3-2 Assignment: Evaluate a Process Model

Jorgo Qendro

Southern New Hampshire University

CS-255: Systems Analysis and Design

Professor Trajkovski

September 21st,2024

**Evaluate a Process Model**

# **1. Interpretation of the Current Purchase and Supply Process**

The provided data flow diagram (DFD) illustrates Hamp Crafts’ current purchase and supply process for their physical storefront. It shows the interaction between the customer, the store, suppliers, carriers, and shippers. The process begins when a customer places an order, which is then processed by Hamp Crafts. After receiving the customer order, the checkout process occurs, where the payment is handled, and the order is confirmed. The store then fulfills the order by checking inventory and preparing the items for shipment. If additional inventory is required, Hamp Crafts chooses a supplier and negotiates contracts for delivery. Once the supplier delivers the necessary goods, the carrier plans the shipment to deliver the order to the customer. The shipment schedule and carrier planning ensure timely deliveries. The shippers then handle the actual transportation of the goods. Overall, the system relies on communication between the customer, suppliers, carriers, and Hamp Crafts to complete each transaction.

# **2. Data Sources in the Current Process**

The main data sources involved in this process include customer data, which stores the order details and payment information, and the inventory database, which tracks stock levels and order statuses. There is also a supplier database that manages supplier contracts, shipment schedules, and inventory requirements. Additionally, shipping and logistics data are recorded to track deliveries and carrier planning.

# **3. Additional Processes Needed for Online Storefront Integration**

To integrate an online storefront, additional processes will be needed to support the new functionality. The most important process is the customer’s interaction with the online store, allowing them to browse products, select items, and complete purchases through an online interface. This would require the addition of a payment gateway that can securely process online transactions and transfer funds to Hamp Crafts’ business account. Furthermore, there would need to be an automated order confirmation process that sends customers an email or notification confirming their purchase. Synchronizing the online inventory system with the existing in-store inventory system is also essential to avoid issues like overselling. Finally, a customer support system must be added to handle inquiries, account management, and returns.

# **4. Additional Data Sources for the Online Storefront**

To support the new online storefront, the system will need additional data sources. A website product database would be necessary to manage online product listings, descriptions, and prices. A customer accounts database will store user login details, purchase history, and other relevant information. Real-time integration with the current inventory database is crucial for accurately reflecting stock availability both online and in-store. Additionally, a customer support database could be added to handle any online inquiries and manage customer service requests, while a transaction records database would log online sales and payment information.

# **5. Integration of the Online Storefront with the Current Process**

In terms of whether to create a separate system for the online storefront or to incorporate it into the existing process, I recommend integrating it into the current process. This approach ensures a unified inventory system, preventing any discrepancies between in-store and online stock levels. It also allows for a consistent customer experience, where users can interact with the store through both channels seamlessly. Additionally, by sharing the same fulfillment processes, the store can avoid duplicating efforts and reduce operational overhead. Centralizing all customer, product, and transaction data within a single system simplifies maintenance and avoids redundancy.

This approach will ensure that Hamp Crafts can expand into online sales while keeping their operations efficient and cohesive. By integrating the online and physical store systems, Hamp Crafts can offer a smooth and modern shopping experience to its customers, ensuring that all data and processes work together harmoniously.