Southern New Hampshire University

CS-255 System Analysis and Design

3-2 Assignment: Evaluate a Process Model

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**Hamp Crafts’ Current Purchase and Supply Process**

**Interpret the Provided Data Flow Diagram (DFD)**

The data flow diagram of Hamp Crafts’ current purchase and supply shows a supply and demand order process by providing a step-by-step process of a customer buying their products online to the final stages when the customer’s order is fulfilled. The process begins when the customer purchases the item from their cart to check out. Once the payment is received, the order will start the shipping process. Depending on Hamp Crafts’ inventory, if the item is in stock, the item will ship with the carrier. If not, the product will ship from their supplier. The customer’s order will be fulfilled when the item is successfully delivered. Without understanding the data flow diagram, the business’s operation could not proceed forward and hinder sales.

**Data Sources Involved in the Current Process**

Data sources involved in the current process are the local database, an inventory system, and the implementation of a merchant account for the order transaction. By using the local database, Hamp Crafts can access data faster, which helps to keep the inventory up to date after each transaction. The inventory system helps improve integration while strategizing their business plans. Lastly, the merchant account has been included because it helps to manage money for the business and enables secure payment processing for potential buyers. Without understanding the data sources involved in the current process, applications would be disconnected and unable to move data to where it needs to be.

**Additional Requirements to Support an Online Storefront**

**Additional Processes for Integrating an Online Storefront**

Additional processes necessary to integrate an online storefront include shipping and fulfillment software, an order and payment system, and customer support software. Shipping and fulfillment software is essential because it helps correct any inaccurate addresses and provides automation to help with packing slips and tracking packages. Order and payment systems integration for a payment system is the foundation of online sales because it allows the customer to proceed to payment and helps validate the payment information being exchanged. By increasing customer relationships, customer support software can help build customer loyalty by understanding customer behaviors and identifying trends. shipping and fulfillment software, an order and payment system, and customer support software, processes implementation would lack consistency in managing tasks.

**Data Sources Needed for Product's and Inventory's System**

data sources the system needs to access with the products and inventory are inventory management, reporting tools, and a warehouse management system. Inventory management helps to catalog products and provides an organized summary of the retailer’s available stock. Reporting tools help to collect all data from different sources and make it easier to understand when the company needs to track performance metrics. Using warehouse management systems helps optimize inventory and improve order accuracy to avoid backorder issues. Without including inventory management, reporting tools, and a warehouse management system in the product and inventory system, the business would be unable to identify the information that is collected.

**Databases to Support the Online Storefront**

An additional database needed to support the online storefront is a database for their customers that can include their information, order history, and membership opportunities. Collecting data about customer information is vital to the business because it determines what products and services customers are interested in. Also, by knowing customer data, customers would be able to access their order history for quicker access to repurchase items while having a way to track all orders and the status of their purchases. If online storefronts offered membership programs, businesses could retrain and manage their most valuable customers while customers feel valued and important. Without a customer database, businesses could not identify trends that hurt the company’s sales.

**How to Integrate the New Online Storefront**

I recommend incorporating elements of the online storefront into the current process model because it would allow the systems to work together efficiently. Hamp Crafts’ current base is a foundation that has already been established and creating a separate new system for the online storefront risks more time and cost to implement. Furthermore, the new system could risk being incompatible and require frequent testing and deployment that could have already been covered in the existing implementation. Starting a new separate system for the online storefront does not guarantee optimal performance to fulfill delivery. It would waste valuable company time and money if the business needed to revert to the original process. By incorporating elements of the online storefront into the current process model, Hamp Crafts would spend the minimum money and time to improve its system’s requirements.