

Case Study

An eCommerce company, Northwind Trading, has been operating successfully for the past four years. Sales have been steady through this time, with some small seasonal fluctuations. However, last year's sales figures showed a downward trend for the first time.

After an investigation by a business analyst, it was determined that the order fulfillment process was the root cause of the issue. Sales orders are taking twice as long to deliver to customers when compared to Northwind Trading's competitors.

The senior management has tasked you with modeling an improved fulfillment process. However, as a new consultant in the business, you know that it is good practice to create a business activity model to ensure that you and the senior management are aligned on what the business does at a high

Step 1: Create the Business Activity Model

Northwind Trading is successful due to its end-to-end management of the eCommerce customer experience. To achieve this, the company operates a broad range of activities. Your task is to model these activities using a business activity model using start UML.

Step 2: Model the as-is process state

Before improving the fulfillment process, senior management has tasked you with creating a BPMN diagram of the as-is process state in Star UML. This will help identify the inefficiencies and bottlenecks in the process that are leading to unsatisfied customers.

Step 3: Model the to-be process state

Now that the as-is process state is modeled, analyze where improvements could be made. Consider the following questions:

- Are there any parts of the process that can run in parallel?
- Could some tasks be automated?
- Are there any redundant steps or bottlenecks in the process?

Northwind Trading – Key Business Activities

Northwind Trading consists of several departments, each responsible for one or more business activities.

Customer Experience Team

Customer Service: The Customer Experience Team respond to inquiries and support customers with issues they're experiencing with the eCommerce service.

Customer Satisfaction Monitoring: The team collect feedback from customers using qualitative and quantitative analysis methods to identify areas for improvement.

Finance Team

Financial Planning: Northwind Trading frequently conducts financial planning. This involves planning that budgets, forecasts and financial resources are aligned to processes and activities to ensure stable business operations and growth.

Finance and Accounting Services: The finance team maintain financial records and conduct analysis to support key decision-making.

HR Team

Human Resources Planning: The HR team plan staffing needs, including recruitment of new staff and training and development of existing staff.

Human Resources Management: HR must recruit and hire employees, administer payroll and benefits and managing employee relations.

Operations Team

Information Technology (IT) Support: From the eCommerce website to its internal IT systems, the support of such systems is a key enabling activity.

Supply Chain Planning: The operations team plan efficient and timely delivery of goods and services. Coordinating with suppliers helps to avoid under and overstocking of required inventory.

Logistics and Distribution: The Operations Team manages transportation, warehousing, inventory and coordinating the movement of goods to help ensure timely delivery to customers.

Inventory Controls: The team have implemented controls to prevent theft and shortage of inventory.

Facility Management: Both the offices and warehouses must ensure a safe and comfortable working environment for employees as part of local employment legislation.

Sales Team

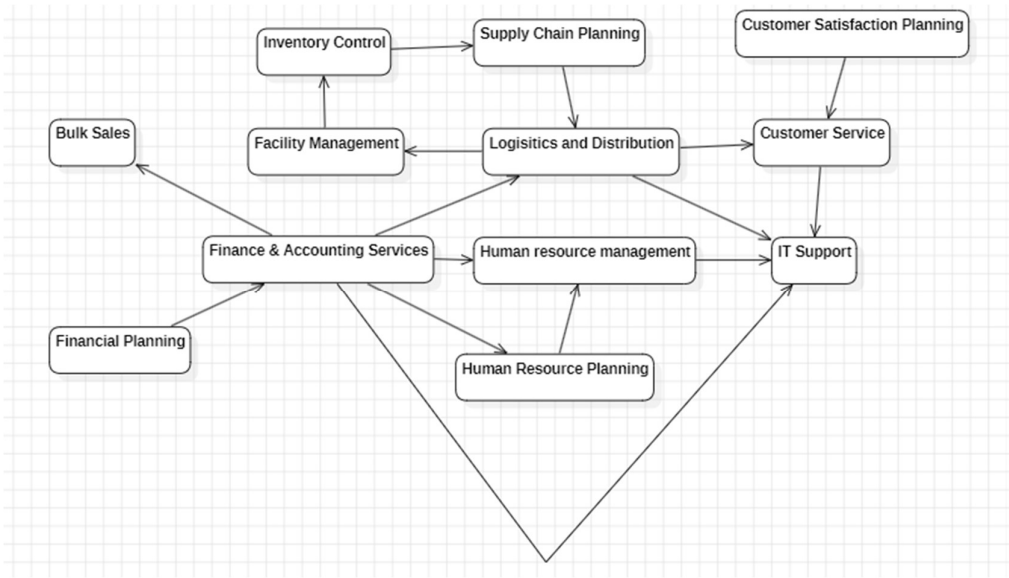
Bulk Sales: The sales team actively promotes products, prospect leads for bulk orders, and drive revenue to the business.

Northwind Trading – As-is Process State

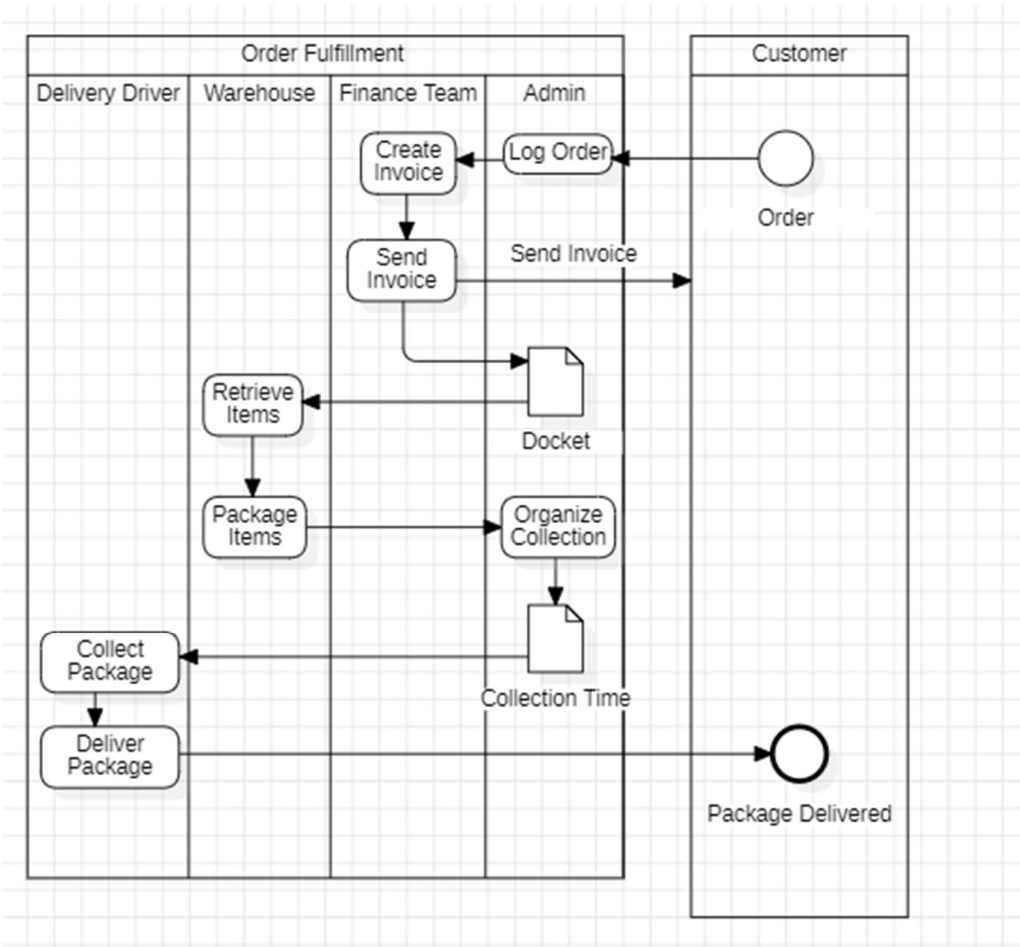
Northwind Trading's order fulfilment process has been determined as the root cause of decreased sales over the past year. The current process is outlined below.

1. The process starts when an order is received.
2. The finance team creates an invoice.
3. The finance team sends it to the customer.
4. An administrator creates a docket of the ordered items for the warehouse staff
5. The warehouse staff retrieve the ordered items
6. The warehouse staff package the ordered items
7. The warehouse staff notify the administrator that the items are ready for shipment
8. An administrator arranges collection of the items by a delivery driver
9. Delivery driver collects the items
10. Delivery driver delivers the items to the customer

Activity Diagram



As-Is BPMN Process



To-Be BPMN Process

