Diagram

Description automatically generated

* Interpret the provided data flow diagram. What does it show? What does the current purchase and supply process entail?

This is a context diagram. It details an overview of Hamp Crafts’ current purchase and supply process inside of their actual store location. Currently, it is set up with four ordered processes and four sources/sinks connected by various data flows.

* What are the data sources involved in the current process?

Out of the four external entities, there are two data sources. The customer provides the initial data (their order) to the system, and between process three and four, the supplier shares the shipment schedule with the system. The other two entities only receive data from the system, so they would be data sinks.

* What additional processes are necessary to integrate an online storefront?

An additional process should be added before “Receive Customer Order” called “Customer Support”, which the customer can provide data to and receive data from. It would have subprocesses of answering customer questions and updating customer information. Also, the subprocesses of the original processes (which are not given) should be updated/modified, including but not limited to:

* Handling online payment
* Confirming online orders
* Transfer funds to the Hamp Crafts’ business account
* Update the inventory after online orders
* Notify the customer if there are shortages or delivery delays
* What additional data sources would the system need to access the products and inventory?

More than likely, the supplier(s), carrier, and shipper all have online systems setup already, so integrating access to their systems into the new system for Hamp Crafts should make accessing products and inventory easy, as well as streamlining the data flow of schedules.

* What additional databases, if any, are needed to support the online storefront?

Hamp Crafts currently has a database for order statuses, shipment tracking, and inventory. The online storefront will need access to those and will need a separate database to maintain customer account information. There should also be a database to log customer support tickets, as it is important to track and log issues with the system or specific customers.

* Would you recommend creating a separate new system for the online storefront or incorporating elements of the online storefront into the current process model? Explain your reasoning.

I would recommend creating a separate system for the online storefront. As I noted above, you would have to update/modify a lot of the existing processes, almost to the point of where it would be a new system anyways. And incorporating the online storefront would mean building around the current system and its capabilities, which could provide many limiting factors in data transferal and communication with external entities. These problems can be remedied with a new, modern system as it will be built to satisfy all of Hamp Crafts’ current needs.