**CS-255**

**Module 3: Evaluate a Process Model**

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**Description of Hamp Crafts' Current Purchase and Supply Process**

**Data Flow Diagram Interpretation:** The data flow diagram for Hamp Crafts shows the interactions between key entities involved in the purchase and supply process, such as the customer, supplier, carrier, shipper, and Hamp Crafts’ internal processes. The main steps include:

* **Receiving Customer Orders**: Hamp Crafts accepts orders from customers, both for in-store and shipped purchases.
* **Choosing Suppliers**: Based on stock levels or product needs, Hamp Crafts selects appropriate suppliers to order from.
* **Shipment and Delivery Planning**: After ordering, shipment schedules are coordinated between Hamp Crafts and the supplier. A delivery plan is then created.
* **Contract Negotiations**: This step involves negotiations with the carrier to confirm shipping terms and finalize logistics.
* **Inventory Management**: Inventory specialists track incoming shipments and manually update the system about order statuses and inventory levels.

The process relies heavily on manual inputs to check inventory and handle any shortages or delays. This system has several manual steps, which can slow down operations and make error-tracking difficult.

**Data Sources Involved:**

* **Local Merchant Account**: Hamp Crafts uses a secure merchant account for transactions. Payments collected from customers are processed and transferred to the business account.
* **Inventory Database**: Employees check the inventory system to confirm stock levels and update order statuses.
* **Order Fulfillment Database**: The order fulfillment team records shipment tracking and order completion status.
* **Communication Channels**: Hamp Crafts uses manual communication (phone or email) to notify employees of inventory shortages or delays.

**Integration of Online Storefront**

To modernize Hamp Crafts by introducing an online storefront, several new processes and systems must be integrated with the current purchase and supply process.

**Additional Processes for Online Storefront:**

* **Online Product Display**: The system will need a user-friendly interface that allows customers to browse products, view availability, and place orders online.
* **Payment Gateway Integration**: A secure online payment system must be added, allowing customers to complete transactions via credit card or digital wallets.
* **Order Confirmation and Notification**: Automated notifications to customers regarding order confirmations, shipping updates, and inventory availability.
* **Shipping and Fulfillment**: Online orders need integration with the existing fulfillment team for proper inventory tracking, shipment scheduling, and delivery.

**Additional Data Sources Needed:**

* **Product Database**: A catalog with product details, prices, images, and descriptions needs to be accessible both for online customers and in-store staff.
* **Customer Information Database**: A new database will be required to manage customer profiles, including contact information, order history, and preferences.
* **Payment Gateway**: An external service will be required to securely process payments and ensure funds are transferred to Hamp Crafts' merchant account.

**Additional Databases for Online Storefront:**

* **Website and Inventory Synchronization Database**: A system to ensure the online storefront is always up-to-date with in-store inventory levels, reducing the risk of overselling.
* **Customer Service Backend Database**: An administrative tool that allows employees to manage orders, customer support requests, and updates to product availability.

**Integration with Existing System**

**Recommendation**: **Incorporate Online Storefront with Current System**

It would be more efficient to integrate the online storefront into Hamp Crafts’ existing process rather than create a completely separate system. This approach would ensure:

* **Unified Inventory Management**: Both the in-store and online systems can share the same inventory database, reducing errors and simplifying stock tracking.
* **Streamlined Order Processing**: By linking online orders to the current order fulfillment process, Hamp Crafts can avoid redundant systems and reduce manual tracking.
* **Simplified Financial Tracking**: Payments from both in-store and online orders can be processed through the same merchant account, simplifying accounting and revenue management.

**Reasoning**: Building on the existing structure allows Hamp Crafts to avoid the complexity of running two separate systems, making it easier to train employees, manage inventory, and provide customer service.