



AI art by Ed Canela

Digital Skills for Entrepreneurs

Topic 10 Supply Chain and Logistics

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10 Supply Chain and Logistics



The topic will create an awareness of digital supply chain arrangements for the traditional MSMEs from the identification to pricing, contracting, quality control as well as inventory control and management. They will also examine the inbound and outbound logistics flow up to the “last mile” deliveries by okada riders of goods and services. It will also present digital apps and tools for tracking deliveries, inventories and ways to maintain “just-in-time” deliveries. E-Logistics and e-Shipping sites in Nigeria will likewise be presented.

Topic: 10. Supply Chain and Logistics

Learning Objectives

On session completion, the learners will be able to:

1. Understand the importance of efficient supply chain management and logistics for MSMEs in Nigeria.
2. Learn various strategies and techniques for optimizing supply chain operations.
3. Explore tools and technologies for enhancing logistics efficiency and transparency.
4. Develop skills in inventory management, transportation planning, and order fulfillment.

1. Scope and Operations: Supply Chain Management and Logistics



Video 1: Supply Chain Management Explained (Click image to watch).

Supply Chain Management (SCM) involves collaboration between and among MSMEs to connect suppliers, customers, and partners, boosting efficiency and adding value for the end consumer. SCM activities are strategic decisions that create the operational framework for logistics.

Meanwhile, logistics plans, implements, and controls the efficient flow and storage of goods, services, and information from origin to consumption to meet

customer requirements. Its goal is to ensure customers receive the right product at the right time, place, quality, and price. It consists of inbound and outbound logistics. Inbound logistics involves obtaining, handling, storing, and transporting materials. Outbound logistics focuses on collecting, maintaining, and distributing products to customers. Additional logistics activities include packing, order fulfillment, warehousing, inventory management, and balancing supply and demand.

SCM service providers in Nigeria oversee the efficient flow of goods and services from origin to consumption. They manage procurement, logistics, inventory, and distribution, working with suppliers, manufacturers, distributors, and retailers to ensure timely, cost-effective, and high-quality deliveries. They are vital to the growth of MSMEs in manufacturing, retail, and e-commerce, helping them to optimize operations, minimize risks, and enhance competitiveness.¹

¹ See list in [Top Supply Chain Management Companies in Nigeria](#).

2. Supply Chain Planning and Forecasting

Supply chain planning and forecasting involve predicting future demand to ensure the right products are available at the right time. It includes demand planning, supply planning, and sales and operations planning. The process spans from raw material acquisition to product delivery, aiming to balance supply and demand while minimizing costs. MSMEs can use demand forecasting software powered by AI to analyze historical data and predict future trends. Implement integrated planning systems that align supply chain operations with business goals. Utilize cloud-based collaboration tools to improve communication and coordination among the SCM partners and stakeholders.

3. Inventory Management and Control

Inventory management and control oversee the ordering, storage, and use of components and finished products. It ensures that inventory levels meet customer demand without over- or even under-stocking. It covers tracking inventory levels, orders, sales, and deliveries, as well as managing stock locations. There are MSMEs that use inventory management software with real-time tracking capabilities including devices that use barcoding and RFID technologies for accurate inventory monitoring and regularly apply inventory optimization algorithms to balance carrying costs with service levels.

4. Supplier Relationship Management

Supplier relationship management (SRM) is about managing the interactions of an



Video 2: Use of Technology in Supply Chain and Logistics Management (Click the image to watch).

MSME with its third-party vendors that supply goods and services. It includes supplier selection, evaluation, negotiation, and performance monitoring. For better results, MSMEs can deploy SRM software to maintain a centralized database of supplier information. Employ e-procurement platforms for efficient purchase order processing and tracking. Conduct regular performance reviews using data analytics to ensure suppliers meet quality

and delivery standards.

5. Warehousing and Storage Solutions

Warehousing and storage solutions encompass the systems and processes used to store goods safely and efficiently until they are needed. This function includes

warehouse layout design, storage methods, inventory handling, and warehouse management. With proper guidance, MSMEs can implement a warehouse management system (WMS) to optimize space use and improve inventory accuracy. They may also consider electromechanical devices such as robotic pickers and conveyors to enhance efficiency. Finally, use data analytics to monitor and improve warehouse operations continuously.

6. Transportation and Distribution Strategies

Transportation and distribution strategies involve planning and executing the movement of goods from suppliers to customers. It accounts for logistics network design, carrier selection, route planning, and delivery scheduling. MSMEs can use transportation management systems (TMS) to optimize routes and reduce shipping costs. Employ GPS tracking for real-time visibility of shipments. Integrate logistics software with inventory systems to synchronize supply chain activities and improve overall efficiency.

7. Last-Mile Delivery Challenges and Solutions

The last-mile delivery refers to the final step of the delivery process where goods are transported from a distribution center to the end-customer. It encompasses delivery route optimization, package tracking, and customer communication within the last distribution channel before the final consumer. They may include the Okada Riders of Lagos and Abuja, usually the last point before the end-user. For best results, MSMEs can implement route optimization software to minimize delivery times and costs. Use real-time tracking systems to provide customers with accurate delivery updates. Employ advanced analytics to identify and address bottlenecks in the last-mile delivery process, enhancing overall efficiency and customer satisfaction.

Steps MSMEs can take to start delivering to their customers

1. Get a bike rider or a register and known delivery service offering services within the city
2. Do a background check on the bike rider
3. Sign an agreement on services to perform by the rider and payments
4. Let the bike provide guarantors
5. Start delivering to customer within closer neighbourhood
6. Install tracker to improve monitoring and efficiency of the delivery system

8. Best Practices in Procurement and SCM

Procurement and supply chain management involve the actual acquiring goods and services from external sources and managing the flow of materials and products through the supply chain. The process includes supplier selection, contract negotiation, purchase order management, and supplier performance evaluation. For efficient results, MSMEs can use e-procurement systems to streamline purchasing

processes and ensure compliance. Use supplier management databases to maintain a centralized repository of supplier information and track each supplier performance.

9. Sustainability and Green Logistics Practices

Sustainability and green logistics practices aim to reduce the environmental impact of supply chain activities through eco-friendly strategies thus mitigating climate change, deforestation and use of renewables. It involves optimizing transportation, reducing waste, and using sustainable materials and energy sources.

For best practices, MSMEs are encouraged to use route optimization software to minimize fuel consumption and emissions. Implement reverse logistics for recycling and reusing materials. Adopt energy-efficient warehouse technologies and promote the use of electric or hybrid delivery vehicles to support sustainability goals.

10. Risk Management in Supply Chains

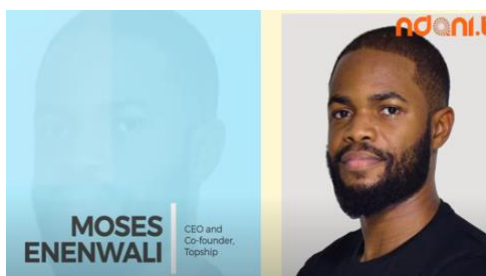
Risk management in supply chains involves identifying, assessing, and mitigating risks that could disrupt supply chain operations and deliveries. It covers risks related to suppliers, logistics, demand fluctuations, and external factors such as natural disasters, electrical and internet failures and other man-made events. MSMEs should always have policies to identify potential risks and develop mitigation strategies. Use predictive analytics to anticipate supply chain disruptions and respond proactively. Establish a robust contingency planning process and diversify suppliers to reduce dependency on single sources, enhancing supply chain resilience.

11. Technology Trends

The future technology trends in supply chain and logistics management includes the adoption of advanced technologies such as the Internet of Things (IoT) and blockchain to enhance supply chain operations. These technologies impact various aspects of logistics, including real-time tracking, data transparency, and process automation. MSMEs can utilize IoT devices for real-time monitoring of shipments and warehouse conditions. Implement blockchain for secure and transparent transaction records in confidential databases, improving trust and traceability. Explore automation technologies such as drones and autonomous vehicles to enhance delivery efficiency and reduce operational costs.

12. Tools

Profile of a Supply Chain Champion in Nigeria: Young CEO: Moses Enenwali, CEO and Co-founder of Topship, a shipping platform that connects businesses to shipping services for international delivery of cargo and other goods. Think of it as the "Uber" or "Bolt" for shipped goods. On this episode, he shares his journey as an entrepreneur, his thoughts on being a CEO, building supply chain and logistics business.



Video 3: Young CEO: Moses Enenwali - CEO and Co-founder Topship

Digital too	Description	Price and Subscription
Odoo	Odoo is a Belgian suite of business management software tools that include customer relationship management, e-commerce, billing, accounting, manufacturing, warehouse, project management, and inventory management	Free for one app only \$7.25 per month for standard \$10.90 per month for custom
ShipBob	The #1 ecommerce fulfillment solution Order fulfillment services. Warehousing, packing, shipping, tracking, and returns. 2-day shipping. Custom packaging. Inventory management. Single source of truth across fulfillment centers. Track in real time. Know when to restock. Omnichannel. Integrate with all major ecommerce platforms and marketplaces. Shopify, Amazon, TikTok, and 100+ retailers	Prices depend on the services
Bumpa	The best business management app for SMEs. Create a business website, issue invoices, record sales, receive financial reports & manage all business operations on the Bumpa app	
TradeGecko and QuickBooks are now integrated.	An addition resource on How TradeGecko work as a QuickBooks inventory management add on	