |  |  |  |
| **SCHEDULING DELIVERIES TO CUSTOMERS** |  |  |  |  |
| **MANAGING INVENTORY** |  |  |  |  |

1. Victor has decided to use technology to improve one of the business **processes identified in question #4** above. Select one of the processes and **analyze the IT requirements** as they apply to that process using the table below. **Type the name of the process you selected on the line below:**

|  |  |  |
| --- | --- | --- |
| **Business Process for Virginia’s Finest Meat Distributors**  **Type the name the business process that you selected from #4 here: ­­ \_\_\_\_\_\_\_\_\_\_\_\_\_\_** | | |
| **IT**  **Requirement** | **Importance/ Relevance**  **High, Medium, Low, or Not Applicable (N/A)**  (each must have a ranking, including N/A) | **Explanation for Ranking Including N/A**  (Write a minimum of 3 good sentences for each.   * Include why/how the IT requirement applies to the process you selected. * In your explanation, identify the data or type of data used, where applicable. * Specifically mention and relate your answer to the Case Study Virginia’s Finest Meat Distributors. |
| **Usability** |  |  |
| **Data Completeness** |  |  |
| **Database** |  |  |
| **Reliability/ Availability** |  |  |
| **Security** |  |  |

6. Using a cloud-based Software-as-a-Service (SaaS) solution**, list and briefly explain three specific quantifiable (measurable) business benefits**. These should reflect **measurable** benefits achieved by using a SaaS solution specifically that would improve VFMD – not general benefits. Your explanation must explicitly refer to a SaaS solution and the VFMD business in the case study.

a. Business Benefit #1 and explanation:

b. Business Benefit #2 and explanation:

c. Business Benefit #3 and explanation:

7. Victor has decided to implement a cloud-based SaaS solution to improve the process of shipping products to his customers. **Identify** **one** **important activity** that Victor would need to do during each of the following **phases of the system development life cycle (SDLC)** to implement his solution. Your answers should demonstrate an understanding of the phase of the SDLC and implementation of a SaaS solution. (An example answer is provided for the Programming phase—all other phases are applicable to this solution.) . **Your explanation must explicitly refer to the VFMD business in the case study**.

* 1. Planning:
  2. Analysis and Design:
  3. Programming: Since the system has already been developed by the SaaS vendor, Victor is not required to take any action regarding the Programming Phase.
  4. Configuration:
  5. Testing:
  6. Implementation and **Continued** Use:

1. Victor would like to increase the profit margins on his products – increasing the volume on those products that yield higher profits. He wants to analyze the data he will be collecting in his new information system to help him do this.

* **Identify three questions** that Victor would want answers to in order to determine ways to increase sales of the more profitable products.
* Then, **identify what information** Victor would need in his information system to answer each question.
* Finally, **explain how that information** and the answers to the questions would help Victor with data-driven decision making.

For example, to solve a different problem: If Victor wanted to know when he could schedule his delivery trucks for maintenance, he might ask: On average, how many delivery trucks have been sent out each day of the week (over the past 6 months)? He would need to know this so he could figure out when his trucks are least in demand. Using this information, he might see that he makes very few deliveries on Sundays. But, his maintenance shop is not open on Sundays, so he would have to look at the next least busy day. If he found that Tuesdays generally require the next fewer delivery vehicles, he could schedule his trucks for maintenance on Tuesdays on a rotating cycle. Victor can then use that information to ensure his trucks are in good working order without impacting his ability to deliver the products to his customers.

1. Question, information needed and explanation #1:
2. Question, information needed and explanation #2:
3. Question, information needed and explanation #3:
4. Victor has asked you to explain how e-commerce could help him in dealing with his current and new commercial customers. (He is not interested in taking orders from just anyone ordering on the Internet.)

* Identify two different categories of e-commerce (as defined in the Week 2 Learning Resource "Categories of Electronic Commerce") that VFMD could use to improve their business.
* Explain how each e-commerce category would be used and what business process changes would be needed to implement it. Your explanations should include the name of Victor's business and demonstrate your understanding of each of the two e-commerce categories.

1. E-Commerce category #1, how it would be used, and what business changes are needed:
2. E-Commerce category #2 how it would be used and what business changes are needed:
3. **Explain** how each of the following could **benefit** Victor’s Virginia’s Finest Meat Distributors business. Use 2-3 sentences for each and be sure your explanations **demonstrate** that you **understand** each of the types of systems. **Your explanation must explicitly refer to the VFMD business in the case study.**
   1. Supply Chain Management System
   2. Customer Relationship Management System
   3. Enterprise Resource Planning System