

Business Requirements Document (BRD)

Document Control

Document Name	Date	Author	Role	Status
Business Requirements Document	February 10, 2025	Sonal Khobragade	Business Analyst	Approved

1. Business Context

Our e-commerce fulfillment center is experiencing significant challenges with order fulfillment delays, resulting in customer dissatisfaction, increased operational costs, and damage to our brand reputation. The fulfillment center processes approximately 15,000 orders daily across various product categories, with operations spanning receiving, inventory management, picking, packing, and shipping. Recent data shows that 28% of orders are not meeting promised delivery times, with delays ranging from 1-5 days beyond commitment.

These delays have led to a 35% increase in customer complaints over the last quarter, a 22% rise in expedited shipping costs to mitigate delays, and an estimated revenue loss of \$1.2M due to order cancellations and reduced repeat purchases. The company's strategic goals include improving customer satisfaction scores by 15% and reducing operational costs by 10% within the next fiscal year, making the resolution of these fulfillment delays a critical business priority.

2. Problem Statement

The e-commerce fulfillment center is experiencing persistent order fulfillment delays that negatively impact customer satisfaction, increase operational costs, and damage brand reputation. Specific issues include:

- 28% of orders fail to meet promised delivery times (industry benchmark: <10%)
- Average delay of 2.3 days beyond promised delivery date
- 35% increase in customer complaints related to delivery delays
- 22% rise in expedited shipping costs to mitigate delays

- \$1.2M estimated revenue loss due to order cancellations and reduced repeat purchases
- Inconsistent process execution across shifts and locations
- Limited visibility into bottlenecks and root causes

These issues must be addressed to meet the company's strategic goals of improving customer satisfaction and reducing operational costs.

3. Objectives (SMART)

- **Specific:** Identify root causes of order fulfillment delays and implement process improvements to reduce average order fulfillment time.
- **Measurable:** Reduce average order fulfillment time from 3.2 days to 2.2 days (30% improvement). Decrease orders exceeding promised delivery time from 28% to 10% or less.
- **Achievable:** Focus on process optimization and system configuration improvements that require minimal capital investment and can be implemented within existing infrastructure.
- **Relevant:** Directly supports strategic goals of improving customer satisfaction by 15% and reducing operational costs by 10%.
- **Time-bound:** Complete root-cause analysis and process optimization recommendations by March 10, 2025, with implementation plan for immediate execution.

4. KPIs & Metrics

KPI Category	Metric	Current Value	Target Value	Measurement Method
Timeliness	Average Order Fulfillment Time	3.2 days	2.2 days	Order Management System
	% Orders Meeting Promised Delivery	72%	90%+	Order Management System
	Average Processing Time per Order	42 minutes	30 minutes	Warehouse Management System
Accuracy	Order Accuracy Rate	94.5%	98%+	Returns & Complaints Data

	Inventory Accuracy	92%	97%+	Cycle Count Results
Customer Impact	Customer Complaints (Delivery)	8.3%	<5%	Customer Service Tickets
	Customer Satisfaction Score	3.6/5	4.2/5	Post-Purchase Surveys
Operational Efficiency	Labor Cost per Order	\$4.75	\$3.80	Financial Reports
	Expedited Shipping Costs	\$42,000/month	\$25,000/month	Financial Reports

5. Scope

In Scope

- Order processing workflow from receipt to shipping
- Inventory management processes
- Picking and packing operations
- Shipping carrier integration
- Payment processing workflow
- Returns processing
- Staff training and standard operating procedures
- System configuration optimization
- Process documentation and standardization
- Performance monitoring and reporting

Out of Scope

- Website and customer interface redesign
- Major software system replacements
- Warehouse layout redesign requiring construction
- Carrier contract renegotiation
- Product quality issues
- Marketing and sales processes
- Hardware upgrades requiring significant capital
- Changes to company organizational structure
- International shipping processes

6. Functional Requirements

Req ID	Description	Priority	Source
FR001		High	

	The system shall provide real-time visibility into order status throughout the fulfillment process.		Operations Manager
FR002	The system shall automatically identify and flag orders at risk of missing promised delivery dates.	High	Customer Service
FR003	The system shall optimize picking routes to minimize travel time and increase efficiency.	Medium	Warehouse Manager
FR004	The system shall provide automated inventory alerts when stock levels reach predefined thresholds.	High	Inventory Manager
FR005	The system shall support batch processing of orders based on optimized criteria (zone, carrier, priority).	Medium	Operations Manager
FR006	The system shall provide dashboards displaying real-time KPIs for fulfillment operations.	Medium	Executive Team
FR007	The system shall support automated quality checks at key points in the fulfillment process.	High	Quality Assurance
FR008	The system shall integrate with shipping carriers to provide real-time rate shopping and service level optimization.	Medium	Logistics Manager
FR009	The system shall provide automated alerts for process exceptions and bottlenecks.	High	Operations Manager
FR010	The system shall support workload balancing across picking, packing, and shipping stations.	Medium	Warehouse Manager
FR011	The system shall provide traceability of each order throughout the fulfillment process.	High	Quality Assurance
FR012	The system shall support prioritization of orders based on configurable business rules.	Medium	Operations Manager

7. Non-Functional Requirements

NFR ID	Category	Detail
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NFR001	Performance	The system shall process order status updates within 5 seconds of event occurrence.
NFR002	Reliability	The system shall maintain 99.9% uptime during operational hours (24/7).
NFR003	Usability	Warehouse staff shall be able to learn new processes with less than 2 hours of training.
NFR004	Scalability	The system shall support a 30% increase in order volume without performance degradation.
NFR005	Security	The system shall comply with PCI DSS requirements for handling payment information.
NFR006	Maintainability	Process changes shall be implementable without requiring code changes to core systems.
NFR007	Compatibility	The system shall integrate with existing ERP, WMS, and OMS platforms.
NFR008	Auditability	The system shall maintain comprehensive audit logs for all order processing activities.

8. Business Rules

1. **BR001:** Orders with expedited shipping must be prioritized in the picking queue.
2. **BR002:** Orders containing items from multiple warehouse zones must be consolidated before packing.
3. **BR003:** Orders with payment holds must be flagged and routed to the exception handling queue.
4. **BR004:** Inventory discrepancies greater than 5 units must trigger a manual count verification.
5. **BR005:** Orders exceeding 20 items must be routed to specialized packing stations.
6. **BR006:** Orders with delivery addresses in remote areas must have shipping estimates adjusted by +1 day.
7. **BR007:** Orders containing regulated items (e.g., hazardous materials) must undergo additional compliance checks.

8. **BR008:** Orders at risk of missing delivery commitments must be flagged for expedited processing after 4 hours in the standard queue.
9. **BR009:** Inventory items with less than 5 units available must be flagged for replenishment.
10. **BR010:** Returns must be processed and inventory updated within 24 hours of receipt.

9. Glossary & Acronyms

Term	Definition
WMS	Warehouse Management System - Software that manages daily warehouse operations
OMS	Order Management System - Software that tracks customer orders from inception to fulfillment
ERP	Enterprise Resource Planning - Business process management software
Pick Path	Optimized route for collecting items from warehouse locations
Cycle Count	Inventory auditing method where a small subset of inventory is counted on a specified day
FIFO	First In, First Out - Inventory management method where oldest stock is used first
ASN	Advanced Shipping Notice - Notification sent to a recipient of a shipment in advance
SKU	Stock Keeping Unit - Distinct item for inventory management purposes
RMA	Return Merchandise Authorization - Process for handling product returns
KPI	Key Performance Indicator - Measurable value that demonstrates effectiveness

10. Change Log

Date	Version	Author	Description
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Feb 5, 2025	0.1	Sonal Khobragade	Initial draft
Feb 7, 2025	0.2	Sonal Khobragade	Added functional and non-functional requirements
Feb 9, 2025	0.3	Sonal Khobragade	Updated KPIs based on stakeholder feedback
Feb 10, 2025	1.0	Sonal Khobragade	Final version approved by stakeholders